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December 19, 2007

Ms. Pamela J. Langston Scully, P.E.
Remedial Project Manager
United States Environmental Protection Agency
Atlanta Federal Center
61 Forsyth Street. S.W.
Atlanta, GA 30303-3104

Re: Operable Unit 4 Phase 1 Ecological Survey Report

Dear Ms. Langston Scully:

On behalf of Pharmacia Corporation and Solutia Inc., as parties to the Partial Consent Decree (CD) for the Anniston Polychlorinated Biphenyl (PCB) Site, please find enclosed eight hard copies and 10 electronic copies of the *Operable Unit 4 Phase 1 Ecological Survey Report* (Ecological Survey Report).

P/S have completed a habitat assessment in OU-4. This work, which was described in the USEPA-approved August 2006 *Phase 1 Field Sampling Plan for Operable Unit 4* (OU-4 Phase 1 FSP), was carried out over the past year in a series of four seasonal surveys, and now a full year of current ecological information is available for OU-4. This Ecological Survey Report provides a summary of the Phase 1 ecological data. The Phase 1 results, in combination with data collected during the RCRA Program and additional data reported in the *Data Summary Report for Operable Unit 4* (BBL 2005), will serve as the foundation for developing the Phase 2 sampling approach. This approach will be described in the forthcoming *Phase 2 Field Sampling Plan for Operable Unit 4* (OU-4 Phase 2 FSP). These combined OU-4 data will also be applied as appropriate in the Baseline Ecological Risk Assessment Report, which will be developed and submitted following the completion of the Phase 2 sampling efforts and preparation of the Preliminary Site Characterization Summary Report for OU-4. The enclosed Ecological Survey Report will also be included as an attachment to the OU-4 Phase 2 FSP.

In keeping with the adaptive management approach adopted for the ecological work at the Site, the data collected as part of the fall 2006 effort were used to refine the scope of the surveys in the spring and summer of 2007 from what was presented in the OU-4 Phase 1 FSP. These modifications are described in a general sense in Section 1.1, and then specifically in the sections dedicated to each seasonal survey.

An initial assessment of the data indicates that there is a need to conduct an additional qualitative survey of the terrestrial amphibian and reptile community in the spring of 2008. This is described in Section 7. P/S will work closely with USEPA in the near future to develop the approach for this survey.

Please contact me if you have any questions or require additional information. I can be reached at (256) 231-8404.

Sincerely,

Craig R. Branchfield
Manager, Remedial Projects

Enclosures

cc: Mr. Phillip Davis (ADEM)
Mr. G. Douglas Jones, Esq. (Whateley Drake LLC)
Mr. Thomas Dahl (Dahl Environmental Services)
Mr. Peter L. Virden Jr. (Monsanto)

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Operable Unit 4 Phase 1
Ecological Survey Report

Anniston PCB Site
Anniston, Alabama

December 2007

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Operable Unit 4 Phase 1 Ecological Survey Report

Anniston PCB Site
Anniston, Alabama

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1. Introduction

Over the past year, Pharmacia Corporation and Solutia Inc. (collectively referred to as P/S) conducted a comprehensive quantitative habitat assessment in Operable Unit 4 (OU-4) of the Anniston Polychlorinated Biphenyl (PCB) Site (the Site). OU-4 is the most geographically expansive of the three OUs delineated at the Site. It is also the area that encompasses the majority of potentially suitable habitat for ecological receptors, and includes a variety of distinct habitats. P/S performed the habitat assessment to satisfy data needs for the ecological risk assessment for OU-4, which include identifying ecological receptor classes and representative feeding guilds (e.g., piscivorous birds) to refine Site-specific assessment and measurement endpoints developed in the Baseline Problem Formulation (BPF) portion of the ecological risk assessment (Blasland, Bouck & Lee, Inc. [BBL] 2006a).

The approach for the habitat assessment was developed and presented in the *Phase 1 Field Sampling Plan for Operable Unit 4 of the Anniston PCB Site* (OU-4 Phase 1 FSP; BBL 2006b). The OU-4 Phase 1 FSP, which was approved by the United States Environmental Protection Agency (USEPA) on February 27, 2007, provided an overview of Phase 1 ecological field work for OU-4 that built on the data gaps and needs identified in the approved *Data Summary Report for Operable Unit 4* (OU-4 DSR: BBL 2005) as well as a letter from the USEPA dated August 19, 2005 that clarified the Data Quality Objectives (DQOs) for the Site (included as Attachment A to the Phase 1 FSP).

1.1 Technical Approach

To address the identified data needs, the ecological assessment activities described in the OU-4 Phase 1 FSP were designed as a two-phased adaptively managed approach, with each phase of the process building on the findings from prior efforts. Phase 1, which is now complete, was a community level assessment of biological organisms in key aquatic and terrestrial habitats associated with Choccolocco Creek and its floodplain. The primary objective of Phase 1 was to survey biological communities in the floodplain and creek ecosystems to support selection and parameterization of appropriate exposure factors for ecological risk assessment. These parameters include habitat conditions, receptors, food web structure, and spatial and temporal relationships among biota and habitat types. Phase 1 was designed to provide fundamental information for planning and implementing Phase 2 investigations, as necessary and appropriate. Based on the Phase 1 findings, the Phase 2 efforts will likely include sampling directly related to the ecological risk assessment, including

measured biota body burdens, data for dose calculations, and toxicity and bioaccumulation testing.

Given the size and complexity of OU-4, the ecological assessment activities were designed to be carried out within an adaptive management framework. P/S employed this approach—which, as described by the National Research Council (2004), allows decision makers "to respond in a timely manner to changing conditions, social objectives, and new knowledge"—to learn from information acquired throughout the two-phased program and adjust the scope and details of future efforts as appropriate.

Based on the adaptive management approach described in the OU-4 Phase 1 FSP, the findings of the fall 2006 surveys (as reported in the *Data Summary Report for Fall 2006 Phase 1 Ecological Surveys in Operable Unit 4* [ARCADIS BBL 2007b]) were used to modify the study plans for the spring and summer sampling events (the winter surveys described in the Phase 1 FSP were conducted according to the original scope, as sufficient time was not available between the fall and winter programs to incorporate modifications). The spring and summer surveys were refined to explicitly account for habitat in the context of downstream distance, and included additional investigation of the reference locations identified in the fall surveys to further test their applicability and comparability to conditions in OU-4. The specific modifications from the plans outlined in the OU-4 Phase 1 FSP are presented in Sections 2 (methods), 5 (spring surveys) and 6 (summer surveys).

1.2 Phase 1 Overview

This *Operable Unit 4 Phase 1 Ecological Survey Report* (Ecological Survey Report) presents the data collected during the Phase 1 surveys, which included work in both OU-4 and upstream reference locations. Survey methods are described in Section 2, and the data are presented in Sections 3 through 6. A brief summary is included in Section 7. This report provides a summary of the data with minimal interpretation or evaluation. Instead, the interpretation and application of the Phase 1 results—particularly with respect to the establishment of an ecological food web that can serve as the foundation for developing the Phase 2 sampling approach—will be described in the forthcoming *Phase 2 Field Sampling Plan for Operable Unit 4* (OU-4 Phase 2 FSP).

The terrestrial and aquatic community surveys conducted during Phase 1 were conducted seasonally by a team of ecologists familiar with the local ecology and various Site habitats. Table 1 (below) illustrates the frequency of seasonal surveys for each type of terrestrial and aquatic community identified in OU-4.

TABLE 1

SUMMARY OF SEASONAL SURVEYS FOR TERRESTRIAL AND AQUATIC COMMUNITIES IN OU-4

	Terrestrial Communities			Aquatic Communities			
	Soil Macro-invertebrates	Birds and Mammals	Reptiles and Amphibians	Benthic and Phytophilous Macro-invertebrates	Fish and Mollusks	Reptiles and Amphibians	Fish-eating Birds and Mammals
Fall 2006		X		X	X[2]		X
Winter 2007		X					X
Spring 2007	X	X	X	X	X[3]	X	X
Summer 2007		X[1]			X[2]		X

1 – Survey effort included birds only
2 – Survey effort included fish only
3 – Survey effort included mollusks only

The Phase 1 ecological surveys were a community level assessment of biological organisms in key aquatic and terrestrial habitats in OU-4. The survey work was designed to gather the necessary information to assess ecological risks associated with current conditions in three ecologically differentiable reaches (EDRs) of the Choccolocco Creek System (see Figure 1). The three EDRs are:

- **Upper Reach**. Includes the Choccolocco Creek backwater area from approximately 1 mile upstream of the Snow Creek confluence to just downstream of the Coldwater Creek confluence, where the floodplain influence of Coldwater Creek ends (as evidenced by the constriction of the floodplain). This region also includes the area of the Snow Creek floodplain downstream of Highway 78 to Interstate 20. In general, the upper reach has large floodplains and mild topography.

- **Middle Reach**. The area from just downstream of the Coldwater Creek confluence (where the floodplain influence of Coldwater Creek ends) downstream to approximately mile marker 19.5 where the floodplain rapidly expands. The floodplain in this reach is generally narrower than the upper reach, and is marked by steep topography at the downstream end.

- **Lower Reach**. Includes the area from mile marker 19.5 where the floodplain rapidly expands, downstream to Jackson Shoals. The upstream portion of this reach has wide floodplains, and like the middle reach, the floodplain narrows in the downstream direction.

The activities described in this Ecological Survey Report were carried out in accordance with the most recent versions of the *Site-Wide Quality Assurance Project Plan* (Site-Wide QAPP) (BBL 2006c[1] and ARCADIS BBL 2007a) and the *Site-Wide Health and Safety Plan* (Site-Wide HASP) (BBL 2004).

[1] Although Revision 4 to the Site-Wide QAPP was issued in February 2007, Revision 3 is the version that was in effect at the time the Fall 2006 field work was conducted. Revision 4 was followed for the winter, spring, and summer surveys.

2. Phase 1 Ecological Surveys—Methods

When surveying the various targeted communities throughout OU-4 and the upstream reference locations, the methods employed across the four seasonal efforts remained generally consistent. The survey and sampling methods for each community are described in detail in the OU-4 Phase 1 FSP (BBL 2006b) and the Site-Wide QAPP (ARCADIS BBL 2007a), and summarized below.

2.1 Terrestrial Community Survey Methods

The terrestrial surveys included four communities: 1) soil macroinvertebrates, 2) terrestrial birds, wildlife, and habitat, 3) small terrestrial mammals, and 4) terrestrial reptiles and amphibians.

2.1.1 Soil Macroinvertebrates

Soil macroinvertebrate surveys were generally performed as described in Section 6.1.1.1 of the OU-4 Phase 1 FSP (BBL 2006b) and following the procedures described in Attachments A-1 and A-19 of the Site-Wide QAPP (ARCADIS BBL 2007a). Survey crews used pitfall traps and direct hand-searching methods at six locations in OU-4 (collecting a sample and a duplicate at each location for a total of 12 samples). Sample locations representing the lowest and highest levels of observed species diversity were selected based on data collected in the Phase 1 fall and winter surveys. Original plans had called for samples to be collected from along two of the three 200-meter transects established in each of the three terrestrial habitat types (forested floodplain, maintained fields, and successional old fields) in each EDR (for a total of up to 12 samples in each EDR and up to 36 total in OU-4), but initial data from the fall and winter survey efforts supported the refinement of the original approach.

Lindgren/pitfall traps were used to survey the soil macroinvertebrate community (see Attachment A-19 of ARCADIS BBL 2007a). Pitfall traps are a series of cones or pits that are designed to capture winged and crawling insects in the litter layer and upper soil column. Pitfall traps were used within the habitats adjacent to the existing small mammal transects. Three pitfall traps were placed at the start, middle, and end of each transect. Vegetable glycerine was used as a wetting agent within the traps to aid in the collection. The pitfall traps were installed within the top 4 to 6 inches of surface soil and were protected with a suspended cover to shield from rain, debris, and wildlife.

Hand collection was performed to supplement the pitfall traps and verify that earthworm abundance and diversity were evaluated. During installation of the pitfall traps, larger invertebrates were directly observed and captured on the ground surface, under debris and habitat structures (such as rocks and logs), and on tree trunks and branches. Use of the hand collection methods supported the characterization of the larger invertebrates that may have otherwise been under represented in the traps.

Macroinvertebrates were transferred to a sample container, labeled, and preserved using isopropyl alcohol. Chain-of-custody forms were filled out with the appropriate sample information, and samples were packaged and shipped according to the procedures described in Attachment A-1 of the Site-Wide QAPP (ARCADIS BBL 2007a). Samples were shipped to the Annapolis, Maryland office of ARCADIS BBL for taxonomic identification and enumeration.

2.1.2 Terrestrial Birds, Wildlife, and Habitats

Terrestrial bird, wildlife, and habitat surveys were performed following the procedures described in Section 6.1.1.1 of the OU-4 Phase 1 FSP (BBL 2006b), Attachment A-20 of the Site-Wide QAPP (ARCADIS BBL 2007a), and Bibby et al. (1992). Survey crews recorded observations while walking along each of the established 200-meter wildlife transects. When possible in the fall 2006 and winter 2007 efforts, three transects were surveyed in each habitat type per EDR, for a total of up to nine transects surveyed per EDR (potentially 27 total for OU-4). The approach for the spring and summer surveys was modified based on the fall and winter results to focus resources on transects reflecting the range of terrestrial biodiversity in each EDR. The field teams examined the community structure data obtained during the fall and winter surveys and identified the low and high species diversity survey locations found within each EDR. This refined approach yielded six survey locations within OU-4.

Habitat surveys were performed to characterize the flora within each habitat type surveyed. Survey crews recorded tree, shrub, vine, and herbaceous vegetation, noting dominant species which occurred along each of the 200-meter wildlife transects.

2.1.3 Small Terrestrial Mammals

The small terrestrial mammal surveys were conducted in accordance with the procedures described in Section 6.1.1.1 of the OU-4 Phase 1 FSP (BBL 2006b) and Attachment A-21 of the Site-Wide QAPP (ARCADIS BBL 2007a).

When possible in the fall 2006 and winter 2007 efforts, three approximately 200-meter long trapping grids (some grids were shorter than 200 meters due to limitations of habitat and/or topography) of 25 traps each were set in each major habitat type (forested floodplain, successional field, maintained field) in each EDR for a total of nine grids (up to 225 traps) per EDR. The approach for the spring survey was modified based on the fall and winter results, and field crews focused on six trap lines in OU-4 (which yielded up to 150 trap nights), selected based on areas representing the lowest and highest levels of observed species diversity in the first two seasons. As described in Section 6, small mammals were not surveyed in the summer.

Sherman® live traps were baited with rolled oats and peanut butter and set in areas where small mammals were likely to be present (e.g., near burrows, runs, feeding stations, log piles, etc.). Several cotton balls were inserted in each trap to increase small mammal survival. A photo of each location was taken and GPS coordinates were recorded at the beginning and end of each trapline, and each set was marked with labeled orange flagging.

Traps were baited, set, and checked at least once during the approximate 24-hour set period. If the trap was closed, indicating a potential capture, leather gloves were donned, and one crew member held a Ziploc® bag open downwind while another person released the door and emptied the contents of the trap into the bag. If an organism was present, its species, general condition, trap number, and trapline in which it was collected were recorded in the field notes prior to release[2]. Photographs of a representative individual were also taken and recorded in the field notes. All potentially contaminated materials including the trap, plastic bag, cotton balls, and nitrile gloves were sealed inside a plastic bag and placed in a separate container for decontamination. After one 24-hour set, all traps were removed.

2.1.4 Terrestrial Reptiles and Amphibians

Terrestrial reptile and amphibian communities were surveyed generally following the procedures described in Section 6.1.1.1 of the OU-4 Phase 1 FSP (BBL 2006b) and Attachment A-22 of the Site-Wide QAPP (ARCADIS BBL 2007a). At each survey location, directed hand searches of at least one hour were conducted in the highest quality habitat identified in the area and individual reptiles and amphibians were

[2] To reduce stress and maximize survival rate of trapped animals, during the field studies described in this report individuals were released without being sexed, weighed, or photographed. Animals retained for body burden analysis in Phase 2 will be weighed and sexed as appropriate.

identified in the field. This effort was supplemented by observations recorded while walking along the established 200-meter wildlife transects. All sightings, songs, and observations of herptiles were recorded in the field logs.

Original plans described in the OU-4 Phase 1 FSP called for surveys to be conducted along two transects in each habitat in each EDR, but based on the results of the fall and winter surveys and the relative paucity of amphibians and reptiles observed throughout OU-4 during other Site work, the approach was modified to focus on areas of low and high species diversity in each EDR.

This approach differs from the original program outlined in the OU-4 Phase 1 FSP (BBL 2006b). That plan called for the use of emplaced cover boards and drift fences as the primary collection method, but based on the Site-specific data and observations gathered during the fall 2006 and winter 2007 surveys (which indicated a lack of abundance of terrestrial reptiles and amphibians), the program was modified in an effort to target high quality reptile and amphibian habitat directly and maximize the opportunity of finding organisms in OU-4 and the reference locations.

2.2 Aquatic Community Survey Methods

The aquatic surveys included five communities: 1) aquatic birds and mammals, 2) benthic and phytophilous macroinvertebrates, 3) fish, 4) mollusks, and 5) aquatic reptiles and amphibians.

2.2.1 Aquatic Birds and Mammals

Aquatic bird and mammal surveys were conducted according to the methods outlined in Section 6.1.1.2 of the OU-4 Phase 1 FSP (BBL 2006b) and the procedures described in Attachment A-24 of the Site-Wide QAPP (ARCADIS BBL 2007a). Surveys were conducted by boat on Choccolocco Creek while moving at a consistent pace downstream through the three EDRs of OU-4. At each observation point, the field team stopped the boat to identify tracks or species, record notes, and mark the observation with a GPS unit. The team recorded the number of observations of bird and mammal use directly (if present) or by sign (i.e., song, scat, tracks, burrows, etc.). Data collection locations were recorded using a handheld GPS unit.

2.2.2 Benthic and Phytophilous Macroinvertebrates

Benthic and phytophilous macroinvertebrate surveys were performed as described in Section 6.1.1.2 of the OU-4 Phase 1 FSP (BBL 2006b) and following the procedures described in Attachments A-1 and A-18 of the Site-Wide QAPP (ARCADIS BBL 2007a). Spatial coverage for habitat selection and sample locations along Choccolocco Creek was limited to areas with existing access agreements. Sample locations within each EDR were selected based on the five habitat types of interest (i.e., riffle, run, emergent vegetation, depositional, and backwater). Two survey locations per habitat type were selected within each EDR. At each survey location, a sample and replicate were collected. Within EDR 2, a second suitable backwater area was not located for benthic macroinvertebrate sampling.

For riffle and run habitat locations, kick-netting techniques were used to survey the benthic macroinvertebrate community (as described in Attachment A-18 of ARCADIS BBL 2007a). Within these two habitat types, a composite sample was collected from multiple passes conducted within a segment of the habitat. Typically, five kick-net passes were performed within the riffle and run habitats to obtain a representative composite sample containing the desired amount of organisms. For riffle and run survey locations where organism abundance was limited, a 10-minute level of effort using the same kick-net techniques and passes was performed.

For backwater and depositional area habitat locations, a petite ponar dredge was used to survey the benthic macroinvertebrate community (as described in Attachment A-18 of ARCADIS BBL 2007a). Within these habitats, a single petite ponar dredge sample was collected within a representative area of soft substrate. The dredge contents were sieved using a standard U.S. no. 30 sieve, and the sieve contents were transferred to a sample container and preserved with isopropyl alcohol.

For emergent vegetation locations, sweep netting techniques were used to collect phytophilous (plant-dwelling) macroinvertebrates (as described in Attachment A-18 of ARCADIS BBL 2007a). Within this habitat, a composite sample was collected from multiple sweeps within a section of emergent vegetation. A composite sample was made up of 15 to 20 individual sweeps of the emergent vegetation. Each sweep was performed by jabbing the emergent vegetation at the surface of the substrate and sweeping upward to the water surface.

Samples were transferred to a sample container, labeled, and preserved with isopropyl alcohol. Chain-of-custody forms were filled out with the appropriate sample information

and samples were packaged and shipped according to the procedures described in Attachment A-1 of the Site-Wide QAPP (ARCADIS BBL 2007a) to Normandeau Associates, Inc. for taxonomic identification and enumeration.

At each macroinvertebrate survey location, assessment techniques consistent with Rapid Bioassessment Protocols (RBPs) (Barbour et al. 1999) were used to evaluate Site conditions. When conducting a survey following the RBPs, a water quality and physical characterization data form is used to record specific sample location measurements and semi-quantitative assessment information. Water quality data (e.g., pH, temperature, dissolved oxygen), water depth, water velocity, and substrate characteristics were measured and/or assessed and recorded for each sample location. These field data sheets are provided in Appendix D. Water quality data (temperature, specific conductance, dissolved oxygen, pH, and turbidity) were collected using a Horiba U-22 meter for all survey locations.

2.2.3 Fish

Fish community surveys were performed following the procedures described in Attachment A-5 of the Site-Wide QAPP (ARCADIS BBL 2007a) and as described in Section 6.1.1.2 of the OU-4 Phase 1 FSP (BBL 2006b). The surveys were conducted using a Smith-Root® 2.5 GPP tote barge electrofishing unit. Survey events were performed in 10- to 15-minute shocking intervals in riffle, run, backwater, and emergent vegetation habitat types in each EDR. Two sampling events were performed within each habitat type for a total of eight surveys per EDR. Following the electrofishing event, field crews identified, enumerated, and measured the catch. When numerous fish of the same species were obtained, a subset of 25 fish was measured to represent the size class range. Photographs were taken of representative fish from each species, and gross lesions, external abnormalities, or other indicators of poor fish health were recorded and photographed. These observations, the number of species, length, shocking times, photo locations, and GPS coordinates were recorded in the field notes.

Actual fish sampling deviated from the methods proposed in the OU-4 Phase 1 FSP (BBL 2006b). During data collection it was determined that two sampling locations per habitat type (rather than three) were sufficient for characterizing the fish community.

2.2.4 Mollusks

The freshwater mollusk density surveys were generally conducted described in Attachment A-23 of the Site-Wide QAPP (ARCADIS BBL 2007a) and as outlined in

Section 6.1.1.2 of the OU-4 Phase 1 FSP (BBL 2006b). Field crews searched for mollusk beds in each of the five aquatic habitat types (riffle, run, emergent vegetation, depositional, and backwater), and then identified 10 sampling locations (two per habitat type). In each identified habitat, the team randomly placed two 1.0 square meter (m^2) quadrats. The percent cover of mollusks was visually estimated inside each quadrat, and the center of each quadrat was recorded using GPS. The original sampling plans in the OU-4 Phase 1 FSP called for up to three sample locations in each of three targeted habitats (riffle, run, and backwater) in each EDR (for a total of up to 27 sample locations in OU-4), but data from the fall 2006 and winter 2007 surveys indicated that the more focused approach described here was appropriate.

2.2.5 Aquatic Reptiles and Amphibians

The evaluations of the aquatic reptile and amphibian communities were carried out in conjunction with the aquatic wildlife observations. The survey was conducted by boat on Choccolocco Creek while moving at a consistent pace downstream through the three EDRs of OU-4. This approach differed from what was described in Section 6.1.1.2 of the OU-4 Phase 1 FSP (BBL 2006b), which called for searching cover by hand, turning structures, and conducting timed searches in up to two distinct locations in each of the five aquatic habitat types. Due to the paucity of reptiles and amphibians present in OU-4 at the time of the survey and observation results from the fall and winter efforts, field teams focused on recording observations of reptiles and amphibians. At each observation point, the field team stopped the boat to identify tracks or species, and record notes. The team recorded the number of observations directly (if present) or by sign (i.e., scat, tracks, burrows, amphibian call, etc.). Locations were recorded in field logbooks, on field maps, or in GPS.

3. Fall 2006 Survey Results

The Phase 1 effort included a series of four seasonal surveys, such that at the completion of Phase 1 a full year of current ecological information would be available for OU-4. The data gathered during the Fall 2006 surveys are presented below. Survey work in the fall focused on terrestrial birds and mammals, aquatic birds and mammals, benthic and phytophilous macroinvertebrates, and fish in OU-4. Surveys of terrestrial bird and wildlife communities, benthic and phytophilous macroinvertebrate communities, and fish communities were also carried out in three ecological reference areas.

3.1 Terrestrial Survey Results

Terrestrial birds and mammals are key ecological receptors, and the fall surveys of these communities were developed to gather the necessary Site-specific information to begin identifying appropriate receptor groups, refine exposure assumptions, evaluate feeding and breeding habits of key species, and develop a food web model. The results of the Fall 2006 terrestrial surveys are described below.

3.1.1 Terrestrial Bird, Wildlife, and Habitat Surveys

Terrestrial bird, wildlife, and habitat surveys were completed in three target habitats (forested floodplains, maintained fields, and successional old fields) within each of the three EDRs of OU-4. The results of the survey work, which took place between October 24 and November 1, 2006, are presented below.

3.1.1.1 Results/Findings

The locations of the 200-meter terrestrial bird and wildlife transects are presented on Figures 2, 3, and 4. Due to limited availability of target habitats, 22 surveys were conducted: 9 forested floodplain, 5 maintained field, and 8 successional field.

Within OU-4, a total of 41 bird species were observed. A summary of avian species occurring in each of the habitats is presented in Table 2. In terms of habitat, the greatest number of avian species occurred in forested floodplain and successional field habitats. In terms of geographic location, the greatest number of avian species occurred in EDR 1. A master list of all avian species observed within OU-4 during both the terrestrial and aquatic surveys is provided in Table 3 (fall aquatic bird surveys are discussed in Section 3.2.1.1).

A total of nine species of non-avian wildlife (i.e., mammals, reptiles, amphibians) or their signs were observed. A summary of wildlife species occurring in each of the habitats is presented in Table 4. In terms of habitat, the greatest number of species occurred in forested floodplain and successional field habitats. In terms of geographic location, the greatest number of species occurred in EDR 3.

A summary of the vegetation species occurring in forested floodplains, maintained fields, and successional fields is presented in Table 5. Results by habitat are as follows:

- Forested floodplain: A total of 23 species of trees were identified, and the dominant species were box elder, sweetgum, sycamore and water oak. Nineteen species of shrubs and vines were observed, and black willow and Chinese privet were dominant. A total of 14 species of herbaceous vegetation were observed.

- Maintained field: No tree, shrub, or vine species were identified. A total of nine species of herbaceous vegetation were observed; with grass species being dominant.

- Successional field: A total of 13 species of trees were present, and the dominant species were box elder, sweetgum, sycamore, and water oak. Six species of shrubs and vines were observed, and black willow and Chinese privet were dominant. A total of 23 species of herbaceous vegetation were observed.

3.1.2 Small Mammal Trapping Surveys

Small mammal trapping surveys were conducted from October 24 to November 1, 2006 in each of the three EDRs of OU-4 to determine the presence of small mammals in various habitats and to develop a preliminary species list to support future Phase 2 investigations.

3.1.2.1 Results/Findings

A total of 25 different traplines (nine in EDRs 1 and 2 and seven in EDR 3) were set in the various habitats of the three EDRs for a total of 625 trap nights. Due to a lack of accessible successional field habitat in EDR 3, only one trapline was set in this habitat, as opposed to the three targeted. The small mammal trapping locations are provided

on Figures 2, 3, and 4. Photographs of the survey locations are provided in Appendix A. A total of 31 small mammals were captured, representing seven different species (Table 6). Trapping success for each transect ranged from a minimum of 0% (no captures) to a maximum of 24%, with an overall average of 5%. The most abundant species was the harvest mouse with 10 individuals (32% of total catch), followed by the hispid cotton rat and cotton mouse with 8 individuals each (26% of total catch). EDR 1 had the largest number of individuals with 17 small mammals collected, followed by EDR 3 with 12 (despite having only 1 line in successional field habitat). Only 2 organisms were collected in EDR 2 (Table 6). The successional field was the most productive habitat type for small mammals with 16 of the 31 total organisms (52%) collected, despite the fact that only seven successional field traplines were set.

3.2 Aquatic Survey Results

Fish and aquatic invertebrates are key intermediaries in the food web in many ecosystems, and knowing the abundance and diversity of these organisms will provide Site-specific data for use in risk assessments. Further, Site-specific information on fish, aquatic invertebrates, and fish-eating birds and mammals will allow for the development of exposure parameters, exposure point concentrations, and exposure assumptions that are appropriate for the small-stream environment of OU-4. The results of the Fall 2006 aquatic surveys are described below.

3.2.1 Aquatic Bird and Mammal Surveys

Aquatic bird and mammal surveys were performed in OU-4 from October 25, 2006 through November 1, 2006. The survey observations were conducted in areas adjacent to the five major aquatic habitat types in OU-4 (e.g., riffles, runs, emergent vegetation, tributary confluences, and depositional environments).

3.2.1.1 Results/Findings

Data recorded during the surveys are presented in Table 7. Data in five categories were recorded during the survey: wildlife species, number of individuals (i.e., count), observation type, habitat, and location. Count is only applicable to those species which were observed directly. Observation type encompassed a wide range of categories, including: visual presence (sight), tracks, lodge/dam, burrows, chews, and slides. Habitat type was also diverse, and included: depositional bank/bar, bank, run, riffle, eroded bank, deadfall, backwater, and island. The northing and southing for each

location was recorded using a handheld GPS unit while the boat was stationary at the observation point.

Beaver and raccoon were the most common species observed during the survey. Muskrat, great blue heron, and kingfisher were the second most common. In only a few instances beaver and raccoon were observed directly. In most cases tracks, burrows, or slides were found on the bank. On stretches of the Creek bank within EDR 1, beaver slides were frequent (as many as ten slides per 100 feet). Towards the end of EDR 2, the field crew noted that they were observing the same great blue heron as they progressed downstream. This situation was not recognized until part way through the survey, and as a result the number of visual observations of great blue heron in EDRs 2 and 3 may be biased high.

3.2.2 Benthic and Phytophilous Macroinvertebrate Surveys

Benthic and phytophilous macroinvertebrate surveys were conducted within Choccolocco Creek (OU-4) from October 24 to October 29, 2006. The surveys focused on five major habitat types (riffles, runs, emergent vegetation, backwaters, and depositional areas) within each of the three EDRs of OU-4. The results and findings of the surveys are described below.

3.2.2.1 Results/Findings

For each survey location, assessment techniques consistent with RBPs (Barbour et al. 1999) were used to evaluate Site conditions. As with the Phase 1 surveys in OU-4, a water quality and physical characterization data form was used to record specific sample location measurements and semi-quantitative assessment information. Completed field data sheets are provided in Appendix D.

Water quality data for temperature, specific conductance, dissolved oxygen, pH, and turbidity were collected using a Horiba U-22 meter at all survey locations.

GPS coordinates were established and recorded for at location using a handheld GPS unit. Survey locations are presented on Figures 2, 3, and 4. Site photographs taken at each survey location are provided in Appendix B.

A total of 29 benthic and phytophilous macroinvertebrate locations were sampled within OU-4. A sample and a replicate were collected at each location, yielding a total

of 58 samples for taxonomic identification. Complete taxonomic results are provided in Tables 8a though 37a (one table for each location).

A total of 135 species were identified within the five habitat types sampled in OU-4. The dominant benthic and phytophilous orders include:

- Diptera (true flies): 37 species
- Odonata (dragonflies and damselflies): 21 species
- Ephemeroptera (mayflies): 14 species
- Trichoptera (caddisflies): 13 species
- Coleoptera (beetles): 12 species
- Tubificida (tube and naiad worms): 8 species

Within the five habitat types the fewest number of species (39) were identified in samples from depositional areas, and the greatest numbers of species (65) were identified in samples collected from emergent vegetation.

3.2.3 Fish Community Surveys

The Fall 2006 Phase 1 fish community surveys were conducted in OU-4 portions of Choccolocco Creek between November 2 and November 9, 2006. Fish community surveys were completed in target habitats (riffle, run, backwater, and emergent vegetation) within each of the three EDRs of OU-4. Survey results from Phase 1 will be used to document habitat conditions and the relative abundance and diversity of fish.

3.2.3.1 Results/Findings

Within OU-4, a total of 1,025 fish were collected comprising 35 species (including darter, sunfish and sucker species). Species diversity (i.e., the total number of species) within the four habitat types ranged from 5 (backwater) to 15 (run). The relative fish abundance (i.e., total number of individuals) from the four habitat types ranged from 172 (run) to 329 (backwater) (Tables 38 to 41). Results are summarized below.

Habitat	Total Fish Collected	Number of Fish Collected in Each Sampling Event (range)	Most Abundant Species	Number of Species Present (range)
Riffle	293	18 to 115	Darter species	6 in EDR 3 to 12 in EDR 2
Emergent Vegetation	231	18 to 58	Sunfish species	7 in EDR 2 to 11 in EDR 3
Run	172	10 to 43	Sunfish and Darter species	7 in EDR 2/3 to 15 in EDR 3
Backwater	329	19 to 112	Sunfish species	5 in EDR 2 to 14 in EDR 2

GPS coordinates were taken at each fish sampling location in OU-4, which are shown on Figures 2, 3, and 4. Photographs of fish survey locations are provided in Appendix C.

3.3 Reference Location Survey Results

Concurrent with the Phase 1 Fall survey efforts, based on past experience and knowledge of the region, field staff identified and surveyed three ecological reference areas – two aquatic and one terrestrial. Identifying and surveying multiple reference areas is necessary because it helps develop and define an "envelope" of reference conditions that can be compared to conditions encountered in the study area (OU-4) and document biological community structure parameters such as organism presence/absence and relative abundance.

During this effort, candidate reference areas in sub-watersheds in the Choccolocco Creek drainage basin were identified on topographic maps, and field staff conducted reconnaissance visits to assess habitat suitability. The sites selected were chosen to approximate flow and habitat conditions that are similar to those found in OU-4. The surveys of reference areas for terrestrial bird and wildlife communities, benthic and phytophilous macroinvertebrate communities, and fish communities are described below. Although the actual reference area scope of work was determined in the field, survey methods in the reference areas were the same as those described in Section 2.

3.3.1 Terrestrial Bird, Wildlife, and Habitat Reference Location Surveys

Terrestrial bird, wildlife, and habitat surveys were conducted in the reference areas on October 28, 2006. These surveys were completed in forested floodplain and successional field habitats in Reference Areas 1, 2, and 3.

3.3.1.1 Results/Findings

The location of each 200-meter wildlife transect established in the three reference areas is presented in Figures 5, 6, and 7. Due to limited habitat in each of the reference locations, only four surveys were conducted: three in forested floodplains and one in a successional field.

A listing of avian species occurring in each of the reference area habitats is presented in Table 2. A total of 22 bird species were observed. In terms of habitat, the greatest number of avian species occurred in forested floodplain habitat (Table 2). In terms of geographic location, the greatest number of avian species was observed in the forested floodplain REF-1 (Table 2).

A total of five species of non-avian wildlife or their signs were observed within the reference areas. A summary of species occurring in each of the habitats is presented in Table 4. In terms of habitat, the greatest number of species occurred in forested floodplain habitat (Table 4). In terms of geographic location, the greatest number of species occurred in the forested floodplain REF-1 (Table 4).

A summary of vegetative species occurring in forested floodplain reference habitats is presented in Table 42. Thirteen species of trees, 16 species of shrubs and vines, and 10 species of herbaceous vegetation were observed.

In the successional field reference area, two species of shrubs and vines and six species of herbaceous vegetation were observed. No tree species were observed (Table 42).

3.3.2 Benthic and Phytophilous Macroinvertebrate Community Reference Location Surveys

Benthic and phytophilous macroinvertebrate surveys were conducted within three reference locations on October 29, 2006 (Cheaha Creek), November 1, 2006 (Talladega Creek), and November 6, 2006 (Choccolocco Creek; upstream of Boiling Springs Road). Samples were collected in four habitat types—riffle, run, emergent aquatic vegetation, and backwater. Depositional areas were not surveyed because no suitable locations were identified in the reference areas. The results and findings of the surveys are described below.

3.3.2.1 Results/Findings

For each survey location, assessment techniques consistent with RBPs (Barbour et al. 1999) were used to evaluate Site conditions. As with the Phase 1 surveys in OU-4, a water quality and physical characterization data form was used to record specific sample location measurements and semi-quantitative assessment information. Completed field data sheets are provided in Appendix D.

GPS coordinates were established and recorded for each location using a handheld GPS unit. Survey locations are presented on Figures 5, 6, and 7. Photographs taken at each survey location are provided in Appendix B.

Water quality data for temperature, specific conductance, dissolved oxygen, pH, and turbidity were collected using a Horiba U-22 meter at all survey locations.

A total of 9 benthic and phytophilous macroinvertebrate reference locations were sampled. A sample and a replicate sample were collected at each location, yielding a total of 18 samples for taxonomic identification. Complete taxonomic results are provided on Tables 44a through 53a (one table for each sampling location).

A total of 122 species were identified within the four reference habitat types. The dominant benthic and phytophilous orders include:

- Diptera (true flies): 32 species
- Trichoptera (caddisflies): 16 species
- Coleoptera (beetles): 15 species
- Ephemeroptera (mayflies): 15 species
- Odonata (dragonflies and damselflies): 11 species
- Plecoptera (stoneflies): 6 species

Within the four habitat types sampled, the fewest number of species (15) was observed in samples from the backwater habitat, and the greatest number of species (67) was observed in samples from run habitats.

3.3.3 Fish Community Reference Location Survey

Fish community surveys were conducted in reference areas within Choccolocco Creek (REF-1), Cheaha Creek (REF-2), and Talladega Creek (REF-3) between October 30 and November 6, 2006.

In each reference area three of the four habitat types (riffle, run, backwater, and emergent vegetation) were surveyed. The decision of which habitat types to survey was made by field crews based on the existence and availability of habitat types that occurred in close proximity to stream access points. One sampling event took place within each surveyed habitat type for a total of three samples per reference area.

3.3.3.1 Results/Findings

Within the reference areas, a total of 769 fish were collected comprising 39 species (including darter, sunfish and sucker species). The number of species observed within the four habitat types ranged from 7 (riffle) to 20 (run) (Tables 38 to 41). Results are summarized below.

Habitat	Total Fish Collected	Number of Fish Collected in Each Sampling Event (range)	Most Abundant Species	Number of Species Present (range)
Riffle	174	69 to 105	Darter species	7 in REF 1 to 11 in REF 2
Emergent Vegetation	246	28 to 169	Sunfish species	8 in REF 1 to 18 in REF 2
Run	276	55 to 136	Sunfish species	15 in REF 1 to 20 in REF 2
Backwater	73	N/A	Sunfish species	11 in REF 3

GPS coordinates were taken at each fish sampling location in the reference areas and are shown on Figures 5, 6, and 7. Photographs of fish survey locations are provided in Appendix C.

4. Winter 2007 Survey Results

The data gathered during the Winter 2007 surveys – the second season of the Phase 1 sampling – are presented below. The winter effort was more limited than other seasons, and focused on birds and mammals in OU-4. Reference area surveys were not conducted in the winter.

4.1 Terrestrial Survey Results

4.1.1 Terrestrial Bird, Wildlife, and Habitat Surveys

Terrestrial bird, wildlife, and habitat surveys were completed in three target habitats (forested floodplains, maintained fields, and successional old fields) within each of the three EDRs of OU-4. The surveys were conducted on February 7, 2007, and the results are presented in the following sections.

4.1.1.1 Results/Findings

The locations of the 200-meter terrestrial bird and wildlife transects are presented on Figures 8, 9, and 10. Using the previous fall survey locations and results, the scope of the winter surveys focused on two survey locations for each of the three habitat types (maintained field, successional field, forested floodplain). From the fall 2006 survey results, a low and high species abundance location was targeted for each habitat type, while encompassing the overall spatial coverage for each of the three EDRs found within OU-4. The existing successional field habitat location within EDR-3 (EDR 3, transect 1) was surveyed despite the marginal habitat observed. To account for the marginal habitat, a third successional field transect within EDR 2 was added, for a total of seven winter survey transects.

Within OU-4, a total of 21 bird species were observed. A summary of species occurring in each of the habitats is presented in Table 2. In terms of habitat, the greatest number of avian species occurred in the forested floodplain. In terms of geographic location, the greatest number of avian species occurred in EDR 1. A master list of all avian species observed within OU-4 during both the terrestrial and aquatic surveys is provided in Table 3 (the winter 2007 aquatic bird surveys are discussed in Section 4.2.1.1).

A total of eight species of wildlife or their signs were observed. A summary of species occurring in each of the habitats is presented in Table 4. In terms of habitat, the

greatest number of species occurred in the successional fields. In terms of geographic location, the greatest number of species occurred in EDR 1.

A thorough vegetative survey was conducted in the fall 2006 effort to establish the baseline species information; therefore, the observations during the winter effort were more qualitative. Within the forested floodplains, tree species included: oak, ash, and hickory. For maintained fields, a mixture of grasses and common pasture species (e.g., clovers) were dominant. Successional fields were dominated by shrub species of privet and honeysuckle with saplings of ash and oak. The dominant vegetation species were similar to those observed in the fall (presented in Table 5).

4.1.2 Small Mammal Trapping Surveys

Small mammal trapping surveys were conducted on February 6 and 7, 2007 in each of the three EDRs of OU-4. The surveys were conducted to document the presence of small mammals in various habitats, and to develop a preliminary species list to support future Phase 2 investigations.

4.1.2.1 Results/Findings

A total of 6 traplines (two in each of the EDRs) were set in the three habitats for a total of 150 trap nights. These locations are provided on Figures 8, 9, and 10. Photographs of the survey locations are provided in Appendix A. A total of 15 small mammals were captured representing six different species (Table 6). Trapping success for each transect ranged from a minimum of 0% (no captures) to a maximum of 28%, with an overall average of 10%. The most abundant species was the cotton mouse, with 8 individuals (53% of total catch), followed by the harvest mouse with 3 individuals (20% of total catch). During the winter survey the maintained field habitat produced the greatest number of individuals (8), and the forested floodplain habitat (4 individuals) and successional field habitat (3 individuals) yielded the remainder of the catch.

4.2 Aquatic Survey Results

4.2.1 Aquatic Bird and Mammal Surveys

Aquatic bird and mammal surveys were performed in OU-4 from February 6 to 8, 2007. The survey observations were conducted in areas adjacent to the five major aquatic habitat types in OU-4 (e.g., riffles, runs, emergent vegetation, tributary confluences, and depositional environments).

4.2.1.1 Results/Findings

Data collection locations were recorded using a handheld GPS unit. The data recorded during the surveys are presented in Table 7. Data in five categories were recorded during the survey: wildlife species, count, observation type, habitat, and location. Count is only applicable to those species observed directly. Observation type encompassed a wide range of categories, including: visual presence (sight), tracks, lodge/dam, burrows, chews, and slides. Habitat type was also diverse, and included: depositional bank/bar, bank, run, riffle, eroded bank, deadfall, backwater, and island. The northing and southing for each location was recorded using a handheld GPS unit while the boat was stationary at the observation point.

Beaver and muskrat were the most common species observed during the survey. Raccoon, great blue heron, kingfisher, and wood duck were the second most common. Mink tracks were observed on two occasions within EDR 1. During the survey direct sightings of beaver and raccoon were not observed. In all cases tracks, burrows, or slides were found on the various habitats within the creek or surrounding floodplain. Beaver signs were most prevalent within EDR 2. The field crew made an effort to limit pushing piscivorous birds and waterfowl downstream to avoid biasing the observations high.

5. Spring 2007 Survey Results

Consistent with the adaptive management approach described in the OU-4 Phase 1 FSP (BBL 2006b), the findings of the fall 2006 and winter 2007 surveys were used to modify the study plans for the spring and summer sampling events. The designs of the spring surveys were refined to explicitly account for habitat in the context of downstream distance. In addition, the reference locations identified in the fall surveys were further evaluated to test their applicability and comparability to conditions in OU-4.

The spring surveys were the most robust of all the Phase 1 sampling events. All terrestrial and aquatic communities (with the exception of fish) in OU-4 were targeted, and similar surveys were conducted in the reference areas (with the exception of aquatic reptiles and amphibians).

5.1 Terrestrial Survey Results

5.1.1 Soil Macroinvertebrate Surveys

Soil macroinvertebrate trapping surveys were conducted from May 15 to May 18, 2007 to determine the presence of soil macroinvertebrates in various habitats and to develop a preliminary species list. Traps were set in each of the three EDRs of OU-4.

5.1.1.1 Results/Findings

Three pitfall traps were set along each of the six transects established in OU-4. The locations are provided on Figures 11, 12, and 13. The traps were set for a total of 18 trap nights.

Results of the pitfall trapping indicated the presence of 16 varieties of soil macroinvertebrates (Table 54). Collembola species were the most abundant, and were caught in the greatest numbers in EDR 1. Of the larger macroinvertebrates, beetles, ants, and spiders were caught the most frequently and in similar numbers in each EDR. Centipedes, millipedes, flies, Opilionids, Lepidoptera, and Hemipteran species were captured less frequently.

5.1.2 Terrestrial Bird, Wildlife, and Habitat Surveys

Terrestrial bird, wildlife, and habitat surveys were completed in three target habitats (forested floodplains, maintained fields, and successional old fields) within each of the three EDRs of OU-4. The results of the survey work, which took place between May 29 and May 30, 2007, are presented below.

5.1.2.1 Results/Findings

The locations of the 200-meter terrestrial bird and wildlife transects are presented on Figures 11, 12, and 13. The transect approach used in the fall survey was modified to focus on two survey locations in each of the three EDRs. As described in Section 2.1.2, a low and high species abundance location was targeted for each EDR based on the fall 2006 results. In total, surveys were performed at 6 locations.

A summary of species occurring in each of the habitats is presented in Table 2. Within OU-4, a total of 13 bird species were observed. In terms of habitat, the greatest number of avian species occurred in the forested floodplains. In terms of geographic location, the greatest number of avian species occurred in EDR 3. A master list of all avian species observed within OU-4 during both the terrestrial and aquatic surveys is provided in Table 3 (spring 2007 aquatic bird surveys are discussed in Section 5.2.1.1).

A total of seven species of non-avian wildlife or their signs were observed. A summary of species occurring in each of the habitats is presented in Table 4. In terms of habitat, the greatest number of species occurred in the forested floodplains. In terms of geographic location, the greatest number of species occurred in EDR 3.

A thorough vegetative survey was conducted in the fall 2006 to establish the baseline community, and the spring survey observations were more qualitative in nature. The dominant vegetation species occurring in forested floodplains, maintained fields, and successional fields were similar to those observed during the fall (Table 5). Within the forested floodplains, tree species included oak, ash, and hickory. For maintained fields, a mixture of grasses and common pasture species (e.g., clovers) were dominant. Successional fields were dominated by shrub species of privet and honeysuckle with saplings of ash and oak.

5.1.3 Small Mammal Trapping Surveys

Small mammal trapping surveys were conducted from May 15 to May 18, 2007 in each of the three EDRs of OU-4 to determine the presence of small mammals in various habitats and develop a preliminary species list to support future Phase 2 investigations.

5.1.3.1 Results/Findings

A total of 6 different traplines were set (two in each of the EDRs) in the three habitats in OU-4, for a total of 150 trap nights. The locations are shown on Figures 11, 12, and 13. Photographs of the survey locations are provided in Appendix A. A total of 15 small mammals were captured representing seven different species (Table 6). Trapping success for each transect ranged from a minimum of 0% (no captures) to a maximum of 20%, with an overall average of 10%. The most abundant species was the deer mouse with 4 individuals (27% of total catch), followed by cotton and white-footed mice with 3 individuals each (combined 40% of total catch). During the survey an equal number of individuals (5) were caught in each of the three terrestrial habitats.

5.1.4 Terrestrial Reptile and Amphibian Surveys

Surveys of the terrestrial reptile and amphibian communities in the forested floodplain, maintained field, and successional field habitats were conducted in all three EDRs of OU-4 on May 29 and 30, 2007. The results are summarized below.

5.1.4.1 Results/Findings

The locations of the terrestrial reptile and amphibian survey transects were co-located with the six terrestrial bird and wildlife transects described in Section 5.1.2 and presented on Figures 11, 12, and 13.

Preliminary observations throughout OU-4 suggested that reptile and amphibian abundance and diversity was low, and the exceptionally dry conditions that persisted through the spring survey period likely suppressed reptile and amphibian activity. The overall lack of organisms was most pronounced for amphibians, but terrestrial reptile populations were also impacted. To provide the greatest opportunity of finding reptiles and amphibians, the field crews identified the best relevant habitat in the area of each of the transects included in the spring survey, and directed the hand searches in these locations. Very few terrestrial reptiles and amphibians were observed. Within OU-4, a

total of three species (black racer, river cooter, and an unknown turtle) were identified based on sight, sound, and/or sign. Results are presented on Table 55.

5.2 Aquatic Survey Results

5.2.1 Aquatic Bird and Mammal Surveys

Aquatic bird and mammal surveys were performed in OU-4 from May 21 through May 24, 2007. The survey observations were conducted in areas adjacent to the five major aquatic habitat types in OU-4 (e.g., riffles, runs, emergent vegetation, tributary confluences, and depositional environments).

5.2.1.1 Results/Findings

Data recorded during the surveys are presented in Table 7. Data in five categories were recorded during the survey: wildlife species, count, observation type, habitat, and location. Count is only applicable to those species which were observed directly. Observation type encompassed a wide range of categories, including: visual presence (sight), tracks, lodge/dam, burrows, chews, and slides. Habitat type was also diverse, and included: depositional bank/bar, bank, run, riffle, eroded bank, deadfall, backwater, and island. The northing and southing for each location was recorded using a handheld GPS unit while the boat was stationary at the observation point.

Beaver and raccoon were the most common species observed during the survey. Muskrat, great blue heron, kingfisher, and wood duck were the second most common species. Mink tracks were observed along a depositional bar within EDR 2. During the spring survey direct sightings of beaver and muskrat were observed on several occasions. In most cases tracks, burrows, or slides were found on the various habitats within the creek or surrounding floodplain. Beaver signs were most prevalent within EDR 1. The field crew made an effort to limit pushing piscivorous birds and waterfowl downstream to avoid biasing the observations high.

5.2.2 Benthic and Phytophilous Macroinvertebrate Surveys

Benthic and phytophilous macroinvertebrate surveys were conducted within Choccolocco Creek (OU-4) from May 14 to May 17, 2007. The surveys focused on the five major habitat types (riffles, runs, emergent vegetation, backwaters, and depositional areas) within each of the three EDRs of OU-4. The results of the surveys are described below.

5.2.2.1 Results/Findings

For each survey location, assessment techniques consistent with RBPs (Barbour et al. 1999) were used to evaluate Site conditions. As with the Phase 1 surveys in OU-4, a water quality and physical characterization data form was used to record specific sample location measurements and semi-quantitative assessment information. Completed field data sheets are provided in Appendix D.

Water quality data (e.g., pH, temperature, dissolved oxygen), water depth, water velocity, and substrate characteristics were measured and/or assessed and recorded for each sample location. GPS coordinates were established and recorded for each location using a handheld GPS unit. Survey locations are presented on Figures 11, 12, and 13. Site photographs taken at each survey location are provided in Appendix B.

Water quality data for temperature, specific conductance, dissolved oxygen, pH, and turbidity were collected using a Horiba U-22 meter for all survey locations.

A total of 30 benthic and phytophilous macroinvertebrate locations were sampled within OU-4. A sample and a replicate sample were collected at each location, yielding a total of 60 samples for taxonomic identification. Complete taxonomic results are provided in Tables 8b though 37b (one table for each location).

A total of 206 species were identified within the five habitat types sampled in OU-4. The dominant benthic and phytophilous orders include:

- Diptera (true flies): 74 species
- Trichoptera (caddisflies): 21 species
- Ephemeroptera (mayflies): 18 species
- Tubificida (tube and naiad worms): 10 species
- Coleoptera (beetles): 15 species
- Odonata (dragonflies and damselflies): 15 species

Within the five habitat types sampled, the fewest number of species (50) were observed in samples from the depositional areas, and the greatest numbers of species (112) were identified in samples collected in emergent vegetation.

5.2.3 Mollusk Surveys

Surveys of mollusk communities in Choccolocco Creek (OU-4) were carried out between May 14 and 17, 2007 in all five major habitat types (riffles, runs, emergent vegetation, backwaters, and depositional areas) within each of the three EDRs of OU-4. The results of the surveys are described below.

5.2.3.1 Results/Findings

Mollusk survey locations were co-located with the fall 2006 benthic community locations. Site-specific information regarding the water quality and physical conditions of each location were assessed as described previously in Section 5.2.2.1. The resulting RBP field data sheets are provided in Appendix D. GPS coordinates were established and recorded for each location using a handheld GPS unit. Survey locations are presented on Figures 11, 12, and 13. Site photographs taken at each survey location are provided in Appendix B.

Based on the results of the fall 2006 benthic and phytophilous community survey, mollusks surveys were targeted at locations of low and high species diversity in each of the five habitat types (backwater, depositional, emergent aquatic vegetation, riffle, run) for a total of 10 mollusk sampling locations in OU-4. A sample and a replicate sample were collected at each location, yielding a total of 20 samples. Although two species of clams (Asian clam and greater eastern pea clam) were identified within the five habitat types sampled in OU-4, freshwater mussels were not observed. The results are summarized below:

Table 56

Mollusk Community Survey Results

Habitat Type	Backwater		Depositional		Emergent Vegetation		Riffle		Run	
Species	EDR-1	EDR-3	EDR-2	EDR-3	EDR-2	EDR-3	EDR-1	EDR-2	EDR-1	EDR-3
Asian Clam (Corbicula fluminea)	0 (0)	2 (2)	1 (4)	10 (5)	21 (12)	6 (6)	56 (40)	61 (315)	26 (30)	133 (70)
Greater Eastern Peaclam (Pisidium dubium)	0 (0)	1 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)	6 (0)

Note:
(“) – Number in parentheses indicates the replicate sample count.

5.2.4 Aquatic Reptile and Amphibian Surveys

Surveys of the aquatic reptile and amphibian communities were conducted within Choccolocco Creek (OU-4) between May 21 and 24, 2007. The surveys were carried out concurrent with the aquatic bird and mammal surveys within each of the three EDRs of OU-4. Results are described below.

5.2.4.1 Results/Findings

Ten species of aquatic reptiles and amphibians were observed in OU-4 during the spring surveys. Reptiles and amphibians were identified by sight, sign, or tracks, and often precise taxonomic identification was not made. The field crew observed four snake species (black racer, copperhead, cottonmouth, and garter) and six turtle species (common map, eastern painted, river cooter, snapping, softshell, and stinkpot). In terms of spatial distribution, the most numerous individuals and the greatest number of species (7) were observed in EDR 1 (Table 57).

5.3 Reference Location Survey Results

The reference site surveys were initially planned as a single effort concurrent with the work conducted in the fall of 2006. However, data collected in the fall survey demonstrated that habitat conditions and general biota communities in the candidate reference areas, while not precisely matched with OU-4 regarding watershed history

(except for the Choccolocco Creek upstream reference location), were potentially applicable for reference comparison with OU-4. As a result, additional surveys of the terrestrial and aquatic reference area communities were carried out in conjunction with both the spring and summer field efforts. In the spring, these surveys were conducted in representative habitat types in all three of the reference locations.

Although the actual scope of work for reference area surveys was determined in the field, survey methods were the same as those described in Section 2.

5.3.1 Soil Macroinvertebrate Reference Location Surveys

Soil macroinvertebrate surveys were conducted in each of the three reference areas between May 15 and May 18, 2007.

5.3.1.1 Results/Findings

Two transects were established in each of the three reference areas, and three pitfall traps were set along each transect. The locations are provided on Figures 14, 15, and 16. The traps were set for a total of 18 trap nights.

Results of the pitfall trapping indicated the presence of 16 varieties of macroinvertebrates (Table 54). Of the larger macroinvertebrates, beetles, ants, and spiders were caught the most frequently, and in similar numbers at the EDRs and reference locations. Earthworms and isopods were caught less frequently at the reference sites than the EDR locations. Centipedes, millipedes, flies, Opilionids, Lepidoptera, and Hemipteran species were captured infrequently.

5.3.2 Terrestrial Species Reference Location Surveys

Terrestrial bird, wildlife, reptile, amphibian, and habitat surveys were conducted in the reference areas on May 29 and May 30, 2007. These reference location surveys were completed in forested floodplain, maintained field, and successional field habitats.

5.3.2.1 Results/Findings

Three reference locations were surveyed (Figures 14, 15, and 16). At each location, transects were established in available maintained field, successional field, and forested floodplain habitat. A total of 5 transects were established within the reference locations. Transects in reference location #1 (Choccolocco Creek upstream of Snow

Creek confluence) included a maintained field and forested floodplain transect. At reference location #2 (Cheaha Creek) a successional field and a forested floodplain transect were established, and at reference location #3 (Talladega Creek) a forested floodplain transect was established.

A summary of species by habitat is presented in Table 2. At the reference location transects a total of 10 bird species were observed. In terms of habitat, the greatest number of avian species occurred in the forested floodplain. In terms of geographic location, the greatest number of avian species occurred in reference location #1. A master list of all avian species observed within the reference locations during both the terrestrial and aquatic surveys is provided in Table 3 (spring aquatic bird surveys in the reference areas are discussed in Section 5.3.4.1).

Within the reference locations, a total of three species of non-avian wildlife or their signs were observed. A summary of species occurring in each of the habitats is presented in Table 4.

A thorough baseline vegetative survey was conducted in the fall 2006, and the spring surveys were more qualitative since the dominant vegetation species occurring in forested floodplains, maintained fields, and successional fields were similar to those observed during the fall (Table 5). Within the forested floodplains, tree species included oak, ash, and hickory. For maintained fields, a mixture of grasses and common pasture species (e.g., clovers) were dominant. Successional fields were dominated by shrub species of privet and honeysuckle with saplings of ash and oak.

Four reptile and amphibian surveys were performed in the available habitat at the three reference locations. Only one species (Carolina anole, in reference location #2) was observed. The summary of these results are presented in Table 55.

5.3.3 Small Mammal Reference Location Surveys

Small mammal surveys were conducted in reference areas within the surrounding floodplain habitat of Choccolocco Creek (REF-1), Cheaha Creek (REF-2), and Talladega Creek (REF-3) between May 15 and May 17, 2007. At each of the three reference locations, available habitat was surveyed to determine the presence of small mammals, compare to OU-4 surveys, and to develop a preliminary species list to support future Phase 2 investigations.

5.3.3.1 Results/Findings

Six traplines (two at each of the reference locations; see Figures 14, 15, and 16) were set for a total of 150 trap nights. Photographs of the survey locations are provided in Appendix A. A total of 10 small mammals were captured representing five different species (Table 6). Trapping success for each transect ranged from a minimum of 0% (no captures) to a maximum of 16%, with an overall average of 7%. The most abundant species were the house mouse and Norway rat with 3 individuals (combined 60% of total catch), followed by hispid cotton rat with 2 individuals (20% of total catch). During the survey an equal number of individuals (4) were caught in the maintained field and successional field habitats, and the fewest number of individuals (2) was caught in the forested habitat.

5.3.4 Aquatic Bird and Mammal Reference Location Surveys

Aquatic bird and mammal surveys were performed at the three reference locations on May 23 and May 24, 2007. The survey observations were conducted in areas adjacent to the five major aquatic habitat types (e.g., riffles, runs, emergent vegetation, tributary confluences, and depositional environments).

5.3.4.1 Results/Findings

Data in five categories were recorded during the survey: wildlife species, count, observation type, habitat, and location (Table 58). Count is only applicable to those species that were observed directly. Observation type encompassed a wide range of categories, including visual presence (sight), tracks, lodge/dam, burrows, chews, and slides. Habitat type was also diverse, and included depositional bank/bar, bank, run, riffle, eroded bank, deadfall, backwater, and island. The northing and southing for each location was recorded using a handheld GPS unit while the boat was stationary at the observation point. At the Cheaha Creek and Talladega Creek reference locations, the start and end points were recorded. These two locations are relatively small in area and the habitat was walked by field personnel.

Raccoon was the most common species observed during the survey at reference location 1 (upstream of Snow Creek confluence along Choccolocco Creek). The second most common species were beaver and turtle. Wood duck tracks were also observed. At Cheaha Creek, muskrat and beaver were observed, along with a few mallards. At Talladega Creek, a muskrat and/or beaver was observed along a vegetated bank, as well as a green frog.

5.3.5 Benthic and Phytophilous Macroinvertebrate Community Reference Location Surveys

Benthic and phytophilous macroinvertebrate surveys were conducted in the three reference locations in Cheaha Creek, Talladega Creek, and Choccolocco Creek (upstream of Boiling Springs Road) on May 16 and 17, 2007. Samples were collected in five habitat types, including riffles, runs, emergent vegetation, backwaters, and depositional areas. Unlike in the fall 2006 effort, suitable locations within the depositional areas were identified and surveyed. The following sections describe the results and findings of the surveys.

5.3.5.1 Results/Findings

For each survey location, assessment techniques consistent with RBPs (Barbour et al. 1999) were used to evaluate conditions. As with the surveys in OU-4, water quality and physical characterization data forms were used to record specific sample location measurements and semi-quantitative assessment information. Completed field data sheets are provided in Appendix D.

Water quality data (e.g., pH, temperature, dissolved oxygen), water depth, water velocity, and substrate characteristics were measured and/or assessed and recorded for each sample location. GPS coordinates were established and recorded for each location using a handheld GPS unit. Survey locations are presented on Figures 14, 15, and 16. Photographs taken at each survey location are provided in Appendix B.

Water quality data for temperature, specific conductance, dissolved oxygen, pH, and turbidity were collected using a Horiba U-22 meter at all survey locations.

A total of 11 benthic and phytophilous macroinvertebrate reference locations were sampled. A sample and replicate were collected at each location, yielding a total of 22 samples for taxonomic identification. Complete taxonomic results are provided on Tables 43 through 53b (one table for each sampling location).

A total of 139 species were identified within the five habitat types sampled in reference areas. The dominant benthic and phytophilous orders include:

- Diptera (true flies): 51 species
- Ephemeroptera (mayflies): 15 species

- Trichoptera (caddisflies): 12 species
- Odonata (dragonflies and damselflies): 11 species
- Coleoptera (beetles): 13 species
- Tubificida (mayflies): 4 species

Within the five habitat types, the fewest number of species (4) were observed in samples from the backwater habitat, while the samples collected in emergent vegetation habitats yielded the greatest number of species (92) observed.

6. Summer 2007 Survey Results

The summer survey was a fairly limited effort, targeting only terrestrial and aquatic birds and wildlife and fish in OU-4. Surveys of fish and terrestrial birds and wildlife were also conducted in the reference areas. Original survey plans described in the OU-4 Phase 1 FSP included terrestrial small mammals, but the results from the fall, winter, and spring surveys in OU-4 (which totaled 1,050 trap nights) indicated a consistent community composition of mice, rats, and shorttail shrew (see Table 6). Live traps were used in the fall, winter, and spring surveys, and while mortality rates were low, there were casualties. Given the consistency of the small mammal species composition, to avoid unnecessary mortality the small terrestrial mammals were not surveyed in the summer effort.

The technical approach and methods for collecting the summer survey data were consistent with those described in the OU-4 Phase 1 FSP and the Site-Wide QAPP.

6.1 Terrestrial Survey Results

6.1.1 Terrestrial Bird, Wildlife, and Habitat Surveys

Terrestrial bird, wildlife, and habitat surveys were completed in three target habitats (forested floodplains, maintained fields, and successional old fields) within each of the three EDRs of OU-4. The results of the survey work, which took place on August 12, and 13, 2007 are presented below.

6.1.1.1 Results/Findings

The same 200-meter terrestrial bird and wildlife transects surveyed in the spring—two in each EDR representing areas of low and high species diversity as shown on Figures 17, 18, and 19—were visited again in the summer 2007. In total, 6 surveys were performed.

Within OU-4, a total of 24 bird species were observed. A summary of species occurring in each of the habitats in the summer is presented in Table 2. In terms of habitat, the greatest number of avian species occurred in the forested floodplain. In terms of geographic location, an equal number of avian species occurred in both EDR 1 and 2. A master list of all avian species observed within OU-4 during both the terrestrial and aquatic surveys is provided in Table 3 (summer aquatic bird surveys are discussed in Section 6.2.1.1).

A total of eight species of wildlife or their signs were observed. A summary of species occurring in each of the habitats is presented in Table 4. In terms of habitat, the greatest number of species occurred in the forested floodplain. In terms of geographic location, the greatest number of species occurred in EDR 3.

Vegetative observations in the summer survey were qualitative since the dominant vegetation species occurring in forested floodplains, maintained fields, and successional fields were similar to those observed during the fall (Table 5). Within the forested floodplains, tree species included oak, ash, sycamore, sweetgum, and hickory. For maintained fields a mixture of grasses and common pasture species (e.g., clovers) were dominant. Successional fields were dominated by shrub species of privet, honeysuckle, and trumpet vine with a groundcover of mixed grasses, poison ivy, and thistle with saplings of maple and willow.

6.2 Aquatic Survey Results

6.2.1 Aquatic Bird and Mammal Surveys

Aquatic bird and mammal surveys were performed in OU-4 from August 15 though August 18, 2007. The survey observations were conducted in areas adjacent to the five major aquatic habitat types in OU-4 (e.g., riffles, runs, emergent vegetation, tributary confluences, and depositional environments).

6.2.1.1 Results/Findings

Data recorded during the surveys are presented in Table 7. Data in five categories were recorded during the survey: wildlife species, count, observation type, habitat, and location. Count is only applicable to those species which were observed directly. Observation type encompassed a wide range of categories, including: visual presence (sight), tracks, lodge/dam, burrows, chews, and slides. Habitat type was also diverse, and included: depositional bank/bar, bank, run, riffle, eroded bank, deadfall, backwater, and island. The northing and southing for each location was recorded using a handheld GPS unit while the boat was stationary at the observation point.

Raccoon and muskrat were the most common species observed during the survey. Beaver, great blue heron, kingfisher, and wood duck were the second most common. Mink tracks were observed along a bank within EDR 2 and a depositional bar within EDR 3. During this survey, direct sightings of muskrat were observed on several occasions within EDR 1 and EDR 2. In most cases tracks, burrows, or slides of both

beaver and muskrat were found on the various habitats within the creek or surrounding floodplain. Beaver and muskrat signs were most prevalent within EDR 1. The field crew made an effort to limit the pushing piscivorous birds and waterfowl downstream to avoid biasing the observations high.

6.2.2 Fish Community Surveys

The summer 2007 Phase 1 fish community surveys were conducted in OU-4 in portions of Choccolocco Creek between August 8 and August 11, 2007. Fish community surveys were completed in four target habitats (riffle, run, backwater, and emergent vegetation) within each of the three EDRs of OU-4. Survey results from Phase 1 will be used to document habitat conditions and the relative abundance and diversity of fish.

6.2.2.1 Results/Findings

Within OU-4, a total of 3,128 fish were collected comprising 41 species (including various darter, sunfish, minnow, and sucker species). Species numbers within the four habitat types ranged from 11 (backwater and riffle) to 25 (riffle). The relative fish abundance from the four habitat types ranged from 380 (run) to 1,097 (riffle) (Tables 38 to 41). Results are summarized below.

Habitat	Total Fish Collected	Number of Fish Collected in Each Sampling Event (range)	Most Abundant Species	Number of Species Present (range)
Riffle	1,097	114 to 306	Minnow species	11 in EDR 1 to 25 in EDR 1
Emergent Vegetation	981	77 to 304	Minnow and Sunfish species	12 in EDR 1 to 22 in EDR 2
Run	380	36 to 85	Sunfish species	13 in EDR 2 to 20 in EDR 1
Backwater	670	39 to 165	Sunfish species	11 in EDR 3 to 19 in EDR 1

GPS coordinates were taken at each fish sampling location in OU-4, which are shown on Figures 17, 18, and 19. Photographs of fish survey locations are provided in Appendix C.

6.3 Reference Location Survey Results

As described in Section 5.3, although the initial plans for the reference area surveys were limited to a single effort concurrent with the work conducted in the fall of 2006, additional surveys of the terrestrial and aquatic reference area communities were carried out in conjunction with both the spring and summer field efforts. In the summer, these surveys were conducted in all three of the reference locations, and in representative habitat types found at each.

Survey methods employed in the reference areas were the same as those described in Section 2. The actual reference area scope of work was determined in the field.

6.3.1 Terrestrial Bird, Wildlife, and Habitat Reference Location Surveys

Terrestrial bird, wildlife, and habitat survey activities occurred in the reference areas on August 12 and 13, 2007. These reference area surveys were completed in forested floodplain, maintained field, and successional field habitats.

6.3.1.1 Results/Findings

Three reference locations were surveyed (Figures 20, 21, and 22). At each location, available maintained field, successional field, and forested floodplain habitat transects were established for the survey efforts. A total of 5 transects were established within the reference locations. At reference location #1 (Choccolocco Creek upstream of Snow Creek confluence), a maintained field and forested floodplain transect were established and surveyed. At reference location #2 (Cheaha Creek) a successional field and a forested floodplain transect were established and surveyed. At reference location #3 (Talladega Creek) a forested floodplain transect was established and surveyed.

Within the reference locations, a total of 13 bird species were observed. A summary of species occurring in each of the habitats is presented in Table 2. In terms of habitat, the greatest number of avian species occurred in the forested floodplain. In terms of geographic location, the greatest number of avian species occurred in reference location #1. A master list of all avian species observed within the reference locations is provided in Table 3.

Within the reference locations, a total of four species of non-avian wildlife or their signs were observed. A summary of species occurring in each of the habitats is presented in Table 4.

Dominant vegetation species occurring in forested floodplains, maintained fields, and successional fields of the reference locations were similar to those observed within the OU-4 habitats in the fall 2006 survey (Table 5). Within the forested floodplains, tree species included oak, ash, and hickory. For maintained fields, a mixture of grasses and common pasture species (e.g., clovers) were dominant. Successional fields were dominated by shrub species of privet and honeysuckle with saplings of ash and oak.

6.3.2 Fish Community Reference Location Survey

Fish community surveys were conducted in reference areas within Choccolocco Creek (REF-1), Cheaha Creek (REF-2), and Talladega Creek (REF-3) on August 6 and August 7, 2007.

In each reference area, three of the four habitat types (riffle, run, backwater, and emergent vegetation) were surveyed (REF-1 and REF-2: riffle, emergent vegetation, and run; REF-3: emergent vegetation, run, and backwater). The decision of which habitat types to survey was made by field crews based on the existence and availability of habitat types that occurred in close proximity to stream access points. One sampling event took place within each surveyed habitat type for a total of three samples per reference area.

6.3.2.1 Results/Findings

Within the reference areas, a total of 851 fish were collected comprising 39 species (including various darter, sunfish, minnow, and sucker species). Species numbers within the four habitat types ranged from 14 (backwater) to 30 (emergent vegetation) (Tables 38 to 41). Results are summarized below.

Habitat	Total Fish Collected	Number of Fish Collected in Each Sampling Event (range)	Most Abundant Species	Number of Species Present (range)
Riffle	475	236 to 239	Minnow species	16 in REF 2 to 21 in REF 1
Emergent Vegetation	164	40 to 84	Sunfish species	12 in REF 1 to 18 in REF 2
Run	145	35 to 72	Sunfish species	10 in REF 1 to 17 in REF 2
Backwater	67	N/A	Sunfish species	14 in REF 3

GPS coordinates were taken at each fish sampling location in the reference areas and are shown on Figures 20, 21, and 22. Photographs of fish survey locations are provided in Appendix C.

7. Summary

The Phase 1 ecological survey effort was comprised of a series of four seasonal surveys, and the data collected are presented in this report. A full year of current ecological information is now available for OU-4, and an initial assessment of the data indicates that there is a need to conduct an additional qualitative survey of the terrestrial amphibian and reptile community in the spring of 2008. As described in Section 5, preliminary observations throughout OU-4 suggest that reptile and amphibian abundance and diversity are low, and that this may be an artifact of the flooding and drying cycles that control terrestrial biotic communities. P/S will work closely with USEPA to determine the need to conduct an additional survey of reptile and amphibian abundance and diversity in both OU-4 and the reference areas in spring 2008 to gather additional information on this community.

The results of the Phase 1 habitat and ecological community surveys will set the foundation for a Phase 2 sampling and surveying effort by supporting the development of an ecological food web structure and appropriate Site-specific measurement endpoints. The interpretation and analysis of the Phase 1 ecological survey results will be used to develop the forthcoming Phase 2 Field Sampling Plan for Operable Unit 4. This sampling plan will identify the technical approach for the Phase 2 ecological surveys, which will be designed to support tissue and/or body burden analyses, dose estimation, toxicity testing, and habitat suitability assessment, as appropriate.

During the development of the Phase 2 effort, the Phase 1 data presented in this report will be evaluated along with the relevant historical ecological data presented in the September 2005 OU-4 DSR (BBL 2005) as a basis for designing the Phase 2 data collection effort to account for chemical exposure gradients in the context of ecological heterogeneity and habitat gradients. The historical data and the Phase 1 and Phase 2 results will ultimately be compiled and used to estimate potential Site-wide risks by overlaying habitat maps and COPC concentration data.

8. References

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Appendix A

Photographs of Small Mammal and Soil Macroinvertebrate Community Survey Locations

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Appendix B

Photographs of Benthic Macroinvertebrate and Mollusk Community Survey Locations

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Appendix C

Photographs of Fish Community Survey Locations

ARCADIS BBL

Appendix D

Physical Characteristics/Water Quality Field Data Sheets

Fall 2006 and Spring 2007

Tables

TABLE 2
TERRESTRIAL AVIAN SURVEY RESULTS SUMMARY

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Habitat Type:	Maintained Field										Forested Floodplain										Successional Field															
		Location:	EDR-1			EDR-2			EDR-3			REF-1	REF-2	REF-3	EDR-1			EDR-2			EDR-3			REF-1	REF-2	REF-3	EDR-1			EDR-2			EDR-3			REF-1	REF-2	REF-3
Species	**Scientific Name**	**Transect**	**1**	**2**	**3**	**1**	**2**	**3**	**1[b]**	**2**	**3**	**1[a]**	**1**	**1**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1[a]**	**1**	**1**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**1**	**1**
Fall 2006																																						
American Crow	*Corvus brachyrhynchos*					x															x		x															
American Goldfinch	*Carduelis tristis*		x		x																x			x					x			x						
American Robin	*Turdus migratorius*														x		x												x			x	x					
Barred Owl	*Strix varia*																				x																	
Belted Kingfisher	*Ceryle alcyon*																				x																	
Black Vulture	*Coragyps atratus*																							x														
Black-throated Green Warbler	*Dendroica virens*																		x																			
Blue Jay	*Cyanocitta cristata*		x		x	x									x			x	x			x		x						x								
Blue-winged Warbler	*Vermivora pinus*																				x																	
Brown Thrasher	*Toxostoma rufum*																					x		x														
Carolina Chickadee	*Poecile carolinensis*				x										x	x		x					x	x					x	x								
Carolina Wren	*Thryothorus ludovicianus*				x										x			x			x		x	x					x	x								
Cedar Waxwing	*Bombycilla cedrorum*														x	x													x									
Chipping Sparrow	*Spizella passerina*																							x														
Common Grackle	*Quiscalus quiscula*		x															x						x					x									
Cooper's Hawk	*Accipiter cooperii*																												x									
Dark-eyed Junco	*Junco hyemalis*																																	x				
Downy Woodpecker	*Picoides pubescens*																							x										x				
Eastern Bluebird	*Sialia sialis*		x																																			
Eastern Phoebe	*Sayornis phoebe*																			x	x	x								x								
Eastern Towhee	*Pipilo erythrophthalmus*			x											x									x					x					x				
European Starling	*Sturnus vulgaris*																												x									
Field Sparrow	*Spizella pusilla*																							x														
Gray Catbird	*Dumetella carolinensis*															x				x	x								x			x						
Great Blue Heron	*Ardea herodius*				x																								x									
Great Crested Flycatcher	*Myiarchus crinitus*																					x																
Hairy Woodpecker	*Picoides villosus*			x											x		x	x											x									
House Finch	*Carpodacus mexicanus*																													x								
Northern Cardinal	*Cardinalis cardinalis*																				x			x						x								
Northern Flicker	*Colaptes auratus*			x		x													x					x					x				x					
Northern Mockingbird	*Mimus polyglottos*		x																										x									
Pileated Woodpecker	*Dryocopus pileatus*						x																															
Pine Warbler	*Dendroica pinus*																							x														
Red-breasted Nuthatch	*Sitta canadensis*																					x																
Red-headed Woodpecker	*Melanerpes erythrocephalus*																				x																	
Red-shouldered Hawk	*Buteo lineatus*																																				x	
Red-tailed Hawk	*Buteo jamaicensis*																							x														
Red-winged Blackbird	*Agelaius phoeniceus*		x																																			
Ruby-crowned Kinglet	*Regulus calendula*																							x														
Song Sparrow	*Melospiza melodia*		x																																		x	
Tufted Titmouse	*Baeolophus bicolor*														x	x		x				x	x						x									
Turkey Vulture	*Cathartes aura*																	x		x				x														
Unknown Empidonax Flycatcher	*Empidonax* sp.																				x																	
Unknown Parid	N/A															x																						

TABLE 2
TERRESTRIAL AVIAN SURVEY RESULTS SUMMARY

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Habitat Type:	Maintained Field							Forested Floodplain						Successional Field					
		Location:	EDR-1	EDR-2	EDR-3	REF-1	REF-2	REF-3	EDR-1	EDR-2	EDR-3	REF-1	REF-2	REF-3	EDR-1	EDR-2	EDR-3	REF-1	REF-2	REF-3
Species	**Scientific Name**	**Transect**	1 2 3	1 2 3	1[b] 2 3	1[a]	1	1	1 2 3	1 2 3	1 2 3	1[a]	1	1	1 2 3	1 2 3	1 2 3	1	1	1
White-throated Sparrow	*Zonotrichia albicollis*											x						x		
Yellow warbler	*Dendroica petechia*								x	x		x								
Yellow-rumped Warbler	*Dendroica coronata*		x							x x					x x	x				
Winter 2007																				
American Goldfinch	*Carduelis tristis*														x					
American Robin	*Turdus migratorius*									x	x				x		x			
Blue Jay	*Cyanocitta cristata*									x					x					
Carolina Chickadee	*Poecile carolinensis*									x										
Carolina Wren	*Thryothorus ludovicianus*									x										
Cedar Waxwing	*Bombycilla cedrorum*		x												x					
Common Grackle	*Quiscalus quiscula*		x							x	x									
Eastern Bluebird	*Sialia sialis*														x					
Eastern Meadowlark	*Sturnella magna*		x																	
Eastern Phoebe	*Sayornis phoebe*			x																
European Starling	*Sturnus vulgaris*		x																	
Killdeer	*Charadrius vociferus*		x																	
Mourning Dove	*Zenaida macroura*		x												x					
Northern Cardinal	*Cardinalis cardinalis*										x					x				
Northern Flicker	*Colaptes auratus*									x										
Northern Mockingbird	*Mimus polyglottos*										x				x					
Red-bellied woodpecker	*Melanerpes carolinus*										x									
Red-headed Woodpecker	*Melanerpes erythrocephalus*									x										
Red-tailed Hawk	*Buteo jamaicensis*									x										
Tufted Titmouse	*Baeolophus bicolor*									x	x									
White-throated Sparrow	*Zonotrichia albicollis*										x				x					
Spring 2007																				
Blue Jay	*Cyanocitta cristata*		-*		-							x	x	x	x				-	
Carolina Chickadee	*Poecile carolinensis*		-		-						x								-	
Carolina Wren	*Thryothorus ludovicianus*		-		-					x		x	x		x				-	
Common Grackle	*Quiscalus quiscula*		-		-							x							-	
Eastern Kingbird	*Tyrannus tyrannus*		-	x	-														-	
Eastern Towhee	*Pipilo erythrophthalmus*		-		-							x	x						-	
Gray Catbird	*Dumetella carolinensis*		-		-						x								-	
Indigo Bunting	*Passerina cyanea*		-		-	x					x								-	
Northern Cardinal	*Cardinalis cardinalis*		-		-	x					x	x			x				-	
Northern Mockingbird	*Mimus polyglottos*		-		-	x													-	
Red-bellied Woodpecker	*Melanerpes carolinus*		-		-						x								-	
Red-eyed Vireo	*Vireo olivaceus*		-		-									x					-	
Tufted Titmouse	*Baeolophus bicolor*		-		-						x								-	
Unknown Hummingbird	*Trochilidae (family)*		-		-						x			x					-	
Unknown Vireo	*Vireo* sp.		-		-					x									-	
White-eyed Vireo	*Vireo griseus*		-		-							x	x						-	
Yellow Warbler	*Dendroica petechia*		-		-						x								-	
Yellow-rumped Warbler	*Dendroica coronata*		-		-					x									-	

TABLE 2
TERRESTRIAL AVIAN SURVEY RESULTS SUMMARY

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Habitat Type:		Maintained Field									Forested Floodplain						Successional Field					
Location:		EDR-1	EDR-2		EDR-3		REF-1	REF-2	REF-3	EDR-1	EDR-2		EDR-3		REF-1	REF-2	REF-3	EDR-1	EDR-2		EDR-3		REF-1	REF-2	REF-3
Species	**Scientific Name**	**Transect**	1 2 3	1 2 3	1[b] 2 3		1[a]	1	1	1 2 3	1 2 3		1 2 3		1[a]	1	1	1 2 3	1 2 3		1 2 3		1	1	1
Summer 2007																									
Carolina Wren	*Thryothorus ludovicianus*			x									x								-*				
Chimney Swift	*Chaetura pelagica*		x									x			x						-				
Common Grackle	*Quiscalus quiscula*																		x		-				
Common Yellowthroat	*Geothlypis trichas*		x																		-				
Downy Woodpecker	*Picoides pubescens*											x									-				
Eastern Bluebird	*Sialia sialis*			x																	-				
Eastern Phoebe	*Sayornis phoebe*											x									-				
Eastern Towhee	*Pipilo erythrophthalmus*												x								-				
European Starling	*Sturnus vulgaris*		x																		-				
Grey Catbird	*Dumetella carolinensis*														x						-				
Indigo Bunting	*Passerina cyanea*												x		x				x		-				
Mourning Dove	*Zenaida macroura*		x	x											x		x		x		-			x	
Northern Cardinal	*Cardinalis cardinalis*						x					x	x								-				
Northern Mockingbird	*Mimus polyglottos*																x				-				
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*															x					-				
Red-bellied Woodpecker	*Melanerpes carolinus*														x						-				
Red-breasted Nuthatch	*Sitta canadensis*											x									-				
Red-winged Blackbird	*Agelaius phoeniceus*																		x		-				
Ruby-throated Hummingbird	*Archilochus colubris*														x				x		-				
Tree Swallow	*Tachycineta bicolor*																		x		-				
Turkey Vulture	*Cathartes aura*															x					-				

Notes:
General
N/A = Not available
X = Indicates presence during Fall, Winter, Spring, or Summer terrestiral wildlife surveys.
EDR = Ecologically differentiable reach
REF = Reference location
Fall
1. Avian surveys were conducted from October 24 to 27, 2006.
Winter
1. Winter avian surveys were conducted on February 7, 2007.
Spring
1. Spring avian surveys were conducted from May 29 to 30, 2007.
* The "-" symbol is used to indicate that a survey was performed, but no species were observed. Empty boxes indicate that no survey was performed along that particular transect.
[a] = Transect line different from previous investigations.
[b] = Habitat classification was changed from successional to maintained due to a subsequent change in crop planting rotation.
Summer
1. Summer avian surveys were conducted from August 12 to 13, 2007.
* The "-" symbol is used to indicate that a survey was performed, but no species were observed. Empty boxes indicate that no survey was performed along that particular transect.
[a] = Transect line different from previous investigations.

TABLE 3
AVIAN SPECIES MASTER LIST

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Species	Scientific Name
American Crow	*Corvus brachyrhynchos*
American Goldfinch	*Carduelis tristis*
American Kestrel	*Falco sparverius*
American Robin	*Turdus migratorius*
Anhinga	*Anhinga anhinga*
Barn Swallow	*Hirundo rustica*
Barred Owl	*Strix varia*
Belted Kingfisher	*Ceryle alcyon*
Black Vulture	*Coragyps atratus*
Black-throated Green Warbler	*Dendroica virens*
Blue Goose	*Chen caerulescens*
Blue Jay	*Cyanocitta cristata*
Blue-gray Gnatcatcher	*Polioptila caerulea*
Blue-winged Teal	*Anas discors*
Blue-winged Warbler	*Vermivora pinus*
Brown Thrasher	*Toxostoma rufum*
Brownheaded Cowbird	*Molothrus ater*
Canada Goose	*Branta canadensis*
Carolina Chickadee	*Poecile carolinensis*
Carolina Wren	*Thryothorus ludovicianus*
Cedar Waxwing	*Bombycilla cedrorum*
Chimney Swift	*Chaetura pelagica*
Chipping Sparrow	*Spizella passerina*
Common Grackle	*Quiscalus quiscula*
Common Yellowthroat	*Geothlypis trichas*
Cooper's Hawk	*Accipiter cooperii*
Dark-eyed Junco	*Junco hyemalis*
Downy Woodpecker	*Picoides pubescens*
Eastern Bluebird	*Sialia sialis*
Eastern Kingbird	*Tyrannus tyrannus*
Eastern Meadowlark	*Sturnella magna*
Eastern Phoebe	*Sayornis phoebe*
Eastern Towhee	*Pipilo erythrophthalmus*
European Starling	*Sturnus vulgaris*
Field Sparrow	*Spizella pusilla*
Goose spp.	*Anatidae (family)*
Gray Catbird	*Dumetella carolinensis*
Great Blue Heron	*Ardea herodius*
Great Crested Flycatcher	*Myiarchus crinitus*
Great Egret	*Ardea alba*
Greater Yellowlegs	*Tringa melanoleuca*
Green Heron	*Butorides virescens*
Hairy Woodpecker	*Picoides villosus*
Hawk sp.	*Accipitridae (family)*
Hooded Merganser	*Lophodytes cucullatus*
House Finch	*Carpodacus mexicanus*
Indigo Bunting	*Passerina cyanea*
Killdeer	*Charadrius vociferus*
Little Blue Heron	*Egretta caerulea*
Mallard Duck	*Anas platyrhynchos*
Mourning Dove	*Zenaida macroura*
Muscovy	*Cairina moschata*
Northern Cardinal	*Cardinalis cardinalis*

TABLE 3
AVIAN SPECIES MASTER LIST

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Species	Scientific Name
Northern Flicker	*Colaptes auratus*
Northern Harrier	*Circus cyaneus*
Northern Mockingbird	*Mimus polyglottos*
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*
Northern Shoveler	*Anas clypeata*
Orchard Oriole	*Icterus spurius*
Osprey	*Pandion haliaetus*
Owl sp.	*Strigiformes (order)*
Peacock	*Pavo cristatus*
Pileated Woodpecker	*Dryocopus pileatus*
Pine Warbler	*Dendroica pinus*
Prothonotary Warbler	*Protonotaria citrea*
Purple Martin	*Progne subis*
Red-bellied Woodpecker	*Melanerpes carolinus*
Red-breasted Nuthatch	*Sitta canadensis*
Red-eyed Vireo	*Vireo olivaceus*
Red-headed Woodpecker	*Melanerpes erythrocephalus*
Red-shouldered Hawk	*Buteo lineatus*
Red-tailed Hawk	*Buteo jamaicensis*
Red-winged Blackbird	*Agelaius phoeniceus*
Ruby-throated Hummingbird	*Archilochus colubris*
Ruby-crowned Kinglet	*Regulus calendula*
Sharp-shinned Hawk	*Accipiter striatus*
Snowy Egret	*Egretta thula*
Song Sparrow	*Melospiza melodia*
Tree Swallow	*Tachycineta bicolor*
Tufted Titmouse	*Baeolophus bicolor*
Turkey Vulture	*Cathartes aura*
Unknown Hummingbird	*Trochilidae (family)*
Unknown Parid	N/A
Unknown Vireo	*Vireo sp.*
Unkown Empidonax flycatcher	*Empidonax* sp.
White-eyed Vireo	*Vireo griseus*
White-throated Sparrow	*Zonotrichia albicollis*
Wood Duck	*Aix sponsa*
Yellow Warbler	*Dendroica petechia*
Yellow-bellied Sapsucker	*Sphyrapicus varius*
Yellow-rumped Warbler	*Dendroica coronata*

Notes:

1. This list presents all avian species observed during Phase 1 ecological community surveys within OU-4 and the upstream reference areas. Species listed include those documented during the formal avian surveys as well as the species types that were observed during the course of other ecological survey efforts.
N/A = Not available

TABLE 4
WILDLIFE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Habitat Type:	Maintained Field								Forested Floodplain									Successional Field											
		Location:	EDR - 1			EDR - 2			EDR - 3					EDR - 1			EDR - 2			EDR - 3			REF - 1		REF - 2		REF - 3	EDR - 1			EDR - 2			EDR - 3			Ref - 1
Species	**Scientific Name**	**Transect**	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1		1			1	2	3	1	2	3	1	2	3	1
Fall 2006																																						
Beaver	*Castor canadensis*										x																										
Cattle	*Bos taurus*		x	x	x																																
Eastern Chipmunk	*Tamias striatus*																		x					x													
Eastern Cottontail	*Sylvilagus floridanus*																							x				x									
Eastern Coyote	*Canis latrans*																				x							x			x		x			
Gray Squirrel	*Sciurus carolinensis*																		x		x															
Longtail Weasel [a]	*Mustela frenata*										x																										
Whitetail Deer	*Odocoileus virginianus*																				x							x			x					
Woodchuck	*Marmota monax*																											x								
Winter 2007																																						
Armadillo	*Dasypus novemcinctus*																		x																	
Cattle	*Bos taurus*			x			x																														
Eastern Cottontail	*Sylvilagus floridanus*																							x				x									
Eastern Coyote	*Canis latrans*			x																				x				x									
Gray Squirrel	*Sciurus carolinensis*						x						x																								
Racoon	*Procyon lotor*												x																								
Whitetail Deer	*Odocoileus virginianus*			x																																	
Woodchuck	*Marmota monax*																											x									
Spring 2007																																						
Armadillo	*Dasypus novemcinctus*																		x																	
Beaver	*Castor canadensis*																										x									
Cattle	*Bos taurus*			x			x																														
Eastern Cottontail	*Sylvilagus floridanus*																							x													
Gray Squirrel	*Sciurus carolinensis*																		x		x															
Racoon	*Procyon lotor*															x																					
Whitetail Deer	*Odocoileus virginianus*																		x					x													
Summer 2007																																						
Armadillo	*Dasypus novemcinctus*																		x																	
Beaver	*Castor canadensis*																										x									
Bobcat	*Felis rufus*																							x													
Cattle	*Bos taurus*			x			x																														
Eastern Cottontail	*Sylvilagus floridanus*																							x													
Gray Squirrel	*Sciurus carolinensis*																		x		x															
Racoon	*Procyon lotor*															x																					
Whitetail Deer	*Odocoileus virginianus*																		x					x													

Notes:
General
1. Observations on this table were made during terrestrial wildlife surveys. Aquatic survey observations are not included
X = Indicates presence during Fall, Winter, Spring, or Summer terrestrial wildlife surveys
EDR = Ecologically differentiable reach
REF = Reference location
Fall
1. Wildlife surveys were conducted from October 24 to 27, 2006.
a. Field notes recorded observation as a shorttail weasel, but it was changed to longtail based on geographic range
Winter
1. Wildlife surveys were conducted on February 7, 2007.
Spring
1. Wildlife surveys were conducted from May 29 to 30, 2007.
Summer
1. Wildlife surveys were conducted from August 12 to 13, 2007.

TABLE 5
VEGETATION SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Stratum	Common Name	Scientific Name	EDR 1			EDR 2			EDR 3		
			FF	MF	SF	FF	MF	SF	FF	MF	SF
Fall 2006											
Tree	Allegany Chinkapin	*Castanea pumila*				X					
	Ash, green	*Fraxinus pennsylvanica*							X		
	Box Elder	*Acer negundo*	X[d]		X[d]			X	X		
	Cherry	*Prunus* sp.				X		X	X		
	Eastern Hophornbean	*Ostrya virginiana*				X					
	Eastern Red Cedar	*Juniperus virginiana*				X		X			
	Elm	*Ulmus* sp.				X					
	Elm, American	*Ulmus americana*	X		X	X					
	Hickory	*Carya* sp.				X					
	Hickory, shagbark	*Carya laciniosa*				X					
	Honey Locust	*Gleditsia triacanthos*							X		
	Maple, red	*Acer rubrum*				X		X			
	Maple, silver	*Acer saccharinum*	X		X						
	Oak, black/red	*Quercus* sp.	X		X	X					
	Oak, swamp chesnut	*Quercus prinus*							X		
	Paw Paw	*Asimina triloba*				X		X			
	Pecan	*Carya* sp.	X		X						
	Pine, long leaf	*Pinus palustris*				X		X	X		
	Pine, short-leaved	*Pinus echinata*				X					
	Sweetgum	*Liquidambar styrae*	X[d]		X[d]	X		X	X		
	Sycamore	*Platanus occidentalis*	X[d]		X[d]				X		
	Tulip Tree	*Liriodendron tulipifera*							X		
	Water Oak	*Quercus nigra*	X[d]		X[d]	X[d]		X	X		
Shrubs/Vines	Ash, green	*Fraxinus pennsylvanica*							X		
	Black Willow	*Salix nigra*	X[d]		X[d]				X		
	Blackberry	*Rubus* sp.	X		X						
	Buckeye	*Aesculus sp*							X		
	Chinaberry	*Melia azedarach*							X		
	Chinese Privet	*Legustrum sinense*	X[d]		X[d]	X		X	X		
	Common Greenbrier	*Smilax rotundifolia*	X		X	X		X	X		
	Eastern Hophornbean	*Ostrya virginiana*				X			X		
	Eastern Red Cedar	*Juniperus virginiana*							X		
	Japanese Honeysuckle	*Lonicera japonica*	X		X				X		
	Maple, red	*Acer rubrum*				X			X		
	Oak, white	*Quercus alba*							X		
	Paw Paw	*Asimina triloba*							X		
	Poison Ivy	*Rhus radicans*	X		X						
	Sassafras	*Sassafras albidum*							X		
	Silktree Seedling	*Albizia julibrissin*				X					
	Southern Catalpa	*Catalpa bignonioides*				X					
	Sumac	*Rhus* sp.				X					
	Sweetgum	*Liquidambar styrae*							X		

TABLE 5
VEGETATION SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Stratum	Common Name	Scientific Name	EDR 1			EDR 2			EDR 3		
			FF	MF	SF	FF	MF	SF	FF	MF	SF
Herbaceous	Aster	*Aster* sp.				X		X			
	Bamboo	*Banbusa* sp.				X					
	Barley	*Hordeum* sp.				X					
	Bedstraw	*Galium* sp.									X
	Blackberry	*Rubus* sp.					X				
	Bull Rush	*Scirpus* sp.	X		X						
	Cat Tail	*Typha latifolia*	X		X						
	Chinese Lantern Plant	*Physalis alkenkaengi*	X		X						X
	Chinese Privet	*Legustrum sinense*				X					
	Clover Species	*Trifolium* sp.					X				
	Common Clotbur	*Xanthium chinenese*									X
	Common Rush	*Juncus effusus*	X		X						
	Corn	*Zea mays*									X
	Curly Dock	*Rumex crispus*					X				X
	Dandelion	*Taraxacum officinale*									X
	Geranium	*Geranium* sp.									X
	Goldenrod	Solidago sp.	X		X	X		X	X		X
	Grasses	*Poa* sp.	X	X[d]	X	X	X			X[d]	
	Horse Nettle	*Solanum carolinensis*					X				X
	Milo Water Pepper	*Polygonum hydropiperoides*									X
	Morning Glory	*Ipomoea purpurea*									X
	Mustard Seedling	N/A									X
	Poison Ivy	*Rhus radicans*				X					
	Pokeweed	*Phytolacca americana*				X	X				
	Prickly Lettuce	*Lactuca scariola*									X
	Scarlet Morning Glory	*Ipomoea* sp.									X
	Sedge, Shining	*Cyperus* sp.	X		X						
	Sickle Pod	*Arabis canadensis*									X
	Smartweed	*Polygonum* sp.	X		X		X				
	Sorrel	*Oxalis* sp.									X
	Star of Bethlehem	*Ornithogalum* sp.					X				
	Strawberry	*Fragaria* sp.					X				
		Species Diversity Per Transect:	22	1	22	30	9	12	25	1	16
		Species Diversity Per Habitat:									
		Forested Floodplain = 56									
		Maintained Field = 9									
		Successional Field = 42									

Notes:
X = Indicates presence
d = Dominant species
N/A = Not available
EDR = Ecologically differentiable reach
FF = Forested floodplain
MF = Maintained field
SF = Successional field

TABLE 6
SMALL MAMMAL SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Habitat Type:		Maintained Field									Forested Floodplain									Successional Field								
Location:		EDR - 1		EDR - 2		EDR - 3		REF - 1	REF - 2	REF - 3	EDR - 1		EDR - 2		EDR - 3		REF - 1	REF - 2	REF - 3	EDR - 1			EDR - 2		EDR - 3		REF - 1	REF - 2	REF - 3
Species	**Scientific Name**	**Transect**	**1 2 3**	**1 2 3**	**1 2 3**			**1**	**1**	**1**	**1 2 3**		**1 2 3**		**1 2 3**		**1**	**1**	**1**	**1 2 3**			**1[a] 2 3**		**1 2 3**		**1**	**1**	**1**
Fall 2006																													
House Mouse	*Mus musculus*		0 1		0 0						0 0		0		0 0					1 0 0			0		0				
Hispid Cotton Rat	*Sigmodon hispidus*		1 1		0 0						0 0		0		0 0					2 3 0			1		0				
Harvest Mouse	*Reithrodontomys humulis*		1 0		1 2						0 0		0		0 0					0 0 0			0		6				
Cotton Mouse	*Peromyscus gossypinus*		0 0		0 0						1 2		1		1 1					0 1 1			0		0				
Eastern Wood Rat	*Neotoma floridana*		0 0		0 0						0 0		0		0 0					0 0 1			0		0				
Rice Rat	*Oryzomys palustris*		0 0		0 0						0 1		0		0 0					0 0 0			0		0				
Shorttail Shrew	*Blarina brevicauda*		0 0		0 1						0 0		0		0 0					0 0 0			0		0				
	Total Organisms:		2 2		1 3						1 3		1		1 1					3 4 2			1		6				
Winter 2007																													
Cotton Mouse	*Peromyscus gossypinus*				0 5						0		3							0			0						
Harvest Mouse	*Reithrodontomys humulis*				1 0						0		1							1			0						
Hispid Cotton Rat	*Sigmodon hispidus*				0 0						0		0							1			0						
House Mouse	*Mus musculus*				0 0						0		0							1			0						
Shorttail Shrew	*Blarina brevicauda*				0 1						0		0							0			0						
White-footed Mouse	*Preomyscus leucopus*				0 1						0		0							0			0						
	Total Organisms:				1 7						0		4							3			0						
Spring 2007																													
Cotton Mouse	*Peromyscus gossypinus*				0 0		0		0		0		0				0	0		3			0				0	0	
Deer Mouse	*Peromyscus maniculatus*				0 0		0		0		0		4				0	1		0			0				0	0	
Golden Mouse	*Peromyscus nuttalli*				0 0		0		0		0		0				1	0		0			0				0	0	
Harvest Mouse	*Reithrodontomys humulis*				0 2		0		0		0		0				0	0		0			0				0	0	
Hispid Cotton Rat	*Sigmodon hispidus*				0 0		0		1		0		0				0	0		1			0				1	0	
House Mouse	*Mus musculus*				0 0		0		0		0		1				0	0		0			0				0	3	
Norway Rat	*Rattus norvegicus*				0 0		0		3		0		0				0	0		0			1				0	0	
White-footed Mouse	*Preomyscus leucopus*				3 0		0		0		0		0				0	0		0			0				0	0	
	Total Organisms:				3 2		0		4		0		5				1	1		4			1				1	3	

Notes:
General
EDR = Ecologically differentiable reach
REF = Reference location
Fall
1. Only one successional field transect was set in EDR 3.
2. A total of 25 traplines (consisting of 25 traps each) were set in the three habitat types for a total of 625 trap nights
3. Small mammal surveys were conducted from October 24 to November 1, 2006.
Winter
1. A total of 6 traplines (consisting of 25 traps each) were set in the three habitat types for a total of 150 trap nights
2. Small mammal surveys were conducted from February 6 to 7, 2007.
Spring
1. A combined total of 12 traplines (consisting of 25 traps each) were set in the three habitat types for a total of 300 trap nights. Six of the traplines were set in the EDRs for a total of 150 trap nights; the remaining 6 traplines were set in the reference locations for a total of 150 trap nights
2. Small mammal surveys were conducted from May 15 to 18, 2007.

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
Fall 2006							
10_25_06	1	Swallows	10	Sight	Riffle (under bridge)	33°36.026'	85°49.691'
10_25_06	1	Great Blue Heron	N/A	Tracks	Depositional Bank/Bar	33°36.007'	85°49.691'
10_25_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°35.862'	85°49.837'
10_25_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°35.848'	85°49.838'
10_25_06	1	Kingfisher	N/A	Burrows	Eroded Bank	33°35.820'	85°49.847'
10_25_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°35.820'	85°49.847'
10_25_06	1	Muskrat	N/A	Burrows	Depositional Bank/Bar	33°35.794'	85°49.811'
10_25_06	1	Cattle	N/A	Tracks	Depositional Bank/Bar	33°35.786'	85°49.793'
10_25_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°35.786'	85°49.793'
10_25_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°35.786'	85°49.793'
10_25_06	1	Woodchuck	N/A	Burrows	Eroded Bank	33°35.786'	85°49.793'
10_25_06	1	Cattle	N/A	Tracks	Depositional Bank/Bar	33°35.776'	85°49.696'
10_25_06	1	Swallow/Kingfisher	N/A	Burrows	Eroded Bank	33°35.756'	85°49.700'
10_25_06	1	Woodchuck	N/A	Burrows	Eroded Bank	33°35.756'	85°49.700'
10_25_06	1	Beaver	N/A	Chews	Run	33°35.650'	85°49.772'
10_25_06	1	Cattle	N/A	Tracks	Depositional Bank/Bar	33°35.450'	85°49.928'
10_25_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°35.450'	85°49.928'
10_25_06	1	Great Blue Heron	1	Sight	Depositional Bank (Deadfall)	33°35.423'	85°49.966'
10_25_06	1	Beaver	N/A	Slides	Eroded Bank	33°35.350'	85°50.011'
10_25_06	1	Robins	5	Sight	Island	33°35.350'	85°50.011'
10_25_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°35.340'	85°50.042'
10_25_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°35.340'	85°50.042'
10_25_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°35.304'	85°50.080'
10_25_06	1	Deer	N/A	Tracks	Depositional Bank/Bar	33°35.304'	85°50.080'
10_25_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°35.304'	85°50.080'
10_25_06	1	Great Blue Heron	N/A	Tracks	Depositional Bank/Bar	33°35.304'	85°50.080'
10_25_06	1	Beaver	N/A	Slide/Chews	Depositional Bank/Bar	33°35.253'	85°50.137'
10_25_06	1	Great Blue Heron	1	Sight	Run	33°35.253'	85°50.137'
10_25_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°35.253'	85°50.137'
10_25_06	1	Beaver	N/A	Slides	Eroded Bank	33°35.230'	85°50.216'
10_25_06	1	Wood Duck	3	Sight	Run	33°35.232'	85°50.272'
10_25_06	1	Beaver	N/A	Tracks	Run	33°35.232'	85°50.272'
10_25_06	1	Great Blue Heron	N/A	Tracks	Run	33°35.232'	85°50.272'
10_25_06	1	Beaver	N/A	Slide	Depositional Bank/Bar	33°35.209'	85°50.431'
10_25_06	1	Kingfisher	1	Sight	Deadfall	33°35.209'	85°50.431'
10_25_06	1	Deer	N/A	Tracks	Island	33°35.176'	85°50.554'
10_25_06	1	Kingfisher	N/A	Burrows	Eroded Bank	33°35.170'	85°50.592'
10_25_06	1	Great Blue Heron	N/A	Tracks	Depositional Bank/Bar	33°35.121'	85°50.721'
10_25_06	1	Beaver	N/A	Slides/Burrows	Depositional Bank/Bar	33°35.121'	85°50.721'
10_26_06	1	Beaver	N/A	Tracks	Depositional Bank/Bar	33°35.026'	85°51.219'
10_26_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°35.026'	85°51.219'
10_26_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°35.026'	85°51.219'
10_26_06	1	Chipmunk	N/A	Tracks	Depositional Bank/Bar	33°35.026'	85°51.219'
10_26_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°34.972'	85°51.149'
10_26_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°34.972'	85°51.149'
10_26_06	1	Beaver	N/A	Slides	Eroded Bank	33°34.996'	85°51.254'
10_26_06	1	Raccoon	N/A	Tracks	Backwater Habitat	33°34.868'	85°51.318'
10_26_06	1	Beaver	N/A	Tracks	Backwater Habitat	33°34.868'	85°51.318'
10_26_06	1	Deer	N/A	Tracks	Backwater Habitat	33°34.868'	85°51.318'
10_26_06	1	Muskrat	N/A	Tracks	Backwater Habitat	33°34.868'	85°51.318'
10_26_06	1	Deer	N/A	Tracks	Depositional Bank/Bar	33°34.867'	85°51.403'
10_26_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°34.867'	85°51.403'
10_26_06	1	Beaver	N/A	Tracks	Depositional Bank/Bar	33°34.867'	85°51.403'
10_26_06	1	Coyote	N/A	Tracks	Depositional Bank/Bar	33°34.867'	85°51.403'
10_26_06	1	Beaver	N/A	Chews	Eroded Bank	33°34.825'	85°51.561'
10_26_06	1	Red-headed Woodpecker	1	Sight	Overhang	33°34.825'	85°51.561'
10_26_06	1	Deer	N/A	Tracks	Oxbow Backwater	33°34.718'	85°51.684'
10_26_06	1	Raccoon	N/A	Tracks	Oxbow Backwater	33°34.718'	85°51.684'
10_26_06	1	Beaver	N/A	Slides	Adjacent to Airport Property	33°34.694'	85°51.891'
10_26_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°34.654'	85°51.956'
10_26_06	1	Beaver	N/A	Tracks	Depositional Bank/Bar	33°34.654'	85°51.956'
10_26_06	1	Common Map Turtle	1	Sight	Deadfall	33°34.641'	85°51.901'
10_26_06	1	Wood Duck	N/R	Sight	Run	33°34.641'	85°51.901'

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
10_26_06	1	Red-tailed Hawk	2	Sight	Depositional Bank/Bar	33°34.595'	85°52.101'
10_26_06	1	Beaver	N/A	Tracks	Depositional Bank/Bar	33°34.595'	85°52.101'
10_26_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°34.595'	85°52.101'
10_26_06	1	Beaver	N/A	Tracks	Depositional Bank/Bar	33°34.579'	85°52.214'
10_26_06	1	River Cooter	1	Sight	Run	33°34.541'	85°52.324'
10_26_06	1	Deer	N/A	Tracks	Depositional Bank/Bar	33°34.525'	85°52.318'
10_26_06	1	Domestic Dog	N/A	Tracks	Depositional Bank/Bar	33°34.525'	85°52.318'
10_26_06	1	Kingfisher	N/A	Burrows	Eroded Bank	33°34.487'	85°52.367'
10_26_06	1	Deer	N/A	Tracks	Depositional Bank/Bar	33°34.502'	85°52.405'
10_26_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°34.502'	85°52.405'
10_26_06	1	Beaver	N/A	Tracks	Depositional Bank/Bar	33°34.573'	85°52.503'
10_26_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°34.573'	85°52.503'
10_26_06	1	Deer	N/A	Tracks	Depositional Bank/Bar	33°34.573'	85°52.503'
10_26_06	1	Beaver	N/A	Lodge	Bank	33°34.578'	85°52.596'
10_26_06	1	Kingfisher	1	Sight	Overhang	33°34.578'	85°52.596'
10_26_06	1	Great Blue Heron	N/A	Tracks	Depositional Bank/Bar	33°34.595'	85°52.658'
10_26_06	1	Common Map Turtle	2	Sight	Deadfall	33°34.516'	85°52.743'
10_26_06	1	Deer	N/A	Tracks	Depositional Bank/Bar	33°34.448'	85°52.928'
10_26_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°34.448'	85°52.928'
10_26_06	1	Muskrat	1	Sight	Depositional Bank/Bar	33°34.480'	85°52.965'
10_26_06	1	Cattle	N/A	Tracks/Access	Shallows	33°34.483'	85°53.019'
10_26_06	1	Beaver	N/A	Tracks	Depositional Bank/Bar	33°34.519'	85°53.131'
10_26_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°34.519'	85°53.131'
10_26_06	1	Great Blue Heron	N/A	Tracks	Depositional Bank/Bar	33°34.519'	85°53.131'
10_26_06	1	Red-tailed Hawk	1	Sight	Depositional Bank/Bar	33°34.519'	85°53.131'
10_26_06	1	Red-shouldered Hawk	1	Sight	Depositional Bank/Bar	33°34.519'	85°53.131'
10_26_06	1	Beaver	N/A	Slides	Bank Slope	33°34.542'	85°53.298'
10_26_06	1	Deer	3	Sight	Depositional Bank/Bar	33°34.601'	85°33.410'
10_26_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°34.591'	85°53.642'
10_26_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°34.591'	85°53.642'
10_26_06	1	Beaver	N/A	Den (hole)	Bank Slope	33°34.614'	85°53.698'
10_26_06	1	Common Map Turtle	3	Sight	Deadfall	33°34.528'	85°53.805'
10_26_06	1	Kingfisher	N/A	Burrows	Overhang	33°34.507'	85°53.862'
10_26_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°34.615'	85°53.929'
10_26_06	1	Beaver	N/A	Tracks	Bank	33°34.615'	85°53.929'
10_26_06	1	Wood Duck	8	Sight	River	33°34.744'	85°53.945'
10_26_06	1	Kingfisher	N/A	Burrows	Eroded Bank	33°34.830'	85°54.004'
10_26_06	1	Deer	N/A	Tracks	Island Depositional Bar	33°35.027'	85°53.963'
10_26_06	1	Common Map Turtle	1	Sight	Deadfall	33°35.060'	85°54.087'
10_26_06	1	Cattle		Sight	Stream	33°34.997'	85°54.221'
10_26_06	1	Kingfisher	1	Sight	Deadfall	33°34.976'	85°54.305'
10_30_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°34.787'	85°54.445'
10_30_06	1	Chipmunk	N/A	Tracks	Depositional Bank/Bar	33°34.787'	85°54.445'
10_30_06	1	Domestic Dog	N/A	Tracks	Depositional Bank/Bar	33°34.787'	85°54.445'
10_30_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°34.769'	85°54.622'
10_30_06	1	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°34.769'	85°54.622'
10_30_06	1	Kingfisher	1	Sight	Depositional Bank/Bar	33°34.769'	85°54.622'
10_30_06	1	Wood Duck	2	Sight	Run	33°34.769'	85°54.622'
10_30_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°34.753'	85°54.697'
10_30_06	1	Turkey	N/A	Tracks	Depositional Bank/Bar	33°34.774'	85°54.832'
10_30_06	1	Longtail Weasel	N/A	Tracks	Depositional Bank/Bar	33°34.774'	85°54.832'
10_30_06	1	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°34.774'	85°54.832'
10_30_06	1	Mink	N/A	Tracks	Depositional Bank/Bar	33°34.774'	85°54.832'
10_30_06	1	Common Map Turtle	2	Sight	Deadfall	33°34.774'	85°54.832'
10_30_06	1	Muskrat	N/A	Tracks	Backwater	33°34.820'	85°54.964'
10_30_06	2	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°34.741'	85°55.021'
10_30_06	2	Kingfisher	2	Sight	Overhang	33°34.452'	85°55.364'
10_30_06	2	Great Blue Heron	1	Sight	Riffle	33°34.452'	85°55.364'
10_30_06	2	Great Blue Heron	3	Sight	Overhang	33°34.308'	85°55.523'
10_30_06	2	Muskrat	N/A	Tracks/Burrows	Bank Slope	33°34.239'	85°55.812'
10_30_06	2	Beaver	N/A	Tracks	Bank Slope	33°34.239'	85°55.812'
10_30_06	2	River Cooter	1	Sight	Bank	33°33.809'	85°56.043'
10_30_06	2	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°33.809'	85°56.043'

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
10_30_06	2	Kingfisher	N/A	Sight	Overhang	33°33.809'	85°56.043'
10_30_06	2	Beaver	N/A	Tracks	Depositional Bank/Bar	33°33.708'	85°56.437'
10_30_06	2	Great Blue Heron	N/A	Tracks	Depositional Bank/Bar	33°33.708'	85°56.437'
10_30_06	2	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°33.708'	85°56.437'
10_31_06	2	Beaver	N/A	Tracks	Depositional Bank/Bar	33°33.756'	85°56.582'
10_31_06	2	Red-headed Woodpecker	2	Sight	Snags	33°33.756'	85°56.582'
10_31_06	2	Great Blue Heron	1	Sight	Run	33°33.813'	85°56.737'
10_31_06	2	Muskrat	1	Sight	Run	33°33.908'	85°56.826'
10_31_06	2	Cooper's Hawk	1	Sight	Riparian Corridor	33°33.908'	85°56.826'
10_31_06	2	Great Blue Heron	1	Sight	Run	33°34.100'	85°56.925'
10_31_06	2	Red-shouldered Hawk	2	Sight	Riparian Corridor	33°34.100'	85°56.925'
10_31_06	2	Kingfisher	N/A	Burrows	Bank Slope	33°34.100'	85°56.925'
10_31_06	2	Beaver	N/A	Tracks	Depositional Bank/Bar	33°34.032'	85°57.208'
10_31_06	2	Wood Duck	8	Sight	Run	33°34.007'	85°57.259'
10_31_06	2	Beaver	N/A	Tracks	Depositional Bank/Bar	33°33.937'	85°57.344'
10_31_06	2	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°33.937'	85°57.344'
10_31_06	2	Great Blue Heron	2	Sight	Run	33°33.883'	85°57.422'
10_31_06	2	Beaver	N/A	Chews	Depositional Bank/Bar	33°33.810'	85°57.621'
10_31_06	2	Cattle	N/A	Tracks	Depositional Bank/Bar	33°33.797'	85°57.759'
10_31_06	2	Beaver	N/A	Tracks	Depositional Bank/Bar	33°33.797'	85°57.759'
10_31_06	2	Mussel	N/A	Tracks	Depositional Bank/Bar	33°33.797'	85°57.759'
10_31_06	2	Mallard Duck	4	Sight	Run	33°33.792'	85°57.972'
10_31_06	2	River Cooter	N/R	Sight	Run	33°33.792'	85°57.972'
10_31_06	2	Beaver	N/A	Tracks/Chew	Backwater Cut	33°33.698'	85°58.067'
10_31_06	2	Sharpshin Hawk	1	Sight	Overhang	33°33.426'	85°58.509'
10_31_06	2	Wood Duck	N/R	Sight	Backwater Cut	33°33.131'	85°58.380'
10_31_06	2	Kingfisher	1	Sight	Riffle Habitat	33°33.257'	85°59.009'
10_31_06	2	Beaver	N/A	Tracks	Depositional Bank/Bar	33°33.190'	85°59.071'
10_31_06	2	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°33.190'	85°59.071'
10_31_06	2	Domestic Dog	N/A	Tracks	Depositional Bank/Bar	33°33.190'	85°59.071'
10_31_06	2	Domestic Cat	N/A	Tracks	Depositional Bank/Bar	33°33.190'	85°59.071'
10_31_06	2	Beaver	N/A	Slides	Bank	33°33.158'	85°59.393'
10_31_06	2	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°32.842'	85°59.397'
10_31_06	2	Common Map Turtle	1	Sight	Deadfall	33°32.651'	85°59.358'
10_31_06	2	Great Blue Heron	1	Sight	Deadfall	33°32.651'	85°59.358'
10_31_06	2	Beaver	N/A	Dam	Small Tributary	33°32.568'	85°59.328'
10_31_06	2	Common Map Turtle	N/R	Sight	Logs	33°32.493'	85°59.474'
10_31_06	2	Beaver	N/A	Slides	Bank	33°32.493'	85°59.474'
10_31_06	2	Turtle	N/A	Nest	Island Bar	33°32.546'	85°59.499'
10_31_06	2	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°32.546'	85°59.731'
10_31_06	2	Beaver	N/A	Tracks	Depositional Bank/Bar	33°32.546'	85°59.731'
10_31_06	2	Great Blue Heron	1	Sight	Deadfall	33°32.546'	85°59.731'
10_31_06	2	Great Blue Heron	1	Sight	SAV (alligator weed)	33°32.472'	85°59.795'
10_31_06	2	Beaver	N/A	Dam	Run	33°32.472'	85°59.795'
10_31_06	2	Deer	N/A	Tracks	Bank	33°32.695'	85°59.832'
10_31_06	3	Kingfisher	1	Sight	Power lines Below Bridge	33°33.160'	86°00.416'
10_31_06	3	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°33.230'	86°00.492'
10_31_06	3	Beaver	N/A	Tracks	Depositional Bank/Bar	33°33.370'	86°00.612'
10_31_06	3	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°33.370'	86°00.612'
10_31_06	3	Wood Duck	1	Sight	Backwater Cut	33°33.647'	86°00.771'
10_31_06	3	Deer	N/A	Tracks	Backwater Cut	33°33.585'	86°00.920'
10_31_06	3	Cooper's Hawk	1	Sight	Backwater Cut	33°33.585'	86°00.920'
10_31_06	3	Domestic Dog	N/A	Tracks	Backwater Cut	33°33.585'	86°00.920'
10_31_06	3	Kingfisher	N/A	Burrows	Depositional Bank/Bar	33°33.320'	86°00.790'
10_31_06	3	Beaver	N/A	Slides	Depositional Bank/Bar	33°33.320'	86°00.790'
10_31_06	3	Great Blue Heron	1	Sight	SAV (alligator weed)	33°33.212'	86°00.841'
10_31_06	3	Beaver	N/A	Runs	Bank	33°33.212'	86°00.841'
10_31_06	3	Muskrat	N/A	Forage	Depositional Island	33°33.212'	86°00.841'
10_31_06	3	Mink	N/A	Tracks	Depositional Bank/Bar	33°33.089'	86°01.052'
10_31_06	3	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°33.089'	86°01.052'
10_31_06	3	Great Blue Heron	1	Sight	Deadfall	33°33.152'	86°01.301'
10_31_06	3	Kingfisher	1	Sight	Overhang	33°33.152'	86°01.301'
10_31_06	3	Beaver	N/A	Tracks	Depositional Bank/Bar	33°33.152'	86°01.301'

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
10_31_06	3	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°33.276'	86°01.520'
10_31_06	3	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°33.276'	86°01.520'
10_31_06	3	Mink	N/A	Tracks	Depositional Bank/Bar	33°33.198'	86°01.844'
10_31_06	3	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°33.198'	86°01.844'
10_31_06	3	Kingfisher	1	Sight	Overhang	33°33.198'	86°01.844'
10_31_06	3	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°33.086'	86°02.105'
10_31_06	3	Beaver	N/A	Tracks	Depositional Bank/Bar	33°33.086'	86°02.105'
10_31_06	3	Kingfisher	1	Sight	Overhang	33°33.086'	86°02.105'
10_31_06	3	Great Blue Heron	1	Sight	Overhang	33°33.086'	86°02.105'
10_31_06	3	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°32.942'	86°02.143'
10_31_06	3	Beaver	N/A	Tracks	Depositional Bank/Bar	33°32.942'	86°02.143'
10_31_06	3	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°32.798'	86°02.164'
10_31_06	3	Cattle	N/A	Tracks	Depositional Bank/Bar	33°32.674'	86°02.500'
11_01_06	3	Muskrat	N/A	Tracks	Depositional Bank/Bar	33°32.494'	86°02.791'
11_01_06	3	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°32.494'	86°02.791'
11_01_06	3	Great Blue Heron	N/A	Tracks	Depositional Bank/Bar	33°32.494'	86°02.791'
11_01_06	3	Beaver	1	Sight	Bank	33°32.404'	86°02.902'
11_01_06	3	Wood Duck	N/R	Sight	Run	33°32.305'	86°03.005'
11_01_06	3	Cattle	N/A	Access	Bank	33°32.409'	86°03.496'
11_01_06	3	Red-shouldered Hawk	1	Sight	Floodplain	33°32.560'	86°03.578'
11_01_06	3	Wood Duck	1	Sight	Run	33°32.560'	86°03.578'
11_01_06	3	Great Blue Heron	1	Sight	Run	33°32.560'	86°03.578'
11_01_06	3	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°32.560'	86°03.578'
11_01_06	3	Red-tailed Hawk	1	Sight	Floodplain	33°32.642'	86°03.618'
11_01_06	3	Beaver	1	Sight	Floodplain	33°32.642'	86°03.618'
11_01_06	3	Raccoon	N/A	Tracks	Depositional Bank/Bar	33°32.721'	86°03.881'
11_01_06	3	Beaver	N/A	Tracks	Depositional Bank/Bar	33°32.721'	86°03.881'
11_01_06	3	Great Blue Heron	1	Sight	Deadfall	33°32.378'	86°03.838'
11_01_06	3	Raccoon	1	Sight	Floodplain	33°32.454'	86°04.219'
11_01_06	3	Anhinga	1	Sight	Overhang	33°32.854'	86°04.293'
11_01_06	3	Raccoon	N/A	Tracks	Backwater Habitat	33°33.187'	86°04.612'
11_01_06	3	Beaver	N/A	Tracks	Backwater Habitat	33°33.187'	86°04.612'
11_01_06	3	Beaver	1	Sight	Bank	33°33.178'	86°04.711'
11_01_06	3	Kingfisher	1	Sight	Overhang	33°33.178'	86°04.711'
Winter 2007							
2_6_07	1	Great Blue Heron	N/A	Tracks	Depositional	33° 34' 55"	85° 54' 22"
2_6_07	1	Muskrat	N/A	Tracks	Depositional	33° 34' 55"	85° 54' 22"
2_6_07	1	Beaver	N/A	Tracks	Depositional	35° 34' 50"	85° 54' 24"
2_6_07	1	Raccoon	N/A	Tracks	Depositional	35° 34' 50"	85° 54' 24"
2_6_07	1	King Fisher	1	Sight	Stream Canopy	35° 34' 50"	85° 54' 24"
2_7_07	1	Opossum	N/A	Tracks	Run	33° 32' 40"	86° 2' 30"
2_7_07	1	Raccoon	N/A	Tracks	Run	33° 32' 40"	86° 2' 30"
2_7_07	1	Beaver	N/A	Tracks	Run	33° 32' 40"	86° 2' 30"
2_7_07	1	Muskrat	N/A	Sign	Run	33° 35' 56"	85° 49' 46"
2_7_07	1	Muskrat	N/A	Tracks	Run	33° 35' 51"	85° 49' 51"
2_7_07	1	Great Blue Heron	1	Sight	Run	33° 35' 51"	85° 49' 51"
2_7_07	1	Kingfisher	N/A	Sign	Run	33° 35' 51"	85° 49' 51"
2_7_07	1	Livestock	N/A	Sight	Run	33° 35' 47"	85° 49' 48"
2_7_07	1	Great Blue Heron	N/A	Tracks	Run	33° 35' 47"	85° 49' 48"
2_7_07	1	Muskrat	N/A	Tracks	Run	33° 35' 47"	85° 49' 48"
2_7_07	1	Wood Duck	N/A	Sight	Run	33° 35' 27"	85° 49' 57"
2_7_07	1	Great Blue Heron	1	Sight	Run	33° 35' 27"	85° 49' 57"
2_7_07	1	Beaver	N/A	Sign	Run	33° 35' 16"	85° 50' 7"
2_7_07	1	Wood Duck	2	Sight	Run	33° 35' 16"	85° 50' 7"
2_7_07	1	Muskrat	N/A	Tracks	Run	33° 35' 16"	85° 50' 7"
2_7_07	1	Mink	N/A	Tracks	Run	33° 35' 14"	85° 50' 15"
2_7_07	1	Muskrat	N/A	Tracks	Run	33° 35' 14"	85° 50' 15"
2_7_07	1	Raccoon	N/A	Tracks	Run	33° 35' 14"	85° 50' 15"
2_7_07	1	Kingfisher	1	Sight	Run	33° 35' 13"	85° 50' 26"
2_7_07	1	Wood Duck	2	Sight	Run	33° 35' 13"	85° 50' 26"
2_7_07	1	Great Blue Heron	N/A	Tracks	Run	33° 35' 11"	85° 50' 36"
2_7_07	1	Great Blue Heron	2	Sight	Run	33° 35' 11"	85° 50' 36"
2_7_07	1	Beaver	N/A	Sign	Run	33° 35' 7"	85° 50' 40"
2_7_07	1	Kingfisher	1	Sight	Run	33° 35' 7"	85° 50' 47"
2_7_07	1	Muskrat	N/A	Tracks	Run	33° 35' 5"	85° 50' 54"
2_7_07	1	Beaver	N/A	Tracks	Run	33° 35' 5"	85° 50' 54"
2_8_07	1	Muskrat	N/A	Tracks	Run	33° 34' 47"	85° 54' 26"

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
2_8_07	1	Beaver	N/A	Tracks	Run	33° 34' 47"	85° 54' 26"
2_8_07	1	Raccoon	N/A	Tracks	Run	33° 34' 47"	85° 54' 26"
2_8_07	1	Grey Fox	N/A	Tracks	Run	33° 34' 47"	85° 54' 26"
2_8_07	1	Mink	N/A	Tracks	Run	33° 34' 47"	85° 54' 33"
2_8_07	1	Beaver	N/A	Sign	Run	33° 34' 47"	85° 54' 33"
2_8_07	1	Raccoon	N/A	Tracks	Run	33° 34' 47"	85° 54' 33"
2_8_07	1	Beaver	N/A	Sign	Run	33° 34' 47"	85° 54' 50"
2_8_07	1	Red-shouldered Hawk	2	Sight	Stream Canopy	33° 34' 48"	85° 54' 57"
2_8_07	1	Raccoon	N/A	Tracks	Run	33° 34' 48"	85° 54' 57"
2_8_07	2	Hooded Merganser	2	Sight	Run	33° 34' 40"	85° 55' 9"
2_8_07	2	Great Blue Heron	1	Sight	Run	33° 34' 40"	85° 55' 9"
2_8_07	2	Wood Ducks	2	Sight	Run	33° 34' 40"	85° 55' 9"
2_8_07	2	Beaver	N/A	Sign	Run	33° 34' 15"	85° 55' 48"
2_8_07	2	Great Blue Heron	1	Sight	Run	33° 34' 15"	85° 55' 48"
2_8_07	2	Hooded Merganser	2	Sight	Run	33° 34' 15"	85° 55' 48"
2_8_07	2	Muskrat	N/A	Sign	Run	33° 34' 15"	85° 55' 48"
2_8_07	2	Kingfisher	1	Sight	Run	33° 34' 15"	85° 56' 3"
2_8_07	2	Red-tailed Hawk	1	Sight	Stream Canopy	33° 34' 4"	85° 56' 4"
2_8_07	2	Beaver	N/A	Tracks	Run	33° 34' 3"	85° 56' 4"
2_8_07	2	Muskrat	N/A	Tracks	Run	33° 34' 3"	85° 56' 4"
2_8_07	2	Beaver	N/A	Sign	Run	33° 33' 41"	85° 56' 18"
2_7_07	2	Muskrat	N/A	Sign	Bank	33° 33' 44"	85° 56' 32"
2_7_07	2	Beaver	N/A	Tracks	Bank	33° 33' 44"	85° 56' 32"
2_7_07	2	Wood Duck	17	Sight	Run	33° 33' 59"	85° 56' 52"
2_7_07	2	Raccoon	N/A	Tracks	Backwater	33° 34' 6"	85° 56' 48"
2_7_07	2	Kingfisher	N/A	Sign	Run	33° 34' 3"	85° 56' 39"
2_7_07	2	Beaver	N/A	Sign	Bank	33° 34' 3"	85° 56' 39"
2_7_07	2	Muskrat	N/A	Tracks	Run	33° 34' 9"	85° 56' 38"
2_7_07	2	Beaver	N/A	Sign	Run	33° 34' 9"	85° 56' 38"
2_7_07	2	Red-shouldered Hawk	2	Sight	Stream Canopy	33° 34' 12"	85° 57' 0"
2_7_07	2	Muskrat	N/A	Tracks	Run	33° 34' 6"	85° 57' 6"
2_7_07	2	Beaver	N/A	Tracks	Run	33° 34' 6"	85° 57' 6"
2_7_07	2	Wood Duck	10	Sight	Run	33° 33' 56"	85° 57' 21"
2_7_07	2	Beaver	N/A	Sign	Run	33° 33' 56"	85° 57' 21"
2_7_07	2	Turkey Vulture	1	Sight	Stream Canopy	33° 33' 56"	85° 57' 21"
2_7_07	2	Muskrat	N/A	Sign	Run	33° 33' 50"	85° 57' 29"
2_7_07	2	Red-shouldered Hawk	1	Sight	Run	33° 33' 48"	85° 57' 36"
2_7_07	2	Mallard Duck	5	Sight	Run	33° 33' 46"	85° 57' 51"
2_7_07	2	Raccoon	N/A	Tracks	Run	33° 33' 48"	85° 58' 4"
2_7_07	2	Wood Duck	2	Sight	Run	33° 33' 48"	85° 58' 4"
2_7_07	2	Mallard Duck	4	Sight	Run	33° 33' 37"	85° 58' 4"
2_7_07	2	Red-shouldered Hawk	2	Sight	Stream Canopy	33° 33' 31"	85° 58' 22"
2_7_07	2	Red-shouldered Hawk	1	Sight	Stream Canopy	33° 33' 13"	85° 58' 53"
2_7_07	2	Beaver	N/A	Sign	Run	33° 33' 13"	85° 58' 53"
2_7_07	2	Beaver	N/A	Sign	Run	33° 33' 11"	85° 59' 18"
2_7_07	2	Muskrat	N/A	Sign	Run	33° 33' 11"	85° 59' 18"
2_7_07	2	Ruby-throated Hummingbird	N/A	Sign	Stream Canopy	33° 33' 11"	85° 59' 18"
2_7_07	2	Red-shouldered Hawk	N/A	Sign	Stream Canopy	33° 33' 11"	85° 59' 18"
2_7_07	2	Muskrat	N/A	Sign	Run	33° 32' 51"	85° 59' 24"
2_7_07	2	Wood Duck	10	Sight	Run	33° 32' 43"	85° 59' 23"
2_7_07	2	Beaver	N/A	Sign	Run	33° 32' 34"	85° 59' 20"
2_7_07	2	Turtle	7	Sight	Run	33° 32' 29"	85° 59' 27"
2_7_07	2	Mallard Duck	2	Sight	Run	33° 32' 29"	85° 59' 48"
2_7_07	2	Wood Duck	2	Sight	Run	33° 32' 29"	85° 59' 48"
2_7_07	2	Beaver	N/A	Sign	Run	33° 32' 29"	85° 59' 48"
2_7_07	2	Kingfisher	1	Sight	Run	33° 32' 31"	85° 59' 52"
2_7_07	2	Kingfisher	1	Sight	Riffle	33° 32' 49"	85° 59' 51"
2_7_07	3	Great Blue Heron	1	Sight	Run	33° 32' 55"	85° 59' 54"
2_7_07	3	Wood Duck	2	Sight	Run	33° 32' 55"	85° 59' 54"
2_7_07	3	Muskrat	N/A	Tracks	Run	33° 32' 55"	85° 59' 54"
2_7_07	3	Mallard Duck	3	Sight	Run	33° 32' 55"	85° 59' 54"
2_7_07	3	Raccoon	N/A	Tracks	Run	33° 32' 55"	85° 59' 54"
2_7_07	3	Snapping Turtle	1	Sight	Run	33° 33' 16"	86° 0' 31"
2_7_07	3	Common Map Turtle	3	Sight	Run	33° 33' 20"	86° 0' 34"
2_7_07	3	Mallard Duck	2	Sight	Run	33° 33' 38"	86° 0' 45"
2_7_07	3	Kingfisher	N/A	Sign	Riffle	33° 33' 46"	86° 0' 52"
2_7_07	3	Beaver	N/A	Sign	Run	33° 34' 0"	86° 1' 5"
2_7_07	3	Raccoon	N/A	Tracks	Run	33° 34' 0"	86° 1' 5"
2_7_07	3	Beaver	N/A	Tracks	Run	33° 34' 0"	86° 1' 5"

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
2_7_07	3	Muskrat	N/A	Tracks	Run	33° 34' 0"	86° 1' 5"
2_7_07	3	Whitetail Deer	1	Tracks	Run	33° 34' 0"	86° 1' 5"
2_7_07	3	Muskrat	N/A	Tracks	Run	33° 33' 18"	86° 0' 47"
2_7_07	3	Beaver	N/A	Tracks	Run	33° 33' 18"	86° 0' 47"
2_7_07	3	Wood Duck	4	Sight	Run	33° 33' 18"	86° 0' 47"
2_7_07	3	Common Map Turtle	1	Sight	Run	33° 33' 6"	86° 0' 58"
2_7_07	3	Wood Duck	4	Sight	Run	33° 33' 6"	86° 0' 58"
2_7_07	3	Raccoon	1	Tracks	Run	33° 33' 5"	86° 1' 3"
2_7_07	3	Great Blue Heron	1	Sight	Run	33° 33' 5"	86° 1' 3"
2_7_07	3	Coyote	N/A	Sign	Run	33° 33' 15"	86° 1' 24"
2_7_07	3	Raccoon	N/A	Tracks	Run	33° 33' 15"	86° 1' 24"
2_7_07	3	Red-tailed Hawk	1	Sight	Stream Canopy	33° 33' 14"	86° 37' 38"
2_7_07	3	Great Blue Heron	1	Sight	Run	33° 33' 14"	86° 37' 38"
2_7_07	3	Wood Duck	2	Sight	Run	33° 33' 12"	86° 1' 49"
2_7_07	3	Wood Duck	2	Sight	Run	33° 33' 11"	86° 1' 55"
2_7_07	3	Wood Duck	2	Sight	Run	33° 32' 60"	86° 2' 7"
2_7_07	3	Beaver	N/A	Tracks	Run	33° 32' 60"	86° 2' 7"
2_7_07	3	Common Map Turtle	1	Sight	Run	33° 32' 42"	86° 2' 23"
2_7_07	3	Beaver	N/A	Tracks	Run	33° 32' 42"	86° 2' 23"
2_7_07	3	Raccoon	N/A	Tracks	Run	33° 32' 42"	86° 2' 23"
Spring 2007							
5_21_07	1	Domestic Cat	1	Sight	Bank	33° 36' 0.9"	85° 49' 1.3"
5_21_07	1	Beaver	N/A	Sign	Bank	33° 35' 58.9"	85° 49' 3.7"
5_21_07	1	Skunk	N/A	Sign	Leaf Litter	33° 35' 58.4"	85° 49' 43.7"
5_21_07	1	Beaver	N/A	Sign	Bank	33° 35' 52.2"	85° 49' 50.3"
5_21_07	1	Kingfisher	1	Sight	NA	33° 35' 52.2"	85° 49' 50.3"
5_21_07	1	Great Blue Heron	1	Sight	NA	33° 35' 52.2"	85° 49' 50.3"
5_21_07	1	Muskrat	N/A	Track	Bank	33° 35' 51.6"	85° 49' 50.1"
5_21_07	1	Wood Duck	4	Sight	Deposition	33° 35' 49.4"	85° 49' 50.4"
5_21_07	1	Kingfisher	N/A	Sign	Bank	33° 35' 49.4"	85° 49' 50.4"
5_21_07	1	Raccoon	N/A	Track	Bank	33° 35' 49.4"	85° 49' 50.4"
5_21_07	1	Kingfisher	N/A	Sign	NA	33° 35' 49.4"	85° 49' 50.4"
5_21_07	1	Kingfisher	2	Sight	NA	33° 35' 47.7"	85° 49' 45.5"
5_21_07	1	Beaver	N/A	Sign	Backwater	33° 35' 41.8"	85° 49' 44.0"
5_21_07	1	Raccoon	N/A	Track	Backwater	33° 35' 41.8"	85° 49' 44.0"
5_21_07	1	Beaver	N/A	Track	Backwater	33° 35' 41.8"	85° 49' 44.0"
5_21_07	1	Snapping Turtle	1	Sight	Backwater	33° 35' 41.8"	85° 49' 44.0"
5_21_07	1	Domestic Dog	N/A	Track	Backwater	33° 35' 14.1"	85° 50' 16.1"
5_21_07	1	Raccoon	N/A	Track	Backwater	33° 35' 14.1"	85° 50' 16.1"
5_21_07	1	Beaver	N/A	Track	Bank	33° 35' 14.1"	85° 50' 16.1"
5_21_07	1	Domestic Dog	N/A	Track	Mud Bar	33° 35' 25.8"	85° 49' 57.5"
5_21_07	1	Great Blue Heron	N/A	Track	Mud Bar	33° 35' 25.8"	85° 49' 57.5"
5_21_07	1	Duck	N/A	Track	Mud Bar	33° 35' 25.8"	85° 49' 57.5"
5_21_07	1	Copperhead	1	Sight	Mud Bar	33° 35' 25.8"	85° 49' 57.5"
5_21_07	1	Beaver	N/A	Track	Mud Bar	33° 35' 25.8"	85° 49' 57.5"
5_21_07	1	Raccoon	N/A	Sign	Deadfall	33° 35' 20.4"	85° 50' 02.7"
5_21_07	1	Deer	N/A	Track	Bank	33° 35' 17.9"	85° 50' 04.5"
5_21_07	1	Beaver	N/A	Track	Bank	33° 35' 17.9"	85° 50' 04.5"
5_21_07	1	Domestic Dog	N/A	Track	Bank	33° 35' 17.9"	85° 50' 04.5"
5_21_07	1	Wood Duck	N/A	Track	Bank	33° 35' 17.9"	85° 50' 04.5"
5_21_07	1	River Cooter	1	Sight	Gravel Bar	33° 35' 17.9"	85° 50' 04.5"
5_21_07	1	Beaver	N/A	Sign	Bank	33° 35' 14.1"	85° 50' 10.9"
5_21_07	1	Canine sp.	N/A	Track	Mud Flat	33° 35' 14.1"	85° 50' 10.9"
5_21_07	1	Muskrat	N/A	Track	Mud Flat	33° 35' 14.1"	85° 50' 10.9"
5_21_07	1	Raccoon	N/A	Track	Mud Flat	33° 35' 14.1"	85° 50' 10.9"
5_21_07	1	Beaver	1	Sight	Run	33° 35' 12.2"	85° 50' 27.0"
5_21_07	1	Deer	N/A	Track	Island	33° 35' 10.8"	85° 50' 33.0"
5_21_07	1	Muskrat	N/A	Track	Island	33° 35' 10.8"	85° 50' 33.0"
5_21_07	1	Raccoon	N/A	Track	Island	33° 35' 10.8"	85° 50' 33.0"
5_21_07	1	Beaver	N/A	Track	Island	33° 35' 10.8"	85° 50' 33.0"
5_21_07	1	Killdeer	1	Sight	Island	33° 35' 10.8"	85° 50' 33.0"
5_21_07	1	Stinkpot	1	Sight	Island	33° 35' 10.8"	85° 50' 33.0"
5_21_07	1	Turtle	N/A	Sign	Sand Bar	33° 35' 07.9"	85° 50' 39.6"
5_21_07	1	Great Blue Heron	1	Sight	NA	33° 35' 07.1"	85° 50' 41.3"
5_21_07	1	Beaver	N/A	Sign	NA	33° 35' 07.1"	85° 50' 41.3"
5_21_07	1	Snake	1	Sight	NA	33° 35' 07.1"	85° 50' 41.3"
5_21_07	1	Copperhead	1	Sight	Water	33° 35' 07.2"	85° 50' 45.8"
5_21_07	1	Beaver	N/A	Sign	Deposition	33° 35' 07.2"	85° 50' 45.8"
5_21_07	1	Raccoon	N/A	Track	Deposition	33° 35' 07.2"	85° 50' 45.8"
5_21_07	1	Turtle	N/A	Sign	Deposition	33° 35' 03.1"	85° 51' 01.4"
5_21_07	1	Deer	N/A	Track	Deposition	33° 35' 03.6"	85° 51' 03.5"

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
5_21_07	1	Beaver	N/A	Track	Deposition	33° 35' 03.6"	85° 51' 03.5"
5_21_07	1	Raccoon	N/A	Track	Deposition	33° 35' 03.6"	85° 51' 03.5"
5_21_07	1	Skunk	N/A	Track	Deposition	33° 35' 03.6"	85° 51' 03.5"
5_21_07	1	Raccoon	N/A	Track	Deposition	33° 35' 03.6"	85° 51' 03.5"
5_21_07	1	Deer	N/A	Track	Deposition	33° 35' 03.6"	85° 51' 03.5"
5_21_07	1	Turtle	N/A	Sign	Bank	33° 34' 54.4"	85° 51' 13.4"
5_21_07	1	Raccoon	N/A	Track	Mud Flat	33° 34' 54.4"	85° 51' 13.4"
5_21_07	1	Beaver	N/A	Track	Mud Flat	33° 34' 54.4"	85° 51' 13.4"
5_21_07	1	Squirrel	N/A	Track	Mud Flat	33° 34' 54.4"	85° 51' 13.4"
5_21_07	1	Raccoon	N/A	Track	NA	33° 34' 52.6"	85° 51' 5117"
5_21_07	1	Raccoon	N/A	Track	Oxbow	33° 34' 52.1"	85° 51' 18.9"
5_21_07	1	Beaver	N/A	Track	Oxbow	33° 34' 52.1"	85° 51' 18.9"
5_21_07	1	Great Blue Heron	N/A	Track	Oxbow	33° 34' 52.1"	85° 51' 18.9"
5_21_07	1	Wood Duck	N/A	Track	Oxbow	33° 34' 52.1"	85° 51' 18.9"
5_21_07	1	Raccoon	N/A	Track	Island	33° 34' 52.2"	85° 51' 25.5"
5_21_07	1	Beaver	N/A	Track	Island	33° 34' 52.2"	85° 51' 25.5"
5_21_07	1	Deer	N/A	Track	Island	33° 34' 52.2"	85° 51' 25.5"
5_21_07	1	Copperhead	1	Sight	Island	33° 34' 52.2"	85° 51' 25.5"
5_21_07	1	Raccoon	N/A	Track	Deposition	33° 34' 52.4"	85° 51' 28.4"
5_21_07	1	Great Blue Heron	N/A	Track	Deposition	33° 34' 52.4"	85° 51' 28.4"
5_21_07	1	Beaver	N/A	Track	Deposition	33° 34' 52.4"	85° 51' 28.4"
5_21_07	1	Turtle	N/A	Track	Deposition	33° 34' 52.4"	85° 51' 28.4"
5_21_07	1	Muskrat	N/A	Track	Deposition	33° 34' 52.4"	85° 51' 28.4"
5_21_07	1	Beaver	N/A	Track	Oxbow	33° 34' 50.9"	85° 51' 32.3"
5_21_07	1	Great Blue Heron	1	Sight	Oxbow	33° 34' 50.9"	85° 51' 32.3"
5_21_07	1	Beaver	1	Track	Bank	33° 34' 41.3"	85° 51' 52.8"
5_21_07	1	Raccoon	1	Track	Bank	33° 34' 41.3"	85° 51' 52.8"
5_21_07	1	Frog	1	Sight	Bank	33° 34' 41.3"	85° 51' 52.8"
5_21_07	1	Turtle	1	Sight	Log	33° 34' 38.9"	85° 51' 56.4"
5_21_07	1	Beaver	N/A	Track	Gravel Bar	33° 34' 38.9"	85° 51' 56.4"
5_21_07	1	Great Blue Heron	1	Sight	Gravel Bar	33° 34' 36.6"	85° 52' 04.3"
5_21_07	1	Beaver	N/A	Track	Bank	33° 34' 36.6"	85° 52' 04.3"
5_21_07	1	Turtle	1	Sight	Log	33° 34' 34.5"	85° 52' 07.9"
5_21_07	1	Killdeer	1	Sight	Bank	33° 34' 34.1"	85° 52' 12.9"
5_21_07	1	Raccoon	N/A	Track	Bank	33° 34' 34.1"	85° 52' 12.9"
5_21_07	1	Great Blue Heron	N/A	Track	Bank	33° 34' 34.1"	85° 52' 12.9"
5_21_07	1	Red-tailed Hawk	1	Sight	Stream Canopy	33° 34' 34.1"	85° 52' 12.9"
5_21_07	1	Black Racer	1	Sight	Bank	33° 34' 34.1"	85° 52' 12.9"
5_21_07	1	Muskrat	N/A	Sign	Bank	33° 34' 33.0"	85° 52' 16.0"
5_21_07	1	Beaver	N/A	Track	Bank	33° 34' 33.0"	85° 52' 16.0"
5_21_07	1	Frog	1	Sight	Bank	33° 34' 33.0"	85° 52' 16.0"
5_21_07	1	Beaver	N/A	Track	Bank	33° 34' 32.2"	85° 52' 27.3"
5_21_07	1	Red-tailed Hawk	1	Sight	Stream Canopy	33° 35' 34.4"	85° 52' 30.2"
5_21_07	1	Green Heron	1	Sight	Stream Canopy	33° 35' 34.4"	85° 52' 30.2"
5_21_07	1	Beaver	N/A	Track	Bank	33° 34' 35.0"	85° 52' 37.1"
5_21_07	1	Beaver	N/A	Track	Deposition	33° 34' 35.1"	85° 52' 38.2"
5_21_07	1	Wood Duck	N/A	Track	Deposition	33° 34' 35.1"	85° 52' 38.2"
5_21_07	1	Great Blue Heron	N/A	Track	Deposition	33° 34' 35.1"	85° 52' 38.2"
5_21_07	1	Raccoon	N/A	Track	Deposition	33° 34' 35.1"	85° 52' 38.2"
5_21_07	1	Muskrat	N/A	Track	Deposition	33° 34' 35.1"	85° 52' 38.2"
5_21_07	1	Groundhog	1	Sight	Deposition	33° 34' 31.6"	85° 52' 44.0"
5_21_07	1	Wood Duck	4	Sight	Deposition	33° 34' 31.6"	85° 52' 44.0"
5_21_07	1	Turtle	4	Sight	Deposition	33° 34' 31.6"	85° 52' 44.0"
5_21_07	1	Garter Snake	1	Sight	Deposition	33° 34' 31.6"	85° 52' 44.0"
5_21_07	1	Beaver	N/A	Sign	Deposition	33° 34' 31.6"	85° 52' 44.0"
5_21_07	1	Beaver	N/A	Track	Bank	33° 34' 25.6"	85° 52' 49.0"
5_21_07	1	Beaver	N/A	Track	Bank	33° 34' 25.5"	85° 52' 55.1"
5_21_07	1	Beaver	N/A	Track	Sand Bar	33° 34' 27.9"	85° 53' 04.4"
5_21_07	1	Raccoon	N/A	Sign	Bank	33° 34' 27.5"	85° 53' 06.4"
5_21_07	1	Beaver	N/A	Track	Bank	33° 34' 30.4"	85° 53' 08.0"
5_21_07	1	Raccoon	N/A	Track	Deposition	33° 34' 31.2"	85° 53' 10.4"
5_21_07	1	Squirrel	N/A	Track	Deposition	33° 34' 31.2"	85° 53' 10.4"
5_21_07	1	Great Blue Heron	N/A	Track	Deposition	33° 34' 31.9"	85° 53' 14.0"
5_21_07	1	Raccoon	N/A	Track	Deposition	33° 34' 31.9"	85° 53' 14.0"
5_21_07	1	Wood Duck	N/A	Track	Deposition	33° 34' 31.9"	85° 53' 14.0"
5_21_07	1	Beaver	N/A	Track	Deposition	33° 34' 31.9"	85° 53' 14.0"
5_21_07	1	Domestic Dog	N/A	Track	Bank	33° 34' 32.5"	85° 53' 17.7"
5_21_07	1	Wood Duck	N/A	Track	Bank	33° 34' 32.5"	85° 53' 17.7"
5_21_07	1	Rodent	1	Sight	Bank	33° 34' 32.5"	85° 53' 17.7"
5_21_07	1	Beaver	N/A	Track	Bank	33° 34' 35.5"	85° 53' 20.1"
5_21_07	1	Raccoon	N/A	Track	Bank	33° 34' 35.5"	85° 53' 20.1"

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
5_21_07	1	Deer	N/A	Track	Bank	33° 34' 35.5"	85° 53' 20.1"
5_22_07	1	Common Map Turtle	1	Sight	Bank	33° 34' 53.1"	85° 54' 22.1"
5_22_07	1	Great Blue Heron	N/A	Track	Deposition	33° 34' 50.7"	85° 54' 24.2"
5_22_07	1	Raccoon	N/A	Track	Deposition	33° 34' 50.7"	85° 54' 24.2"
5_22_07	1	Beaver	N/A	Track	Deposition	33° 34' 50.7"	85° 54' 24.2"
5_22_07	1	Deer	N/A	Track	Deposition	33° 34' 50.7"	85° 54' 24.2"
5_22_07	1	Beaver	N/A	Track	Deposition	33° 34' 47.6"	85° 54' 25.4"
5_22_07	1	Raccoon	N/A	Track	Deposition	33° 34' 47.6"	85° 54' 25.4"
5_22_07	1	Deer	N/A	Track	Deposition	33° 34' 47.6"	85° 54' 25.4"
5_22_07	1	Squirrel	N/A	Track	Deposition	33° 34' 47.6"	85° 54' 25.4"
5_22_07	1	Raccoon	N/A	Track	Deposition	33° 34' 47.2"	85° 54' 31.0"
5_22_07	1	Great Blue Heron	N/A	Track	Deposition	33° 34' 47.2"	85° 54' 31.0"
5_22_07	1	Wood Duck	N/A	Track	Deposition	33° 34' 47.2"	85° 54' 31.0"
5_22_07	1	Beaver	N/A	Track	Deposition	33° 34' 47.2"	85° 54' 31.0"
5_22_07	1	Deer	N/A	Track	Deposition	32° 34' 47.7"	85° 54' 32.3"
5_22_07	1	Weasel	N/A	Track	Deposition	32° 34' 47.7"	85° 54' 32.3"
5_22_07	1	Beaver	N/A	Sign	Deposition	32° 34' 47.7"	85° 54' 32.3"
5_22_07	1	Beaver	N/A	Track	Bank	32° 34' 46.2"	85° 54' 36.2"
5_22_07	1	Squirrel	N/A	Track	Bank	32° 34' 46.2"	85° 54' 36.2"
5_22_07	1	Raccoon	N/A	Track	Bank	32° 34' 46.2"	85° 54' 36.2"
5_22_07	1	Deer	N/A	Track	Deposition	32° 34' 45.9"	85° 54' 38.3"
5_22_07	1	Raccoon	N/A	Track	Deposition	32° 34' 45.9"	85° 54' 38.3"
5_22_07	1	Common Map Turtle	8	Sight	Deadfall	32° 34' 45.3"	85° 54' 42.2"
5_22_07	1	Turtle	1	Sight	Mid-Channel	32° 34' 45.9"	85° 54' 47.8"
5_22_07	1	Copperhead	1	Sight	Mid-Channel	32° 34' 45.9"	85° 54' 47.8"
5_22_07	1	Raccoon	N/A	Track	Bank	32° 34' 47.2"	85° 54' 52.5"
5_22_07	1	Beaver	1	Sight	Mid-Channel	32° 34' 45.0"	85° 55' 01.2"
5_22_07	1	Beaver	N/A	Track	Bank	32° 34' 45.0"	85° 55' 01.2"
5_22_07	1	Raccoon	N/A	Track	Bank	32° 34' 45.0"	85° 55' 01.2"
5_22_07	1	Beaver	N/A	Track	Bank	33° 34' 43.0"	85° 55' 02.8"
5_22_07	1	Raccoon	N/A	Track	Bank	33° 34' 43.0"	85° 55' 02.8"
5_22_07	1	Squirrel	1	Sight	Bank	33° 34' 43.0"	85° 55' 02.8"
5_22_07	2	Mallard Duck	6	Sight	NA	33° 34' 34.6"	85° 55' 13.5"
5_22_07	2	Black Vulture	1	Sight	Stream Canopy	33° 34' 34.6"	85° 55' 13.5"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 34' 30.1"	85° 55' 19.0"
5_22_07	2	Deer	N/A	Track	Deposition	33° 34' 30.1"	85° 55' 18.8"
5_22_07	2	Duck sp.	N/A	Track	Deposition	33° 34' 30.1"	85° 55' 18.8"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 34' 30.1"	85° 55' 18.8"
5_22_07	2	Mink	N/A	Track	Deposition	33° 34' 30.1"	85° 55' 18.8"
5_22_07	2	Beaver	N/A	Track	Deposition	33° 34' 30.1"	85° 55' 18.8"
5_22_07	2	Small Bird	N/A	Track	Deposition	33° 34' 30.1"	85° 55' 18.8"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 34' 26.1"	85° 55' 21.4"
5_22_07	2	Muskrat	N/A	Track	Deposition	33° 34' 26.1"	85° 55' 21.4"
5_22_07	2	Small Bird	N/A	Track	Deposition	33° 34' 26.1"	85° 55' 21.4"
5_22_07	2	Wood Duck	N/A	Track	Deposition	33° 34' 26.1"	85° 55' 21.4"
5_22_07	2	Deer	N/A	Track	Deposition	33° 34' 26.1"	85° 55' 21.4"
5_22_07	2	Muskrat	1	Sight	Deposition	33° 34' 26.1"	85° 55' 21.4"
5_22_07	2	Mallard Duck	1	Sight	Deposition	33° 34' 26.1"	85° 55' 21.4"
5_22_07	2	Beaver	N/A	Sign	NA	33° 34' 15.2"	85° 55' 43.8"
5_22_07	2	Beaver	N/A	Track	Deposition	33° 34' 14.7"	85° 55' 48.9"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 34' 14.7"	85° 55' 48.9"
5_22_07	2	Muskrat	1	Sight	Mid-Channel	33° 34' 15.5"	85° 55' 57.2"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 34' 15.1"	85° 56' 01.1"
5_22_07	2	Wood Duck	N/A	Track	Deposition	33° 34' 15.1"	85° 56' 01.1"
5_22_07	2	Turtle	1	Sight	Deadfall	33° 34' 10.9"	85° 56' 04.7"
5_22_07	2	Great Blue Heron	1	Sight	Deadfall	33° 34' 10.9"	85° 56' 04.7"
5_22_07	2	Raccoon	N/A	Track	Backwater	33° 33' 44.1"	85° 56' 02.3"
5_22_07	2	Duck sp.	N/A	Track	Backwater	33° 33' 44.1"	85° 56' 02.3"
5_22_07	2	Beaver	N/A	Sign	Backwater	33° 33' 44.1"	85° 56' 02.3"
5_22_07	2	Beaver	N/A	Track	Deposition	33° 33' 40.6"	85° 56' 04.1"
5_22_07	2	Muskrat	1	Sight	Bank	33° 33' 40.5"	85° 56' 06.7"
5_22_07	2	Beaver	N/A	Track	Deposition	33° 33' 40.5"	85° 56' 06.7"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 33' 40.5"	85° 56' 06.7"
5_22_07	2	Great Blue Heron	2	Sight	Stream Canopy	33° 33' 42.8"	85° 56' 14.4"
5_22_07	2	Kingfisher	N/A	Sign	Stream Canopy	33° 33' 42.8"	85° 56' 14.4"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 33' 43.9"	85° 56' 30.1"
5_22_07	2	Muskrat	N/A	Track	Deposition	33° 33' 43.9"	85° 56' 30.1"
5_22_07	2	Wood Duck	N/A	Track	Deposition	33° 33' 43.9"	85° 56' 30.1"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 33' 45.4"	85° 56' 33.6"
5_22_07	2	Common Map Turtle	1	Sight	Deposition	33° 33' 47.5"	85° 56' 40.4"

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
5_22_07	2	Turtle	2	Sight	Mud Bar	33° 33' 49.0"	85° 56' 44.5"
5_22_07	2	Raccoon	N/A	Track	Mud Bar	33° 33' 49.0"	85° 56' 44.5"
5_22_07	2	Turtle	1	Sight	Bank Edge	33° 34' 07.5"	85° 56' 55.7"
5_22_07	2	Beaver	N/A	Track	NA	33° 34' 06.1"	85° 56' 48.9"
5_22_07	2	Raccoon	N/A	Track	NA	33° 34' 06.1"	85° 56' 48.9"
5_22_07	2	Kingfisher	2	Sight	Stream Canopy	33° 34' 06.1"	85° 56' 48.9"
5_22_07	2	Beaver	N/A	Track	Sand Bar	33° 34' 06.5"	85° 57' 06.0"
5_22_07	2	Raccoon	N/A	Track	Sand Bar	33° 34' 06.5"	85° 57' 06.0"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 34' 01.3"	85° 57' 13.8"
5_22_07	2	Beaver	N/A	Track	Deposition	33° 34' 01.3"	85° 57' 13.8"
5_22_07	2	Muskrat	1	Sight	Backwater	33° 33' 57.2"	85° 57' 19.1"
5_22_07	2	Raccoon	N/A	Track	Backwater	33° 33' 57.2"	85° 57' 19.1"
5_22_07	2	Red-tailed Hawk	1	Sight	Stream Canopy	33° 33' 56.3"	85° 57' 21.9"
5_22_07	2	Common Map Turtle	1	Sight	Log	33° 33' 56.3"	85° 57' 21.9"
5_22_07	2	Mallard Duck	1	Sight	Stream Canopy	33° 33' 50.9"	85° 57' 28.4"
5_22_07	2	Wood Duck	2	Sight	Stream Canopy	33° 33' 50.9"	85° 57' 28.4"
5_22_07	2	Muskrat	N/A	Sign	Bank	33° 33' 49.5"	85° 57' 36.7"
5_22_07	2	Raccoon	N/A	Track	Bank	33° 33' 49.5"	85° 57' 36.7"
5_22_07	2	Beaver	N/A	Sign	Bank	33° 33' 49.5"	85° 57' 36.7"
5_22_07	2	Stinkpot	1	Sight	Bank	33° 33' 49.5"	85° 57' 36.7"
5_22_07	2	Green Heron	1	Sight	Stream Canopy	33° 33' 47.7"	85° 57' 48.4"
5_22_07	2	Beaver	N/A	Track	NA	33° 33' 47.7"	85° 57' 48.4"
5_22_07	2	Raccoon	N/A	Sign	Island	33° 33' 48.0"	85° 58' 03.4"
5_22_07	2	Raccoon	N/A	Sign	Island	33° 33' 45.6"	85° 58' 05.1"
5_22_07	2	Mallard Duck	N/A	Sight	NA	33° 33' 34.0"	85° 58' 14.3"
5_22_07	2	Muskrat	1	Sight	Mid-Channel	33° 33' 34.0"	85° 58' 14.3"
5_22_07	2	Raccoon	N/A	Track	Riffle	33° 33' 22.3"	85° 58' 34.1"
5_22_07	2	Kingfisher	1	Sight	Riffle	33° 33' 18.6"	85° 58' 33.5"
5_22_07	2	Kingfisher	1	Sight	Backwater	33° 33' 07.7"	85° 58' 35.5"
5_22_07	2	Great Blue Heron	1	Sight	Backwater	33° 33' 07.7"	85° 58' 35.5"
5_22_07	2	Beaver	1	Sight	Backwater	33° 33' 07.7"	85° 58' 35.5"
5_22_07	2	Wood Duck	1	Sight	Backwater	33° 33' 07.7"	85° 58' 35.5"
5_22_07	2	Eastern Painted Turtle	1	Sight	Mid-Channel	33° 33' 10.0"	85° 58' 45.3"
5_22_07	2	Great Blue Heron	1	Sight	Stream Canopy	33° 33' 10.0"	85° 58' 45.3"
5_22_07	2	Beaver	1	Sight	Bank	33° 33' 14.9"	85° 58' 55.1"
5_22_07	2	Great Blue Heron	1	Sight	Riffle	33° 33' 12.1"	85° 59' 05.9"
5_22_07	2	Great Blue Heron	1	Sight	Riffle	33° 33' 11.0"	85° 59' 16.4"
5_22_07	2	Mallard Duck	N/A	Sight	Mid-Channel	33° 33' 11.0"	85° 59' 16.4"
5_22_07	2	Kingfisher	1	Sight	Stream Canopy	33° 33' 11.0"	85° 59' 16.4"
5_22_07	2	Wood Duck	2	Sight	Mid-Channel	33° 33' 11.0"	85° 59' 16.4"
5_22_07	2	Turtle	1	Sight	Mid-Channel	33° 33' 11.0"	85° 59' 16.4"
5_22_07	2	Beaver	N/A	Track	Bank	33° 32' 46.3"	85° 59' 23.2"
5_22_07	2	Beaver	N/A	Track	Bank	33° 32' 36.9"	85° 59' 21.8"
5_22_07	2	Raccoon	N/A	Track	Bank	33° 32' 36.9"	85° 59' 21.8"
5_22_07	2	Muskrat	N/A	Track	Bank	33° 32' 25.1"	85° 59' 23.1"
5_22_07	2	Beaver	N/A	Track	Bank	33° 32' 25.1"	85° 59' 23.1"
5_22_07	2	Raccoon	N/A	Track	Bank	33° 32' 25.1"	85° 59' 23.1"
5_22_07	2	Wood Duck	1	Sight	Bank	33° 32' 28.8"	85° 59' 25.9"
5_22_07	2	Raccoon	N/A	Track	Bank	33° 32' 39.4"	85° 59' 34.5"
5_22_07	2	Beaver	N/A	Track	Bank	33° 32' 39.4"	85° 59' 34.5"
5_22_07	2	Wood Duck	3	Sight	Bank	33° 32' 40.6"	85° 59' 40.0"
5_22_07	2	Mallard Duck	N/A	Sight	Bank	33° 32' 40.6"	85° 59' 40.0"
5_22_07	2	Muskrat	N/A	Track	Deposition	33° 32' 28.3"	85° 59' 48.0"
5_22_07	2	Beaver	N/A	Track	Deposition	33° 32' 28.3"	85° 59' 48.0"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 32' 28.3"	85° 59' 48.0"
5_22_07	2	Muskrat	1	Sight	Deposition	33° 32' 28.3"	85° 59' 48.0"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 32' 33.4"	85° 59' 52.9"
5_22_07	2	Raccoon	N/A	Track	Deposition	33° 32' 46.9"	85° 59' 51.1"
5_22_07	2	Beaver	N/A	Track	Deposition	33° 32' 46.9"	85° 59' 51.1"
5_22_07	2	Muskrat	N/A	Track	Mud Flat	33° 32' 53.5"	85° 59' 53.0"
5_22_07	2	Raccoon	N/A	Track	Mud Flat	33° 32' 53.5"	85° 59' 53.0"
5_22_07	2	Deer	N/A	Track	Mud Flat	33° 32' 53.5"	85° 59' 53.0"
5_22_07	2	Beaver	N/A	Track	Mud Flat	33° 32' 53.5"	85° 59' 53.0"
5_22_07	2	Snake	1	Sight	Mid-Channel	33° 32' 59.1"	86° 00' 01.3"
5_22_07	2	Turtle	N/A	Sight	NA	33° 33' 04.8"	86° 00' 14.2"
5_23_07	3	Beaver	N/A	Track	NA	33° 33' 10.0"	86° 00' 25.2"
5_23_07	3	Beaver	1	Sight	NA	33° 33' 24.0"	86° 00' 45.8"
5_23_07	3	Muskrat	N/A	Track	Deposition	33° 33' 24.0"	86° 00' 38.2"
5_23_07	3	Raccoon	N/A	Track	Deposition	33° 33' 27.2"	86° 00' 40.3"
5_23_07	3	Muskrat	N/A	Track	Mud Flat	33° 33' 28.1"	86° 00' 41.9"

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
5_23_07	3	Raccoon	N/A	Track	Mud Flat	33° 33' 28.1"	86° 00' 41.9"
5_23_07	3	Stinkpot	1	Sight	Sand Bar	33° 33' 30.4"	86° 00' 42.7"
5_23_07	3	Softshell Turtle	1	Sight	Sand Bar	33° 33' 37.1"	86° 00' 45.9"
5_23_07	3	Raccoon	N/A	Track	Sand Bar	33° 33' 37.1"	86° 00' 45.9"
5_23_07	3	Beaver	N/A	Track	Sand Bar	33° 33' 37.1"	86° 00' 45.9"
5_23_07	3	Deer	N/A	Track	Island	33° 33' 41.2"	86° 00' 40.5"
5_23_07	3	Goose sp.	5	Sight	Island	33° 33' 41.2"	86° 00' 40.5"
5_23_07	3	Goose sp.	N/A	Track	Deposition	33° 33' 48.3"	86° 00' 55.7"
5_23_07	3	Red-tailed Hawk	1	Sight	Stream Canopy	33° 33' 48.3"	86° 00' 55.7"
5_23_07	3	Deer	N/A	Track	Deposition	33° 33' 48.3"	86° 00' 55.7"
5_23_07	3	Canada Goose	N/A	Track	Deposition	33° 33' 48.3"	86° 00' 55.7"
5_23_07	3	Raccoon	N/A	Track	Deposition	33° 33' 48.3"	86° 00' 55.7"
5_23_07	3	Cottonmouth	1	Sight	Bank	33° 33' 41.1"	86° 01' 02.6"
5_23_07	3	Red-tailed Hawk	N/A	Sign	Bank	33° 33' 41.1"	86° 01' 02.6"
5_23_07	3	Eastern Painted Turtle	1	Sight	Bank	33° 33' 39.2"	86° 01' 05.1"
5_23_07	3	Stinkpot	1	Sight	Bank	33° 33' 38.8"	86° 01' 05.1"
5_23_07	3	Raccoon	N/A	Track	Bank	33° 33' 38.8"	86° 01' 05.1"
5_23_07	3	Beaver	N/A	Sign	Bank	33° 33' 36.5"	86° 01' 02.3"
5_23_07	3	Raccoon	N/A	Track	Bank	33° 33' 39.2"	86° 01' 59.5"
5_23_07	3	Raccoon	N/A	Track	Bank	33° 33' 34.3"	86° 01' 0158"
5_23_07	3	Raccoon	N/A	Track	Bank	33° 33' 34.0"	86° 01' 56.2"
5_23_07	3	Goose sp.	N/A	Track	Bank	33° 33' 34.0"	86° 01' 56.2"
5_23_07	3	Wood Duck	2	Sight	Stream Canopy	33° 33' 06.8"	86° 00' 57.1"
5_23_07	3	Beaver	N/A	Sign	Bank	33° 33' 06.8"	86° 00' 57.1"
5_23_07	3	Stinkpot	1	Sight	Deadfall	33° 33' 05.1"	86° 01' 06.3"
5_23_07	3	Raccoon	N/A	Track	Bank	33° 33' 11.3"	86° 01' 17.5"
5_23_07	3	Muskrat	N/A	Track	Bank	33° 33' 11.3"	86° 01' 17.5"
5_23_07	3	Common Map Turtle	1	Sight	Bank	33° 33' 17.0"	86° 01' 29.4"
5_23_07	3	Raccoon	N/A	Track	Bank	33° 33' 16.4"	86° 01' 32.4"
5_23_07	3	Deer	N/A	Track	Bank	33° 33' 16.4"	86° 01' 32.4"
5_23_07	3	Raccoon	N/A	Track	Sand Bar	33° 33' 10.8"	86° 01' 52.7"
5_23_07	3	Frog	1	Sight	Sand Bar	33° 33' 10.8"	86° 01' 52.7"
5_23_07	3	Common Map Turtle	1	Sight	Sand Bar	33° 33' 07.1"	86° 02' 04.1"
5_23_07	3	Raccoon	N/A	Track	Sand Bar	33° 33' 07.1"	86° 02' 04.1"
5_23_07	3	Raccoon	N/A	Track	Sand Bar	33° 32' 52.4"	86° 02' 09.8"
5_24_07	3	Raccoon	N/A	Track	Deposition	33° 32' 38.2"	86° 02' 34.1"
5_24_07	3	Turkey Vulture	1	Sight	Stream Canopy	33° 32' 38.2"	86° 02' 34.1"
5_24_07	3	Common Map Turtle	1	Sight	Mud Flat	33° 32' 36.4"	86° 02' 36.2"
5_24_07	3	Raccoon	N/A	Track	Mud Flat	33° 32' 33.9"	86° 02' 40.1"
5_24_07	3	Turtle	N/A	Sign	Mud Flat	33° 32' 33.9"	86° 02' 40.1"
5_24_07	3	Northern Harrier	1	Sight	Stream Canopy	33° 32' 18.3"	86° 03' 00.2"
5_24_07	3	Beaver	N/A	Track	NA	33° 32' 18.3"	86° 03' 00.2"
5_24_07	3	Frog	1	Sight	NA	33° 32' 18.3"	86° 03' 00.2"
5_24_07	3	Common Map Turtle	1	Sight	Log	33° 32' 16.7"	86° 03' 04.6"
5_24_07	3	Raccoon	N/A	Track	Deposition	33° 32' 15.9"	86° 03' 09.5"
5_24_07	3	Beaver	N/A	Track	Deposition	33° 32' 15.9"	86° 03' 09.5"
5_24_07	3	Raccoon	N/A	Track	Bank	33° 32' 19.6"	86° 03' 23.0"
5_24_07	3	Beaver	N/A	Track	Deposition	33° 32' 38.6"	86° 03' 37.9"
5_24_07	3	Deer	N/A	Track	Deposition	33° 32' 38.6"	86° 03' 37.9"
5_24_07	3	Raccoon	N/A	Track	Bank	33° 32' 44.8"	86° 03' 48.5"
5_24_07	3	Goose sp.	N/A	Track	Bank	33° 32' 44.8"	86° 03' 48.5"
5_24_07	3	Cow	N/A	Track	Bank	33° 32' 44.8"	86° 03' 48.5"
5_24_07	3	Red-tailed Hawk	1	Sight	Stream Canopy	33° 32' 44.8"	86° 03' 48.5"
5_24_07	3	Green Heron	1	Sight	Bank	33° 32' 22.0"	86° 03' 50.0"
5_24_07	3	Beaver	3	Sight	Bank	33° 32' 22.0"	86° 03' 50.0"
5_24_07	3	Beaver	N/A	Track	Bank	33° 32' 30.3"	86° 04' 14.2"
5_24_07	3	Great Blue Heron	1	Sight	Stream Canopy	33° 32' 37.9"	86° 04' 15.2"
5_24_07	3	Red-tailed Hawk	1	Sight	Stream Canopy	33° 32' 37.9"	86° 04' 15.2"
5_24_07	3	Copperhead	1	Sight	Mid-Channel	33° 33' 01.3"	86° 04' 27.2"
5_24_07	3	Turtle	1	Sight	Mid-Channel	33° 33' 08.6"	86° 04' 31.7"
5_24_07	3	Beaver	N/A	Track	Mud Flat	33° 33' 11.8"	86° 04' 41.6"
5_24_07	3	Muskrat	N/A	Track	Bank	33° 32' 48.5"	86° 04' 40.8"
5_24_07	3	Turtle	1	Sight	Log	33° 32' 33.4"	86° 04' 50.2"
5_24_07	3	Great Egret	1	Sight	Stream Canopy	33° 32' 30.9"	86° 04' 57.0"
5_24_07	3	Beaver	N/A	Track	Bank	33° 32' 30.9"	86° 04' 57.0"
5_24_07	3	Great Blue Heron	1	Sight	Bank	33° 32' 36.1"	86° 05' 06.6"
5_24_07	3	Snowy Egret	5	Sight	Jackson Shoals Dam		
Summer 2007							
8_18_2007	1	Beaver	N/A	Tracks	Deposition	33° 35' 58"	85° 49' 44"
8_18_2007	1	Deer	N/A	Tracks	Deposition	33° 35' 57"	85° 49' 46"
8_18_2007	1	Green Heron	1	Sight	Deposition	33° 35' 57"	85° 49' 46"

TABLE 7
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OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
8_18_2007	1	Raccoon	N/A	Tracks	Deposition	33° 35' 54"	85° 49' 49"
8_18_2007	1	Great Blue Heron	1	Sight	Deposition	33° 35' 49"	85° 49' 20"
8_18_2007	1	Beaver	N/A	Tracks	Deposition	33° 35' 49"	85° 49' 20"
8_18_2007	1	Kingfisher	N/A	Sign	Deposition	33° 35' 49"	85° 49' 20"
8_18_2007	1	Cow	1	Sight	Mid-Channel	33° 35' 46"	85° 49' 45"
8_18_2007	1	Muskrat	N/A	Tracks	Deposition	33° 35' 41"	85° 49' 45"
8_18_2007	1	Deer	N/A	Tracks	Deposition	33° 35' 41"	85° 49' 45"
8_18_2007	1	Raccoon	N/A	Tracks	Deposition	33° 35' 41"	85° 49' 45"
8_18_2007	1	Raccoon	N/A	Tracks	Deposition	33° 35' 35"	85° 49' 50"
8_18_2007	1	Beaver	N/A	Tracks	Deposition	33° 35' 32"	85° 49' 55"
8_18_2007	1	Beaver	N/A	Tracks	Deposition	33° 35' 26"	85° 49' 58"
8_18_2007	1	Muskrat	N/A	Tracks	Deposition	33° 35' 26"	85° 49' 58"
8_18_2007	1	Great Blue Heron	2	Sight	Deposition	33° 35' 20"	85° 50' 3"
8_18_2007	1	Great Blue Heron	10	Sight	Deposition	33° 35' 14"	85° 50' 16"
8_18_2007	1	Great Egret	1	Sight	Deposition	33° 35' 14"	85° 50' 16"
8_18_2007	1	Green Heron	2	Sight	Deposition	33° 35' 10"	85° 50' 36"
8_18_2007	1	Muskrat	N/A	Tracks	Deposition	33° 35' 10"	85° 50' 36"
8_18_2007	1	Red-shouldered Hawk	1	Sight	Stream Canopy	33° 35' 7"	85° 50' 41"
8_18_2007	1	Beaver	N/A	Tracks	Deposition	33° 35' 7"	85° 50' 41"
8_18_2007	1	Raccoon	N/A	Tracks	Deposition	33° 35' 6"	85° 50' 53"
8_18_2007	1	Muskrat	N/A	Tracks	Deposition	33° 35' 6"	85° 50' 53"
8_18_2007	1	Raccoon	N/A	Tracks	Deposition	33° 35' 4"	85° 51' 4"
8_18_2007	1	Beaver	N/A	Tracks	Deposition	33° 35' 4"	85° 51' 4"
8_18_2007	1	Muskrat	N/A	Tracks	Deposition	33° 35' 4"	85° 51' 4"
8_18_2007	1	Snapping Turtle	1	Sight	Deposition	33° 35' 4"	85° 51' 4"
8_15_2007	1	Hawk sp.	1	Sight	Deadfall	33° 34' 59"	85° 51' 9"
8_15_2007	1	Beaver	N/A	Tracks	Bank	33° 34' 59"	85° 51' 9"
8_15_2007	1	Red-tailed Hawk	1	Sight	Stream Canopy	33° 34' 55"	85° 51' 12"
8_15_2007	1	Green Heron	1	Sight	Bank	33° 34' 55"	85° 51' 12"
8_15_2007	1	Common Map Turtle	2	Sight	Deadfall	33° 34' 55"	85° 51' 12"
8_15_2007	1	Beaver	N/A	Tracks	Bank	33° 34' 52"	85° 51' 19"
8_15_2007	1	Raccoon	N/A	Tracks	Bank	33° 34' 52"	85° 51' 26"
8_15_2007	1	Beaver	N/A	Tracks	Bank	33° 34' 52"	85° 51' 26"
8_15_2007	1	Deer	N/A	Tracks	Deposition	33° 34' 49"	85° 51' 34"
8_15_2007	1	Muskrat	N/A	Tracks	Deposition	33° 34' 49"	85° 51' 34"
8_15_2007	1	Raccoon	N/A	Tracks	Deposition	33° 34' 49"	85° 51' 34"
8_15_2007	1	Muskrat	N/A	Tracks	Deposition	33° 34' 44"	85° 51' 41"
8_15_2007	1	Wood Duck	4	Sight	Deposition	33° 34' 44"	85° 51' 41"
8_15_2007	1	Eastern Painted Turtle	1	Sight	Deposition	33° 34' 44"	85° 51' 41"
8_15_2007	1	Great Blue Heron	1	Sight	NA	33° 34' 42"	85° 51' 56"
8_15_2007	1	Deer	1	Sight	NA	33° 34' 38"	85° 51' 54"
8_15_2007	1	Muskrat	1	Sight	NA	33° 34' 38"	85° 51' 54"
8_15_2007	1	Great Blue Heron	1	Sight	Deposition	33° 34' 31"	85° 51' 56"
8_15_2007	1	Wood Duck	4	Sight	Deposition	33° 34' 31"	85° 51' 56"
8_15_2007	1	Raccoon	N/A	Tracks	Deposition	33° 34' 31"	85° 51' 56"
8_15_2007	1	Beaver	N/A	Tracks	Deposition	33° 34' 36"	85° 52' 3"
8_15_2007	1	Muskrat	N/A	Tracks	Deposition	33° 34' 34"	85° 52' 8"
8_15_2007	1	Beaver	N/A	Tracks	Deposition	33° 34' 34"	85° 52' 8"
8_15_2007	1	Common Map Turtle	1	Sight	Deposition	33° 34' 34"	85° 52' 8"
8_15_2007	1	Great Blue Heron	2	Sight	Stream Canopy	33° 34' 33"	85° 52' 14"
8_15_2007	1	Great Blue Heron	N/A	Tracks	Bank	33° 34' 33"	85° 52' 18"
8_15_2007	1	Duck	N/A	Tracks	Bank	33° 34' 33"	85° 52' 18"
8_15_2007	1	Hawk sp.	1	Sight	Stream Canopy	33° 34' 29"	85° 52' 23"
8_15_2007	1	Muskrat	1	Sight	Bank	33° 34' 33"	85° 52' 27"
8_15_2007	1	Common Map Turtle	N/A	Sight	Deposition	33° 34' 35"	85° 52' 37"
8_15_2007	1	Beaver	N/A	Tracks	Deposition	33° 34' 35"	85° 52' 37"
8_15_2007	1	Raccoon	N/A	Tracks	NA	33° 34' 35"	85° 52' 37"
8_15_2007	1	Dog	N/A	Tracks	NA	33° 34' 35"	85° 52' 37"
8_15_2007	1	Great Blue Heron	2	Sight	Stream Canopy	33° 34' 35"	85° 52' 37"
8_15_2007	1	Red-tailed Hawk	1	Sight	Deadfall	33° 34' 24"	85° 52' 51"
8_15_2007	1	Raccoon	N/A	Tracks	Deposition	33° 34' 27"	85° 53' 5"
8_15_2007	1	Muskrat	N/A	Tracks	Deposition	33° 34' 27"	85° 53' 5"
8_15_2007	1	Beaver	N/A	Sign	Deposition	33° 34' 29"	85° 53' 7"
8_15_2007	1	Muskrat	N/A	Tracks	Deposition	33° 34' 29"	85° 53' 7"
8_15_2007	1	Muskrat	1	Sight	Run	33° 34' 33"	85° 53' 15"
8_15_2007	1	Beaver	N/A	Sign	Bank	33° 34' 36"	85° 53' 20"
8_15_2007	1	Raccoon	N/A	Tracks	Deposition	33° 34' 35"	85° 53' 32"
8_15_2007	1	Beaver	N/A	Tracks	Deposition	33° 34' 35"	85° 53' 32"
8_15_2007	1	Raccoon	N/A	Tracks	Deposition	33° 34' 36"	85° 53' 39"
8_15_2007	1	Muskrat	N/A	Tracks	Deposition	33° 34' 36"	85° 53' 39"
8_15_2007	1	Great Blue Heron	1	Sight	Stream Canopy	33° 34' 38"	85° 53' 45"

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
8_15_2007	1	Dog	N/A	Tracks	Deposition	33° 34' 38"	85° 53' 45"
8_15_2007	1	Muskrat	N/A	Tracks	Deposition	33° 34' 38"	85° 53' 45"
8_15_2007	1	Deer	N/A	Tracks	Deposition	33° 34' 32"	85° 53' 47"
8_15_2007	1	Muskrat	N/A	Tracks	Deposition	33° 34' 32"	85° 53' 47"
8_15_2007	1	Cottonmouth	1	Sight	Mid-Channel	33° 34' 32"	85° 53' 54"
8_15_2007	1	Raccoon	N/A	Tracks	Bank	33° 34' 38"	85° 53' 55"
8_15_2007	1	Deer	N/A	Tracks	Bank	33° 34' 38"	85° 53' 55"
8_15_2007	1	Deer	6	Sight	Bank	33° 34' 45"	85° 53' 57"
8_15_2007	1	Cows	N/A	Sight	Mid-Channel	33° 34' 44"	33° 34' 3"
8_15_2007	1	Muskrat	N/A	Tracks	Bank	33° 34' 50"	85° 53' 60"
8_15_2007	1	Great Blue Heron	N/A	Tracks	Bank	33° 34' 50"	85° 53' 60"
8_15_2007	1	Raccoon	N/A	Tracks	Deposition	33° 35' 0"	85° 53' 59"
8_15_2007	1	Great Blue Heron	N/A	Tracks	Deposition	33° 35' 0"	85° 53' 59"
8_15_2007	1	Deer	3	Sight	Bank	33° 35' 0"	85° 54' 9"
8_15_2007	1	Great Blue Heron	1	Sight	Bank	33° 35' 0"	85° 54' 9"
8_16_2007	1	Deer	N/A	Tracks	Island	33° 34' 53"	85° 54' 23"
8_16_2007	1	Raccoon	N/A	Tracks	Island	33° 34' 53"	85° 54' 23"
8_16_2007	1	Great Blue Heron	N/A	Tracks	Island	33° 34' 53"	85° 54' 23"
8_16_2007	1	Muskrat	1	Sight	Pool	33° 34' 51"	85° 54' 26"
8_16_2007	1	Deer	N/A	Tracks	Island	33° 34' 47"	85° 54' 32"
8_16_2007	1	Hawk sp.	1	Sight	Stream Canopy	33° 34' 47"	85° 54' 32"
8_16_2007	1	Muskrat	N/A	Tracks	Deposition	33° 34' 45"	85° 54' 40"
8_16_2007	1	Beaver	N/A	Tracks	Deposition	33° 34' 45"	85° 54' 40"
8_16_2007	1	Red-shouldered Hawk	N/A	Sign	Stream Canopy	33° 34' 45"	85° 54' 40"
8_16_2007	1	Great Blue Heron	N/A	Tracks	Riffle	33° 34' 45"	85° 54' 40"
8_16_2007	1	Green Heron	N/A	Tracks	Riffle	33° 34' 45"	85° 54' 40"
8_16_2007	1	Raccoon	N/A	Tracks	Deposition	33° 34' 48"	85° 54' 53"
8_16_2007	1	Kingfisher	1	Sight	Deposition	33° 34' 48"	85° 54' 53"
8_16_2007	2	Raccoon	N/A	Tracks	Deposition	33° 34' 43"	85° 55' 3"
8_16_2007	2	Raccoon	N/A	Tracks	Bank	33° 34' 42"	85° 55' 6"
8_16_2007	2	Deer	N/A	Tracks	Bank	33° 34' 42"	85° 55' 6"
8_16_2007	2	Common Map Turtle	2	Sight	Riffle	33° 34' 36"	85° 55' 11"
8_16_2007	2	Deer	1	Sight	Riffle	33° 34' 36"	85° 55' 11"
8_16_2007	2	Osprey	1	Sight	Stream Canopy	33° 34' 36"	85° 55' 11"
8_16_2007	2	Raccoon	N/A	Tracks	Deposition	33° 34' 29"	85° 55' 19"
8_16_2007	2	Deer	N/A	Tracks	Deposition	33° 34' 29"	85° 55' 19"
8_16_2007	2	Raccoon	N/A	Tracks	Riffle	33° 34' 27"	85° 55' 21"
8_16_2007	2	Deer	N/A	Tracks	Riffle	33° 34' 24"	85° 55' 26"
8_16_2007	2	Raccoon	N/A	Tracks	Riffle	33° 34' 24"	85° 55' 26"
8_16_2007	2	Beaver	N/A	Tracks	Riffle	33° 34' 24"	85° 55' 26"
8_16_2007	2	Great Blue Heron	2	Sight	Bank	33° 34' 17"	85° 55' 32"
8_16_2007	2	Beaver	N/A	Tracks	Deposition	33° 34' 14"	85° 55' 50"
8_16_2007	2	Raccoon	N/A	Tracks	Deposition	33° 34' 14"	85° 55' 50"
8_16_2007	2	Raccoon	N/A	Tracks	Deposition	33° 34' 15"	85° 55' 58"
8_16_2007	2	Muskrat	N/A	Tracks	Deposition	33° 34' 15"	85° 55' 58"
8_16_2007	2	Kingfisher	1	Sight	Stream Canopy	33° 34' 3"	85° 56' 3"
8_16_2007	2	Wood Duck	5	Sight	Riffle	33° 33' 53"	85° 56' 3"
8_16_2007	2	Muskrat	N/A	Tracks	Deposition	33° 34' 44"	85° 56' 3"
8_16_2007	2	Raccoon	N/A	Tracks	Deposition	33° 34' 44"	85° 56' 3"
8_16_2007	2	Muskrat	N/A	Tracks	Deposition	33° 33' 41"	85° 56' 20"
8_16_2007	2	Raccoon	N/A	Tracks	Deposition	33° 33' 44"	85° 56' 29"
8_16_2007	2	Beaver	N/A	Tracks	Deposition	33° 33' 44"	85° 56' 29"
8_16_2007	2	Raccoon	N/A	Tracks	Bank	33° 33' 45"	85° 56' 33"
8_16_2007	2	Great Blue Heron	1	Sight	Bank	33° 33' 45"	85° 56' 33"
8_16_2007	2	Mink	N/A	Tracks	Bank	33° 33' 47"	85° 56' 39"
8_16_2007	2	Great Blue Heron	1	Sight	Stream Canopy	33° 33' 47"	85° 56' 39"
8_16_2007	2	Green Heron	1	Sight	Stream Canopy	33° 33' 18"	85° 56' 45"
8_16_2007	2	Beaver	N/A	Tracks	Deposition	33° 33' 55"	85° 56' 50"
8_16_2007	2	Raccoon	N/A	Tracks	Deposition	33° 33' 55"	85° 56' 50"
8_16_2007	2	Great Blue Heron	1	Sight	Riffle	33° 34' 6"	85° 56' 49"
8_16_2007	2	Wood Duck	5	Sight	Bank	33° 34' 4"	85° 56' 37"
8_16_2007	2	Great Blue Heron	1	Sight	Bank	33° 34' 4"	85° 56' 37"
8_16_2007	2	Muskrat	1	Sight	Bank	33° 34' 4"	85° 56' 37"
8_16_2007	2	Raccoon	N/A	Tracks	Deposition	33° 34' 15"	85° 56' 52"
8_16_2007	2	Dog	N/A	Tracks	Deposition	33° 34' 2"	85° 57' 13"
8_16_2007	2	Muskrat	N/A	Tracks	Deposition	33° 34' 2"	85° 57' 13"
8_16_2007	2	Great Blue Heron	N/A	Tracks	Deposition	33° 34' 2"	85° 57' 13"
8_16_2007	2	Deer	2	Sight	Mid-Channel	33° 33' 57"	85° 57' 19"
8_16_2007	2	Kingfisher	1	Sight	Deposition	33° 33' 53"	85° 57' 24"
8_16_2007	2	Wood Duck	1	Sight	Deposition	33° 33' 53"	85° 57' 24"

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
8_16_2007	2	Muskrat	N/A	Tracks	Deposition	33° 33' 49"	85° 57' 37"
8_16_2007	2	Beaver	N/A	Tracks	Deposition	33° 33' 49"	85° 57' 37"
8_16_2007	2	Kingfisher	1	Sight	Stream Canopy	33° 33' 49"	85° 57' 37"
8_16_2007	2	Raccoon	N/A	Tracks	Deposition	33° 33' 48"	85° 57' 51"
8_16_2007	2	Muskrat	N/A	Tracks	Deposition	33° 33' 48"	85° 57' 51"
8_16_2007	2	Raccoon	N/A	Tracks	Deposition	33° 33' 31"	85° 58' 21"
8_16_2007	2	Muskrat	N/A	Tracks	Deposition	33° 33' 31"	85° 58' 21"
8_16_2007	2	Deer	N/A	Tracks	Deposition	33° 33' 10"	85° 58' 34"
8_16_2007	2	Beaver	N/A	Tracks	Deposition	33° 33' 10"	85° 58' 34"
8_16_2007	2	Muskrat	N/A	Tracks	Deposition	33° 33' 13"	85° 58' 53"
8_16_2007	2	Beaver	N/A	Tracks	Deposition	33° 33' 13"	85° 58' 53"
8_16_2007	2	Muskrat	N/A	Tracks	Deposition	33° 33' 11"	85° 59' 12"
8_16_2007	2	Wood Duck	1	Sight	Stream Canopy	33° 33' 11"	85° 59' 12"
8_16_2007	2	Muskrat	N/A	Tracks	Deposition	33° 33' 10"	85° 59' 14"
8_16_2007	2	Raccoon	N/A	Tracks	Deposition	33° 33' 10"	85° 59' 14"
8_16_2007	2	Red-shouldered Hawk	1	Sight	Stream Canopy	33° 33' 10"	85° 59' 24"
8_16_2007	2	Beaver	N/A	Sign	Bank	33° 32' 34"	85° 59' 19"
8_16_2007	2	Owl sp.	1	Sight	Stream Canopy	33° 32' 34"	85° 59' 19"
8_16_2007	2	Muskrat	N/A	Tracks	Deposition	33° 32' 30"	85° 59' 44"
8_16_2007	2	Beaver	N/A	Tracks	Deposition	33° 32' 30"	85° 59' 44"
8_17_2007	3	Beaver	N/A	Tracks	Deposition	33° 33' 15"	86° 0' 30"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 33' 15"	86° 0' 30"
8_17_2007	3	Muskrat	N/A	Tracks	Deposition	33° 33' 15"	86° 0' 30"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 33' 19"	86° 0' 33"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 33' 26"	86° 0' 40"
8_17_2007	3	Green Heron	1	Sight	Stream Canopy	33° 33' 33"	86° 0' 45"
8_17_2007	3	Red-shouldered Hawk	1	Sight	Stream Canopy	33° 33' 33"	86° 0' 45"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 33' 33"	86° 0' 45"
8_17_2007	3	Great Blue Heron	N/A	Tracks	Deposition	33° 33' 30"	86° 0' 24"
8_17_2007	3	Beaver	N/A	Tracks	Deposition	33° 33' 30"	86° 0' 24"
8_17_2007	3	Beaver	N/A	Tracks	Deposition	33° 33' 19"	86° 0' 47"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 33' 19"	86° 0' 47"
8_17_2007	3	Muskrat	N/A	Tracks	Deposition	33° 33' 19"	86° 0' 47"
8_17_2007	3	Mink	N/A	Tracks	Deposition	33° 33' 7"	86° 0' 56"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 33' 7"	86° 0' 56"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 33' 6"	86° 1' 11"
8_17_2007	3	Deer	N/A	Tracks	Deposition	33° 33' 6"	86° 1' 11"
8_17_2007	3	Dog	N/A	Tracks	Deposition	33° 33' 6"	86° 1' 11"
8_17_2007	3	Red-shouldered Hawk	1	Sight	Stream Canopy	33° 33' 17"	86° 1' 26"
8_17_2007	3	Wood Duck	1	Sight	Stream Canopy	33° 33' 17"	86° 1' 26"
8_17_2007	3	Muskrat	N/A	Tracks	Deposition	33° 33' 17"	86° 1' 26"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 33' 17"	86° 1' 31"
8_17_2007	3	Beaver	N/A	Tracks	Deposition	33° 33' 17"	86° 1' 31"
8_17_2007	3	Great Blue Heron	1	Sight	Deposition	33° 33' 17"	86° 1' 31"
8_17_2007	3	Beaver	N/A	Tracks	Bank	33° 33' 6"	86° 2' 5"
8_17_2007	3	Kingfisher	N/A	Sign	Bank	33° 33' 6"	86° 2' 5"
8_17_2007	3	Cooper's Hawk	1	Sight	Stream Canopy	33° 32' 58"	86° 2' 8"
8_17_2007	3	Muskrat	N/A	Tracks	Deposition	33° 32' 58"	86° 2' 8"
8_17_2007	3	Beaver	N/A	Tracks	Deposition	33° 32' 58"	86° 2' 8"
8_17_2007	3	Muskrat	N/A	Tracks	Deposition	33° 32' 43"	86° 2' 17"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 32' 43"	86° 2' 17"
8_17_2007	3	Cooper's Hawk	1	Sight	Stream Canopy	33° 32' 43"	86° 2' 17"
8_17_2007	3	Muskrat	N/A	Tracks	Deposition	33° 32' 36"	86° 2' 37"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 32' 36"	86° 2' 37"
8_17_2007	3	Kingfisher	N/A	Sign	Bank	33° 32' 36"	86° 2' 37"
8_17_2007	3	Kingfisher	1	Sight	Stream Canopy	33° 32' 20"	86° 2' 59"
8_17_2007	3	Muskrat	N/A	Tracks	Deposition	33° 32' 20"	86° 2' 59"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 32' 20"	86° 2' 59"
8_17_2007	3	Kingfisher	1	Sight	Stream Canopy	33° 32' 26"	86° 3' 31"
8_17_2007	3	Beaver	N/A	Tracks	Deposition	33° 32' 32"	86° 3' 34"
8_17_2007	3	Muskrat	N/A	Tracks	Deposition	33° 32' 32"	86° 3' 34"
8_17_2007	3	Muskrat	N/A	Tracks	Deposition	33° 32' 44"	86° 3' 42"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 32' 44"	86° 3' 42"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 32' 42"	86° 3' 53"
8_17_2007	3	Beaver	N/A	Tracks	Deposition	33° 32' 21"	86° 3' 56"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 32' 21"	86° 3' 56"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 32' 44"	86° 4' 15"
8_17_2007	3	Kingfisher	1	Sight	Stream Canopy	33° 32' 44"	86° 4' 15"
8_17_2007	3	Green Heron	1	Sight	Stream Canopy	33° 32' 47"	86° 4' 15"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 32' 51"	86° 4' 17"

TABLE 7
AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
8_17_2007	3	Beaver	N/A	Tracks	Deposition	33° 32' 51"	86° 4' 17"
8_17_2007	3	Muskrat	N/A	Tracks	Deposition	33° 32' 51"	86° 4' 17"
8_17_2007	3	Deer	1	Sight	Deposition	33° 32' 51"	86° 4' 17"
8_17_2007	3	Great Blue Heron	1	Sight	Deposition	33° 33' 7"	86° 4' 31"
8_17_2007	3	Raccoon	N/A	Tracks	Deposition	33° 33' 7"	86° 4' 43"
8_17_2007	3	Great Blue Heron	1	Sight	Stream Canopy	33° 32' 56"	86° 4' 44"
8_17_2007	3	Great Blue Heron	1	Sight	Stream Canopy	33° 32' 33"	86° 5' 0"
8_17_2007	3	Red-shouldered Hawk	1	Sight	Stream Canopy	33° 32' 33"	86° 5' 0"

Notes:
EDR = Ecologically differentiable reach (see Figure 1)
N/A = Not available or not applicable
N/R = Not recorded
Location/global positioning system coordinates in NAD 83; latitude and longitude in degrees, minutes, seconds.

TABLE 8A
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - BACKWATER AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 1 BACKWATER**						
		Sample Date:	**28 October 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**LBW-1**	**LBW-1R**	**Total**	**(no./m^2)**	**Percent**
Tubificida									
	Tubificidae								
		Limnodrilus sp.	tube worm	9.4	14	13	27	587	17.2%
		Quistadrilus multisetosus	tube worm	3.8	4	2	6	130	3.8%
Rhynchobdellida									
	Glossiphoniidae								
		Gloiobdella elongata	leech	9.5	1	1	2	43	1.3%
Basommatophora									
	Physidae								
		Physa sp.	pouch snail	8.8		2	2	43	1.3%
	Planorbidae								
		Helisoma anceps	orb snail	6.2	4		4	87	2.5%
Mesogastropoda									
	Viviparidae								
		Campeloma sp.	mystery snail	6.5		3	3	65	1.9%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	1		1	22	0.6%
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	35	21	56	1217	35.7%
Amphipoda									
	Crangonyctidae								
		Crangonyx sp.	side swimmer	7.9		2	2	43	1.3%
Decapoda									
	Cambaridae								
		Orconectes sp.	crayfish	2.6	1	1	2	43	1.3%
Ephemeroptera									
	Caenide								
		Caenis latipennis	mayfly	7.4		1	1	22	0.6%
Odonata									
	Libellulidae								
		Neurocordulia sp.	dragonfly	3.4	1		1	22	0.6%
Megaloptera									
	Sialidae								
		Sialis sp.	alderfly	7.2	1		1	22	0.6%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9	4	5	9	196	5.7%
	Hydrophilidae								
		Berosus sp.	scavenger beetle	8.5	4	1	5	109	3.2%
Diptera									
	Ceratopogonidae								
		Palpomyia gr.	biting midge	7.0		7	7	152	4.5%
	Chironomidae								
		Clinotanypus sp.	midge	8.7	2	2	4	87	2.5%
		Dicrotendipes sp.	midge	8.1	5	1	6	130	3.8%
		Polypedilum flavum	midge	4.7	1		1	22	0.6%
		Procladius sp.	midge	9.1		2	2	43	1.3%
		Tanytarsus sp.	midge	6.7	8	7	15	326	9.6%
		Total Taxa			15	16	**21**		
		Total Specimens			86	71	**157**		100.0%
		Total Density (no./m^2)						**3,413**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 8B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - BACKWATER AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 1 BACKWATER**						
		Sample Date:	**15 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**LBW-1**	**LBW-1R**	**Total**	**(no./m2)**	**Percent**
Haplotaxida									
	Lumbricidae		earth worm	8.0		1	1	22	0.7%
Tubificida									
	Tubificidae								
		Aulodrilus sp.	tube worm	5.5		1	1	22	0.7%
		Ilydrilus templetoni	tube worm	9.0	1	1	2	43	1.5%
		immature tubificid w/hair chaetae	tube worm	7.1	1		1	22	0.7%
		Limnodrilus sp.	tube worm	9.4	20	16	36	783	26.3%
Rhynchobdellida									
	Glossiphonidae								
		Batrachobdella phalera	leech	7.7		2	2	43	1.5%
		Gloiobdella elongata	leech	9.5		2	2	43	1.5%
		Placobdella papillifera	leech	9.0		1	1	22	0.7%
Basommatophora									
	Physidae								
		Physa sp.	pouch snail	8.8		10	10	217	7.3%
	Planorbidae								
		Helisoma anceps	orb snail	6.2		12	12	261	8.8%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7	1	1	2	43	1.5%
	Viviparidae								
		Campeloma sp.	mystery snail	6.5		3	3	65	2.2%
Veneroidea									
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5		21	21	457	15.3%
Amphipoda									
	Crangonyctidae								
		Crangonyx sp.	side swimmer	7.9		1	1	22	0.7%
Hemiptera									
	Corixidae		water boatman	9.0		1	1	22	0.7%
Trichoptera									
	Dipseudopsidae								
		Phylocentropus sp.	caddisfly	6.2	2		2	43	1.5%
	Leptoceridae								
		Mystacides sp.	caddisfly	2.6	1		1	22	0.7%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9	1		1	22	0.7%
Diptera									
	Ceratopogonidae								
		Bezzia sp.	biting midge	7.0		1	1	22	0.7%
		Ceratopogon sp.	biting midge	7.7		4	4	87	2.9%
		Culicoides sp.	biting midge	7.7		2	2	43	1.5%
		Sphaeromias sp.	biting midge	6.0	9	1	10	217	7.3%
	Chironomidae								
		Chironomini	midge	6.0	2		2	43	1.5%
		Clinotanypus sp.	midge	8.7		1	1	22	0.7%
		Cryptotendipes sp.	midge	6.2		1	1	22	0.7%
		Dicrotendipes sp.	midge	8.1	1		1	22	0.7%
		Procladius sp.	midge	9.1	2	4	6	130	4.4%
		Tanytarsus sp.	midge	6.7	6	2	8	174	5.8%
	Tipulidae								
		Ormosia sp.	crane fly	6.3		1	1	22	0.7%
		Total Taxa			12	23	**29**		
		Total Specimens			47	90	137		100.0%
		Total Density (no./m^2)						**2,978**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 9A
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - DEPOSITIONAL AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 1 DEPOSITIONAL**						
		Sample Date:	**28 October 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**LDEP-1**	**LDEP-1R**	**Total**	**(no./m^2)**	**Percent**
Alloeocoela									
	Plagiostomidae								
		Hydrolimax grisea	flat worm	5.2	1		1	22	2.6%
Lumbricina									
	Lumbricidae		earth worm	8.0		1	1	22	2.6%
Tubificida									
	Tubificidae								
		Limnodrilus sp.	tube worm	9.4	11	19	30	652	78.9%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	2	2	4	87	10.5%
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	1		1	22	2.6%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9		1	1	22	2.6%
		Total Taxa			4	4	**6**		
		Total Specimens			15	23	**38**		100.0%
		Total Density (no./m^2)						**826**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 9B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - DEPOSITIONAL AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 1 DEPOSITIONAL**						
		Sample Date:	**15 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**LDEP-1**	**LDEP-1R**	**Total**	**(no./m^2)**	**Percent**
Tubificida									
	Tubificidae								
		Limnodrilus sp.	tube worm	9.4	14	26	40	870	26.8%
		Limnodrilus cervix	tube worm	9.9		8	8	174	5.4%
		Limnodrilus hoffmeiste	tube worm	9.4		9	9	196	6.0%
		Quistadrilus multisetos	tube worm	3.8	1		1	22	0.7%
Arhynchobdellida									
	Erpobdellidae								
		Mooreobdella sp.	leech	9.4	1		1	22	0.7%
Rhynchobdellida									
	Glossiphonidae								
		Gloiobdella elongata	leech	9.5	8		8	174	5.4%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7	1	1	2	43	1.3%
	Viviparidae								
		Campeloma sp.	mystery snail	6.5	5	2	7	152	4.7%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	2	3	5	109	3.4%
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5		1	1	22	0.7%
Isopoda									
	Asellidae								
		Caecidotea sp.	pill bug	9.1		1	1	22	0.7%
Ephemeroptera									
	Baetidae								
		Centroptilum sp.	mayfly	6.6		1	1	22	0.7%
	Ephemeridae								
		Hexagenia munda	mayfly	4.9		2	2	43	1.3%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9		2	2	43	1.3%
Diptera									
	Ceratopogonidae								
		Bezzia sp.	biting midge	7.0	1		1	22	0.7%
		Ceratopogon sp.	biting midge	7.7	1				
		Culicoides sp.	biting midge	7.7	2		2	43	1.3%
		Sphaeromias sp.	biting midge	6.0	5	14	19	413	12.8%
	Chironomidae								
		Chironomus sp.	midge	9.6	1		1	22	0.7%
		Clinotanypus sp.	midge	8.7		1	1	22	0.7%
		Clinotanypus sp.	midge	8.7	1		1	22	0.7%
		Cryptotendipes sp.	midge	6.2		2	2	43	1.3%
		Dicrotendipes sp.	midge	8.1	3	1	4	87	2.7%
		Orthocladius sp.	midge	5.4		1	1	22	0.7%
		Paratendipes albiman	midge	6.0		1	1	22	0.7%
		Polypedilum sp.	midge	5.6	1		1	22	0.7%
		Procladius sp.	midge	9.1	4	3	7	152	4.7%
		Stictochironomus caffi	midge	6.7		5	5	109	3.4%
		Tanytarsus sp.	midge	6.7	6	9	15	326	10.1%
		Total Taxa			17	20	**28**		
		Total Specimens			57	93	149		100.0%
		Total Density (no./m^2)						**3,239**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 10A
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 1 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**29 October 2006**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LEAV-1**	**LEAV-1R**	**Total**	**Percent**
Basommatophora								
	Physidae							
		Physa sp.	pouch snail	8.8	5		5	3.4%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4		4	4	2.7%
		Leptoxis sp.	rock snail	1.7	27	30	57	38.5%
Ephemeroptera								
	Baetidae							
		Cloeon sp.	mayfly	4.0	2		2	1.4%
		Procloeon sp.	mayfly	6.0		2	2	1.4%
Odonata								
	Coenagrionidae							
		Enallagma sp.	damselfly	8.9	21	28	49	33.1%
Trichoptera								
	Hydroptilidae							
		Oxyethira sp.	caddisfly	3.0	1		1	0.7%
	Leptoceridae							
		Triaenodes sp.	caddisfly	3.8	1		1	0.7%
	Polycentropodidae							
		Polycentropus sp.	caddisfly	3.5		2	2	1.4%
Coleoptera								
	Haliplidae							
		Peltodytes sp.	crawling water beetle	8.7	1		1	0.7%
Diptera								
	Chironomidae							
		Paramerina sp.	midge	4.3		1	1	0.7%
		Polypedilum illinoense gr.	midge	9.0	9	14	23	15.5%
		Total Taxa			8	7	**12**	
		Total Specimens			67	81	**148**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 10B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 1 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**15 May 2007**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LEAV-1**	**LEAV-1R**	**Total**	**Percent**
Tubificida								
	Tubificidae							
		Limnodrilus sp.	tube worm	9.4	46		46	4.0%
		Limnodrilus hoffmeisteri	tube worm	9.4	5		5	0.4%
		Quistadrilus multisetosus	tube worm	3.8	1		1	0.1%
Rhynchobdellida								
	Glossiphonidae							
		Helobdella triserialis	leech	9.2	1		1	0.1%
	Physidae							
		Physa sp.	pouch snail	8.8	8	7	15	1.3%
	Planorbidae							
		Helisoma anceps	orb snail	6.2		1	1	0.1%
Mesogastropoda								
		Elimia sp.	horn snail	2.4		1	1	0.1%
		Leptoxis sp.	rock snail	1.7	276	293	569	49.3%
		Leptoxis occulatata	rock snail	1.7		8	8	0.7%
	Viviparidae							
		Campeloma sp.	mystery snail	6.5	4		4	0.3%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	20	3	23	2.0%
	Sphaeriidae							
		Pisidium sp.	pill clam	6.5	192	11	203	17.6%
Ephemeroptera								
	Baetidae							
		Centroptilum sp.	mayfly	6.6		1	1	0.1%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0		1	1	0.1%
Odonata								
	Aeschnidae							
		Boyeria sp.	dragonfly	5.9	1		1	0.1%
	Coenagrionidae							
		Enallagma sp.	damselfly	8.9		1	1	0.1%
	Libellulidae							
		Didymops transversa	dragonfly	2.3	1		1	0.1%
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7		2	2	0.2%
Hemiptera								
	Belostomatidae							
		Belostoma sp.	giant water bug	9.8		2	2	0.2%
	Mesoveliidae							
		Mesovelia mulsanti	water treader	6.0		4	4	0.3%
Trichoptera								
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2		4	4	0.3%
Coleoptera								
	Elmidae							
		Dubiraphia vittata	riffle beetle	5.9	2	1	3	0.3%
		Macronychus glabratus	riffle beetle	4.5		4	4	0.3%
		Microcylloepus pusillus	riffle beetle	2.1	3	1	4	0.3%
	Haliplidae							
		Haliplus sp.	crawling water beetle	8.7	2		2	0.2%
	Psephenidae							
		Psephenus herricki	water penny	2.3		1	1	0.1%

TABLE 10B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 1 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**15 May 2007**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LEAV-1**	**LEAV-1R**	**Total**	**Percent**
Diptera								
	Ceratopogonidae							
		Bezzia sp.	biting midge	7.0		23	23	2.0%
		Mallachohelia sp.	biting midge	6.0	1		1	0.1%
		Sphaeromias sp.	biting midge	6.0	8		8	0.7%
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	7		7	0.6%
		Chironomus sp.	midge	9.6	4		4	0.3%
		Cricotopus sp.	midge	6.3	1	7	8	0.7%
		Cryptochironomus fulvus gr.	midge	6.4	4		4	0.3%
		Cryptotendipes sp.	midge	6.2	1		1	0.1%
		Dicrotendipes sp.	midge	8.1	29	10	39	3.4%
		Orthocladius sp.	midge	5.4		3	3	0.3%
		Paracladopelma sp.	midge	5.5	3		3	0.3%
		Phaenopsectra obedians gr.	midge	6.5	12	3	15	1.3%
		Phaenopsectra punctipes gr.	midge	6.5		3	3	0.3%
		Polypedilum illinoense gr.	midge	9.0	7	92	99	8.6%
		Procladius sp.	midge	9.1	16		16	1.4%
		Rheotanytarsus sp.	midge	5.9		4	4	0.3%
		Tanytarsus sp.	midge	6.7		7	7	0.6%
		Thienemanniella sp.	midge	5.8		1	1	0.1%
		Total Taxa			26	28	**44**	
		Total Specimens			655	499	1,154	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 11A
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	LOWER - 1 RIFFLE					
		Sample Date:	28 October 2006					
		Gear:	Kick Net					
				Tol.				
Taxon:			Common Name	Index*	LRIF-1	LRIF-1R	Total	Percent
Tricladida								
	Planariidae							
		Dugesia tigrina	flat worm	7.2	1		1	0.3%
Lumbricina								
	Lumbricidae		earth worm	8.0	5	4	9	2.4%
Basommatophora								
	Physidae							
		Physa sp.	pouch snail	8.8		1	1	0.3%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	40	27	67	17.6%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1		2	2	0.5%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	3		3	0.8%
		Heterocloeon sp.	mayfly	2.0	4		4	1.1%
		Procloeon sp.	mayfly	6.0	1		1	0.3%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	5	2	7	1.8%
		Stenonema mediopunctatum	mayfly	3.7	3	5	8	2.1%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	95	65	160	42.1%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2		1	1	0.3%
	Gomphidae		dragonfly	4.0	1	1	2	0.5%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1		2	2	0.5%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	35	49	84	22.1%
		Hydropsyche sp.	caddisfly	4.3	2		2	0.5%
		Hydropsyche bronta	caddisfly	5.0		9	9	2.4%
		Hydropsyche frisoni	caddisfly	1.8		1	1	0.3%
	Philopotamidae							
		Chimarra obscura	caddisfly	2.7	3	1	4	1.1%
Coleoptera								
	Elmidae							
		Microcylloepus pusillus	riffle beetle	2.1	2		2	0.5%
		Optioservus sp.	riffle beetle	2.3	1		1	0.3%
		Stenelmis crenata gr.	riffle beetle	5.1	1	7	8	2.1%
Diptera								
	Simuliidae							
		Simulium sp.	black fly	4.0		1	1	0.3%
		Total Taxa			16	16	**23**	
		Total Specimens			202	178	**380**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 11B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 1 RIFFLE**					
		Sample Date:	**15 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LRIF-1**	**LRIF-1R**	**Total**	**Percent**
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6	1		1	0.1%
	Physidae							
		Physa sp.	pouch snail	8.8	2		2	0.3%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	3	4	7	1.0%
		Leptoxis sp.	rock snail	1.7	67	126	193	26.4%
		Leptoxis occulatata	rock snail	1.7	23	43	66	9.0%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	9	22	31	4.2%
	Sphaeriidae							
		Pisidium sp.	pill clam	6.5		2	2	0.3%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	4		4	0.5%
		Heterocloeon sp.	mayfly	2.0	1		1	0.1%
	Ephemerellidae							
		Serratella sp.	mayfly	1.5	21	7	28	3.8%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	6	5	11	1.5%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	6	7	13	1.8%
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7		1	1	0.1%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1	2	2	4	0.5%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	57	12	69	9.4%
		Hydropsyche sp.	caddisfly	4.3		4	4	0.5%
		Hydropsyche nr. *better*	caddisfly	7.8	28		28	3.8%
		Hydropsyche bronta	caddisfly	5.0	135	35	170	23.2%
	Lepidostomatidae							
		Lepidostoma sp.	caddisfly	0.9	1		1	0.1%
Lepidoptera								
	Pyraulidae							
		Petrophila sp.	moth	2.1	2		2	0.3%
Coleoptera								
	Elmidae							
		Microcylloepus pusillus	riffle beetle	2.1	39		39	5.3%
		Optioservus sp.	riffle beetle	2.3	2		2	0.3%
		Stenelmis crenata gr.	riffle beetle	5.1	9	2	11	1.5%
Diptera								
	Chironomidae							
		Corynoneuria sp.	midge	6.0	1		1	0.1%
		Eukiefferiella devonica	midge	2.5	5		5	0.7%
		Eukiefferiella gracei gr.	midge	3.4	2		2	0.3%
		Paratanytarsus sp. (ter	midge	8.4		1	1	0.1%
		Polypedilum sp.	midge	5.6		2	2	0.3%
		Polypedilum illinoense	midge	9.0	6		6	0.8%
		Rheotanytarsus sp.	midge	5.9	13		13	1.8%
		Tvetenia sp.	midge	3.6	7		7	1.0%
	Simuliidae							
		Simulium sp.	black fly	4.0	5		5	0.7%
		Total Taxa			27	16	**32**	
		Total Specimens			457	275	732	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 12A
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 1 RUN**					
		Sample Date:	**28 October 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LRUN-1**	**LRUN-1R**	**Total**	**Percent**
Tricladida								
	Planariidae							
		Dugesia tigrina	flat worm	7.2		1	1	0.3%
Lumbricina								
	Lumbricidae		earth worm	8.0	2	1	3	1.0%
Basommatophora								
	Physidae							
		Physa sp.	pouch snail	8.8	1		1	0.3%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	24	27	51	16.3%
		Leptoxis sp.	rock snail	1.7	40	34	74	23.6%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	16	31	47	15.0%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	1		1	0.3%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5		3	3	1.0%
		Stenonema mediopunctatum	mayfly	3.7	16	1	17	5.4%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	40	25	65	20.8%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	1		1	0.3%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1	1	1	2	0.6%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	13	26	39	12.5%
		Hydropsyche bronta	caddisfly	5.0		1	1	0.3%
Coleoptera								
	Elmidae							
		Microcylloepus pusillus	riffle beetle	2.1		2	2	0.6%
		Optioservus sp.	riffle beetle	2.3	2	1	3	1.0%
		Stenelmis crenata gr.	riffle beetle	5.1		1	1	0.3%
Diptera								
	Chironomidae							
		Polypedilum illinoense gr.	midge	9.0	1		1	0.3%
		Total Taxa			13	14	**18**	
		Total Specimens			158	155	**313**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 12B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	LOWER - 1 RUN					
		Sample Date:	15 May 2007					
		Gear:	Kick Net					
				Tol.				
Taxon:			Common Name	Index*	LRUN-1	LRUN-1R	Total	Percent
Hoplonemertea								
	Tetrastemmatidae							
		Prostoma graecense	proboscis worm	6.1	1		1	0.2%
Haplotaxida								
	Lumbricidae		earth worm	8.0		1	1	0.2%
	Naididae							
		Nais sp.	naid worm	8.7	6	5	11	2.3%
Rhynchobdellida								
	Glossiphonidae							
		Helobdella sp.	leech	9.0		1	1	0.2%
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6	3	2	5	1.0%
		Laevapex fuscus	limpet snail	7.5	1		1	0.2%
	Physidae							
		Physa sp.	pouch snail	8.8	1	56	57	11.7%
	Planorbidae							
		Gyraulus sp. (tent.)	orb snail	4.2		6	6	1.2%
		Micromenetus dilitatus	orb snail	8.3	2		2	0.4%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4		2	2	0.4%
		Leptoxis sp.	rock snail	1.7	73	79	152	31.1%
		Leptoxis occulatata	rock snail	1.7	18	28	46	9.4%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	2	15	17	3.5%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6		1	1	0.2%
Ephemeroptera								
	Ephemerellidae							
		Serratella sp.	mayfly	1.5	1	4	5	1.0%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	7	11	18	3.7%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	1	3	4	0.8%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	1	4	5	1.0%
Odonata								
	Aeschnidae							
		Boyeria sp.	dragonfly	5.9		1	1	0.2%
	Coenagrionidae							
		Argia sp.	damselfly	8.2		1	1	0.2%
	Gomphidae		dragonfly	5.0		2	2	0.4%
		Lanthus sp.	dragonfly	1.5	1		1	0.2%
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7	1	4	5	1.0%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1	1		1	0.2%

TABLE 12B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 1 RUN**					
		Sample Date:	**15 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LRUN-1**	**LRUN-1R**	**Total**	**Percent**
Trichoptera								
	Brachycentridae							
		Brachycentrus sp.	caddisfly	0.8		1	1	0.2%
		Micrasema sp.	caddisfly	0.6	1		1	0.2%
	Glossosomatidae							
		Glossosoma sp.	caddisfly	1.5		1	1	0.2%
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	10	16	26	5.3%
		Hydropsyche sp.	caddisfly	4.3	1	1	2	0.4%
		Hydropsyche bronta	caddisfly	5.0	8	18	26	5.3%
		Hydropsyche venularis (tent.)	caddisfly	4.9		3	3	0.6%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2		1	1	0.2%
	Lepidostomatidae							
		Lepidostoma sp.	caddisfly	0.9	15	38	53	10.9%
	Leptoceridae							
		Mystacides sp.	caddisfly	2.6	1		1	0.2%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5		1	1	0.2%
		Microcylloepus pusillus	riffle beetle	2.1	4	6	10	2.0%
		Optioservus ovalis	riffle beetle	4.0		3	3	0.6%
	Psephenidae							
		Psephenus herricki	water penny	2.3		1	1	0.2%
Diptera								
	Chironomidae							
		Ablabesmyia annulata	midge	3.5		1	1	0.2%
		Cryptochironomus fulvus gr.	midge	6.4		1	1	0.2%
		Nanocladius sp.	midge	7.1		1	1	0.2%
		Polypedilum sp.	midge	5.6	1		1	0.2%
		Polypedilum scalaenum gr.	midge	8.4	1		1	0.2%
		Rheotanytarsus exiguum gr.	midge	5.9		7	7	1.4%
		Total Taxa			25	35	**44**	
		Total Specimens			162	326	488	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 13A
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - BACKWATER AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 2 BACKWATER**						
		Sample Date:	**29 October 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**LBW-2**	**LBW-2R**	**Total**	**(no./m^2)**	**Percent**
Alloeocoela									
	Plagiostomidae								
		Hydrolimax grisea	flat worm	5.2	1		1	22	0.6%
Lumbricina									
	Lumbricidae		earth worm	8.0		2	2	43	1.2%
Tubificida									
	Tubificidae								
		Limnodrilus sp.	tube worm	9.4	20	34	54	1174	33.5%
		Quistadrilus multisetosus	tube worm	3.8	1		1	22	0.6%
Rhynchobdellida									
	Glossiphoniidae								
		Gloiobdella elongata	leech	9.5		1	1	22	0.6%
Mesogastropoda									
	Viviparidae								
		Campeloma sp.	mystery snail	6.5	1		1	22	0.6%
Veneroidea									
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	6		6	130	3.7%
Isopoda									
	Asellidae								
		Caecidotea sp.	pill bug	9.1	8	2	10	217	6.2%
Ephemeroptera									
	Ephemeridae								
		Hexagenia limbata	mayfly	4.9	5	6	11	239	6.8%
	Heptageniidae								
		Stenonema mediopunctatum	mayfly	3.7	1		1	22	0.6%
Trichoptera									
	Brachycentridae								
	Hydropsychidae								
		Cheumatopsyche sp.	caddisfly	6.2	1		1	22	0.6%
	Polycentropodidae								
		Phylocentropus sp.	caddisfly	6.2		3	3	65	1.9%
		Polycentropus sp.	caddisfly	3.5	3		3	65	1.9%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9	5		5	109	3.1%
Diptera									
	Ceratopogonidae								
		Sphaeromias sp.	biting midge	6.0	3	5	8	174	5.0%
	Chironomidae								
		Ablabesmyia annulata	midge	3.5		1	1	22	0.6%
		Chironomus sp.	midge	9.6		2	2	43	1.2%
		Corynoneuria sp.	midge	6.0	1		1	22	0.6%
		Cryptochironomus fulvus gr.	midge	6.4	4		4	87	2.5%
		Clinotanypus sp.	midge	8.7		1	1	22	0.6%
		Paratanytarsus sp.	midge	8.4	2		2	43	1.2%
		Paralaterborniella nigrohalteralis	midge	4.9		2	2	43	1.2%
		Paratendipes albimanus	midge	6.0	6		6	130	3.7%
		Polypedilum halterale gr.	midge	7.3		13	13	283	8.1%
		Polypedilum scalaenum gr.	midge	8.4	2	13	15	326	9.3%
		Tanytarsus sp.	midge	6.7	3	2	5	109	3.1%
	Empididae		dance fly	7.6	1		1	22	0.6%
		Total Taxa			19	14	**27**		
		Total Specimens			74	87	**161**		100.0%
		Total Density (no./m^2)						**3,500**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 13B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - BACKWATER AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 2 BACKWATER**						
		Sample Date:	**15 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**LBW-2**	**LBW-2R**	**Total**	**(no./m2)**	**Percent**
Tubificida									
	Tubificidae								
		Limnodrilus sp.	tube worm	9.4	33	5	38	826	22.6%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7	1	6	7	152	4.2%
	Viviparidae								
		Campeloma sp.	mystery snail	6.5		6	6	130	3.6%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	1	4	5	109	3.0%
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	3		3	65	1.8%
Amphipoda									
	Crangonyctidae								
		Crangonyx sp.	side swimmer	7.9		1	1	22	0.6%
Isopoda									
	Asellidae								
		Caecidotea sp.	pill bug	9.1		5	5	109	3.0%
Ephemeroptera									
	Ephemeridae								
		Hexagenia limbata	mayfly	4.9	6	16	22	478	13.1%
Megaloptera									
	Sialidae								
		Sialis sp.	alderfly	7.2	2	1	3	65	1.8%
Trichoptera									
	Dipseudopsidae								
		Phylocentropus sp.	caddisfly	6.2	2		2	43	1.2%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9		10	10	217	6.0%
Diptera									
	Ceratopogonidae								
		Ceratopogon sp.	biting midge	7.7		1	1	22	0.6%
		Sphaeromias sp.	biting midge	6.0		2	2	43	1.2%
	Chironomidae								
		Ablabesmyia sp.	midge	7.2		3	3	65	1.8%
		Clinotanypus sp.	midge	8.7		1	1	22	0.6%
		Cryptochironomus fulvus gr.	midge	6.4		3	3	65	1.8%
		Cryptotendipes sp.	midge	6.2		2	2	43	1.2%
		Dicrotendipes sp.	midge	8.1		1	1	22	0.6%
		Endochironomus sp. (tent.)	midge	7.8	1		1	22	0.6%
		Epoicocladius sp.	midge	0.0		1	1	22	0.6%
		Natarsia sp.	midge	9.9	1	2	3	65	1.8%
		Paratendipes albimanus	midge	6.0		2	2	43	1.2%
		Phaenopsectra obedians gr.	midge	6.5		1	1	22	0.6%
		Polypedilum scalaenum gr.	midge	8.4	5	16	21	457	12.5%
		Procladius sp.	midge	9.1	3	6	9	196	5.4%
		Tanytarsus sp.	midge	6.7	4	11	15	326	8.9%
		Total Taxa			12	23	**26**		
		Total Specimens			62	106	168		100.0%
		Total Density (no./m^2)						**3,652**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 14A
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - DEPOSITIONAL AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 2 DEPOSITIONAL**						
		Sample Date:	**29 October 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**LDEP-2**	**LDEP-2R**	**Total**	**(no./m^2)**	**Percent**
Lumbricina									
	Lumbricidae		earth worm	8.0	42	10	52	1130	55.3%
Tubificida									
	Tubificidae								
		Quistadrilus multisetosus	tube worm	3.8	4	2	6	130	6.4%
Basommatophora									
	Physidae								
		Physa sp.	pouch snail	8.8	1		1	22	1.1%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7		1	1	22	1.1%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1		7	7	152	7.4%
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	2		2	43	2.1%
Amphipoda									
	Gammaridae								
		Gammarus fasciatus	side swimmer	8.8		6	6	130	6.4%
Isopoda									
	Asellidae								
		Caecidotea sp.	pill bug	9.1		1	1	22	1.1%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9		6	6	130	6.4%
		Macronychus glabratus	riffle beetle	4.5		1	1	22	1.1%
Diptera									
	Ceratopogonidae								
		Sphaeromias sp.	biting midge	6.0	1	1	2	43	2.1%
	Chironomidae								
		Phaenopsectra obedians gr.	midge	6.5		1	1	22	1.1%
		Tanypodinae	midge	6.0		3	3	65	3.2%
	Tipulidae								
		Gonomyia sp.	crane fly	4.0	4		4	87	4.3%
		Tipula sp.	crane fly	7.3	1		1	22	1.1%
		Total Taxa			7	11	**15**		
		Total Specimens			55	39	**94**		100.0%
		Total Density (no./m^2)						**2,043**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 14B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - DEPOSITIONAL AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 2 DEPOSITIONAL**						
		Sample Date:	**15 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**LDEP-2**	**LDEP-2R**	**Total**	**(no./m2)**	**Percent**
Nematoda			round worm	6.0	1		1	22	0.4%
Tubificida									
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3		1	1	22	0.4%
		immature tubificid w/hair chaetae	tube worm	7.1	7		7	152	2.8%
		Limnodrilus sp.	tube worm	9.4	48	20	68	1478	27.5%
		Limnodrilus hoffmeisteri	tube worm	9.4	21	30	51	1109	20.6%
		Quistadrilus multisetosus	tube worm	3.8		3	3	65	1.2%
Basommatophora									
	Ancylidae								
		Ferrissia rivularis	limpet snail	6.6		1	1	22	0.4%
	Physidae								
		Physa sp.	pouch snail	8.8	2		2	43	0.8%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7	8	4	12	261	4.9%
	Viviparidae								
		Campeloma sp.	mystery snail	6.5		1	1	22	0.4%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	2		2	43	0.8%
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	30	8	38	826	15.4%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9	1	4	5	109	2.0%
Diptera									
	Ceratopogonidae								
		Sphaeromias sp.	biting midge	6.0	5	5	10	217	4.0%
	Chironomidae								
		Chironomus sp.	midge	9.6	2	1	3	65	1.2%
		Cryptotendipes sp.	midge	6.2	1	1	2	43	0.8%
		Paracladopelma sp.	midge	5.5	1		1	22	0.4%
		Phaenopsectra obedians gr.	midge	6.5	1	1	2	43	0.8%
		Polypedilum sp.	midge	5.6		1	1	22	0.4%
		Polypedilum illinoense gr.	midge	9.0	2		2	43	0.8%
		Polypedilum scalaenum gr.	midge	8.4	3		3	65	1.2%
		Procladius sp.	midge	9.1	6	5	11	239	4.5%
		Stictochironomus caffrarius gr.	midge	6.5		1	1	22	0.4%
		Tanytarsus sp.	midge	6.7	8	10	18	391	7.3%
		Thienemannimyia gr.	midge	6.0	1		1	22	0.4%
		Total Taxa			19	17	**25**		
		Total Specimens			150	97	247		100.0%
		Total Density (no./m^2)						**5,370**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 15A
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - EMERGENT AQUATIC VEGETATION AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	LOWER - 2 EMERGENT AQUATIC VEGETATION					
		Sample Date:	29 October 2006					
		Gear:	Sweep Net					
				Tol.				
Taxon:			Common Name	Index*	LEAV-2	LEAV-2R	Total	Percent
Alloeocoela								
	Plagiostomidae							
		Hydrolimax grisea	flat worm	5.2		2	2	0.9%
Basommatophora								
	Ancylidae							
		Laevapex fuscus	limpet snail	7.5		2	2	0.9%
	Physidae							
		Physa sp.	pouch snail	8.8		4	4	1.8%
	Planorbidae							
		Helisoma anceps	orb snail	6.2		1	1	0.4%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4		7	7	3.1%
		Leptoxis sp.	rock snail	1.7	22	94	116	51.8%
	Viviparidae							
		Campeloma sp.	mystery snail	6.5		1	1	0.4%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1		3	3	1.3%
	Sphaeriidae							
		Pisidium sp.	pill clam	6.5		1	1	0.4%
Amphipoda								
	Crangonyctidae							
		Crangonyx sp.	side swimmer	7.9		3	3	1.3%
Isopoda								
	Asellidae							
		Caecidotea sp.	pill bug	9.1		1	1	0.4%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	1		1	0.4%
	Heptageniidae							
		Stenacron interpunctatum	mayfly	6.9		3	3	1.3%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	1		1	0.4%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2		5	5	2.2%
		Enallagma sp.	damselfly	8.9	1	38	39	17.4%
	Gomphidae							
		Dromogomphus spinosus	dragonfly	5.9		4	4	1.8%
		Hagenius sp.	dragonfly	3.9		1	1	0.4%
	Libellulidae							
		Dythemis velox	dragonfly	9.0		1	1	0.4%
		Macromia sp.	dragonfly	6.2		1	1	0.4%
		Neurocordulia sp.	dragonfly	3.4		1	1	0.4%
		Perithemis tenera	dragonfly	9.8		2	2	0.9%
Trichoptera								
	Polycentropodidae							
		Polycentropus sp.	caddisfly	3.5		4	4	1.8%
Coleoptera								
	Elmidae							
		Dubiraphia vittata	riffle beetle	5.9		8	8	3.6%
		Macronychus glabratus	riffle beetle	4.5		2	2	0.9%
	Dryopidae							
		Helichus sp.	long-toed beetle	4.6	1	1	2	0.9%
Diptera								
	Chironomidae							
		Clinotanypus sp.	midge	8.7		2	2	0.9%
		Paratanytarsus sp.	midge	8.4		1	1	0.4%
		Polypedilum illinoense gr.	midge	9.0	3	2	5	2.2%
		Total Taxa			6	27	**29**	
		Total Specimens			29	195	**224**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 15B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - EMERGENT AQUATIC VEGETATION AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 2 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**15 May 2007**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LEAV-2**	**LEAV-2R**	**Total**	**Percent**
Haplotaxida								
	Naididae							
		Stylaria fossularis	naid worm	9.3		1	1	0.2%
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6		3	3	0.6%
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0	2	9	11	2.0%
		Stagnicola sp.	pond snail	8.4		5	5	0.9%
	Physidae							
		Physa sp.	pouch snail	8.8	10	41	51	9.4%
	Planorbidae							
		Helisoma anceps	orb snail	6.2		1	1	0.2%
		Micromenetus dilitatus	orb snail	8.3	3	7	10	1.9%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4		4	4	0.7%
		Leptoxis sp.	rock snail	1.7	52	91	143	26.5%
	Viviparidae							
		Campeloma sp.	mystery snail	6.5	1		1	0.2%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	3		3	0.6%
	Sphaeriidae							
		Pisidium sp.	pill clam	6.5	1	9	10	1.9%
Amphipoda								
	Gammaridae							
		Gammarus fasciatus	side swimmer	8.8	3		3	0.6%
Hydracarina			water mite	5.5		1	1	0.2%
Ephemeroptera								
	Baetidae							
		Cloeon sp.	mayfly	4.0		1	1	0.2%
	Caenide							
		Caenis sp.	mayfly	7.4	1		1	0.2%
	Ephemerellidae							
		Serratella sp.	mayfly	1.5		1	1	0.2%
	Ephemeridae							
		Hexagenia sp.	mayfly	4.3		1	1	0.2%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	1		1	0.2%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	31	13	44	8.1%
Odonata								
	Aeschnidae							
		Boyeria vinosa	dragonfly	5.9	1	3		
	Coenagrionidae							
		Enallagma sp.	damselfly	8.9		32	32	5.9%
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7	9		9	1.7%
Hemiptera								
	Belostomatidae							
		Belostoma sp.	giant water bug	9.8	2	1	3	0.6%
	Corixidae		water boatman	9.0	1	1	2	0.4%
	Mesoveliidae							
		Mesovelia mulsanti	water treader	6.0	5	1	6	1.1%

TABLE 15B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - EMERGENT AQUATIC VEGETATION AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 2 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**15 May 2007**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LEAV-2**	**LEAV-2R**	**Total**	**Percent**
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	15		15	2.8%
		Hydropsyche sp.	caddisfly	4.3	3		3	0.6%
Trichoptera (continued)								
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2	1	2	3	0.6%
	Leptoceridae							
		Mystacides sp.	caddisfly	2.6	2		2	0.4%
		Triaenodes sp.	caddisfly	3.8		1	1	0.2%
	Polycentropodidae							
		Polycentropus sp.	caddisfly	3.5		2	2	0.4%
Coleoptera								
	Elmidae							
		Ancyronyx variegatus	riffle beetle	6.5	2	1	3	0.6%
		Dubiraphia vittata	riffle beetle	5.9	1		1	0.2%
		Macronychus glabratus	riffle beetle	4.5	36	8	44	8.1%
		Microcylloepus pusillus	riffle beetle	2.1	6	4	10	1.9%
	Gyrinidae							
		Dineutus sp.	whirligig beetle	5.5	1		1	0.2%
	Haliplidae							
		Haliplus sp.	crawling water beetle	8.7	1	1	2	0.4%
	Hydrophilidae							
		Tropisternus sp.	scavenger beetle	9.6		1	1	0.2%
Diptera								
	Ceratopogonidae							
		Bezzia sp.	biting midge	7.0		1	1	0.2%
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	4		4	0.7%
		Corynoneuria sp.	midge	6.0	4		4	0.7%
		Cryptotendipes sp.	midge	6.2		1	1	0.2%
		Dicrotendipes sp.	midge	8.1		19	19	3.5%
		Orthocladius sp.	midge	5.4		6	6	1.1%
		Polypedilum sp.	midge	5.6	8		8	1.5%
		Polypedilum illinoense gr.	midge	9.0	24	18	42	7.8%
		Procladius sp.	midge	9.1	4	1	5	0.9%
		Tanytarsus sp.	midge	6.7	4	7	11	2.0%
	Culicidae		mosquito	8.0		2	2	0.4%
	Empididae							
		Hemerodromia sp.	dance fly	7.6	1		1	0.2%
		Total Taxa			33	36	**50**	
		Total Specimens			243	301	540	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 16A
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - RIFFLE AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	LOWER - 2 RIFFLE					
		Sample Date:	29 October 2006					
		Gear:	Kick Net					
				Tol.				
Taxon:			Common Name	Index*	LRIF-2	LRIF-2R	Total	Percent
Lumbricina								
	Lumbricidae		earth worm	8.0	1	2	3	1.7%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	1		1	0.6%
		Leptoxis sp.	rock snail	1.7	11	14	25	14.5%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	10	7	17	9.8%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	2		2	1.2%
		Heterocloeon sp.	mayfly	2.0		1	1	0.6%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5		3	3	1.7%
		Stenonema mediopunctatum	mayfly	3.7	10	6	16	9.2%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	27	21	48	27.7%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	2	2	4	2.3%
	Gomphidae		dragonfly	4.0		1	1	0.6%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	8	26	34	19.7%
		Hydropsyche sp.	caddisfly	4.3		3	3	1.7%
		Hydropsyche bronta	caddisfly	5.0	3	2	5	2.9%
	Philopotamidae							
		Chimarra obscura	caddisfly	2.7		2	2	1.2%
	Polycentropodidae							
		Neureclipsis sp.	caddisfly	4.1		1	1	0.6%
Coleoptera								
	Elmidae							
		Ancyronyx variegatus	riffle beetle	6.5		1	1	0.6%
		Macronychus glabratus	riffle beetle	4.5		2	2	1.2%
		Optioservus sp.	riffle beetle	2.3	1		1	0.6%
		Stenelmis crenata gr.	riffle beetle	5.1	2	1	3	1.7%
		Total Taxa			12	17	**20**	
		Total Specimens			78	95	**173**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 16B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - RIFFLE AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 2 RIFFLE**					
		Sample Date:	**15 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LRIF-2**	**LRIF-2R**	**Total**	**Percent**
Hoplonemertea								
	Tetrastemmatidae							
		Prostoma graecense	proboscis worm	6.1		2	2	0.3%
Tubificida								
	Tubificidae							
		Limnodrilus sp.	tube worm	9.4	1		1	0.1%
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6		1	1	0.1%
	Physidae							
		Physa sp.	pouch snail	8.8		7	7	0.9%
	Planorbidae							
		Micromenetus dilitatus	orb snail	8.3		1	1	0.1%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	2	5	7	0.9%
		Leptoxis sp.	rock snail	1.7	19	153	172	22.3%
		Leptoxis occulatata	rock snail	1.7	6	56	62	8.1%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	23	47	70	9.1%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	10		10	1.3%
	Ephemerellidae							
		Serratella sp.	mayfly	1.5		2	2	0.3%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	22	14	36	4.7%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	6		6	0.8%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	3	9	12	1.6%
Odonata								
	Gomphidae							
		Ophiogomphus sp.	dragonfly	5.5		2	2	0.3%
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7	2	2	4	0.5%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1		1	1	0.1%
Trichoptera								
	Brachycentridae							
		Brachycentrus sp.	caddisfly	0.8	2		2	0.3%
		Micrasema sp.	caddisfly	0.6		1	1	0.1%
	Glossosomatidae							
		Culoptila sp.	caddisfly	1.0		4	4	0.5%
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	78	51	129	16.8%
		Hydropsyche sp.	caddisfly	4.3		3	3	0.4%
		Hydropsyche nr. *betteni*	caddisfly	7.8	20	4	24	3.1%
		Hydropsyche bronta	caddisfly	5.0	59	69	128	16.6%
		Hydropsyche venularis	caddisfly	4.9	3		3	0.4%
	Lepidostomatidae							
		Lepidostoma sp.	caddisfly	0.9	6	23	29	3.8%

TABLE 16B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - RIFFLE AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 2 RIFFLE**					
		Sample Date:	**15 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LRIF-2**	**LRIF-2R**	**Total**	**Percent**
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5	1		1	0.1%
		Microcylloepus pusillus	riffle beetle	2.1	11	4	15	1.9%
		Optioservus sp.	riffle beetle	2.3	3		3	0.4%
		Stenelmis crenata gr.	riffle beetle	5.1	1		1	0.1%
	Gyrinidae							
		Dineutus sp.	whirligig beetle	5.5		1	1	0.1%
	Psephenidae							
		Psephenus herricki	water penny	2.3	1	6	7	0.9%
Diptera								
	Ceratopogonidae							
		Bezzia sp.	biting midge	7.0		1	1	0.1%
	Chironomidae							
		Cricotopus sp.	midge	6.3	1		1	0.1%
		Orthocladiinae	midge	6.0		1	1	0.1%
		Parametriocnemus sp.	midge	3.6		2	2	0.3%
		Polypedilum illinoense gr.	midge	9.0		3	3	0.4%
		Rheotanytarsus exiguum gr.	midge	5.9	2		2	0.3%
		Rheotanytarsus sp.	midge	5.9		5	5	0.6%
		Tanytarsus sp.	midge	6.7		5	5	0.6%
		Thienemannimyia gr.	midge	6.0		1	1	0.1%
		Tvetenia bavarica	midge	3.6	2		2	0.3%
		Total Taxa			24	31	**42**	
		Total Specimens			284	486	770	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 17A
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - RUN AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 2 RUN**					
		Sample Date:	**29 October 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LRUN-2**	**LRUN-2R**	**Total**	**Percent**
Lumbricina								
	Lumbricidae		earth worm	8.0	4	3	7	4.6%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	7	6	13	8.6%
		Leptoxis sp.	rock snail	1.7	23	24	47	30.9%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	40	9	49	32.2%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	1		1	0.7%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	2		2	1.3%
		Stenonema mediopunctatum	mayfly	3.7	1		1	0.7%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	5		5	3.3%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	8	10	18	11.8%
		Hydropsyche bronta	caddisfly	5.0	3	3	6	3.9%
	Philopotamidae							
		Chimarra obscura	caddisfly	2.7		1	1	0.7%
Coleoptera								
	Elmidae							
		Microcylloepus pusillus	riffle beetle	2.1	1		1	0.7%
		Stenelmis crenata gr.	riffle beetle	5.1	1		1	0.7%
		Total Taxa			12	7	**13**	
		Total Specimens			96	56	**152**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 17B
MACROINVERTEBRATE TAXONOMIC RESULTS: LOWER EDR - RUN AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**LOWER - 2 RUN**					
		Sample Date:	**15 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**LRUN-2**	**LRUN-2R**	**Total**	**Percent**
Tricladida								
	Planariidae							
		Dugesia tigrina	flat worm	7.2	1		1	0.6%
Haplotaxida								
	Lumbricidae		earth worm	8.0	1		1	0.6%
	Naididae							
		Slavina appendiculata	naid worm	7.0		2	2	1.1%
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6		1	1	0.6%
	Physidae							
		Physa sp.	pouch snail	8.8	17	11	28	16.1%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	1	3	4	2.3%
		Leptoxis sp.	rock snail	1.7	15	16	31	17.8%
		Leptoxis occulatata	rock snail	1.7	7	5	12	6.9%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	7	14	21	12.1%
	Sphaeriidae							
		Pisidium sp.	pill clam	6.5	1		1	0.6%
Ephemeroptera								
	Ephemerellidae							
		Serratella sp.	mayfly	1.5	1		1	0.6%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	9	1	10	5.7%
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7	1		1	0.6%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	2	9	11	6.3%
		Hydropsyche sp.	caddisfly	4.3	1		1	0.6%
		Hydropsyche bronta	caddisfly	5.0	4	9	13	7.5%
	Lepidostomatidae							
		Lepidostoma sp.	caddisfly	0.9	8	6	14	8.0%
	Leptoceridae							
		Mystacides sp.	caddisfly	2.6	4		4	2.3%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5	3		3	1.7%
		Microcylloepus pusillus	riffle beetle	2.1	9	3	12	6.9%
Diptera								
	Chironomidae							
		Dicrotendipes fumidus	midge	5.8	1			
		Orthocladius sp.	midge	5.4	1		1	0.6%
		Polypedilum halterale gr.	midge	7.3	1		1	0.6%
		Total Taxa			21	12	**22**	
		Total Specimens			95	80	174	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 18A
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - BACKWATER AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 1 BACKWATER**						
		Sample Date:	**26 October 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**MBW-1**	**MBW-1R**	**Total**	**(no./m^2)**	**Percent**
Tubificida									
	Tubificidae								
		Ilydrilus templetoni	tube worm	9.0	20	12	32	696	21.2%
Rhynchobdellida									
	Glossiphoniidae								
		Gloiobdella elongata	leech	9.5	3	1	4	87	2.6%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7	3	5	8	174	5.3%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	1	1	2	43	1.3%
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	1	1	2	43	1.3%
Hemiptera									
	Corixidae								
		Sigara sp.	water boatman	9.1	1		1	22	0.7%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9		2	2	43	1.3%
Diptera									
	Ceratopogonidae								
		Culicoides sp.	biting midge	7.7	22		22	478	14.6%
		Sphaeromias sp.	biting midge	6.0	39		39	848	25.8%
	Chironomidae								
		Ablabesmyia mallochi	midge	7.2	1		1	22	0.7%
		Clinotanypus sp.	midge	8.7		1	1	22	0.7%
		Dicrotendipes sp.	midge	8.1	5		5	109	3.3%
		Orthocladius sp.	midge	5.4	3		3	65	2.0%
		Procladius sp.	midge	9.1	13	1	14	304	9.3%
		Rheotanytarsus exiguus gr.	midge	5.9	4		4	87	2.6%
		Tanytarsus sp.	midge	6.7	9	2	11	239	7.3%
		Total Taxa			14	9	**16**		
		Total Specimens			125	26	**151**		100.0%
		Total Density (no./m^2)						**3,283**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 18B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - BACKWATER AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 1 BACKWATER**						
		Sample Date:	**16 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**MBW-1**	**MBW-1R**	**Total**	**(no./m2)**	**Percent**
Tubificida									
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3	3		3	65	1.5%
		Ilydrilus templetoni	tube worm	9.0	1	44	45	978	22.4%
		Limnodrilus sp.	tube worm	9.4	41	60	101	2196	50.2%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7	1		1	22	0.5%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	4		4	87	2.0%
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	3	2	5	109	2.5%
Ephemeroptera									
	Heptageniidae								
		Stenonema mediopunctatum	mayfly	3.7	1		1	22	0.5%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9	3	1	4	87	2.0%
Diptera									
	Ceratopogonidae								
		Sphaeromias sp.	biting midge	6.0	3		3	65	1.5%
	Chironomidae								
		Chironomus sp.	midge	9.6	4		4	87	2.0%
		Clinotanypus sp.	midge	8.7	1		1	22	0.5%
		Dicrotendipes sp.	midge	8.1	3	1	4	87	2.0%
		Polypedilum illinoense gr.	midge	9.0		1	1	22	0.5%
		Procladius sp.	midge	9.1	14	5	19	413	9.5%
		Tanytarsus sp.	midge	6.7	3	1	4	87	2.0%
		Tvetenia vitracies	midge	3.6		1	1	22	0.5%
		Total Taxa			14	9	**16**		
		Total Specimens			85	116	201		100.0%
		Total Density (no./m^2)						**4,370**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 19A
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - DEPOSITIONAL AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 1 DEPOSITIONAL**						
		Sample Date:	**26 November 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**MDEP-1**	**MDEP-1R**	**Total**	**(no./m^2)**	**Percent**
Tubificida									
	Naididae		naid worm	8.0		1	1	22	1.4%
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3	1	8	9	196	12.7%
		Limnodrilus sp.	tube worm	9.4	2	6	8	174	11.3%
Rhynchobdellida									
	Glossiphoniidae								
		Gloiobdella elongata	leech	9.5		1	1	22	1.4%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7	6	15	21	457	29.6%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	3	7	10	217	14.1%
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	1	6	7	152	9.9%
Odonata									
	Gomphidae								
		Lanthus sp.	dragonfly	1.5		1	1	22	1.4%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9		1	1	22	1.4%
Diptera									
	Ceratopogonidae								
		Sphaeromias sp.	biting midge	6.0		1	1	22	1.4%
	Chironomidae								
		Alotanypus aris	midge	6.0	1		1	22	1.4%
		Dicrotendipes sp.	midge	8.1		3	3	65	4.2%
		Procladius sp.	midge	9.1		5	5	109	7.0%
		Tanytarsus sp.	midge	6.7	1	1	2	43	2.8%
		Total Taxa			7	13	**14**		
		Total Specimens			15	56	**71**		100.0%
		Total Density (no./m^2)						**1,543**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 19B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - DEPOSITIONAL AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 1 DEPOSITIONAL**						
		Sample Date:	**16 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**MDEP-1**	**MDEP-1R**	**Total**	**(no./m2)**	**Percent**
Haplotaxida									
	Lumbricidae		earth worm	8.0	2		2	43	1.0%
Tubificida									
	Tubificidae								
		Aulodrilus pluriseta	tube worm	2.9	1		1	22	0.5%
		Branchiura sowerybi	tube worm	8.3		7	7	152	3.6%
		Limnodrilus sp.	tube worm	9.4	1	36	37	804	19.2%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	3	9	12	261	6.2%
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	5	3	8	174	4.1%
Diptera									
	Chironomidae								
		Chironomus sp.	midge	9.6	9	25	34	739	17.6%
		Cryptochironomus fulvus gr.	midge	6.4	1	3	4	87	2.1%
		Cryptotendipes sp.	midge	6.2		1	1	22	0.5%
		Dicrotendipes sp.	midge	8.1	3	7	10	217	5.2%
		Phaenopsectra obedians gr.	midge	6.5	17	37	54	1174	28.0%
		Polypedilum scalaenum gr.	midge	8.4		7	7	152	3.6%
		Procladius sp.	midge	9.1	5	4	9	196	4.7%
		Tanytarsus sp.	midge	6.7	3	2	5	109	2.6%
		Thienemannimyia gr.	midge	6.0		2	2	43	1.0%
		Total Taxa			11	13	**15**		
		Total Specimens			50	143	193		100.0%
		Total Density (no./m^2)						**4,196**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 20A
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	MIDDLE - 1 EMERGENT AQUATIC VEGETATION					
		Sample Date:	26 October 2006					
		Gear:	Sweep Net					
				Tol.				
Taxon:			Common Name	Index*	MEAV-1	MEAV-1R	Total	Percent
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	20	28	48	53.3%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	1		1	1.1%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	2	10	12	13.3%
		Heterocloeon sp.	mayfly	2.0	1	7	8	8.9%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	1	4	5	5.6%
		Stenonema mediopunctatum	mayfly	3.7		1	1	1.1%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	3		3	3.3%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	2	1	3	3.3%
Coleoptera								
	Gyrinidae							
		Dineutus discolor	whirligig beetle	5.5		4	4	4.4%
Diptera								
	Chironomidae							
		Polypedilum illinoense gr.	midge	9.0	2	3	5	5.6%
		Total Taxa			8	8	**10**	
		Total Specimens			32	58	**90**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 20B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 1 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**16 May 2007**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MEAV-1**	**MEAV-1R**	**Total**	**Percent**
Nematoda			round worm	6.0	1		1	0.2%
Basommatophora								
	Physidae							
		Physa sp.	pouch snail	8.8	3	4	7	1.3%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	10		10	1.9%
		Leptoxis sp.	rock snail	1.7	64	32	96	18.0%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	4		4	0.8%
Ephemeroptera								
	Baetidae							
		Heterocloeon sp.	mayfly	2.0	3		3	0.6%
	Ephemerellidae							
		Serratella sp.	mayfly	1.5		1	1	0.2%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	1		1	0.2%
Odonata								
	Aeschnidae							
		Boyeria vinosa	dragonfly	5.9		4	4	0.8%
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7	4	9	13	2.4%
Hemiptera								
	Veliidae		broad shouldered-					
		Rhagovelia obesa	water strider	6.0		2	2	0.4%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	1	13	14	2.6%
		Hydropsyche sp.	caddisfly	4.3	2	55	57	10.7%
		Hydropsyche nr. *betteni*	caddisfly	7.8		5	5	0.9%
		Hydropsyche bronta	caddisfly	5.0	4	6	10	1.9%
		Hydropsyche frisoni	caddisfly	1.8	4		4	0.8%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2	3	13	16	3.0%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5		2	2	0.4%
		Microcylloepus pusillus	riffle beetle	2.1	1		1	0.2%
Diptera								
	Chironomidae							
		Dicrotendipes sp.	midge	8.1		8	8	1.5%
		Microtendipes pedellus gr.	midge	5.5		8	8	1.5%
		Orthocladius sp. (tent.)	midge	5.4		4	4	0.8%
		Polypedilum flavum	midge	4.7		17	17	3.2%
		Polypedilum illinoense gr.	midge	9.0	39	75	114	21.4%
		Polypedilum scalaenum gr.	midge	8.4	19		19	3.6%
		Tvetenia vitracies	midge	3.6	9	100	109	20.5%
	Simuliidae							
		Simulium sp.	black fly	4.0	1	1	2	0.4%
		Total Taxa			18	19	**27**	
		Total Specimens			173	359	532	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 21A
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	MIDDLE - 1 RIFFLE					
		Sample Date:	26 October 2006					
		Gear:	Kick Net					
				Tol.				
Taxon:			Common Name	Index*	MRIF-1	MRIF-1R	Total	Percent
Lumbricina								
	Lumbricidae		earth worm	8.0	1		1	0.2%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4		1	1	0.2%
		Leptoxis sp.	rock snail	1.7	34		34	8.4%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	10	8	18	4.4%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	9	18	27	6.6%
		Procloeon sp.	mayfly	6.0	1		1	0.2%
	Ephemerellidae							
		Serratella sp.	mayfly	1.5	3		3	0.7%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	18	12	30	7.4%
		Stenonema mediopunctatum	mayfly	3.7	2	14	16	3.9%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	69	70	139	34.2%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	1		1	0.2%
		Enallagma sp.	damselfly	8.9	1		1	0.2%
	Gomphidae							
		Gomphus sp.	dragonfly	5.8		1	1	0.2%
Plecoptera								
	Perlidae							
		Acroneuria abnormis	stonefly	2.0		2	2	0.5%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1	5	3	8	2.0%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	69	26	95	23.3%
		Hydropsyche sp.	caddisfly	4.3	1		1	0.2%
		Hydropsyche bronta	caddisfly	5.0	8	6	14	3.4%
		Hydropsyche venularis	caddisfly	4.9	2	7	9	2.2%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5		1	1	0.2%
		Optioservus sp.	riffle beetle	2.3	2		2	0.5%
		Stenelmis crenata gr.	riffle beetle	5.1	1		1	0.2%
	Psephenidae							
		Psephenus herricki	water penny	2.3	1		1	0.2%
		Total Taxa			19	13	**23**	
		Total Specimens			238	169	**407**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 21B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 1 RIFFLE**					
		Sample Date:	**16 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MRIF-1**	**MRIF-1R**	**Total**	**Percent**
Nematoda			round worm	6.0	1		1	0.2%
Hoplonemertea								
	Tetrastemmatidae							
		Prostoma graecense	proboscis worm	6.1	5		5	1.1%
Haplotaxida								
	Lumbricidae		earth worm	8.0	2	1	3	0.7%
	Naididae							
		Nais sp.	naid worm	8.7	13		13	2.9%
		Stylaria fossularis	naid worm	9.3	1		1	0.2%
Tubificida								
	Tubificidae							
		Limnodrilus sp.	tube worm	9.4	3	2	5	1.1%
Rhynchobdellida								
	Glossiphonidae							
		Gloiobdella elongata	leech	9.5	1	1	2	0.4%
		Helobdella stagnalis	leech	8.8		1	1	0.2%
		Helobdella papillata	leech	9.1		1	1	0.2%
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6	2	4	6	1.3%
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0	2		2	0.4%
	Physidae							
		Physa sp.	pouch snail	8.8	47	15	62	13.8%
	Planorbidae							
		Micromenetus dilitatus	orb snail	8.3	2	1	3	0.7%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	17	10	27	6.0%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	13	11	24	5.3%
	Sphaeriidae							
		Pisidium sp.	pill clam	6.5	2		2	0.4%
Amphipoda								
	Crangonyctidae							
		Crangonyx sp.	side swimmer	7.9	1		1	0.2%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	2		2	0.4%
		Plauditus sp.	mayfly	4.5	1		1	0.2%
	Ephemerellidae							
		Serratella sp.	mayfly	1.5	1		1	0.2%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	4	8	12	2.7%
		Stenonema mediopunctatum	mayfly	3.7	1		1	0.2%
		Stenonema exiguum	mayfly	3.8	1		1	0.2%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	25	5	30	6.7%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	2	4	6	1.3%
	Gomphidae							
		Ophiogomphus sp.	dragonfly	5.5	1		1	0.2%

TABLE 21B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 1 RIFFLE**					
		Sample Date:	**16 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MRIF-1**	**MRIF-1R**	**Total**	**Percent**
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7	6	3	9	2.0%
Hemiptera								
	Corixidae							
		Trichocorixa sp.	water boatman	8.0		2	2	0.4%
Trichoptera								
	Glossosomatidae							
		Culoptila sp.	caddisfly	1.0	4	1	5	1.1%
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	31	10	41	9.1%
		Hydropsyche sp.	caddisfly	4.3	1		1	0.2%
		Hydropsyche bronta	caddisfly	5.0	5	2	7	1.6%
		Hydropsyche frisoni	caddisfly	1.8		2	2	0.4%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2	6		6	1.3%
	Lepidostomatidae							
		Lepidostoma sp.	caddisfly	0.9	21	1	22	4.9%
	Leptoceridae							
		Ceraclea sp.	caddisfly	2.0		1	1	0.2%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5		29	29	6.5%
		Microcylloepus pusillus	riffle beetle	2.1	2	4	6	1.3%
		Optioservus sp.	riffle beetle	2.3	1		1	0.2%
		Stenelmis crenata gr.	riffle beetle	5.1	8		8	1.8%
	Gyrinidae							
		Dineutus sp.	whirligig beetle	5.5	1		1	0.2%
Diptera								
	Ceratopogonidae							
		Bezzia sp.	biting midge	7.0		1	1	0.2%
	Chironomidae							
		Chironomus sp.	midge	9.6		1	1	0.2%
		Cricotopus sp.	midge	6.3	4		4	0.9%
		Dicrotendipes sp.	midge	8.1	2	1	3	0.7%
		Dicrotendipes fumidus	midge	5.8	1		1	0.2%
		Eukiefferiella sp.	midge	2.7		3	3	0.7%
		Microtendipes pedellus gr.	midge	5.5	1		1	0.2%
		Orthocladius sp. (tent.)	midge	5.4	15		15	3.3%
		Phaenopsectra obedians gr.	midge	6.5	11	2	13	2.9%
		Polypedilum illinoense gr.	midge	9.0	3	13	16	3.6%
		Psectrocladius sp.	midge	3.6	1	1	2	0.4%
		Rheotanytarsus sp.	midge	5.9	5	1	6	1.3%
		Tanytarsus sp.	midge	6.7	1		1	0.2%
		Thienemanniella sp.	midge	5.8	6	1	7	1.6%
		Tribelos sp.	midge	6.3		2	2	0.4%
		Tvetenia vitracies	midge	3.6	17		17	3.8%
	Empididae							
		Hemerodromia sp.	dance fly	7.6	1		1	0.2%
		Total Taxa			48	33	**58**	
		Total Specimens			304	145	449	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 22A
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 1 RUN**					
		Sample Date:	**26 October 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MRUN-1**	**MRUN-1R**	**Total**	**Percent**
Tubificida								
	Tubificidae							
		Limnodrilus sp.	tube worm	9.4	1	1	2	1.5%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	21	25	46	34.6%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	6	2	8	6.0%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	9	4	13	9.8%
	Heptageniidae							
		Stenacron interpunctatum	mayfly	6.9		1	1	0.8%
		Stenonema mediopunctatum	mayfly	3.7	13	7	20	15.0%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	5		5	3.8%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	20	1	21	15.8%
	Gomphidae							
		Dromogomphus sp.	dragonfly	5.9	2	1	3	2.3%
		Hagenius sp.	dragonfly	3.9		1	1	0.8%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	8	1	9	6.8%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5	1		1	0.8%
		Optioservus sp.	riffle beetle	2.3	1		1	0.8%
	Dryopidae							
		Helichus sp.	long-toed beetle	4.6	1		1	0.8%
Diptera								
	Chironomidae							
		Polypedilum illinoense gr.	midge	9.0	1		1	0.8%
		Total Taxa			13	10	**15**	
		Total Specimens			89	44	**133**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 22B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 1 RUN**					
		Sample Date:	**16 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MRUN-1**	**MRUN-1R**	**Total**	**Percent**
Hoplonemertea								
	Tetrastemmatidae							
		Prostoma graecense	proboscis worm	6.1		1	1	0.2%
Haplotaxida								
	Naididae							
		Nais sp.	naid worm	8.7		2	2	0.4%
		Slavina appendiculata	naid worm	7.0	4	2	6	1.1%
Tubificida								
	Tubificidae							
		Aulodrilus sp.	tube worm	5.5		2	2	0.4%
		Branchiura sowerybi	tube worm	8.3	1		1	0.2%
		Limnodrilus sp.	tube worm	9.4		1	1	0.2%
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6	5	2	7	1.2%
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0	1	1	2	0.4%
	Physidae							
		Physa sp.	pouch snail	8.8	19	9	28	5.0%
	Planorbidae							
		Micromenetus dilitatus	orb snail	8.3	6		6	1.1%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	2		2	0.4%
		Leptoxis sp.	rock snail	1.7	21	4	25	4.4%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	5	5	10	1.8%
Decapoda								
	Cambaridae							
		Orconectes rusticus	crayfish	2.6	1		1	0.2%
Ephemeroptera								
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	76	37	113	20.0%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	4	3	7	1.2%
	Gomphidae		dragonfly	5.0	1		1	0.2%
	Libellulidae							
		Macromyia magnifica	dragonfly	6.2	1		1	0.2%
	Perlidae							
		Perlesta sp.	stonefly	4.7	10		10	1.8%
Trichoptera								
	Glossosomatidae							
		Culoptila sp.	caddisfly	1.0		1	1	0.2%
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	3	1	4	0.7%
		Hydropsyche sp.	caddisfly	4.3	3		3	0.5%
		Hydropsyche nr. *betteni*	caddisfly	7.8	4		4	0.7%
		Hydropsyche bronta	caddisfly	5.0	2	2	4	0.7%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2	15	6	21	3.7%
	Lepidostomatidae							
		Lepidostoma sp.	caddisfly	0.9	21	6	27	4.8%
	Leptoceridae							
		Mystacides sp.	caddisfly	2.6	1		1	0.2%
		Oecetis sp.	caddisfly	3.6	1	1	2	0.4%
	Polycentropodidae							
		Polycentropus sp.	caddisfly	3.5	1		1	0.2%

TABLE 22B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 1 RUN**					
		Sample Date:	**16 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MRUN-1**	**MRUN-1R**	**Total**	**Percent**
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5	1		1	0.2%
		Optioservus sp.	riffle beetle	2.3		1	1	0.2%
		Stenelmis crenata gr.	riffle beetle	5.1		3	3	0.5%
Diptera								
	Ceratopogonidae							
		Bezzia sp.	biting midge	7.0	1		1	0.2%
		Palpomyia gr.	biting midge	7.0		1	1	0.2%
	Chironomidae							
		Ablabesmyia sp.	midge	7.2	1		1	0.2%
		Chironomus sp.	midge	9.6	1		1	0.2%
		Cryptochironomus fulvus gr.	midge	6.4		12	12	2.1%
		Cryptotendipes sp.	midge	6.2		12	12	2.1%
		Dicrotendipes sp.	midge	8.1		20	20	3.5%
		Dicrotendipes modestus	midge	8.7	7		7	1.2%
		Eukiefferiella sp. (tent.)	midge	2.7	7		7	1.2%
		Harnischia sp.	midge	9.1		8	8	1.4%
		Nanocladius sp.	midge	7.1		4	4	0.7%
		Orthocladius sp.	midge	5.4	5		5	0.9%
		Phaenopsectra obedians gr.	midge	6.5	7	68	75	13.3%
		Polypedilum flavum	midge	4.7	2	4	6	1.1%
		Polypedilum scalaenum gr.	midge	8.4		32	32	5.7%
		Rheotanytarsus sp.	midge	5.9	3		3	0.5%
		Tanytarsus sp.	midge	6.7	11	48	59	10.4%
		Tvetenia sp.	midge	3.6		8	8	1.4%
	Tipulidae							
		Antocha sp.	crane fly	4.2	4		4	0.7%
		Total Taxa			36	31	**51**	
		Total Specimens			258	307	565	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 23
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - BACKWATER AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 2 BACKWATER**						
		Sample Date:	**16 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**MBW-2**	**MBW-2R**	**Total**	**(no./m2)**	**Percent**
Haplotaxida									
	Naididae								
		Arcteonais lomondi	naid worm		2		2	43	0.9%
Tubificida									
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3	2	8	10	217	4.5%
		Ilydrilus templetoni	tube worm	9.0	6	21	27	587	12.2%
		Limnodrilus sp.	tube worm	9.4	25	39	64	1391	28.8%
		Quistadrilus multisetosus	tube worm	3.8	2	5	7	152	3.2%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7	6	8	14	304	6.3%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	2	7	9	196	4.1%
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	2	5	7	152	3.2%
Odonata									
	Gomphidae								
		Stylurus sp.	dragonfly	5.8		1	1	22	0.5%
Trichoptera									
	Dipseudopsidae								
		Phylocentropus sp.	caddisfly	6.2		2	2	43	0.9%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9		2	2	43	0.9%
Diptera									
	Ceratopogonidae								
		Sphaeromias sp.	biting midge	6.0	1	2	3	65	1.4%
	Chironomidae								
		Chironomus sp.	midge	9.6	1	3	4	87	1.8%
		Cladotanytarsus sp.	midge	4.0		1	1	22	0.5%
		Cryptochironomus fulvus gr.	midge	6.4		1	1	22	0.5%
		Cryptotendipes sp.	midge	6.2		1	1	22	0.5%
		Dicrotendipes sp.	midge	8.1	1	3	4	87	1.8%
		Phaenopsectra obedians gr.	midge	6.5	3		3	65	1.4%
		Procladius sp.	midge	9.1	12	16	28	609	12.6%
		Stictochironomus caffrarius gr.	midge	6.5		2	2	43	0.9%
		Tanytarsus sp.	midge	6.7	7	23	30	652	13.5%
		Total Taxa			14	19	**21**		
		Total Specimens			72	150	222		100.0%
		Total Density (no./m^2)						**4,826**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 24A
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - DEPOSITIONAL AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 2 DEPOSITIONAL**						
		Sample Date:	**27 October 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**MDEP-2**	**MDEP-2R**	**Total**	**(no./m^2)**	**Percent**
Nematoda			round worm	6.0		1	1	22	2.6%
Tubificida									
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3	3	2	5	109	13.2%
		Limnodrilus sp.	tube worm	9.4	2	7	9	196	23.7%
		Quistadrilus multisetosus	tube worm	3.8	2		2	43	5.3%
Rhynchobdellida									
	Glossiphonidae								
		Gloiobdella elongata	leech	9.5	1		1	22	2.6%
Basommatophora									
	Ancylidae								
		Laevapex fuscus	limpet snail	7.5		2	2	43	5.3%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7	1		1	22	2.6%
Veneroidea									
	Sphaeriidae								
		Pisidium sp.	pill clam	6.5	3	1	4	87	10.5%
Odonata									
	Coenagrionidae								
		Argia sp.	damselfly	8.2	1		1	22	2.6%
	Gomphidae								
		Dromogomphus armatus	dragonfly	5.9		1	1	22	2.6%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9	3	2	5	109	13.2%
	Dytiscidae								
		Hydroporus sp.	diving beetle	8.6	1		1	22	2.6%
Diptera									
	Ceratopogonidae								
		Palpomyia gr.	biting midge	7.0		1	1	22	2.6%
	Chironomidae								
		Ablabesmyia mallochi	midge	7.2	2		2	43	5.3%
		Clinotanypus sp.	midge	8.7	2		2	43	5.3%
		Total Taxa			11	8	**15**		
		Total Specimens			21	17	**38**		100.0%
		Total Density (no./m^2)						**826**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 24B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - DEPOSITIONAL AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 2 DEPOSITIONAL**						
		Sample Date:	**16 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**MDEP-2**	**MDEP-2R**	**Total**	**(no./m2)**	**Percent**
Coleoptera									
	Elmidae								
		Macronychus glabratus	riffle beetle	4.5	1		1	22	2.0%
Diptera									
	Ceratopogonidae								
		Sphaeromias sp.	biting midge	6.0		1	1	22	2.0%
	Chironomidae								
		Chironomus sp.	midge	9.6	1	2	3	65	5.9%
		Cryptotendipes sp.	midge	6.2	2	2	4	87	7.8%
		Dicrotendipes sp.	midge	8.1	2		2	43	3.9%
		Dicrotendipes neomodestus	midge	8.1		2	2	43	3.9%
		Paracladopelma sp.	midge	5.5		2	2	43	3.9%
		Phaenopsectra obedians gr.	midge	6.5	8	20	28	609	54.9%
		Polypedilum scalaenum gr.	midge	8.4		2	2	43	3.9%
		Tanytarsus sp.	midge	6.7	4	2	6	130	11.8%
		Total Taxa			6	8	**10**		
		Total Specimens			18	33	51		100.0%
		Total Density (no./m^2)						**1,109**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 25A
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - EMERGENT AQUATIC VEGETATION AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 2 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**26 October 2006**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MEAV-2**	**MEAV-2R**	**Total**	**Percent**
Tricladida								
	Planariidae							
		Dugesia tigrina	flat worm	7.2	2		2	1.3%
Basommatophora								
	Planorbidae							
		Helisoma anceps	orb snail	6.2	1		1	0.6%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	6	3	9	5.8%
		Leptoxis sp.	rock snail	1.7	29	22	51	32.7%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	3	1	4	2.6%
		Procloeon sp.	mayfly	6.0	1		1	0.6%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	1	1	2	1.3%
Odonata								
	Aeschnidae							
		Basiaeschna janata	dragonfly	7.3	5		5	3.2%
	Calopterygidae							
		Calopteryx maculata	damselfly	7.8		1	1	0.6%
	Coenagrionidae							
		Argia sp.	damselfly	8.2	4		4	2.6%
		Enallagma sp.	damselfly	8.9	42	10	52	33.3%
Hemiptera								
	Gerridae							
		Rheumatobates palosi	water strider	9.0		2	2	1.3%
	Veliidae							
		Microvelia sp.	short-legged strider	9.0	1		1	0.6%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5	1		1	0.6%
Diptera								
	Chironomidae							
		Chironomini	midge	6.0		1	1	0.6%
		Polypedilum illinoense gr.	midge	9.0	4	12	16	10.3%
		Tanytarsus sp.	midge	6.7		1	1	0.6%
	Sciomyzidae							
		Sepedon sp.	marsh fly	10.0	1	1	2	1.3%
		Total Taxa			14	11	**18**	
		Total Specimens			101	55	**156**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 25B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - EMERGENT AQUATIC VEGETATION AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	MIDDLE - 2 EMERGENT AQUATIC VEGETATION					
		Sample Date:	16 May 2007					
		Gear:	Sweep Net					
				Tol.				
Taxon:			Common Name	Index*	MEAV -2	MEAV-2R	Total	Percent
Tricladida								
	Planariidae							
		Dugesia tigrina	flat worm	7.2	1	8	9	0.6%
Tubificida								
	Tubificidae							
		Bothrioneurum vejdovskyanum	tube worm	4.0		4	4	0.3%
		Branchiura sowerybi	tube worm	8.3	2	2	4	0.3%
		Limnodrilus sp.	tube worm	9.4	5	7	12	0.8%
Rhynchobdellida								
	Glossiphonidae							
		Gloiobdella elongata	leech	9.5	39	23	62	4.4%
		Helobdella stagnalis	leech	8.8	12	13	25	1.8%
		Helobdella triserialis	leech	9.2		1	1	0.1%
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6	1	2	3	0.2%
		Laevapex fuscus	limpet snail	7.5	2	2	4	0.3%
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0		4	4	0.3%
	Physidae							
		Physa sp.	pouch snail	8.8	156	124	280	19.8%
	Planorbidae							
		Gyraulus parvus	orb snail	4.2	4		4	0.3%
		Helisoma anceps	orb snail	6.2	16	8	24	1.7%
		Micromenetus dilitatus	orb snail	8.3	40	8	48	3.4%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	24	44	68	4.8%
		Leptoxis sp.	rock snail	1.7	24	12	36	2.5%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	100	19	119	8.4%
	Sphaeriidae							
		Pisidium sp.	pill clam	6.5	68	36	104	7.4%
		Sphaerium sp.	fingernail clam	7.6	4	3	7	0.5%
Amphipoda								
	Crangonyctidae							
		Crangonyx sp.	side swimmer	7.9		2	2	0.1%
Odonata								
	Aeschnidae							
		Boyeria sp.	dragonfly	5.9	1	1	2	0.1%
	Coenagrionidae							
		Argia sp.	damselfly	8.2		2	2	0.1%
		Enallagma sp.	damselfly	8.9	2	14	16	1.1%
	Gomphidae							
		Gomphus sp.	dragonfly	5.8	1	1	2	0.1%
	Libellulidae							
		Macromyia sp.	dragonfly	6.2		1	1	0.1%
Hemiptera								
	Corixidae							
		Trichocorixa sp.	water boatman	8.0	68	5	73	5.2%
	Gerridae							
		Trepobates sp.	water strider	6.0	2		2	0.1%

TABLE 25B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - EMERGENT AQUATIC VEGETATION AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 2 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**16 May 2007**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MEAV -2**	**MEAV-2R**	**Total**	**Percent**
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	2	4	6	0.4%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2		13	13	0.9%
Coleoptera								
	Elmidae							
		Dubiraphia vittata	riffle beetle	5.9	1	7	8	0.6%
		Macronychus glabratus	riffle beetle	4.5		3	3	0.2%
Diptera								
	Ceratopogonidae							
		Bezzia sp.	biting midge	7.0		2	2	0.1%
		Sphaeromias sp.	biting midge	6.0		1	1	0.1%
		Probezzia sp.	biting midge	6.0		1	1	0.1%
	Chironomidae							
		Chironomus sp.	midge	9.6	76		76	5.4%
		Cricotopus sp.	midge	6.3		4	4	0.3%
		Cryptotendipes sp.	midge	6.2		4	4	0.3%
		Dicrotendipes sp.	midge	8.1		96	96	6.8%
		Dicrotendipes fumidus	midge	5.8	92		92	6.5%
		Polypedilum illinoense gr.	midge	9.0	28	16	44	3.1%
		Procladius sp.	midge	9.1	20	44	64	4.5%
		Tanypus sp.	midge	9.2		4	4	0.3%
		Tanytarsus sp.	midge	6.7	28	12	40	2.8%
		Tribelos sp.	midge	6.3	20	16	36	2.5%
		Total Taxa			29	40	**44**	
		Total Specimens			839	573	1,412	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 26A
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RIFFLE AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 2 RIFFLE**					
		Sample Date:	**27 October 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MRIF-2**	**MRIF-2R**	**Total**	**Percent**
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	31	42	73	11.0%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	55	44	99	14.9%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	36	17	53	8.0%
	Ephemerellidae							
		Serratella sp.	mayfly	1.5	1	2	3	0.5%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	64	28	92	13.9%
		Stenonema mediopunctatum	mayfly	3.7	30	10	40	6.0%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	132	66	198	29.9%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	6	14	20	3.0%
		Enallagma sp.	damselfly	8.9	1		1	0.2%
	Gomphidae							
		Dromogomphus sp.	dragonfly	5.9		3	3	0.5%
		Ophiogomphus sp.	dragonfly	5.5	1	1	2	0.3%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1		1	1	0.2%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	19	45	64	9.7%
		Hydropsyche sp.	caddisfly	4.3	1		1	0.2%
		Hydropsyche bronta	caddisfly	5.0		1	1	0.2%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5		1	1	0.2%
		Optioservus ovalis	riffle beetle	4.0	4	4	8	1.2%
		Stenelmis crenata gr.	riffle beetle	5.1	1	2	3	0.5%
		Total Taxa			14	16	**18**	
		Total Specimens			382	281	**663**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 26B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RIFFLE AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 2 RIFFLE**					
		Sample Date:	**16 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RIF-2**	**RIF-2R**	**Total**	**Percent**
Tricladida								
	Planariidae							
		Dugesia tigrina	flat worm	7.2		1	1	0.1%
Hoplonemertea								
	Tetrastemmatidae							
		Prostoma graecense	proboscis worm	6.1	3	13	16	0.8%
Haplotaxida								
	Lumbricidae		earth worm	8.0	1		1	0.1%
	Naididae		naid worm	6.1	5		5	0.3%
		Bratislavia sp. (tent.)	naid worm	6.0	3			
		Dero sp.	naid worm	10.0	3		3	0.2%
		Nais sp.	naid worm	8.7		5	5	0.3%
Tubificida								
	Tubificidae							
		Aulodrilus pluriseta	tube worm	2.9	1		1	0.1%
		Limnodrilus sp.	tube worm	9.4		1	1	0.1%
Rhynchobdellida								
	Glossiphonidae							
		Batrachobdella phalera	leech	7.7	1		1	0.1%
		Gloiobdella elongata	leech	9.5	1		1	0.1%
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6	1		1	0.1%
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0	4		4	0.2%
	Physidae							
		Physa sp.	pouch snail	8.8	12	4	16	0.8%
	Planorbidae							
		Micromenetus dilitatus	orb snail	8.3		1	1	0.1%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	288	146	434	22.5%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	192	419	611	31.7%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6	1		1	0.1%
Ephemeroptera								
	Baetidae							
		Acentrella sp.	mayfly	3.6		6	6	0.3%
		Baetis sp.	mayfly	4.5	7	10	17	0.9%
		Plauditus sp.	mayfly	4.5		1	1	0.1%
	Ephemerellidae							
		Serratella sp.	mayfly	1.5	1	10	11	0.6%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5		27	27	1.4%
		Stenonema mediopunctatum	mayfly	3.7	7		7	0.4%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	1	3	4	0.2%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	37	24	61	3.2%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	2	2	4	0.2%
	Gomphidae							
		Gomphus sp.	dragonfly	5.8	1	1	2	0.1%
		Lanthus sp.	dragonfly	1.5	1		1	0.1%

TABLE 26B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RIFFLE AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 2 RIFFLE**					
		Sample Date:	**16 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RIF-2**	**RIF-2R**	**Total**	**Percent**
Plecoptera								
	Perlidae							
		Anacroneuria sp.	stonefly	1.5		1	1	0.1%
		Perlesta sp.	stonefly	4.7	5	2	7	0.4%
Trichoptera								
	Glossosomatidae							
		Protoptila sp.	caddisfly	2.5	3		3	0.2%
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	57	217	274	14.2%
		Hydropsyche sp.	caddisfly	4.3		4	4	0.2%
		Hydropsyche nr. *betteni*	caddisfly	7.8		12	12	0.6%
		Hydropsyche bronta	caddisfly	5.0	3	20	23	1.2%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2	14		14	0.7%
	Lepidostomatidae							
		Lepidostoma sp.	caddisfly	0.9	3	4	7	0.4%
Coleoptera								
	Elmidae							
		Dubiraphia vittata	riffle beetle	5.9	1	1	2	0.1%
		Macronychus glabratus	riffle beetle	4.5	1	2	3	0.2%
		Microcylloepus pusillus	riffle beetle	2.1		8	8	0.4%
		Optioservus sp.	riffle beetle	2.3		1	1	0.1%
		Stenelmis crenata gr.	riffle beetle	5.1	3	6	9	0.5%
	Gyrinidae							
		Dineutus sp.	whirligig beetle	5.5		1	1	0.1%
	Psephenidae							
		Psephenus herricki	water penny	2.3		1	1	0.1%
Diptera								
	Ceratopogonidae							
		Dasyhelia sp.	biting midge	4.0	1		1	0.1%
	Chironomidae							
		Ablabesmyia sp.	midge	7.2	4		4	0.2%
		Dicrotendipes sp.	midge	8.1	16	1	17	0.9%
		Dicrotendipes fumidus	midge	5.8		1	1	0.1%
		Eukiefferiella sp.	midge	2.7		19	19	1.0%
		Orthocladius sp.	midge	5.4	27		27	1.4%
		Paratanytarsus sp.	midge	8.4	7		7	0.4%
		Polypedilum flavum	midge	4.7	8		8	0.4%
		Polypedilum scalaenum gr.	midge	8.4	8		8	0.4%
		Rheotanytarsus sp.	midge	5.9	21		21	1.1%
		Synorthocladius sp.	midge	4.3	14		14	0.7%
		Tvetenia vitracies	midge	3.6	188		188	9.7%
	Tipulidae							
		Antocha sp.	crane fly	4.2		1	1	0.1%
		Total Taxa			41	35	**57**	
		Total Specimens			957	976	1,930	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 27A

MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RUN AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 2 RUN**					
		Sample Date:	**27 October 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MRUN-2**	**MRUN-2R**	**Total**	**Percent**
Tricladida								
	Planariidae							
		Dugesia tigrina	flat worm	7.2	1		1	1.1%
Lumbricina								
	Lumbricidae		earth worm	8.0	1		1	1.1%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	41	8	49	55.1%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	2		2	2.2%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	14	3	17	19.1%
	Heptageniidae							
		Stenonema mediopunctatum	mayfly	3.7	2	4	6	6.7%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	2		2	2.2%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	2	3	5	5.6%
		Hydropsyche bronta	caddisfly	5.0		2	2	2.2%
	Leptoceridae							
		Oecetis sp.	caddisfly	3.6		1	1	1.1%
Diptera								
	Chironomidae							
		Cricotopus bicinctus	midge	8.5		2	2	2.2%
	Simuliidae							
		Simulium sp.	black fly	4.0		1	1	1.1%
		Total Taxa			8	8	**12**	
		Total Specimens			65	24	**89**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 27B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RUN AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 2 RUN**					
		Sample Date:	**16 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MRUN-2**	**MRUN-2R**	**Total**	**Percent**
Haplotaxida								
	Lumbricidae		earth worm	8.0	1		1	0.1%
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6	2		2	0.2%
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0	1	1	2	0.2%
	Physidae							
		Physa sp.	pouch snail	8.8	3		3	0.3%
	Planorbidae							
		Gyraulus sp.	orb snail	4.2	1		1	0.1%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	5	4	9	0.8%
Hydracarina			water mite	5.5	1		1	0.1%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	3		3	0.3%
	Ephemerellidae							
		Ephemerella sp.	mayfly	2.0		1	1	0.1%
		Serratella sp.	mayfly	1.5	1	1	2	0.2%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	2		2	0.2%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	54	56	110	9.8%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	3		3	0.3%
	Gomphidae		dragonfly	5.0		1	1	0.1%
		Hagenius brevistylus	dragonfly	3.9		1	1	0.1%
	Libellulidae							
		Macromyia illinoiensis	dragonfly	6.2		16	16	1.4%
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7	1		1	0.1%
Trichoptera								
	Glossosomatidae							
		Glossosoma sp.	caddisfly	1.5	3		3	0.3%
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	6		6	0.5%
		Hydropsyche bronta	caddisfly	5.0	3	1	4	0.4%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2	3	3	6	0.5%
	Lepidostomatidae							
		Lepidostoma sp.	caddisfly	0.9	5	39	44	3.9%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5		3	3	0.3%

TABLE 27B
MACROINVERTEBRATE TAXONOMIC RESULTS: MIDDLE EDR - RUN AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**MIDDLE - 2 RUN**					
		Sample Date:	**16 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**MRUN-2**	**MRUN-2R**	**Total**	**Percent**
Diptera								
	Ceratopogonidae							
		Palpomyia gr.	biting midge	7.0		1	1	0.1%
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	8		8	0.7%
		Chironomus sp.	midge	9.6	4		4	0.4%
		Cricotopus sp.	midge	6.3	8		8	0.7%
		Cryptochironomus fulvus gr.	midge	6.4	12	16	28	2.5%
		Dicrotendipes sp.	midge	8.1	36	96	132	11.7%
		Harnischia sp.	midge	9.1	4		4	0.4%
		Microtendipes pedellus gr.	midge	5.5		8	8	0.7%
Diptera								
	Chironomidae (continued)							
		Orthocladius sp.	midge	5.4	8	16	24	2.1%
		Phaenopsectra obedians gr.	midge	6.5	24	104	128	11.3%
		Polypedilum scalaenum gr.	midge	8.4	56	48	104	9.2%
		Tanytarsus sp.	midge	6.7	104	294	398	35.3%
		Thienemannimyia gr.	midge	6.0	4		4	0.4%
		Tvetenia vitracies	midge	3.6	36	16	52	4.6%
		Total Taxa			30	21	**37**	
		Total Specimens			402	726	1,128	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 28A
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - BACKWATER AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 1 BACKWATER**						
		Sample Date:	**24 October 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
Taxon:			**Common Name**	**Tol. Index***	**UBW-1**	**UBW-1R**	**Total**	**Density (no./m^2)**	**Percent**
Tubificida									
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3	7		7	152	3.9%
		Limnodrilus sp.	tube worm	9.4	59		59	1283	32.6%
		Quistadrilus multisetosus	tube worm	3.8	5		5	109	2.8%
Basommatophora									
	Physidae								
		Physa sp.	pouch snail	8.8		3	3	65	1.7%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7	1		1	22	0.6%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	4		4	87	2.2%
Odonata									
	Aeschnidae								
		Basiaeschna janata	dragonfly	7.3		1	1	22	0.6%
	Coenagrionidae								
		Enallagma sp.	damselfly	8.9		73	73	1587	40.3%
	Gomphidae								
		Lanthus sp.	dragonfly	1.5	1		1	22	0.6%
	Libellulidae								
		Erythemis sp.	dragonfly	9.7		1	1	22	0.6%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9	1		1	22	0.6%
	Haliplidae								
		Peltodytes sp.	crawling water beetle	8.7		2	2	43	1.1%
Diptera									
	Chironomidae								
		Chironomus sp.	midge	9.6	3		3	65	1.7%
		Cryptotendipes sp.	midge	6.2	6		6	130	3.3%
		Polypedilum illinoense gr.	midge	9.0		4	4	87	2.2%
		Polypedilum scalaenum gr.	midge	8.4	9		9	196	5.0%
		Tanytarsus sp.	midge	6.7	1		1	22	0.6%
		Total Taxa			11	6	**17**		
		Total Specimens			97	84	**181**		100.0%
		Total Density (no./m^2)						**3,935**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 28B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - BACKWATER AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 1 BACKWATER**						
		Sample Date:	**14 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**UBW-1**	**UBW-1R**	**Total**	**(no./m^2)**	**Percent**
Tubificida									
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3		3	3	65	0.5%
		Limnodrilus sp.	tube worm	9.4	52	16	68	1,478	10.8%
		Limnodrilus hoffmeisteri	tube worm	9.4	1	23	24	522	3.8%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	2		2	43	0.3%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9	1	1	2	43	0.3%
Diptera									
	Chironomidae								
		Chironomus sp.	midge	9.6	72	32	104	2,261	16.6%
		Cryptotendipes sp.	midge	6.2	8		8	174	1.3%
		Dicrotendipes sp.	midge	8.1	8	8	16	348	2.6%
		Paratendipes albimanus	midge	6.0	16	8	24	522	3.8%
		Phaenopsectra obedians gr.	midge	6.5	88	160	248	5,391	39.6%
		Polypedilum halterale gr.	midge	7.3	8		8	174	1.3%
		Polypedilum scalaenum gr.	midge	8.4	8		8	174	1.3%
		Procladius sp.	midge	9.1		16	16	348	2.6%
		Tanytarsus sp.	midge	6.7	8	8	16	348	2.6%
		Tribelos sp.	midge	6.3	80		80	1,739	12.8%
		Total Taxa			13	10	**15**		
		Total Specimens			352	275	627		100.0%
		Total Density (no./m^2)						**13,630**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 29A
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - DEPOSITIONAL AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 1 DEPOSITIONAL**						
		Sample Date:	**24 October 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**UDEP-1**	**UDEP-1R**	**Total**	**(no./m^2)**	**Percent**
Nematoda			round worm	6.0		2	2	43	7.1%
Tubificida									
	Tubificidae								
		Aulodrilus sp.	tube worm	5.5		1	1	22	3.6%
		Branchiura sowerybi	tube worm	8.3	4		4	87	14.3%
		Limnodrilus sp.	tube worm	9.4	4	2	6	130	21.4%
	Physidae								
		Physa sp.	pouch snail	8.8	1		1	22	3.6%
Mesogastropoda									
	Pleuroceridae								
		Leptoxis sp.	rock snail	1.7	8	1	9	196	32.1%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1		2	2	43	7.1%
Ephemeroptera									
	Baetidae								
		Baetis sp.	mayfly	4.5	1		1	22	3.6%
Coleoptera									
	Elmidae								
		Macronychus glabratus	riffle beetle	4.5	1		1	22	3.6%
Diptera									
	Chironomidae								
		Cryptochironomus fulvus gr.	midge	6.4	1		1	22	3.6%
		Total Taxa			7	5	**10**		
		Total Specimens			20	8	**28**		100.0%
		Total Density (no./m^2)						**609**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 29B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - DEPOSITIONAL AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 1 DEPOSITIONAL**						
		Sample Date:	**14 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**UDEP-1**	**UDEP-1R**	**Total**	**(no./m^2)**	**Percent**
Tubificida									
	Tubificidae								
		Limnodrilus sp.	tube worm	9.4	17	9	26	565	17.4%
		Limnodrilus hoffmeisteri	tube worm	9.4	1		1	22	0.7%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	1	1	2	43	1.3%
Diptera									
	Chironomidae								
		Chironomus sp.	midge	9.6	40	8	48	1,043	32.2%
		Cladotanytarsus sp.	midge	4.0	2	1	3	65	2.0%
		Cladotanytarsus nr. *daviesi*	midge	4.0	1		1	22	0.7%
		Cryptochironomus fulvus gr.	midge	6.4	5		5	109	3.4%
		Cryptotendipes sp.	midge	6.2	2		2	43	1.3%
		Dicrotendipes neomodestus	midge	8.1	6		6	130	4.0%
		Paracladopelma sp.	midge	5.5		1	1	22	0.7%
		Phaenopsectra obedians gr.	midge	6.5	1	1	2	43	1.3%
		Polypedilum scalaenum gr.	midge	8.4	31	6	37	804	24.8%
		Rheotanytarsus sp.	midge	5.9		1	1	22	0.7%
		Stempellina montivega gr.	midge	0.0	6		6	130	4.0%
		Tanytarsus sp.	midge	6.7	6	2	8	174	5.4%
		Total Taxa			13	9	**15**		
		Total Specimens			119	30	149		100.0%
		Total Density (no./m^2)						**3,239**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 30A
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 1 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**25 October 2006**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**UEAV-1**	**UEAV-1R**	**Total**	**Percent**
Tubificida								
	Tubificidae							
		Branchiura sowerybi	tube worm	8.3	12		12	9.8%
		Limnodrilus sp.	tube worm	9.4	15		15	12.3%
Basommatophora								
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0		1	1	0.8%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	6		6	4.9%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	2		2	1.6%
Odonata								
	Aeschnidae							
		Basiaeschna janata	dragonfly	7.3		2	2	1.6%
	Coenagrionidae							
		Enallagma sp.	damselfly	8.9		61	61	50.0%
Diptera								
	Chironomidae							
		Chironomus sp.	midge	9.6	7		7	5.7%
		Cricotopus sp.	midge	6.3	2		2	1.6%
		Cryptochironomus fulvus gr.	midge	6.4	1		1	0.8%
		Dicrotendipes sp.	midge	8.1		1	1	0.8%
		Nanocladius sp.	midge	7.1		1	1	0.8%
		Polypedilum illinoense gr.	midge	9.0		6	6	4.9%
		Polypedilum scalaenum gr.	midge	8.4	4		4	3.3%
		Procladius sp.	midge	9.1	1		1	0.8%
		Total Taxa			9	6	**15**	
		Total Specimens			50	72	**122**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 30B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 1 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**17 May 2007**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**UEAV-1**	**UEAV-1R**	**Total**	**Percent**
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6		1	1	0.2%
	Physidae							
		Physa sp.	pouch snail	8.8	2	6	8	1.8%
Ephemeroptera								
	Baetidae							
		Acentrella sp.	mayfly	3.6	1		1	0.2%
		Centroptilum sp.	mayfly	6.6		2	2	0.5%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	1		1	0.2%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	12	6	18	4.1%
Odonata								
	Aeschnidae							
		Boyeria sp.	dragonfly	5.9	1		1	0.2%
	Coenagrionidae							
		Argia sp.	damselfly	8.2	1	1	2	0.5%
		Enallagma sp.	damselfly	8.9	1	6	7	1.6%
Hemiptera								
	Gerridae							
		Rheumatobates palosi	water strider	9.0		1	1	0.2%
	Veliidae							
		Microvelia sp.	short-legged strider	9.0	3		3	0.7%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	2		2	0.5%
		Hydropsyche simulans	caddisfly	4.7	6		6	1.4%
	Polycentropodidae							
		Neureclipsis sp.	caddisfly	4.1	1		1	0.2%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5	3		3	0.7%
Diptera								
	Ceratopogonidae							
		Sphaeromias sp.	biting midge	6.0		1	1	0.2%
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	4	4	8	1.8%
		Cricotopus sp.	midge	6.3		4	4	0.9%
		Cryptotendipes sp.	midge	6.2		4	4	0.9%
		Dicrotendipes neomodestus	midge	8.1		12	12	2.7%
		Paracladopelma sp.	midge	5.5		4	4	0.9%
		Polypedilum illinoense gr.	midge	9.0	124	112	236	53.4%
		Rheotanytarsus sp.	midge	5.9	48	12	60	13.6%
		Rheotanytarsus exiguum gr.	midge	5.9	32		32	7.2%
		Tanytarsus sp.	midge	6.7		24	24	5.4%
		Total Taxa			16	16	**25**	
		Total Specimens			242	200	442	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 31A
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 1 RIFFLE**					
		Sample Date:	**24 October 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**URIF-1**	**URIF-1R**	**Total**	**Percent**
Tubificida								
	Tubificidae							
		Limnodrilus sp.	tube worm	9.4		2	2	0.5%
Arhynchobdellida								
	Erpobdellidae							
		Mooreobdella sp.	leech	9.4		1	1	0.3%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	77	72	149	40.2%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	14	16	30	8.1%
Ephemeroptera								
	Baetidae							
		Acentrella sp.	mayfly	3.6		1	1	0.3%
		Baetis sp.	mayfly	4.5	3	2	5	1.3%
Odonata								
	Gomphidae							
		Dromogomphus sp.	dragonfly	5.9	1		1	0.3%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1	1	1	2	0.5%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	43	101	144	38.8%
		Hydropsyche sp.	caddisfly	4.3	1	26	27	7.3%
Coleoptera								
	Elmidae							
		Optioservus sp.	riffle beetle	2.3	3		3	0.8%
		Stenelmis crenata gr.	riffle beetle	5.1	2	1	3	0.8%
Diptera								
	Chironomidae							
		Cricotopus sp.	midge	6.3		1	1	0.3%
	Simuliidae							
		Simulium sp.	black fly	4.0		2	2	0.5%
		Total Taxa			9	12	**14**	
		Total Specimens			145	226	**371**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 31B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 1 RIFFLE**					
		Sample Date:	**14 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**URIF-1**	**URIF-1R**	**Total**	**Percent**
Tricladida								
	Planariidae							
		Dugesia tigrina	flat worm	7.2	1	1	2	0.1%
Haplotaxida								
	Lumbricidae		earth worm	8.0	2		2	0.1%
	Naididae							
		Nais sp.	naid worm	8.7		1	1	0.1%
Arhynchobdellida								
	Erpobdellidae							
		Mooreobdella sp.	leech	9.4	1		1	0.1%
Basommatophora								
	Physidae							
		Physa sp.	pouch snail	8.8	2	2	4	0.3%
	Planorbidae							
		Micromenetus dilitatus	orb snail	8.3	2		2	0.1%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	30	160	190	12.5%
Neotaenioglossa								
	Hydrobiidae							
		Amnicola sp.	dusky snail	5.3		1	1	0.1%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	25	12	37	2.4%
Ephemeroptera								
	Baetidae							
		Acentrella sp.	mayfly	3.6		101	101	6.7%
		Baetis sp.	mayfly	4.5	1	2	3	0.2%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5		1	1	0.1%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	1	1	2	0.1%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0		4	4	0.3%
Trichoptera								
	Brachycentridae							
		Brachycentrus sp.	caddisfly	0.8		3	3	0.2%
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	105	184	289	19.1%
		Hydropsyche simulans	caddisfly	4.7		32	32	2.1%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5		1	1	0.1%
	Hydrophilidae							
		Berosus sp.	scavenger beetle	8.5	1		1	0.1%

TABLE 31B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 1 RIFFLE**					
		Sample Date:	**14 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**URIF-1**	**URIF-1R**	**Total**	**Percent**
Diptera								
	Chironomidae							
		Cardiocladius obscurus	midge	5.8	8		8	0.5%
		Cryptochironomus fulvus gr.	midge	6.4		4	4	0.3%
		Eukiefferiella devonica gr.	midge	2.5		32	32	2.1%
		Nanocladius spiniplenus	midge	7.1		8	8	0.5%
		Phaenopsectra obedians gr.	midge	6.5		4	4	0.3%
		Polypedilum flavum	midge	4.7		12	12	0.8%
		Polypedilum illinoense gr.	midge	9.0	16	16	32	2.1%
		Rheocricotopus robacki	midge	7.3	8	36	44	2.9%
		Rheotanytarsus exiguum gr.	midge	5.9	160	228	388	25.6%
		Rheotanytarsus sp.	midge	5.9	48	76	124	8.2%
		Tanytarsus sp.	midge	6.7		4	4	0.3%
		Tvetenia bavarica	midge	3.6	4	24	28	1.8%
		Tvetenia vitracies	midge	3.6		36	36	2.4%
	Simuliidae							
		Simulium sp.	black fly	4.0	1	113	114	7.5%
		Total Taxa			18	28	**33**	
		Total Specimens			416	1,099	1,515	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 32A
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 1 RUN**					
		Sample Date:	**24 October 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**URUN-1**	**URUN-1R**	**Total**	**Percent**
Tubificida								
	Tubificidae		tube worm	10.0	1		1	1.8%
Rhynchobdellida								
	Glossiphoniidae							
		Helobdella sp.	leech	9.0	2	1	3	5.5%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	20	16	36	65.5%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1		4	4	7.3%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	1	1	2	3.6%
	Baetiscidae							
		Baetisca sp.	mayfly	1.4	1		1	1.8%
Odonata								
	Libellulidae							
		Macromia illinoiensis	dragonfly	6.2		1	1	1.8%
Trichoptera								
	Brachycentridae							
		Brachycentrus sp.	caddisfly	0.8	1		1	1.8%
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2		1	1	1.8%
Lepidoptera								
	Pyraulidae							
		Petrophila sp.	moth	2.1	1		1	1.8%
Coleoptera								
	Haliplidae							
		Peltodytes sp.	crawling water beetle	8.7		3	3	5.5%
Diptera								
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	1		1	1.8%
		Total Taxa			8	7	**12**	
		Total Specimens			28	27	**55**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 32B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 1 RUN**					
		Sample Date:	**14 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**URUN-1**	**URUN-1R**	**Total**	**Percent**
Tricladida								
	Planariidae							
		Dugesia tigrina	flat worm	7.2		1	1	0.2%
Hoplonemertea								
	Tetrastemmatidae							
		Prostoma graecense	proboscis worm	6.1		1	1	0.2%
Tubificida								
	Tubificidae							
		Branchiura sowerybi	tube worm	8.3		3	3	0.6%
		Limnodrilus sp.	tube worm	9.4	9	7	16	3.2%
		Limnodrilus hoffmeisteri	tube worm	9.4	1	1	2	0.4%
Basommatophora								
	Physidae							
		Physa sp.	pouch snail	8.8		1	1	0.2%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7		4	4	0.8%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	1	7	8	1.6%
Ephemeroptera								
	Baetidae							
		Acentrella sp.	mayfly	3.6		32	32	6.4%
		Baetis sp.	mayfly	4.5		42	42	8.3%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5		1	1	0.2%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0		3	3	0.6%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	1	9	10	2.0%
		Hydropsyche simulans	caddisfly	4.7		1	1	0.2%
Diptera								
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	2	4	6	1.2%
		Chironomus sp.	midge	9.6	1		1	0.2%
		Cladotanytarsus sp.	midge	4.0	2		2	0.4%
		Corynoneuria sp.	midge	6.0		4	4	0.8%
		Cricotopus sp.	midge	6.3	2		2	0.4%
		Cryptochironomus fulvus gr.	midge	6.4		16	16	3.2%
		Cryptotendipes sp.	midge	6.2	1		1	0.2%
		Eukiefferiella sp.	midge	2.7		4	4	0.8%
		Paracladopelma sp.	midge	5.5	1		1	0.2%
		Parametriocnemus sp.	midge	3.6		4	4	0.8%
		Phaenopsectra obedians gr.	midge	6.5	18		18	3.6%
		Polypedilum scalaenum gr.	midge	8.4	18	16	34	6.8%
		Rheotanytarsus exiguum gr.	midge	5.9	14	52	66	13.1%
		Rheotanytarsus sp.	midge	5.9	7	156	163	32.4%
		Tanytarsus sp.	midge	6.7	7	40	47	9.3%
		Thienemanniella sp.	midge	5.8		4	4	0.8%
		Thienemannimyia gr.	midge	6.0	1		1	0.2%
	Simuliidae							
		Simulium sp.	black fly	4.0		4	4	0.8%
		Total Taxa			16	25	**32**	
		Total Specimens			86	417	503	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 33A
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - BACKWATER AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 2 BACKWATER**						
		Sample Date:	**25 October 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**UBW-2**	**UBW-2R**	**Total**	**(no./m^2)**	**Percent**
Tubificida									
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3	1	5	6	130	14.3%
		Limnodrilus sp.	tube worm	9.4	10		10	217	23.8%
		Limnodrilus hoffmeisteri	tube worm	9.4		13	13	283	31.0%
Ephemeroptera									
	Isonychiidae								
		Isonychia sp.	mayfly	3.4		1	1	22	2.4%
Diptera									
	Ceratopogonidae								
		Culicoides sp.	biting midge	7.7		1	1	22	2.4%
		Mallachohelia sp.	biting midge	6.0	1		1	22	2.4%
	Chironomidae								
		Chironomus sp.	midge	9.6		1	1	22	2.4%
		Cryptochironomus fulvus gr.	midge	6.4		1	1	22	2.4%
		Dicrotendipes sp.	midge	8.1		1	1	22	2.4%
		Procladius sp.	midge	9.1	1	3	4	87	9.5%
		Tanypus sp.	midge	9.2		1	1	22	2.4%
		Tanytarsus sp.	midge	6.7	1	1	2	43	4.8%
		Total Taxa			5	10	**12**		
		Total Specimens			14	28	**42**		100.0%
		Total Density (no./m^2)						**913**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 33B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - BACKWATER AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 2 BACKWATER**						
		Sample Date:	**17 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**UBW-2**	**UBW-2R**	**Total**	**(no./m^2)**	**Percent**
Haplotaxida									
	Naididae								
		Nais sp.	naid worm	8.7		1	1	22	0.2%
Tubificida									
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3	1		1	22	0.2%
		Limnodrilus sp.	tube worm	9.4	32	17	49	1,065	10.3%
		Limnodrilus hoffmeisteri	tube worm	9.4	29	68	97	2,109	20.5%
		Quistadrilus multisetosus	tube worm	3.8		1	1	22	0.2%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	1		1	22	0.2%
Diptera									
	Chironomidae								
		Chironomus sp.	midge	9.6	196	96	292	6,348	61.6%
		Dicrotendipes sp.	midge	8.1		1	1	22	0.2%
		Procladius sp.	midge	9.1	12	4	16	348	3.4%
		Tanytarsus sp.	midge	6.7	4	11	15	326	3.2%
		Total Taxa			7	8	**10**		
		Total Specimens			275	199	474		100.0%
		Total Density (no./m^2)						**10,304**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 34A
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - DEPOSITIONAL AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 2 DEPOSITIONAL**						
		Sample Date:	**25 October 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**UDEP-2**	**UDEP-2R**	**Total**	**(no./m^2)**	**Percent**
Tubificida									
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3	1		1	22	4.2%
		Limnodrilus sp.	tube worm	9.4		2	2	43	8.3%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9		1	1	22	4.2%
Diptera									
	Chironomidae								
		Chironomus sp.	midge	9.6		2	2	43	8.3%
		Cricotopus sp.	midge	6.3		1	1	22	4.2%
		Cryptochironomus fulvus gr.	midge	6.4	1		1	22	4.2%
		Cryptotendipes sp.	midge	6.2	4	7	11	239	45.8%
		Dicrotendipes sp.	midge	8.1	3		3	65	12.5%
		Procladius sp.	midge	9.1	1	1	2	43	8.3%
		Total Taxa			5	6	**9**		
		Total Specimens			10	14	**24**		100.0%
		Total Density (no./m^2)						**522**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 34B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - DEPOSITIONAL AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 2 DEPOSITIONAL**						
		Sample Date:	**17 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**UDEP-2**	**UDEP-2R**	**Total**	**(no./m2)**	**Percent**
Tubificida									
	Tubificidae								
		immature tubificid w/o hair chaetae	tube worm	9.4	1		1	22	0.3%
		Limnodrilus sp.	tube worm	9.4	19	44	63	1370	20.1%
		Limnodrilus hoffmeisteri	tube worm	9.4	2	1	3	65	1.0%
		Quistadrilus multisetosus	tube worm	3.8		1	1	22	0.3%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	1		1	22	0.3%
Diptera									
	Chironomidae								
		Ablabesmyia mallochi	midge	7.2	1	12	13	283	4.1%
		Chironomus sp.	midge	9.6	28	68	96	2087	30.6%
		Cryptochironomus fulvus gr.	midge	6.4	1	12	13	283	4.1%
		Cryptotendipes sp.	midge	6.2	1	28	29	630	9.2%
		Natarsia sp.	midge	9.9	1		1	22	0.3%
		Polypedilum scalaenum gr.	midge	8.4	5	32	37	804	11.8%
		Procladius sp.	midge	9.1		4	4	87	1.3%
		Tanytarsus sp.	midge	6.7	4	48	52	1130	16.6%
		Total Taxa			11	10	**13**		
		Total Specimens			64	250	314		100.0%
		Total Density (no./m^2)						**6,826**	

*Reference:

Lenat, David R. 1993. A BiotIc Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 35A
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - EMERGENT AQUATIC VEGETATION AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 2 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**25 October 2006**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**UEAV-2**	**UEAV-2R**	**Total**	**Percent**
Basommatophora								
	Planorbidae							
		Gyraulus sp.	orb snail	4.2		1	1	0.7%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1		1	1	0.7%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6		1	1	0.7%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5		1	1	0.7%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4		1	1	0.7%
Odonata								
	Aeschnidae							
		Basiaeschna janata	dragonfly	7.3		2	2	1.4%
		Boyeria vinosa	dragonfly	5.9	1		1	0.7%
	Calopterygidae							
		Hetaerina sp.	damselfly	5.6		1	1	0.7%
	Coenagrionidae							
		Enallagma sp.	damselfly	8.9	55	73	128	88.3%
	Libellulidae							
		Macromia illinoiensis	dragonfly	6.2		1	1	0.7%
Hemiptera								
	Corixidae							
		Trichocorixa sp.	water boatman	8.0	1	1	2	1.4%
Diptera								
	Chironomidae							
		Polypedilum illinoense gr.	midge	9.0	2	3	5	3.4%
		Total Taxa			4	11	**12**	
		Total Specimens			59	86	**145**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 35B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - EMERGENT AQUATIC VEGETATION AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	UPPER - 2 EMERGENT AQUATIC VEGETATION					
		Sample Date:	17 May 2007					
		Gear:	Sweep Net					
				Tol.				
Taxon:			Common Name	Index*	UEAV-2	UEAV-2R	Total	Percent
Tricladida								
	Planariidae							
		Dugesia tigrina	flat worm	7.2	3		3	0.4%
Tubificida								
	Tubificidae							
		Limnodrilus sp.	tube worm	9.4		1	1	0.1%
Basommatophora								
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0	1		1	0.1%
		Stagnicola sp.	pond snail	8.4	1		1	0.1%
		Pseudosuccinea columella	pond snail	7.6	1		1	0.1%
	Physidae							
		Physa sp.	pouch snail	8.8	11	3	14	1.7%
	Planorbidae							
		Micromenetus dilitatus	orb snail	8.3	13	2	15	1.8%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	1		1	0.1%
Amphipoda								
	Talitridae							
		Hyalella azteca	side swimmer	7.8	1		1	0.1%
Ephemeroptera								
	Baetidae							
		Callibaetis sp.	mayfly	9.8	4	1	5	0.6%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	3	25	28	3.4%
Odonata								
	Aeschnidae							
		Boyeria sp.	dragonfly	5.9	3		3	0.4%
	Coenagrionidae							
		Argia sp.	damselfly	8.2	4	4	8	1.0%
		Enallagma sp.	damselfly	8.9	42	15	57	6.9%
	Libellulidae							
		Macromyia sp.	dragonfly	6.2	1		1	0.1%
Hemiptera								
	Belostomatidae							
		Belostoma sp.	giant water bug	9.8	1		1	0.1%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	2	3	5	0.6%
		Hydropsyche simulans	caddisfly	4.7		2	2	0.2%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2	1		1	0.1%
Coleoptera								
	Elmidae							
		Dubiraphia vittata	riffle beetle	5.9	1	2	3	0.4%
		Macronychus glabratus	riffle beetle	4.5	1		1	0.1%
	Dytiscidae							
		Hydroporus sp.	diving beetle	8.6	2		2	0.2%
	Haliplidae							
		Peltodytes sp.	crawling water beetle	8.7	6		6	0.7%
	Hydrophilidae							
		Helophorus sp.	scavenger beetle	7.5	1		1	0.1%

TABLE 35B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - EMERGENT AQUATIC VEGETATION AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 2 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**17 May 2007**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**UEAV-2**	**UEAV-2R**	**Total**	**Percent**
Diptera								
	Ceratopogonidae							
		Bezzia sp.	biting midge	7.0	1		1	0.1%
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	32	4	36	4.4%
		Chironomus sp.	midge	9.6	8	2	10	1.2%
Diptera								
	Chironomidae (cont.)							
		Cricotopus sp.	midge	6.3	8	4	12	1.5%
		Cricotopus bicinctus	midge	8.5		4	4	0.5%
		Cryptotendipes sp.	midge	6.2	20	4	24	2.9%
		Dicrotendipes sp.	midge	8.1	36	8	44	5.4%
		Orthocladius sp.	midge	5.4		8	8	1.0%
		Paracladopelma sp.	midge	5.5	4		4	0.5%
		Polypedilum illinoense gr.	midge	9.0	208	72	280	34.1%
		Procladius sp.	midge	9.1	4		4	0.5%
		Rheotanytarsus exiguum gr.	midge	5.9		88	88	10.7%
		Rheotanytarsus sp.	midge	5.9	32	88	120	14.6%
		Tanytarsus sp.	midge	6.7	24		24	2.9%
		Total Taxa			33	20	**38**	
		Total Specimens			481	340	821	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 36A
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - RIFFLE AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 2 RIFFLE**					
		Sample Date:	**25 October 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**URIF-2**	**URIF-2R**	**Total**	**Percent**
Tubificida								
	Tubificidae							
		Branchiura sowerybi	tube worm	8.3		1	1	0.5%
Basommatophora								
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0		1	1	0.5%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7		12	12	6.5%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	12	12	24	12.9%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	24	36	60	32.3%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	1		1	0.5%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	8	12	20	10.8%
Odonata								
	Gomphidae							
		Lanthus sp.	dragonfly	1.5	5	1	6	3.2%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	26	25	51	27.4%
		Hydropsyche sp.	caddisfly	4.3	1	3	4	2.2%
Lepidoptera								
	Pyraulidae							
		Petrophila sp.	moth	2.1		1	1	0.5%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5	1	1	2	1.1%
		Optioservus sp.	riffle beetle	2.3	1		1	0.5%
Diptera								
	Chironomidae							
		Cricotopus sp.	midge	6.3		1	1	0.5%
		Tanytarsus sp.	midge	6.7		1	1	0.5%
		Total Taxa			9	13	**15**	
		Total Specimens			79	107	**186**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 36B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - RIFFLE AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 2 RIFFLE**					
		Sample Date:	**17 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**URIF-2**	**URIF-2R**	**Total**	**Percent**
Hoplonemertea								
	Tetrastemmatidae							
		Prostoma graecense	proboscis worm	6.1	1		1	0.1%
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6		3	3	0.3%
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0		1	1	0.1%
	Physidae							
		Physa sp.	pouch snail	8.8		7	7	0.7%
	Planorbidae							
		Micromenetus dilitatus	orb snail	8.3		1	1	0.1%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	28	41	69	6.8%
	Sphaeriidae							
		Pisidium sp.	pill clam	6.5	1		1	0.1%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6		1	1	0.1%
Ephemeroptera								
	Baetidae							
		Acentrella sp.	mayfly	3.6	3		3	0.3%
		Baetis sp.	mayfly	4.5	72	20	92	9.1%
		Centroptilum sp.	mayfly	6.6	1		1	0.1%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	1		1	0.1%
		Stenonema mediopunctatum	mayfly	3.7		4	4	0.4%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4		2	2	0.2%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	22	28	50	4.9%
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7		1	1	0.1%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	119	176	295	29.2%
		Hydropsyche bronta	caddisfly	5.0	1		1	0.1%
		Hydropsyche simulans	caddisfly	4.7		44	44	4.4%
Coleoptera								
	Elmidae							
		Stenelmis crenata gr.	riffle beetle	5.1	1		1	0.1%

TABLE 36B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - RIFFLE AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 2 RIFFLE**					
		Sample Date:	**17 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**URIF-2**	**URIF-2R**	**Total**	**Percent**
Diptera								
	Chironomidae							
		Cardiocladius obscurus	midge	5.8	4		4	0.4%
		Chironomus sp.	midge	9.6		4	4	0.4%
		Cricotopus bicinctus	midge	8.5		8	8	0.8%
		Cryptochironomus fulvus gr.	midge	6.4	8		8	0.8%
		Dicrotendipes sp.	midge	8.1		4	4	0.4%
		Orthocladius sp.	midge	5.4		4	4	0.4%
		Orthocladius annectens	midge	6.0		16	16	1.6%
		Parametriocnemus sp.	midge	3.6		8	8	0.8%
		Polypedilum flavum	midge	4.7	36	12	48	4.7%
		Polypedilum illinoense gr.	midge	9.0	16	12	28	2.8%
		Rheocricotopus robacki	midge	7.3		8	8	0.8%
		Rheotanytarsus exiguum gr.	midge	5.9		44	44	4.4%
		Rheotanytarsus sp.	midge	5.9	20	36	56	5.5%
		Synorthocladius sp.	midge	4.3		8	8	0.8%
		Tanytarsus sp.	midge	6.7	84	32	116	11.5%
		Thienemanniella sp.	midge	5.8	4		4	0.4%
		Thienemannimyia gr.	midge	6.0	36	28	64	6.3%
		Total Taxa			19	27	**37**	
		Total Specimens			458	553	1,011	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 37A
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - RUN AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 2 RUN**					
		Sample Date:	**25 October 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**URUN-2**	**URIN-2R**	**Total**	**Percent**
Tubificida								
	Tubificidae							
		Branchiura sowerybi	tube worm	8.3	2		2	6.3%
Rhynchobdellida								
	Glossiphoniidae							
		Helobdella sp.	leech	9.0	1		1	3.1%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1		1	1	3.1%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5		1	1	3.1%
	Baetiscidae							
		Baetisca sp.	mayfly	1.4		2	2	6.3%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	4	9	13	40.6%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	1	2	3	9.4%
	Libellulidae							
		Macromia sp.	dragonfly	6.2		1	1	3.1%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	5		5	15.6%
Diptera								
	Chironomidae							
		Cryptochironomus fulvus gr.	midge	6.4		2	2	6.3%
		Orthocladiinae	midge	6.0	1		1	3.1%
		Total Taxa			6	7	**11**	
		Total Specimens			14	18	**32**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 37B
MACROINVERTEBRATE TAXONOMIC RESULTS: UPPER EDR - RUN AREA 2

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**UPPER - 2 RUN**					
		Sample Date:	**17 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**URUN-2**	**URUN-2R**	**Total**	**Percent**
Tubificida								
		Branchiura sowerybi	tube worm	8.3		1	1	0.2%
		Limnodrilus sp.	tube worm	9.4	1	2	3	0.5%
Arhynchobdellida								
	Erpobdellidae							
		Mooreobdella sp.	leech	9.4	1		1	0.2%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	10	12	22	3.9%
Isopoda								
	Asellidae							
		Caecidotea sp.	pill bug	9.1		1	1	0.2%
Ephemeroptera								
	Baetidae							
		Centroptilum sp.	mayfly	6.6		4	4	0.7%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	1	7	8	1.4%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	5	8	13	2.3%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2		1	1	0.2%
Coleoptera								
	Hydrophilidae							
		Berosus sp.	scavenger beetle	8.5	1	1	2	0.4%
Diptera								
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2		8	8	1.4%
		Chironomus sp.	midge	9.6	12	16	28	5.0%
		Cricotopus sp.	midge	6.3	4		4	0.7%
		Cryptochironomus fulvus gr.	midge	6.4	16	8	24	4.3%
		Cryptotendipes sp.	midge	6.2	16	40	56	9.9%
		Dicrotendipes sp.	midge	8.1	36	12	48	8.5%
		Orthocladius sp.	midge	5.4		4	4	0.7%
		Paracladopelma sp.	midge	5.5		4	4	0.7%
		Phaenopsectra obedians gr.	midge	6.5	16		16	2.8%
		Polypedilum illinoense gr.	midge	9.0		12	12	2.1%
		Polypedilum scalaenum gr.	midge	8.4	64	128	192	34.0%
		Rheocricotopus robacki	midge	7.3		8	8	1.4%
		Rheotanytarsus sp.	midge	5.9		8	8	1.4%
		Rheotanytarsus exiguum gr.	midge	5.9	4	4	8	1.4%
		Tanytarsus sp.	midge	6.7	44	32	76	13.5%
		Thienemanniella sp.	midge	5.8		4	4	0.7%
		Thienemannimyia gr.	midge	6.0	4	4	8	1.4%
		Total Taxa			16	24	**27**	
		Total Specimens			235	329	564	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 38
FISH COMMUNITY SURVEY RESULTS - RIFFLE HABITAT

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Habitat Type:		Riffle								
Location:		REF - 1	REF - 2	REF - 3	EDR - 1		EDR - 2		EDR - 3	
					1	2	1	2	1	2
Species	**Scientific Name**	**Number of Individuals**								
Fall 2006										
Alabama Hog Sucker	*Hypentelium etowanum*	22	12		20	3		1	2	2
Alabama Shiner	*Cyprinella callistia*		20		4					
Banded Sculpin	*Cottus carolinae*	7	27		9	3	2	3	2	10
Black Redhorse	*Moxostoma duquesnei*									
Blackbanded Darter	*Percina nigrofasciata*	3			1	3	1	1		1
Blackspotted Topminnow	*Fundulus olivaceus*									
Blacktail Redhorse	*Moxostoma poecilurum*	1					4			
Blacktail Shiner	*Cyprinella venusta*									
Bluegill	*Lepomis macrochirus*									
Bronze Darter	*Percina palmaris*		5					1		
Channel Catfish	*Ictalurus punctatus*									
Coldwater Darter	*Etheostoma ditrema*		2		2					
Common Carp	*Cyprinus carpio*									
Coosa Darter	*Etheostoma coosae*				1	1		1		
Coosa Shiner	*Notropis xaenocephalus*		2							
Creek Chub	*Semotilus atromaculatus*									
Freshwater Drum	*Aplodinotus grunniens*									
Golden Redhorse	*Moxostoma erythrurum*									
Green Sunfish	*Lepomis cyanellus*									
Greenbreast Darter	*Etheostoma jordani*		3		1		1	6		2
Largemouth Bass	*Micropterus salmoides*									
Largescale Stoneroller	*Campostoma oligolepis*	5	12		1	3	2	10	3	25
Longear Sunfish	*Lepomis megalotis*									
Mobile Log Perch	*Percina kathae*						2	1	1	
Orangespotted Sunfish	*Lepomis humilis*									
Redbreast Sunfish	*Leopmis auritus*									
Redear Sunfish	*Lepomis microlophus*									
Redeye Bass	*Micropterus coosae*									
Redspotted Sunfish	*Lepomis miniatus*									
Riffle Minnow	*Phenacobius catostomus*	14	1		10		6	3	4	4
Rock Bass	*Ambloplites rupestris*									
Shadow Bass	*Ambloplites ariommus*									
Silverstripe Shiner	*Notropis stilbius*	17					1	2		1
Southern Studfish	*Fundulus stellifer*									
Speckled Darter	*Etheostoma stigmaeum*				5					
Spotted Bass	*Micropterus punctulatus*					3	1	2		
Spotted Sucker	*Minytrema melanops*									
Striped Shiner	*Luxilus chrysocephalus*									
Tri Color Shiner	*Cyprinella trichroistia*		12			16	11	5	6	15
Unknown	N/A		9		61					1
Warmouth	*Lepomis gulosus*									
Western Mosquitofish	*Gambusia affinis*									
	Total Number of Species	7	11		11	7	10	12	6	9
	Total Number of Fish	69	105		115	32	31	36	18	61
	Number of Darter Species	2	4		5	4	5	7	2	3
	Number of Sunfish Species	2	1		1	0	2	2	1	2
	Number of Sucker Species	2	1		1	1	1	1	1	1
	Total number of fish (EDRs)	293								
	Total number of fish (Ref.)	174								

TABLE 38
FISH COMMUNITY SURVEY RESULTS - RIFFLE HABITAT

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Habitat Type:		Riffle								
Location:		REF - 1	REF - 2	REF - 3	EDR - 1		EDR - 2		EDR - 3	
					1	2	1	2	1	2
Species	**Scientific Name**	**Number of Individuals**								
Summer 2007										
Alabama Hog Sucker	*Hypentelium etowanum*	49	15		5	37	8	2		5
Alabama Shiner	*Cyprinella callistia*	1	13		6	17	40	5	37	25
Banded Sculpin	*Cottus carolinae*	8	58		21	12	7	11	7	6
Black Crappie	*Pomoxis nigromaculatus*									
Black Redhorse	*Moxostoma duquesnei*	28				15				
Blackbanded Darter	*Percina nigrofasciata*	11	4		4	1	2	6	5	1
Blackspotted Topminnow	*Fundulus olivaceus*		1						1	
Blacktail Redhorse	*Moxostoma poecilurum*					4	1	5		
Blacktail Shiner	*Cyprinella venusta*	1			1	6			1	
Bluegill	*Lepomis macrochirus*					2		2		
Bluegill x Green Sunfish	*Lepomis sp.*					1				
Bronze Darter	*Percina palmaris*		7			1	6		3	
Bullhead Minnow	*Pimephales vigilax*	1								
Channel Catfish	*Ictalurus punctatus*									1
Coldwater Darter	*Etheostoma ditrema*		3							
Common Carp	*Cyprinus carpio*									
Coosa Darter	*Etheostoma coosae*									
Coosa Shiner	*Notropis xaenocephalus*	5	6			5				
Emerald Shiner	*Notropis atherinoides*	11			1	13	26	125	19	77
Flathead Catfish	*Pylodictis olivaris*					1	1			
Freshwater Drum	*Aplodinotus grunniens*					2				
Golden Redhorse	*Moxostoma erythrurum*	13				10				
Green Sunfish	*Lepomis cyanellus*	1	2		1	5		3		1
Greenbreast Darter	*Etheostoma jordani*				1	1	3	1	10	1
Largemouth Bass	*Micropterus salmoides*						1			
Largescale stoneroller	*Campostoma oligolepis*	66	103		65	35	24	27	49	17
Longear Sunfish	*Lepomis megalotis*	4	1			2		3		
Longnose Gar	*Lepisosteus osseus*									
Mimic Shiner	*Notropis volucellus*				8	10	2	73	12	13
Mobile Log Perch	*Percina kathae*		3				3	1	1	2
Orangespotted Sunfish	*Lepomis humilis*									
Redbreast Sunfish	*Leopmis auritus*					3		1		
Redear Sunfish	*Lepomis microlophus*									
Redeye Bass	*Micropterus coosae*	1	3							
Redspotted Sunfish	*Lepomis miniatus*								1	
Riffle Minnow	*Phenacobius catostomus*	7	3			5	34	2	1	22
Shadow Bass	*Ambloplites ariommus*	1								
Silverstripe Shiner	*Notropis stilbius*	9				4	1			
Southern Studfish	*Fundulus stellifer*	11	2							
Speckled Darter	*Etheostoma stigmaeum*					1				
Spotted Bass	*Micropterus punctulatus*	6			1	4	1	1	2	
Spotted Sucker	*Minytrema melanops*									
Striped Shiner	*Luxilus chrysocephalus*		15					38		
Tri Color Shiner	*Cyprinella trichroistia*	1								
Warmouth	*Lepomis gulosus*									
Western Mosquitofish	*Gambusia affinis*	1								
	Total Number of Species	21	16	0	11	25	16	17	14	12
	Total Number of Fish	236	239	0	114	197	160	306	149	171
	Number of Darter Species	1	4	0	2	4	4	3	4	3
	Number of Sunfish Species	2	2	0	1	5	0	4	1	1
	Number of Sucker Species	3	1	0	1	4	2	2	0	1
	Total number of fish (EDRs)	1097								
	Total number of fish (Ref.)	475								

Notes:
N/A = Not available
EDR = Ecologically diferentiable reach
REF = Reference Location

TABLE 39
FISH COMMUNITY SURVEY RESULTS - EMERGENT AQUATIC VEGETATION HABITAT

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Habitat Type:		Vegetation								
Location:		REF - 1	REF - 2	REF - 3	EDR - 1		EDR - 2		EDR - 3	
					1	2	1	2	1	2
Species	**Scientific Name**	**Number of Individuals**								
Fall 2006										
Alabama Hog Sucker	*Hypentelium etowanum*		4	1	1	3	1			1
Alabama Shiner	*Cyprinella callistia*									
Banded Sculpin	*Cottus carolinae*		11				1	2		
Black Redhorse	*Moxostoma duquesnei*									
Blackbanded Darter	*Percina nigrofasciata*	1	1	3	1	1				2
Blackspotted Topminnow	*Fundulus olivaceus*	1	8				2	2	3	
Blacktail Redhorse	*Moxostoma poecilurum*	2		2	1				1	1
Blacktail Shiner	*Cyprinella venusta*									
Bluegill	*Lepomis macrochirus*	15	53	5			2		8	24
Bronze Darter	*Percina palmaris*									
Channel Catfish	*Ictalurus punctatus*									
Coldwater Darter	*Etheostoma ditrema*							1		1
Common Carp	*Cyprinus carpio*									
Coosa Darter	*Etheostoma coosae*		1	1						
Coosa Shiner	*Notropis xaenocephalus*									
Creek Chub	*Semotilus atromaculatus*									
Freshwater Drum	*Aplodinotus grunniens*									
Golden Redhorse	*Moxostoma erythrurum*			1						
Green Sunfish	*Lepomis cyanellus*		11				2	1	1	
Greenbreast Darter	*Etheostoma jordani*									
Largemouth Bass	*Micropterus salmoides*	1			1					
Largescale Stoneroller	*Campostoma oligolepis*		54	4	12	18	3	9	29	14
Longear Sunfish	*Lepomis megalotis*	4	4	12	5	4				5
Mobile Log Perch	*Percina kathae*									
Orangespotted Sunfish	*Lepomis humilis*		1							
Redbreast Sunfish	*Leopmis auritus*				6	2	1			
Redear Sunfish	*Lepomis microlophus*		2	2			1		3	4
Redeye Bass	*Micropterus coosae*									
Redspotted Sunfish	*Lepomis miniatus*		1							
Riffle Minnow	*Phenacobius catostomus*								1	
Rock Bass	*Ambloplites rupestris*									
Shadow Bass	*Ambloplites ariommus*									
Silverstripe Shiner	*Notropis stilbius*		2			6				
Southern Studfish	*Fundulus stellifer*		2	5						
Speckled Darter	*Etheostoma stigmaeum*			2						
Spotted Bass	*Micropterus punctulatus*	1		1		3	1		4	1
Spotted Sucker	*Minytrema melanops*									
Striped Shiner	*Luxilus chrysocephalus*		1							
Tri Color Shiner	*Cyprinella trichroistia*		1	9		5	4	2	4	4
Unknown	N/A			1					1	1
Warmouth	*Lepomis gulosus*	3	2							
Western Mosquitofish	*Gambusia affinis*		10		2	10		2		
	Total Number of Species	8	18	14	8	9	10	7	10	11
	Total Number of Fish	28	169	49	29	52	18	19	55	58
	Number of Darter Species	2	3	3	1	2	2	2	1	3
	Number of Sunfish Species	3	7	3	4	4	4	2	4	3
	Number of Sucker Species	1	1	3	2	1	1	0	1	2
	Total number of fish (EDRs)	231								
	Total number of fish (Ref.)	246								

TABLE 39
FISH COMMUNITY SURVEY RESULTS - EMERGENT AQUATIC VEGETATION HABITAT

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Habitat Type:		Vegetation								
Location:		REF - 1	REF - 2	REF - 3	EDR - 1		EDR - 2		EDR - 3	
					1	2	1	2	1	2
Species	**Scientific Name**	**Number of Individuals**								
Summer 2007										
Alabama Hog Sucker	*Hypentelium etowanum*		1	1	1			4		
Alabama Shiner	*Cyprinella callistia*			1			3	1		
Banded Sculpin	*Cottus carolinae*		6	1	4		2	10		
Black Crappie	*Pomoxis nigromaculatus*									
Black Redhorse	*Moxostoma duquesnei*	4								
Blackbanded Darter	*Percina nigrofasciata*	2	4		10		3	1	5	3
Blackspotted Topminnow	*Fundulus olivaceus*		3	1			6	4	7	2
Blacktail Redhorse	*Moxostoma poecilurum*	3			6		13	10	1	3
Blacktail Shiner	*Cyprinella venusta*							1		
Bluegill	*Lepomis macrochirus*	7	9	11	3		18	11	21	20
Bluegill x Green Sunfish	*Lepomis sp.*		1							
Bullhead Minnow	*Pimephales vigilax*									
Bronze Darter	*Percina palmaris*		1				4			
Channel Catfish	*Ictalurus punctatus*						1			
Coldwater Darter	*Etheostoma ditrema*									
Common Carp	*Cyprinus carpio*	1								
Coosa Darter	*Etheostoma coosae*		1						1	
Coosa Shiner	*Notropis xaenocephalus*		1							1
Emerald Shiner	*Notropis atherinoides*						4			9
Flathead Catfish	*Pylodictis olivaris*									
Freshwater Drum	*Aplodinotus grunniens*									
Golden Redhorse	*Moxostoma erythrurum*	7								
Green Sunfish	*Lepomis cyanellus*	2	8		4		2	1	2	
Greenbreast Darter	*Etheostoma jordani*							1		
Largemouth Bass	*Micropterus salmoides*			1				3	1	2
Largescale stoneroller	*Campostoma oligolepis*		21	2	9		84	81	29	19
Longear Sunfish	*Lepomis megalotis*	9	19		22		11	22	7	4
Longnose Gar	*Lepisosteus osseus*								1	1
Mimic Shiner	*Notropis volucellus*						65	16	5	226
Mobile Log Perch	*Percina kathae*	2	1							
Orangespotted Sunfish	*Lepomis humilis*			4					1	1
Redbreast Sunfish	*Leopmis auritus*			13	2		6	20	13	5
Redear Sunfish	*Lepomis microlophus*									
Redeye Bass	*Micropterus coosae*									
Redspotted Sunfish	*Lepomis miniatus*		1					1		1
Riffle Minnow	*Phenacobius catostomus*						5	5		
Shadow Bass	*Ambloplites ariommus*		1	1					1	
Silverstripe Shiner	*Notropis stilbius*	1		1			40	5		3
Southern Studfish	*Fundulus stellifer*		1	2						
Speckled Darter	*Etheostoma stigmaeum*		2		1		4	1	1	
Spotted Bass	*Micropterus punctulatus*	1			1		5	2	4	2
Spotted Sucker	*Minytrema melanops*			1						
Striped Shiner	*Luxilus chrysocephalus*							19		
Tri Color Shiner	*Cyprinella trichroistia*		3							
Warmouth	*Lepomis gulosus*	1								2
Western Mosquitofish	*Gambusia affinis*				14			4	1	
	Total Number of Species	12	18	13	12	0	18	22	17	17
	Total Number of Fish	40	84	40	77	0	276	223	101	304
	Number of Darter Species	2	5	0	2	0	3	3	3	1
	Number of Sunfish Species	4	5	3	4	0	4	5	5	6
	Number of Sucker Species	3	1	2	2	0	1	2	1	1
	Total number of fish (EDRs	981								
	Total number of fish (Ref.)	164								

Notes:
N/A = Not available
EDR = Ecologically diferentiable reach
REF = Reference Location

TABLE 40
FISH COMMUNITY SURVEY RESULTS - RUN HABITAT

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Habitat Type:		Run								
Location:		REF - 1	REF - 2	REF - 3	EDR - 1		EDR - 2		EDR - 3	
					1	2	1	2	1	2
Species	**Scientific Name**	**Number of Individuals**								
Fall 2006										
Alabama Hog Sucker	*Hypentelium etowanum*	1	22	1	5			2		2
Alabama Shiner	*Cyprinella callistia*									
Banded Sculpin	*Cottus carolinae*	1	5		1					1
Black Redhorse	*Moxostoma duquesnei*		25	10		5				
Blackbanded Darter	*Percina nigrofasciata*	6	5	3		1		3	1	1
Blackspottedtopminnow	*Fundulus olivaceus*									
Blacktail Redhorse	*Moxostoma poecilurum*	5		8	2	5	3		2	1
Blacktail Shiner	*Cyprinella venusta*			22	3	1				
Bluegill	*Lepomis macrochirus*	7	19	1	2		13	3		2
Bronze Darter	*Percina palmaris*		2							1
Channel Catfish	*Ictalurus punctatus*	4			1					
Coldwater Darter	*Etheostoma ditrema*	2								
Common Carp	*Cyprinus carpio*	4			1					
Coosa Darter	*Etheostoma coosae*		3			2				
Coosa Shiner	*Notropis xaenocephalus*									
Creek Chub	*Semotilus atromaculatus*									
Freshwater Drum	*Aplodinotus grunniens*				8	1				1
Golden Redhorse	*Moxostoma erythrurum*	12		7	5	3				
Green Sunfish	*Lepomis cyanellus*		1				2	1	1	
Greenbreast Darter	*Etheostoma jordani*								1	
Largemouth Bass	*Micropterus salmoides*		1			1				
Largescale Stoneroller	*Campostoma oligolepis*		3	1						3
Longear Sunfish	*Lepomis megalotis*	4	11	6	1	1	5	6		
Mobile Log Perch	*Percina kathae*		6							
Orangespotted Sunfish	*Lepomis humilis*						3			
Redbreast Sunfish	*Leopmis auritus*	1	1	4						1
Redear Sunfish	*Lepomis microlophus*	3	2				1	2		1
Redeye Bass	*Micropterus coosae*		6	1						
Redspotted Sunfish	*Lepomis miniatus*									
Riffle Minnow	*Phenacobius catostomus*							4	1	4
Rock Bass	*Ambloplites rupestris*									1
Shadow Bass	*Ambloplites ariommus*		3							
Silverstripe Shiner	*Notropis stilbius*	1				2		5		19
Southern Studfish	*Fundulus stellifer*									
Speckled Darter	*Etheostoma stigmaeum*			3						
Spotted Bass	*Micropterus punctulatus*	2	2	1	5	2		1	1	2
Spotted Sucker	*Minytrema melanops*		1							
Striped Shiner	*Luxilus chrysocephalus*		16							
Tri Color Shiner	*Cyprinella trichroistia*	2		12				5	3	3
Unknown	N/A			4			1	1		
Warmouth	*Lepomis gulosus*		2	1						
Western Mosquitofish	*Gambusia affinis*									
	Total Number of Species	15	20	16	11	11	7	11	7	15
	Total Number of Fish	55	136	85	34	24	28	33	10	43
	Number of Darter Species	4	6	2	2	3	0	2	3	4
	Number of Sunfish Species	5	9	4	2	3	4	6	2	5
	Number of Sucker Species	3	2	4	3	3	1	1	1	2
	Total number of fish (EDRs)	172								
	Total number of fish (Ref.)	276								

TABLE 40
FISH COMMUNITY SURVEY RESULTS - RUN HABITAT

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Habitat Type:		Run								
Location:		REF - 1	REF - 2	REF - 3	EDR - 1		EDR - 2		EDR - 3	
					1	2	1	2	1	2
Species	**Scientific Name**	**Number of Individuals**								
Summer 2007										
Alabama Hog Sucker	*Hypentelium etowanum*	1	11	1		2				
Alabama Shiner	*Cyprinella callistia*							1		
Banded Sculpin	*Cottus carolinae*						3		3	
Black Crappie	*Pomoxis nigromaculatus*		1							
Black Redhorse	*Moxostoma duquesnei*	6	10		7	7			1	
Blackbanded Darter	*Percina nigrofasciata*			2	1	1		1	1	
Blackspotted Topminnow	*Fundulus olivaceus*		2						1	1
Blacktail Redhorse	*Moxostoma poecilurum*	6		4	14	15	4	11	7	16
Blacktail Shiner	*Cyprinella venusta*	5	1			3	1	7	1	
Bluegill	*Lepomis macrochirus*		10	2	7	3	24	4	4	25
Bluegill x Green Sunfish	*Lepomis sp.*									
Bullhead Minnow	*Pimephales vigilax*									
Bronze Darter	*Percina palmaris*						5		1	
Channel Catfish	*Ictalurus punctatus*				3		1	4		5
Coldwater Darter	*Etheostoma ditrema*			1						
Common Carp	*Cyprinus carpio*				1	2				
Coosa Darter	*Etheostoma coosae*									
Coosa Shiner	*Notropis xaenocephalus*	1	1			2				
Emerald Shiner	*Notropis atherinoides*					2				6
Flathead Catfish	*Pylodictis olivaris*					2	1			
Freshwater Drum	*Aplodinotus grunniens*				16	9		2	1	1
Golden Redhorse	*Moxostoma erythrurum*	4	3	1	6	1		2	1	
Green Sunfish	*Lepomis cyanellus*	2	2	1	2	2	3	4		
Greenbreast Darter	*Etheostoma jordani*								2	
Largemouth Bass	*Micropterus salmoides*		2		1		1			4
Largescale stoneroller	*Campostoma oligolepis*									
Longear Sunfish	*Lepomis megalotis*		7	5	2	1	2	2	1	6
Longnose Gar	*Lepisosteus osseus*								1	
Mimic Shiner	*Notropis volucellus*					5				1
Mobile Log Perch	*Percina kathae*		3	2	1	1	8		1	4
Orangespotted Sunfish	*Lepomis humilis*								1	
Redbreast Sunfish	*Leopmis auritus*	7	2	17		3	3	4	7	2
Redear Sunfish	*Lepomis microlophus*				2		2			3
Redeye Bass	*Micropterus coosae*		7							
Redspotted Sunfish	*Lepomis miniatus*									
Riffle Minnow	*Phenacobius catostomus*					1				
Shadow Bass	*Ambloplites ariommus*		3							
Silverstripe Shiner	*Notropis stilbius*	2				3				
Southern Studfish	*Fundulus stellifer*									
Speckled Darter	*Etheostoma stigmaeum*	1					2	1	2	
Spotted Bass	*Micropterus punctulatus*		6	2	6	9	4	6		10
Spotted Sucker	*Minytrema melanops*				1		2			1
Striped Shiner	*Luxilus chrysocephalus*									
Tri Color Shiner	*Cyprinella trichroistia*									
Warmouth	*Lepomis gulosus*		1							
Western Mosquitofish	*Gambusia affinis*									
	Total Number of Species	10	17	11	15	20	16	13	17	14
	Total Number of Fish	35	72	38	70	74	66	49	36	85
	Number of Darter Species	1	1	3	2	2	3	2	5	1
	Number of Sunfish Species	2	5	4	4	4	5	4	4	4
	Number of Sucker Species	4	3	3	4	4	2	2	3	2
	Total number of fish (EDRs)	380								
	Total number of fish (Ref.)	145								

Notes:
N/A = Not available
EDR = Ecologically diferentiable reach
REF = Reference Location

TABLE 41
FISH COMMUNITY SURVEY RESULTS - BACKWATER HABITAT

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Habitat Type:		Backwater								
Location:		REF - 1	REF - 2	REF - 3	EDR - 1		EDR - 2		EDR - 3	
					1	2	1	2	1	2
Species	**Scientific Name**	**Number of Individuals**								
Fall 2006										
Alabama Hog Sucker	*Hypentelium etowanum*					1				
Alabama Shiner	*Cyprinella callistia*									
Banded Sculpin	*Cottus carolinae*					1				1
Black Redhorse	*Moxostoma duquesnei*			2	1	1				
Blackbanded Darter	*Percina nigrofasciata*					1			1	
Blackspotted Topminnow	*Fundulus olivaceus*						2		12	2
Blacktail Redhorse	*Moxostoma poecilurum*			7	11		4			2
Blacktail Shiner	*Cyprinella venusta*			2						
Bluegill	*Lepomis macrochirus*			43	21	8	13	6	24	6
Bronze Darter	*Percina palmaris*									
Channel Catfish	*Ictalurus punctatus*									
Coldwater Darter	*Etheostoma ditrema*						1		1	
Common Carp	*Cyprinus carpio*									
Coosa Darter	*Etheostoma coosae*									
Coosa Shiner	*Notropis xaenocephalus*									
Creek Chub	*Semotilus atromaculatus*								1	
Freshwater Drum	*Aplodinotus grunniens*									
Golden Redhorse	*Moxostoma erythrurum*			1						
Green Sunfish	*Lepomis cyanellus*					1	4	3	2	1
Greenbreast Darter	*Etheostoma jordani*									
Largemouth Bass	*Micropterus salmoides*				1					
Largescale Stoneroller	*Campostoma oligolepis*				6	10			5	
Longear Sunfish	*Lepomis megalotis*			1	11	14	5	8	8	3
Mobile Log Perch	*Percina kathae*									
Orangespotted Sunfish	*Lepomis humilis*									
Redbreast Sunfish	*Leopmis auritus*			2		26	3			
Redear Sunfish	*Lepomis microlophus*			2	2		2	3		
Redeye Bass	*Micropterus coosae*									
Redspotted Sunfish	*Lepomis miniatus*									
Riffle Minnow	*Phenacobius catostomus*									
Rock Bass	*Ambloplites rupestris*									
Shadow Bass	*Ambloplites ariommus*									
Silverstripe Shiner	*Notropis stilbius*					10	3		1	
Southern Studfish	*Fundulus stellifer*									
Speckled Darter	*Etheostoma stigmaeum*			1						
Spotted Bass	*Micropterus punctulatus*				1	4	4	3	5	
Spotted Sucker	*Minytrema melanops*			10			2		1	
Striped Shiner	*Luxilus chrysocephalus*									
Tri Color Shiner	*Cyprinella trichroistia*					22	9		1	
Unknown	N/A						5		1	
Warmouth	*Lepomis gulosus*			2						
Western Mosquitofish	*Gambusia affinis*					13	1			4
	Total Number of Species			11	8	13	14	5	13	7
	Total Number of Fish			73	54	112	58	23	63	19
	Number of Darter Species			0	1	3	2	1	3	1
	Number of Sunfish Species			5	4	6	8	4	5	4
	Number of Sucker Species			3	2	2	1	0	0	1
	Total number of fish (EDRs)	329								
	Total number of fish (Ref.)	73								

TABLE 41
FISH COMMUNITY SURVEY RESULTS - BACKWATER HABITAT

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Habitat Type:		Backwater								
Location:		REF - 1	REF - 2	REF - 3	EDR - 1		EDR - 2		EDR - 3	
					1	2	1	2	1	2
Species	**Scientific Name**	**Number of Individuals**								
Summer 2007										
Alabama Hog Sucker	*Hypentelium etowanum*				6	5				
Alabama Shiner	*Cyprinella callistia*									
Banded Sculpin	*Cottus carolinae*							2	14	1
Black Crappie	*Pomoxis nigromaculatus*			1			1			
Black Redhorse	*Moxostoma duquesnei*			2	1	3				
Blackbanded Darter	*Percina nigrofasciata*				1	1			2	1
Blackspotted Topminnow	*Fundulus olivaceus*						19	23	5	14
Blacktail Redhorse	*Moxostoma poecilurum*			6	18	8				
Blacktail Shiner	*Cyprinella venusta*					2				
Bluegill	*Lepomis macrochirus*			29	9	18	11	3	4	13
Bluegill x Green Sunfish	*Lepomis sp.*									
Bullhead Minnow	*Pimephales vigilax*									
Bronze Darter	*Percina palmaris*				3					
Channel Catfish	*Ictalurus punctatus*									
Coldwater Darter	*Etheostoma ditrema*			2						
Common Carp	*Cyprinus carpio*									
Coosa Darter	*Etheostoma coosae*									
Coosa Shiner	*Notropis xaenocephalus*				2					
Emerald shiner	*Notropis atherinoides*				6		1			
Flathead Catfish	*Pylodictis olivaris*									
Freshwater Drum	*Aplodinotus grunniens*									
Golden Redhorse	*Moxostoma erythrurum*			4		4			1	
Green Sunfish	*Lepomis cyanellus*			1	1	3	12	9		1
Greenbreast Darter	*Etheostoma jordani*									
Largemouth Bass	*Micropterus salmoides*			3	1	2	5	1	1	2
Largescale stoneroller	*Campostoma oligolepis*				5		14	31		1
Longear Sunfish	*Lepomis megalotis*				23	24	17	41	4	5
Longnose Gar	*Lepisosteus osseus*						1			
Mimic Shiner	*Notropis volucellus*				2		28			
Mobile Log Perch	*Percina kathae*									
Orangespotted Sunfish	*Lepomis humilis*			3	2			3		1
Redbreast Sunfish	*Leopmis auritus*			4	16	7	25	27	1	15
Redear Sunfish	*Lepomis microlophus*			1		1				
Redeye Bass	*Micropterus coosae*									
Redspotted Sunfish	*Lepomis miniatus*									
Riffle Minnow	*Phenacobius catostomus*									
Shadow Bass	*Ambloplites ariommus*									
Silverstripe Shiner	*Notropis stilbius*				3					
Southern Studfish	*Fundulus stellifer*									
Speckled Darter	*Etheostoma stigmaeum*				1			1	1	
Spotted Bass	*Micropterus punctulatus*			1	2	10	2	10	2	
Spotted Sucker	*Minytrema melanops*			7						
Striped Shiner	*Luxilus chrysocephalus*									
Tri Color Shiner	*Cyprinella trichroistia*									
Warmouth	*Lepomis gulosus*			3		1				
Western Mosquitofish	*Gambusia affinis*				38	17	5	14	4	25
	Total Number of Species	0	0	14	19	15	13	12	11	11
	Total Number of Fish	0	0	67	140	106	141	165	39	79
	Number of Darter Species	0	0	1	3	1	0	1	2	1
	Number of Sunfish Species	0	0	6	5	6	4	5	3	5
	Number of Sucker Species	0	0	4	3	4	0	0	1	0
	Total number of fish (EDRs)	670								
	Total number of fish (Ref.)	67								

Notes:
N/A = Not available
EDR = Ecologically diferentiable reach
REF = Reference Location

TABLE 42
REFERENCE AREA VEGETATION SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Stratum	Common Name	Scientific Name	Reference 1		Reference 2	Reference 3
			FF	SF	FF	FF
Fall 2006						
Tree	Ash, green	*Fraxinus pennsylvanica*			X	
	Box Elder	*Acer negundo*	X		X	X
	Butternut	*Juglans cinerea*				X
	Cherry	*Prunus* sp.	X			X
	Hickory	*Carya* sp.	X		X	X
	Maple, red	*Acer rubrum*	X			
	Oak, oak	*Quercus nigra*	X			X
	Pine, long leaf	*Pinus palustris*	X			
	Southern Catalpa	*Catalpa bignonioides*	X			
	Sweetgum	*Liquidambar styrae*	X		X	
	Sycamore	*Platanus occidentalis*			X	
	Tulip Tree	*Liriodendron tulipifera*			X	X
	Walnut, black	*Juglans nigra*			X	
Shrubs/Vines	Ash, green	*Fraxinus pennsylvanica*	X		X	
	Buckeye	*Aesculus* sp.	X			
	Chinese Privet	*Legustrum sinense*	X		X	X
	Common Greenbrier	*Smilax rotundifolia*	X			X
	Eastern Hophornbean	*Ostrya virginiana*	X		X	
	Japenese Honeysuckle	*Lonicera japonica*	X		X	X
	Maple, red	*Acer rubrum*		X	X	
	Maple, silver	*Acer saccharinum*	X			
	Paw Paw	*Asimina triloba*			X	
	Sassafras	*Sassafras albidum*			X	
	Southern Catalpa	*Catalpa bignonioides*			X	
	Sumac	*Rhus* sp.	X			X
	Sweetgum	*Liquidambar styrae*	X			
	Sycamore	*Platanus occidentalis*	X	X		
	Tulip Tree	*Liriodendron tulipifera*	X		X	
	Wild Grape	*Vitis* sp.	X		X	
Herbaceous	Aster	*Aster* sp.		X	X	
	Bamboo	*Banbusa* sp.	X			X
	Blackberry	*Rubus* sp.	X	X	X	
	Chinese Privet	*Legustrum sinense*		X		
	Common Rush	*Juncus effusus*			X	
	Deer Fern	*Blechnum spicant*			X	
	Goldenrod	*Solidago* sp.	X	X	X	X
	Grasses	*Poa* sp.		X		
	Oxeye	*Heliopsis helianthoides*				X
	Poison Ivy	*Rhus radicans*			X	
	Pokeweed	*Phytolacca americana*		X		X
	Sedge, shining	*Cyperus* sp.			X	
		Species Diversity Per Transect:	23	8	24	14
		Species Diversity Per Habitat:				
		Forested Floodplain	=	39		
		Successional Field	=	8		

Notes:
X = Indicates presence
FF = Forested floodplain
SF = Successional field

TABLE 43
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 1 - DEPOSITIONAL AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 1 DEPOSITIONAL**						
		Sample Date:	**17 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**DEP-1**	**DEP-1R**	**Total**	**(no./m2)**	**Percent**
Haplotaxida									
	Naididae								
		Slavina appendiculata	naid worm	7.0		1	1	22	0.5%
Tubificida									
	Tubificidae								
		Limnodrilus sp.	tube worm	9.4		1	1	22	0.5%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	5	8	13	283	6.8%
Ephemeroptera									
	Tricorythidae								
		Tricorythodes sp.	mayfly	5.0	1	1	2	43	1.0%
Trichoptera									
	Psychomyiidae								
		Psychomyia flavida	caddisfly	2.4		1	1	22	0.5%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9	2	2	4	87	2.1%
Diptera									
	Ceratopogonidae								
		Palpomyia gr.	biting midge	7.0		1	1	22	0.5%
	Chironomidae								
		Ablabesmyia mallochi	midge	7.2	5	2	7	152	3.6%
		Chironomus sp.	midge	9.6		2	2	43	1.0%
		Cladotanytarsus sp.	midge	4.0	5	39	44	957	22.9%
		Cryptochironomus fulvus gr.	midge	6.4	3	2	5	109	2.6%
		Cryptotendipes sp.	midge	6.2	1	2	3	65	1.6%
		Paracladopelma sp.	midge	5.5	2		2	43	1.0%
		Paratendipes albimanus	midge	6.0		2	2	43	1.0%
		Phaenopsectra obedians gr.	midge	6.5	1	23	24	522	12.5%
		Polypedilum scalaenum gr.	midge	8.4	14	22	36	783	18.8%
		Procladius sp.	midge	9.1	1	1	2	43	1.0%
		Stictochironomus sp.	midge	6.5		4	4	87	2.1%
		Tanytarsus sp.	midge	6.7	32	6	38	826	19.8%
		Total Taxa			12	18	**19**		
		Total Specimens			72	120	192		100.0%
		Total Density (no./m^2)						**4,174**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 44A
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 1 - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	REFERENCE - 1 EMERGENT AQUATIC VEGETATION					
		Sample Date:	6 November 2006					
		Gear:	Sweep Net					
				Tol.				
Taxon:			Common Name	Index*	EAV-1	EAV-1R	Total	Percent
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7		1	1	1.7%
Amphipoda								
	Talitridae							
		Hyalella azteca	side swimmer	7.8		4	4	6.9%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6	1		1	1.7%
Isopoda								
	Asellidae							
		Caecidotea sp.	pill bug	9.1	1		1	1.7%
Ephemeroptera								
	Baetidae							
		Acerpenna sp.	mayfly	3.7	1		1	1.7%
		Baetis sp.	mayfly	4.5	2	2	4	6.9%
		Centroptilum sp.	mayfly	6.6	1		1	1.7%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	2		2	3.4%
Odonata								
	Aeschnidae							
		Basiaeschna janata	dragonfly	7.3		1	1	1.7%
	Coenagrionidae							
		Enallagma sp.	damselfly	8.9	2	15	17	29.3%
Plecoptera								
	Capniidae							
		Paracapnia sp.	stonefly	0.1	1		1	1.7%
	Taeniopterygidae							
		Taeniopteryx sp.	stonefly	5.4		1	1	1.7%
Hemiptera								
	Belostomatidae							
		Belostoma sp.	giant water bug	9.8	1		1	1.7%
Trichoptera								
	Polycentropodidae							
		Polycentropus sp.	caddisfly	3.5		2	2	3.4%
	Uenoidae							
		Neophylax sp.	caddisfly	2.2	1		1	1.7%
Coleoptera								
	Haliplidae							
		Peltodytes duodecimpunctatus	crawling water beetle	8.7		1	1	1.7%
		Peltodytes sexmaculatus	crawling water beetle	8.7		1	1	1.7%
	Hydrophilidae							
		Hydrobius sp.	scavenger beetle	5.0	1		1	1.7%
Diptera								
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	1	1	2	3.4%
		Corynoneuria sp.	midge	6.0		1	1	1.7%
		Polypedilum halterale gr.	midge	7.3		1	1	1.7%
		Polypedilum illinoense gr.	midge	9.0	5	2	7	12.1%
		Polypedilum scalaenum gr.	midge	8.4	1	2	3	5.2%
		Rheocricotopus robacki	midge	7.3	1		1	1.7%
	Culicidae		mosquito	8.0	1		1	1.7%
		Total Taxa			16	14	**25**	
		Total Specimens			23	35	**58**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 44B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 1 - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	REFERENCE - 1 EMERGENT AQUATIC VEGETATION					
		Sample Date:	16 May 2007					
		Gear:	Sweep Net					
				Tol.				
Taxon:			Common Name	Index*	EAV-1	EAV-1R	Total	Percent
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6		1	1	0.1%
	Physidae							
		Physa sp.	pouch snail	8.8		10	10	1.0%
	Planorbidae							
		Gyraulus sp.	orb snail	4.2	2	2	4	0.4%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4		1	1	0.1%
	Viviparidae							
		Campeloma sp.	mystery snail	6.5		1	1	0.1%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	9	2	11	1.2%
	Sphaeriidae							
		Pisidium sp.	pill clam	6.5	1	4	5	0.5%
Amphipoda								
	Crangonyctidae							
		Crangonyx sp.	side swimmer	7.9		4	4	0.4%
	Talitridae							
		Hyalella azteca	side swimmer	7.8		28	28	2.9%
Isopoda								
	Asellidae							
		Caecidotea sp.	pill bug	9.1		1	1	0.1%
Hydracarina			water mite	5.5		1	1	0.1%
Ephemeroptera								
	Baetidae							
		Centroptilum sp.	mayfly	6.6	6	7	13	1.4%
		Plauditus sp.	mayfly	4.5	1		1	0.1%
	Heptageniidae							
		Stenonema integrum	mayfly	5.7	2		2	0.2%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	108	18	126	13.2%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2		2	2	0.2%
		Enallagma sp.	damselfly	8.9		6	6	0.6%
	Gomphidae		dragonfly	5.0	1		1	0.1%
		Dromogomphus sp.	dragonfly	5.9		1	1	0.1%
	Libellulidae							
		Perithemis sp.	dragonfly	9.8		1	1	0.1%
Hemiptera								
	Belostomatidae							
		Belostoma sp.	giant water bug	9.8		3	3	0.3%
	Corixidae							
		Trichocorixa sp.	water boatman	8.0	1		1	0.1%
	Gerridae							
		Gerris sp.	water strider	6.0		2	2	0.2%
Trichoptera								
	Hydropsychidae							
		Hydropsyche sp.	caddisfly	4.3	2		2	0.2%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2	3		3	0.3%

TABLE 44B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 1 - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 1 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**16 May 2007**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**EAV-1**	**EAV-1R**	**Total**	**Percent**
Coleoptera								
	Elmidae							
		Dubiraphia vittata	riffle beetle	5.9		2	2	0.2%
	Gyrinidae							
		Dineutus sp.	whirligig beetle	5.5	8		8	0.8%
		Gyrinus sp.	whirligig beetle	6.2		7	7	0.7%
	Haliplidae							
		Peltodytes sp.	crawling water beetle	8.7		6	6	0.6%
Diptera								
	Ceratopogonidae							
		Bezzia sp.	biting midge	7.0	1		1	0.1%
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	33	32	65	6.8%
		Chironomus sp.	midge	9.6		8	8	0.8%
		Cricotopus sp.	midge	6.3	24		24	2.5%
		Cricotopus bicinctus	midge	8.5	8		8	0.8%
		Cryptotendipes sp.	midge	6.2	4		4	0.4%
		Dicrotendipes sp.	midge	8.1		24	24	2.5%
		Phaenopsectra obedians g	midge	6.5		16	16	1.7%
		Polypedilum halterale gr.	midge	7.3	16		16	1.7%
		Polypedilum illinoense gr.	midge	9.0	113	280	393	41.2%
		Rheotanytarsus sp.	midge	5.9	16	8	24	2.5%
		Synorthocladius sp.	midge	4.3	4		4	0.4%
		Tanytarsus sp.	midge	6.7	81	32	113	11.8%
		Total Taxa			22	29	**42**	
		Total Specimens			444	510	954	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 45A
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 1 - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 1 RIFFLE**					
		Sample Date:	**9 November 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RIF-1**	**RIF-1R**	**Total**	**Percent**
Basommatophora								
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0		4	4	1.1%
	Physidae							
		Physa sp.	pouch snail	8.8		4	4	1.1%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4		4	4	1.1%
		Leptoxis sp.	rock snail	1.7	268	208	476	55.6%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	13	12	25	3.2%
	Sphaeriidae							
		Pisidium sp.	pill clam	6.5		2	2	0.5%
Ephemeroptera								
	Baetidae							
		Acentrella sp.	mayfly	3.6		2	2	0.5%
		Baetis sp.	mayfly	4.5	2	31	33	8.3%
	Ephemerellidae							
		Serratella sp.	mayfly	1.5		1	1	0.3%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	12	34	46	9.1%
		Stenonema mediopunctatum	mayfly	3.7	11	4	15	1.1%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4		1	1	0.3%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2		1	1	0.3%
Plecoptera								
	Capniidae							
		Allocapnia sp.	stonefly	2.4		1	1	0.3%
	Taeniopterygidae							
		Taeniopteryx sp.	stonefly	5.4		32	32	8.6%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1	1		1	0.0%
Trichoptera								
	Glossosomatidae							
		Glossosoma sp.	caddisfly	1.5	1	4	5	1.1%
	Goeridae							
		Goera sp.	caddisfly	0.1	6	1	7	0.3%
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2		1	1	0.3%
		Hydropsyche sp.	caddisfly	4.3		1	1	0.3%
		Hydropsyche bronta	caddisfly	5.0	1	2	3	0.5%
	Lepidostomatidae							
		Lepidostoma sp.	caddisfly	0.9	1	1	2	0.3%
	Leptoceridae							
		Nectopsyche sp.	caddisfly	4.5	1		1	0.0%
Coleoptera								
	Elmidae							
		Dubiraphia vittata	riffle beetle	5.9		2	2	0.5%
		Macronychus glabratus	riffle beetle	4.5		1	1	0.3%
		Microcylloepus pusillus	riffle beetle	2.1		2	2	0.5%
		Optioservus sandersoni	riffle beetle	4.0	20	13	33	3.5%
	Psephenidae							
		Psephenus herricki	water penny	2.3	3	3	6	0.8%
Diptera								
	Simuliidae							
		Simulium sp.	black fly	4.0		2	2	0.5%
		Total Taxa			13	27	**29**	
		Total Specimens			340	374	**714**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 45B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 1 - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 1 RIFFLE**					
		Sample Date:	**16 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RIF-1**	**RIF-1R**	**Total**	**Percent**
Haplotaxida								
	Lumbricidae		earth worm	8.0	4		4	1.0%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	2	11	13	3.1%
		Leptoxis sp.	rock snail	1.7	170		170	41.2%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	38	17	55	13.3%
Hydracarina			water mite	5.5		1	1	0.2%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	2	24	26	6.3%
	Ephemerellidae							
		Serratella sp.	mayfly	1.5		1	1	0.2%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5	2	2	4	1.0%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	5	2	7	1.7%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0		1	1	0.2%
Odonata								
	Coenagrionidae							
		Enallagma sp.	damselfly	8.9	1		1	0.2%
Plecoptera								
	Perlidae							
		Acroneuria abnormis	stonefly	2.0	2		2	0.5%
		Perlesta sp.	stonefly	4.7	1		1	0.2%
Hemiptera								
	Corixidae		water boatman	9.0		1	1	0.2%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1	1		1	0.2%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	9	4	13	3.1%
		Hydropsyche sp.	caddisfly	4.3		4	4	1.0%
		Hydropsyche bronta	caddisfly	5.0	25	9	34	8.2%
		Hydropsyche venularis	caddisfly	4.9	5		5	1.2%
Coleoptera								
	Elmidae							
		Dubiraphia bivittata	riffle beetle	5.9		1	1	0.2%
		Macronychus glabratus	riffle beetle	4.5	1		1	0.2%
		Optioservus sp.	riffle beetle	2.3	2	4	6	1.5%
		Stenelmis crenata gr.	riffle beetle	5.1	1		1	0.2%
	Gyrinidae							
		Dineutus sp.	whirligig beetle	5.5	2		2	0.5%
Diptera								
	Chironomidae							
		Cardiocladius sp. (tent.)	midge	5.8		1	1	0.2%
		Cricotopus sp.	midge	6.3		3	3	0.7%
		Cryptochironomus fulvus gr.	midge	6.4		3	3	0.7%
		Microtendipes pedellus gr.	midge	5.5		1	1	0.2%
		Parametriocnemus sp.	midge	3.6		1	1	0.2%
		Polypedilum flavum	midge	4.7	2		2	0.5%
		Rheotanytarsus sp.	midge	5.9	1		1	0.2%
		Tanytarsus sp.	midge	6.7		9	9	2.2%
	Simuliidae							
		Simulium sp.	black fly	4.0		37	37	9.0%
		Total Taxa			20	21	**33**	
		Total Specimens			276	137	413	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 46A
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 1 - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 1 RUN**					
		Sample Date:	**9 November 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RUN - 1**	**RUN - 1R**	**Total**	**Percent**
Alloeocoela								
	Plagiostomidae							
		Hydrolimax grisea	flat worm	5.2	4		4	2.4%
Hoplonemertea								
	Tetrastemmatidae							
		Prostoma graescense	proboscis worm	6.1	1		1	0.6%
Lumbricina								
	Lumbricidae		earth worm	8.0		1	1	0.6%
Tubificida								
	Tubificidae							
		Aulodrilus pluriseta	tube worm	2.9	1		1	0.6%
		Ilydrilus templetoni	tube worm	9.0	1		1	0.6%
		Limnodrilus sp.	tube worm	9.4	3		3	1.8%
Basommatophora								
	Ancylidae							
		Ferrissia rivularis	limpet snail	6.6	1		1	0.6%
	Physidae							
		Physa sp.	pouch snail	8.8	1		1	0.6%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	3	3	6	3.6%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	1		1	0.6%
		Procloeon sp.	mayfly	6.0	9		9	5.4%
	Heptageniidae							
		Stenacron interpunctatum	mayfly	6.9		1	1	0.6%
		Stenonema sp.	mayfly	3.5	2	2	4	2.4%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	1		1	0.6%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2		2	2	1.2%
		Enallagma sp.	damselfly	8.9	1		1	0.6%
	Gomphidae							
		Dromogomphus sp.	dragonfly	5.9	1	3	4	2.4%
		Hagenius sp.	dragonfly	3.9	1		1	0.6%
	Libellulidae							
		Macromia sp.	dragonfly	6.2	1	2	3	1.8%
Plecoptera								
	Capniidae							
		Allocapnia sp.	stonefly	2.4	2		2	1.2%
	Perlidae							
		Agnetina sp.	stonefly	0.0		1	1	0.6%
	Perlodidae							
		Isoperla sp.	stonefly	1.4	1		1	0.6%
	Taeniopterygidae							
		Taeniopteryx sp.	stonefly	5.4	2	2	4	2.4%
Hemiptera								
	Corixidae		water boatman	8.0	12	6	18	10.7%

TABLE 46A
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 1 - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 1 RUN**					
		Sample Date:	**9 November 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RUN - 1**	**RUN - 1R**	**Total**	**Percent**
Trichoptera								
	Goeridae							
		Goera sp.	caddisfly	0.1		1	1	0.6%
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2		1	1	0.6%
		Hydropsyche sp.	caddisfly	4.3		2	2	1.2%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2		1	1	0.6%
	Lepidostomatidae							
		Lepidostoma sp.	caddisfly	0.9		1	1	0.6%
	Leptoceridae							
		Mystacides sp.	caddisfly	2.6		11	11	6.5%
		Nectopsyche sp.	caddisfly	4.5	3	1	4	2.4%
		Oecetis sp.	caddisfly	3.6	1	1	2	1.2%
		Triaenodes sp.	caddisfly	3.8		1	1	0.6%
	Polycentropodidae							
		Polycentropus sp.	caddisfly	3.5		1	1	0.6%
Coleoptera								
	Elmidae							
		Dubiraphia vittata	riffle beetle	5.9	21	6	27	16.1%
		Macronychus glabratus	riffle beetle	4.5	1		1	0.6%
Diptera								
	Chironomidae							
		Corynoneuria sp.	midge	6.0	2	1	3	1.8%
		Cryptochironomus fulvus gr.	midge	6.4	2		2	1.2%
		Dicrotendipes modestus	midge	8.7		3	3	1.8%
		Eukiefferiella sp.	midge	2.7	1		1	0.6%
		Microtendipes pedellus gr.	midge	5.5		1	1	0.6%
		Orthocladiinae	midge	6.0		2	2	1.2%
		Parakiefferiella sp.	midge	5.3	2		2	1.2%
		Paralaterborniella nigrohalteralis	midge	4.7	1		1	0.6%
		Phaenopsectra obedians gr.	midge	6.5	1	5	6	3.6%
		Polypedilum halterale gr.	midge	7.3	3		3	1.8%
		Polypedilum illinoense gr.	midge	9.0	1		1	0.6%
		Pseudochironomus sp.	midge	5.5	1		1	0.6%
		Tanytarsus sp.	midge	6.7	7	4	11	6.5%
		Thienemanniella sp.	midge	5.8	1		1	0.6%
		Zavrelia sp.	midge	5.3	5		5	3.0%
		Total Taxa			36	27	**51**	
		Total Specimens			102	66	**168**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 46B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 1 - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 1 RUN**					
		Sample Date:	**16 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RUN-1**	**RUN-1R**	**Total**	**Percent**
Hoplonemertea								
	Tetrastemmatidae							
		Prostoma graecense	proboscis worm	6.1	1		1	0.4%
Tubificida								
	Tubificidae							
		Limnodrilus sp.	tube worm	9.4	1		1	0.4%
Basommatophora								
	Planorbidae		orb snail	6.3		1	1	0.4%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	4		4	1.6%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	16	4	20	8.0%
Isopoda								
	Asellidae							
		Lirceus sp.	pill bug	8.0	1		1	0.4%
Ephemeroptera								
	Baetidae							
		Centroptilum sp.	mayfly	6.6	1	1	2	0.8%
	Caenide							
		Caenis sp.	mayfly	7.4	1		1	0.4%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	15	5	20	8.0%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	1		1	0.4%
Hemiptera								
	Corixidae		water boatman	9.0	2		2	0.8%
Trichoptera								
	Leptoceridae							
		Mystacides sp.	caddisfly	2.6	3		3	1.2%
		Oecetis sp.	caddisfly	3.6	1		1	0.4%
		Triaenodes sp.	caddisfly	3.8	1		1	0.4%
Coleoptera								
	Elmidae							
		Dubiraphia vittata	riffle beetle	5.9	4	1	5	2.0%
		Macronychus glabratus	riffle beetle	4.5	1		1	0.4%
Diptera								
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	2		2	0.8%
		Chironomus sp.	midge	9.6	2	1	3	1.2%
		Cricotopus sp.	midge	6.3	1	1	2	0.8%
		Cryptochironomus fulvus gr.	midge	6.4	7	14	21	8.4%
		Cryptotendipes sp.	midge	6.2	1	2	3	1.2%
		Dicrotendipes sp.	midge	8.1	13	1	14	5.6%
		Microtendipes pedellus gr.	midge	5.5	4	7	11	4.4%
		Parachironomus sp.	midge	9.4	1		1	0.4%
		Phaenopsectra obedians gr.	midge	6.5	27	1	28	11.2%
		Polypedilum illinoense gr.	midge	9.0	8		8	3.2%
		Rheotanytarsus exiguum gr.	midge	5.9	9	5	14	5.6%
		Tanytarsus sp.	midge	6.7	74	3	77	30.8%
		Thienemannimyia gr.	midge	6.0	1		1	0.4%
		Total Taxa			28	14	**29**	
		Total Specimens			203	47	250	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 47A
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 2 - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	REFERENCE - 2 EMERGENT AQUATIC VEGETATION					
		Sample Date:	29 October 2006					
		Gear:	Sweep Net					
				Tol.				
Taxon:			Common Name	Index*	EAV 1	EAV-1R	Total	Percent
Basommatophora								
	Planorbidae							
		Helisoma sp.	orb snail	6.2		1	1	0.6%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	12		12	7.6%
		Leptoxis sp.	rock snail	1.7	15	76	91	58.0%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1		1	1	0.6%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6	2	5	7	4.5%
	Baetiscidae							
		Bastisca gibbera	mayfly	1.4	1		1	0.6%
	Ephemerellidae							
		Eurylophella sp.	mayfly	4.3	1		1	0.6%
	Heptageniidae							
		Stenacron interpunctatum	mayfly	6.9		1	1	0.6%
		Stenonema smithae	mayfly	3.5		1	1	0.6%
Odonata								
	Aeschnidae							
		Basiaeschna janata	dragonfly	7.3	1	3	4	2.5%
	Calopterygidae							
		Calopteryx maculata	damselfly	7.8	1		1	0.6%
	Coenagrionidae							
		Enallagma sp.	damselfly	8.9	6	10	16	10.2%
Hemiptera								
	Veliidae							
		Microvelia sp.	short-legged strider	9.0		1	1	0.6%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2		1	1	0.6%
	Polycentropodidae							
		Polycentropus sp.	caddisfly	3.5	1		1	0.6%
Coleoptera								
	Elmidae							
		Microcylloepus pusillus	riffle beetle	2.1		1	1	0.6%
	Dytiscidae							
		Agabus sp.	diving beetle	8.8	1		1	0.6%
	Gyrinidae							
		Dineutus discolor	whirligig beetle	5.5		4	4	2.5%
	Haliplidae							
		Peltodytes sexmaculatus	crawling water beetle	8.7	1		1	0.6%
	Psephenidae							
		Ectopria nervosa	false water penny	4.1	1		1	0.6%
Diptera								
	Chironomidae							
		Polypedilum illinoense gr.	midge	9.0	1	3	4	2.5%
		Paramerina sp.	midge	4.3	1		1	0.6%
		Thienemannimyia gr.	midge	6.0		2	2	1.3%
	Sarcophagidae							
		Myxosargus sp.	flesh fly	8.0	2		2	1.3%
		Total Taxa			15	14	**24**	
		Total Specimens			47	110	**157**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 47B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 2 - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	REFERENCE - 2 EMERGENT AQUATIC VEGETATION					
		Sample Date:	17 May 2007					
		Gear:	Sweep Net					
				Tol.				
Taxon:			Common Name	Index*	EAV-1	EAV-1R	Total	Percent
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4		24	24	1.2%
		Leptoxis sp.	rock snail	1.7	424	432	856	41.2%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6		1	1	0.0%
Hydracarina			water mite	5.5	1		1	0.0%
Ephemeroptera								
	Baetidae							
		Acerpenna pygmaeus	mayfly	3.7		2	2	0.1%
		Callibaetis sp.	mayfly	9.8		1	1	0.0%
		Centroptilum sp.	mayfly	6.6	4		4	0.2%
		Plauditus sp.	mayfly	4.5		24	24	1.2%
	Caenide							
		Caenis sp.	mayfly	7.4	1		1	0.0%
	Ephemerellidae							
		Ephemerella sp.	mayfly	2.0		2	2	0.1%
		Eurylophella sp.	mayfly	4.3	1	2	3	0.1%
	Heptageniidae							
		Stenonema sp.	mayfly	3.5		1	1	0.0%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4		1	1	0.0%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	72	122	194	9.3%
Odonata								
	Aeschnidae							
		Boyeria sp.	dragonfly	5.9	1		1	0.0%
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7		10	10	0.5%
Hemiptera								
	Gerridae							
		Gerris sp.	water strider	6.0	2		2	0.1%
Trichoptera								
	Leptoceridae							
		Mystacides sp.	caddisfly	2.6	1		1	0.0%
	Polycentropodidae							
		Polycentropus sp.	caddisfly	3.5	1	1	2	0.1%
Coleoptera								
	Elmidae							
		Dubiraphia vittata	riffle beetle	5.9	1		1	0.0%
		Macronychus glabratus	riffle beetle	4.5	2	3	5	0.2%
	Gyrinidae							
		Dineutus sp.	whirligig beetle	5.5		5	5	0.2%
	Psephenidae							
		Psephenus herricki	water penny	2.3		1	1	0.0%

TABLE 47B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 2 - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 2 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**17 May 2007**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**EAV-1**	**EAV-1R**	**Total**	**Percent**
Diptera								
	Ceratopogonidae							
		Palpomyia gr.	biting midge	7.0	1		1	0.0%
	Chaoboridae							
		Chaoborus punctipennis	phantom midge	8.5	2		2	0.1%
	Chironomidae							
		Corynoneuria sp.	midge	6.0		8	8	0.4%
		Microtendipes pedellus gr.	midge	5.5	1		1	0.0%
		Parachironomus sp.	midge	9.4	3		3	0.1%
		Paracladopelma sp.	midge	5.5		8	8	0.4%
		Paramerina sp.	midge	4.3	9		9	0.4%
		Paratendipes albimanus	midge	6.0	3		3	0.1%
		Polypedilum sp.	midge	5.6		112	112	5.4%
		Polypedilum illinoense gr.	midge	9.0	69		69	3.3%
		Polypedilum scalaenum gr.	midge	8.4		544	544	26.2%
		Psectrocladius sp.	midge	3.6	1		1	0.0%
		Rheotanytarsus exiguum gr.	midge	5.9		8	8	0.4%
		Rheotanytarsus sp.	midge	5.9	1		1	0.0%
		Synorthocladius sp.	midge	4.3	1		1	0.0%
		Tanytarsus sp.	midge	6.7	1	32	33	1.6%
		Thienemanniella sp.	midge	5.8		8	8	0.4%
		Thienemannimyia gr.	midge	6.0	2	112	114	5.5%
	Culicidae		mosquito	8.0	2		2	0.1%
	Ephydridae		shore fly	6.0		3	3	0.1%
	Empididae							
		Hemerodromia sp.	dance fly	7.6		1	1	0.0%
	Sciomyzidae							
		Sepedon sp.	marsh fly	10.0	1		1	0.0%
		Total Taxa			26	26	**45**	
		Total Specimens			608	1,468	2,076	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 48A
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 2 - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 2 RIFFLE**					
		Sample Date:	**29 October 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RIF-1**	**RIF-1R**	**Total**	**Percent**
Lumbricina								
	Lumbricidae		earth worm	8.0	2	4	6	3.5%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	32	15	47	27.6%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1		1	1	0.6%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5	4	1	5	2.9%
	Heptageniidae							
		Stenacron pallidum	mayfly	2.7	3		3	1.8%
		Stenonema sp.	mayfly	3.5	5	1	6	3.5%
		Stenonema mediopunctatum	mayfly	3.7	1		1	0.6%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	1	6	7	4.1%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2		1	1	0.6%
	Gomphidae							
		Lanthus sp.	dragonfly	1.5	3	1	4	2.4%
Plecoptera								
	Perlidae							
		Acroneuria abnormis	stonefly	2.0		1	1	0.6%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1	1	5	6	3.5%
		Nigronia serricornis	fishfly	4.9	2	1	3	1.8%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	7	8	15	8.8%
		Hydropsyche sp.	caddisfly	4.3		2	2	1.2%
		Hydropsyche bronta	caddisfly	5.0	1	9	10	5.9%
	Philopotamidae							
		Chimarra aterrima	caddisfly	2.7	1	4	5	2.9%
		Chimarra obscura	caddisfly	2.7	4	10	14	8.2%
	Polycentropodidae							
		Polycentropus sp.	caddisfly	3.5		1	1	0.6%
Coleoptera								
	Elmidae							
		Microcylloepus pusillus	riffle beetle	2.1		1	1	0.6%
		Optioservus sp.	riffle beetle	2.3	1	3	4	2.4%
		Stenelmis crenata gr.	riffle beetle	5.1	1	1	2	1.2%
	Psephenidae							
		Ectopria nervosa	false water penny	4.1	1		1	0.6%
		Psephenus herricki	water penny	2.3	21		21	12.4%
Diptera								
	Chaoboridae							
		Chaoborus punctipennis	phantom midge	8.5	1		1	0.6%
	Chironomidae							
		Polypedilum scalaenum gr.	midge	8.4		2	2	1.2%
		Total Taxa			19	21	**26**	
		Total Specimens			92	78	**170**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 48B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 2 - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 2 RIFFLE**					
		Sample Date:	**17 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RIF-1**	**RIF-1R**	**Total**	**Percent**
Haplotaxida								
	Lumbriculidae							
		Lumbriculus variegatus	earth worm	7.0	1	1	2	0.1%
Basommatophora								
	Planorbidae							
		Gyraulus sp.	orb snail	4.2	1		1	0.1%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	60	29	89	5.0%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1		7	7	0.4%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6	6	3	9	0.5%
Ephemeroptera								
	Baetidae							
		Acentrella sp.	mayfly	3.6	216		216	12.2%
		Baetis sp.	mayfly	4.5	120	6	126	7.1%
		Plauditus sp.	mayfly	4.5		12	12	0.7%
	Caenide							
		Caenis sp.	mayfly	7.4		1	1	0.1%
	Heptageniidae							
		Stenacron interpunctatum	mayfly	6.9		1	1	0.1%
		Stenonema sp.	mayfly	3.5	136	26	162	9.1%
	Isonychiidae							
		Isonychia sp.	mayfly	3.4	41	4	45	2.5%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	32	11	43	2.4%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2		1	1	0.1%
	Gomphidae							
		Ophiogomphus sp.	dragonfly	5.5	2		2	0.1%
Plecoptera								
	Perlidae							
		Perlesta sp.	stonefly	4.7	1		1	0.1%
Megaloptera								
	Corydalidae							
		Corydalus cornutus	dobsonfly	5.1	3	1	4	0.2%
		Nigronia serricornis	fishfly	4.9		2	2	0.1%

TABLE 48B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 2 - RIFFLE AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 2 RIFFLE**					
		Sample Date:	**17 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RIF-1**	**RIF-1R**	**Total**	**Percent**
Trichoptera								
	Brachycentridae							
		Micrasema sp.	caddisfly	0.6	9	1	10	0.6%
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2	288	188	476	26.8%
		Hydropsyche sp.	caddisfly	4.3		4	4	0.2%
		Hydropsyche nr. *betteni*	caddisfly	7.8	32		32	1.8%
		Hydropsyche bronta	caddisfly	5.0	8		8	0.5%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2	62	65	127	7.1%
	Lepidostomatidae							
		Lepidostoma sp.	caddisfly	0.9		8	8	0.5%
	Philopotamidae							
		Chimarra sp.	caddisfly	2.7	8	4	12	0.7%
	Uenoidae							
		Neophylax sp.	caddisfly	2.2		8	8	0.5%
Coleoptera								
	Elmidae							
		Microcylloepus pusillus	riffle beetle	2.1	1		1	0.1%
		Optioservus sp.	riffle beetle	2.3	10		10	0.6%
		Optioservus ovalis	riffle beetle	4.0		3	3	0.2%
		Oulimnius latiusculus	riffle beetle	1.8		1	1	0.1%
		Stenelmis crenata gr.	riffle beetle	5.1	2	4	6	0.3%
	Psephenidae							
		Ectopria nervosa	false water penny	4.1	1		1	0.1%
		Psephenus herricki	water penny	2.3	6	10	16	0.9%
Diptera								
	Chironomidae							
		Ablabesmyia sp.	midge	7.2	4		4	0.2%
		Ablabesmyia mallochi	midge	7.2		4	4	0.2%
		Cricotopus bicinctus	midge	8.5	1		1	0.1%
		Cricotopus trifascia	midge	2.8	2		2	0.1%
		Cryptochironomus fulvus gr	midge	6.4	1		1	0.1%
		Microtendipes pedellus gr.	midge	5.5	1		1	0.1%
		Paracladopelma sp.	midge	5.5	1		1	0.1%
		Phaenopsectra obedians gr	midge	6.5		4	4	0.2%
		Polypedilum flavum	midge	4.7	21	96	117	6.6%
		Rheocricotopus robacki	midge	7.3	1	4	5	0.3%
		Rheotanytarsus exiguum gr	midge	5.9	29		29	1.6%
		Rheotanytarsus sp.	midge	5.9		100	100	5.6%
		Synorthocladius sp.	midge	4.3	1	8	9	0.5%
		Tanytarsus sp.	midge	6.7	5	12	17	1.0%
		Thienemanniella sp.	midge	5.8		4	4	0.2%
		Thienemannimyia gr.	midge	6.0	4	4	8	0.5%
		Tvetenia sp.	midge	3.6	3	12	15	0.8%
	Simuliidae							
		Simulium sp.	black fly	4.0	8		8	0.5%
		Total Taxa			37	35	**52**	
		Total Specimens			1,128	649	1,777	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 49A
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 2 - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 2 RUN**					
		Sample Date:	**29 October 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RUN-1**	**RUN-1R**	**Total**	**Percent**
Basommatophora								
	Lymnaeidae							
		Fossaria sp.	pond snail	7.0		1	1	3.1%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7	5	8	13	40.6%
Ephemeroptera								
	Baetiscidae							
		Bastisca gibbera	mayfly	1.4	1	1	2	6.3%
	Heptageniidae							
		Stenacron pallidum	mayfly	2.7		1	1	3.1%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2		1	1	3.1%
	Gomphidae							
		Gomphus sp.	dragonfly	5.8		3	3	9.4%
		Gomphus descriptus	dragonfly	5.8	1		1	3.1%
		Hagenius brevistylus	dragonfly	3.9		1	1	3.1%
		Lanthus sp.	dragonfly	1.5		1	1	3.1%
Megaloptera								
	Sialidae							
		Sialis sp.	alderfly	7.2	2		2	6.3%
Coleoptera								
	Elmidae							
		Dubiraphia vittata	riffle beetle	5.9	1		1	3.1%
		Macronychus glabratus	riffle beetle	4.5		2	2	6.3%
	Psephenidae							
		Psephenus herricki	water penny	2.3	1	2	3	9.4%
		Total Taxa			6	10	**13**	
		Total Specimens			11	21	**32**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 49B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 2 - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 2 RUN**					
		Sample Date:	**17 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RUN-1**	**RUN-1R**	**Total**	**Percent**
Haplotaxida								
	Lumbricidae		earth worm	8.0		1	1	0.1%
Basommatophora								
	Planorbidae							
		Gyraulus sp.	orb snail	4.2		1	1	0.1%
Mesogastropoda								
	Pleuroceridae							
		Elimia sp.	horn snail	2.4	40	4	44	2.6%
		Leptoxis sp.	rock snail	1.7	912	71	983	57.0%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1		4	4	0.2%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6		1	1	0.1%
Ephemeroptera								
	Baetidae							
		Acentrella sp.	mayfly	3.6	1		1	0.1%
		Baetis sp.	mayfly	4.5		73	73	4.2%
	Ephemerellidae							
		Eurylophella sp.	mayfly	4.3		8	8	0.5%
	Heptageniidae							
		Stenacron interpunctatum	mayfly	6.9	2		2	0.1%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0	40	248	288	16.7%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2		64	64	3.7%
	Gomphidae							
		Hagenius sp.	dragonfly	3.9		4	4	0.2%
Trichoptera								
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2		15	15	0.9%
	Leptoceridae							
		Triaenodes sp.	caddisfly	3.8		1	1	0.1%
	Polycentropodidae							
		Polycentropus sp.	caddisfly	3.5		3	3	0.2%
Coleoptera								
	Elmidae							
		Macronychus glabratus	riffle beetle	4.5		3	3	0.2%
		Stenelmis crenata gr.	riffle beetle	5.1	1		1	0.1%
	Gyrinidae							
		Dineutus sp.	whirligig beetle	5.5	5	1	6	0.3%
	Psephenidae							
		Ectopria nervosa	false water penny	4.1		1	1	0.1%
		Psephenus herricki	water penny	2.3	3	2	5	0.3%

TABLE 49B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 2 - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 2 RUN**					
		Sample Date:	**17 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RUN-1**	**RUN-1R**	**Total**	**Percent**
Diptera								
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	36	20	56	3.2%
		Cricotopus sp.	midge	6.3	4	1	5	0.3%
		Dicrotendipes sp.	midge	8.1		1	1	0.1%
		Microtendipes pedellus gr.	midge	5.5	4		4	0.2%
		Paratendipes albimanus	midge	6.0	28	5	33	1.9%
		Phaenopsectra obedians gr.	midge	6.5	16	3	19	1.1%
		Rheotanytarsus exiguum gr.	midge	5.9	16	8	24	1.4%
		Synorthocladius sp.	midge	4.3	4	4	8	0.5%
		Tanytarsus sp.	midge	6.7	52	13	65	3.8%
		Total Taxa			16	26	**30**	
		Total Specimens			1,164	560	1,724	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 50A
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 3 - BACKWATER AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 3 BACK WATER**						
		Sample Date:	**1 November 2006**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**BW-1**	**BW-1R**	**Total**	**(no./m^2)**	**Percent**
Tubificida									
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3		1	1	22	1.9%
		Limnodrilus sp.	tube worm	9.4	2	4	6	130	11.3%
Mesogastropoda									
	Viviparidae								
		Campeloma sp.	mystery snail	6.5	1		1	22	1.9%
Ephemeroptera									
	Caenide								
		Caenis sp.	mayfly	7.4		1	1	22	1.9%
Plecoptera									
	Capniidae								
		Allocapnia sp.	stonefly	2.4	1		1	22	1.9%
Diptera									
	Ceratopogonidae								
		Sphaeromias sp.	biting midge	6.0		1	1	22	1.9%
	Chironomidae								
		Ablabesmyia mallochi	midge	7.2		1	1	22	1.9%
		Chironomini	midge	6.0	3		3	65	5.7%
		Cricotopus bicinctus	midge	8.5		3	3	65	5.7%
		Cryptochironomus fulvus gr.	midge	6.4	4	4	8	174	15.1%
		Dicrotendipes sp.	midge	8.1		3	3	65	5.7%
		Paratanytarsus sp.	midge	8.4		1	1	22	1.9%
		Procladius sp.	midge	9.1		1	1	22	1.9%
		Pseudochironomus sp.	midge	5.5		15	15	326	28.3%
		Tanytarsus sp.	midge	6.7		7	7	152	13.2%
		Total Taxa			5	12	**15**		
		Total Specimens			11	42	**53**		100.0%
		Total Density (no./m^2)						**1,152**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 50B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 3 - BACKWATER AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 3 BACKWATER**						
		Sample Date:	**17 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**BW-1**	**BW-1R**	**Total**	**(no./m2)**	**Percent**
Tubificida									
	Tubificidae								
		Branchiura sowerybi	tube worm	8.3	1		1	22	16.7%
Mesogastropoda									
	Viviparidae								
		Campeloma sp.	mystery snail	6.5		3	3	65	50.0%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	1		1	22	16.7%
Diptera									
	Chironomidae								
		Cladotanytarsus sp.	midge	4.0	1		1	22	16.7%
		Total Taxa			3	1	**4**		
		Total Specimens			3	3	6		100.0%
		Total Density (no./m^2)						**130**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 51
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 3 - DEPOSITIONAL AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 3 DEPOSITIONAL**						
		Sample Date:	**17 May 2007**						
		Gear:	**Petite Ponar Dredge (area = 0.023 square meters)**						
				Tol.				**Density**	
Taxon:			**Common Name**	**Index***	**DEP-1**	**DEP-1R**	**Total**	**(no./m2)**	**Percent**
Haplotaxida									
	Lumbriculidae								
		Lumbriculus variegatus	earth worm	7.0		1	1	22	2.0%
Tubificida									
	Tubificidae								
		Bothrioneurum vejdovskyanum	tube worm	4.0	1		1	22	2.0%
		Branchiura sowerybi	tube worm	8.3		1	1	22	2.0%
		Limnodrilus sp.	tube worm	9.4	2	1	3	65	6.0%
Mesogastropoda									
	Viviparidae								
		Campeloma sp.	mystery snail	6.5		1	1	22	2.0%
Veneroidea									
	Corbiculidae								
		Corbicula fluminea	Asiatic clam	6.1	1	2	3	65	6.0%
Trichoptera									
	Leptoceridae								
		Mystacides sp.	caddisfly	2.6	1		1	22	2.0%
	Polycentropodidae								
		Polycentropus sp.	caddisfly	3.5		1	1	22	2.0%
Coleoptera									
	Elmidae								
		Dubiraphia vittata	riffle beetle	5.9	1		1	22	2.0%
Diptera									
	Chironomidae								
		Ablabesmyia mallochi	midge	7.2		6	6	130	12.0%
		Cladotanytarsus sp.	midge	4.0	2		2	43	4.0%
		Cryptochironomus fulvus gr.	midge	6.4		2	2	43	4.0%
		Microtendipes pedellus gr.	midge	5.5	4	7	11	239	22.0%
		Nilothauma breyi (tent.)	midge	5.0	1		1	22	2.0%
		Paratendipes albimanus	midge	6.0		1	1	22	2.0%
		Phaenopsectra obedians gr.	midge	6.5	3		3	65	6.0%
		Polypedilum scalaenum gr.	midge	8.4		1	1	22	2.0%
		Procladius sp.	midge	9.1	3		3	65	6.0%
		Stictochironomus sp.	midge	6.5	1		1	22	2.0%
		Tanypodinae	midge	6.0		1	1	22	2.0%
		Tanytarsus sp.	midge	6.7	1	3	4	87	8.0%
		Zavrelia sp.	midge	5.3	1		1	22	2.0%
		Total Taxa			13	13	**22**		
		Total Specimens			22	28	50		100.0%
		Total Density (no./m^2)						**1,087**	

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 52A
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 3 - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 3 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**1 November 2006**					
		Gear:	**Sweep Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**EAV-1**	**EAV-1R**	**Total**	**Percent**
Tricladida								
	Planariidae							
		Dugesia tigrina	flat worm	7.2		1	1	3.7%
Basommatophora								
	Physidae							
		Physa sp.	pouch snail	8.8		2	2	7.4%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7		2	2	7.4%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6	1		1	3.7%
Hydracarina			water mite	5.5	6	1	7	25.9%
Ephemeroptera								
	Baetidae							
		Baetis sp.	mayfly	4.5		1	1	3.7%
	Heptageniidae							
		Stenacron interpunctatum	mayfly	6.9	1		1	3.7%
Odonata								
	Coenagrionidae							
		Enallagma sp.	damselfly	8.9	1	3	4	14.8%
Coleoptera								
	Gyrinidae							
		Dineutus sp.	whirligig beetle	5.5	1	2	3	11.1%
Diptera								
	Chironomidae							
		Dicrotendipes sp.	midge	8.1		1	1	3.7%
		Tanypodinae	midge	6.0	1		1	3.7%
		Tanytarsus sp.	midge	6.7	2		2	7.4%
	Simuliidae							
		Simulium sp.	black fly	4.0	1		1	3.7%
		Total Taxa			8	8	**13**	
		Total Specimens			14	13	**27**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 52B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 3 - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 3 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**17 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**EAV-1**	**EAV-1R**	**Total**	**Percent**
Basommatophora								
	Planorbidae		orb snail	6.3	1		1	0.3%
Mesogastropoda								
	Pleuroceridae							
		Leptoxis sp.	rock snail	1.7		2	2	0.6%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	3	6	9	2.8%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6	1	1	2	0.6%
Ephemeroptera								
	Baetidae							
		Acentrella sp.	mayfly	3.6		1	1	0.3%
		Baetis sp.	mayfly	4.5		1	1	0.3%
		Centroptilum sp.	mayfly	6.6		7	7	2.1%
	Ephemerellidae							
		Eurylophella sp.	mayfly	4.3		2	2	0.6%
Odonata								
	Aeschnidae							
		Boyeria sp.	dragonfly	5.9	1		1	0.3%
		Boyeria vinosa	dragonfly	5.9		1	1	0.3%
	Libellulidae		dragonfly	6.7		3	3	0.9%
		Macromyia illinoiensis	dragonfly	6.2	1		1	0.3%
		Neurocordulia sp.	dragonfly	3.4	1		1	0.3%
	Gomphidae		dragonfly	5.0		1	1	0.3%
		Hagenius sp.	dragonfly	3.9	1		1	0.3%
Plecoptera								
	Capniidae		stonefly	0.9	1		1	0.3%
Trichoptera								
	Hydropsychidae							
		Cheumatopsyche sp.	caddisfly	6.2		1	1	0.3%
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2	4		4	1.2%
	Leptoceridae							
		Oecetis sp.	caddisfly	3.6	1		1	0.3%

TABLE 52B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 3 - EMERGENT AQUATIC VEGETATION AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 3 EMERGENT AQUATIC VEGETATION**					
		Sample Date:	**17 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**EAV-1**	**EAV-1R**	**Total**	**Percent**
Diptera								
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	4	2	6	1.8%
		Cricotopus sp.	midge	5.3		2	2	0.6%
		Cricotopus nr. *politus*	midge	6.3	14		14	4.3%
		Cricotopus bicinctus	midge	8.5	2		2	0.6%
		Cryptotendipes sp.	midge	6.2		1	1	0.3%
		Dicrotendipes sp.	midge	8.1	4	4	8	2.4%
		Parakiefferiella sp.	midge	5.3		1	1	0.3%
		Paratendipes albimanus	midge	6.0		1	1	0.3%
		Phaenopsectra obedians gr.	midge	6.5	4		4	1.2%
		Phaenopsectra punctipes gr.	midge	6.5	4		4	1.2%
		Polypedilum illinoense gr.	midge	9.0	84	28	112	34.3%
		Procladius sp.	midge	9.1		1	1	0.3%
		Rheotanytarsus exiguum gr.	midge	5.9	40		40	12.2%
		Rheotanytarsus sp.	midge	5.9		4	4	1.2%
		Stenochironomus sp.	midge	6.4	2		2	0.6%
		Tanytarsus sp.	midge	6.7	68	15	83	25.4%
	Simuliidae							
		Simulium sp.	black fly	4.0		1	1	0.3%
		Total Taxa			20	22	**36**	
		Total Specimens			241	86	327	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 53A
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 3 - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 3 RUN**					
		Sample Date:	**1 November 2006**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RUN-1**	**RUN-1R**	**Total**	**Percent**
Lumbricina								
	Lumbricidae		earth worm	8.0		2	2	5.0%
Tubificida								
		Limnodrilus sp.	tube worm	9.4	2		2	5.0%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1		2	2	5.0%
Hydracarina			water mite	5.5	1		1	2.5%
Ephemeroptera								
	Heptageniidae							
		Stenacron interpunctatum	mayfly	6.9	1		1	2.5%
Odonata								
	Coenagrionidae							
		Argia sp.	damselfly	8.2	9	11	20	50.0%
Trichoptera								
	Philopotamidae							
		Chimarra obscura	caddisfly	2.7		1	1	2.5%
	Polycentropodidae							
		Neureclipsis sp.	caddisfly	4.1		1	1	2.5%
		Polycentropus sp.	caddisfly	3.5		1	1	2.5%
Diptera								
	Chironomidae							
		Orthocladiinae	midge	6.0	1		1	2.5%
		Procladius sp.	midge	9.1		1	1	2.5%
		Tanypodinae	midge	6.0		1	1	2.5%
		Tanytarsus sp.	midge	6.7	1	4	5	12.5%
	Tipulidae							
		Tipula sp.	crane fly	7.3	1		1	2.5%
		Total Taxa			7	9	**14**	
		Total Specimens			16	24	**40**	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 53B
MACROINVERTEBRATE TAXONOMIC RESULTS: REFERENCE AREA 3 - RUN AREA 1

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

		Sample Location:	**REFERENCE - 3 RUN**					
		Sample Date:	**17 May 2007**					
		Gear:	**Kick Net**					
				Tol.				
Taxon:			**Common Name**	**Index***	**RUN-1**	**RUN-1R**	**Total**	**Percent**
Nematoda			round worm	6.0		1	1	0.4%
Hoplonemertea								
	Tetrastemmatidae							
		Prostoma graecense	proboscis worm	6.1	2	6	8	3.5%
Tubificida								
	Tubificidae							
		Aulodrilus sp.	tube worm	5.5		1	1	0.4%
		Branchiura sowerybi	tube worm	8.3		1	1	0.4%
		Limnodrilus sp.	tube worm	9.4	1		1	0.4%
Veneroidea								
	Corbiculidae							
		Corbicula fluminea	Asiatic clam	6.1	1		1	0.4%
	Sphaeriidae							
		Pisidium sp.	pill clam	6.5		2	2	0.9%
Decapoda								
	Cambaridae							
		Orconectes sp.	crayfish	2.6	2		2	0.9%
Ephemeroptera								
	Baetidae							
		Centroptilum sp.	mayfly	6.6		1	1	0.4%
	Caenide							
		Caenis sp.	mayfly	7.4	1	2	3	1.3%
	Heptageniidae							
		Stenacron interpunctatum	mayfly	6.9	8	8	16	7.0%
		Stenonema sp.	mayfly	3.5		5	5	2.2%
	Tricorythidae							
		Tricorythodes sp.	mayfly	5.0		1	1	0.4%
Odonata								
	Aeschnidae							
		Boyeria sp.	dragonfly	5.9		1	1	0.4%
	Coenagrionidae							
		Argia sp.	damselfly	8.2		3	3	1.3%
	Gomphidae		dragonfly	5.0		2	2	0.9%
Trichoptera								
	Hydroptilidae							
		Hydroptila sp.	caddisfly	6.2	1	4	5	2.2%
	Leptoceridae							
		Mystacides sp.	caddisfly	2.6	3	8	11	4.8%
		Oecetis sp.	caddisfly	3.6		1	1	0.4%
Diptera								
	Chironomidae							
		Ablabesmyia mallochi	midge	7.2	3	17	20	8.8%
		Cricotopus annulator gr.	midge	6.3		2	2	0.9%
		Dicrotendipes sp.	midge	8.1	1	13	14	6.2%
		Paratendipes albimanus	midge	6.0		1	1	0.4%
		Polypedilum illinoense gr.	midge	9.0	1	3	4	1.8%
		Procladius sp.	midge	9.1	2	1	3	1.3%
		Psectrocladius sp.	midge	3.6		1	1	0.4%
		Rheotanytarsus sp.	midge	5.9	1	11	12	5.3%
		Tanytarsus sp.	midge	6.7	8	96	104	45.8%
		Total Taxa			14	25	**28**	
		Total Specimens			35	192	227	100.0%

*Reference:

Lenat, David R. 1993. A Biotic Index for the Southeastern United States: Derivation and List of Tolerance Values, with Criteria for Assigning Water-quality Ratings. Journal of the North American Benthological Society, Volume 12, Number 3, Pages 279 - 290.

TABLE 54
SOIL MACROINVERTEBRATE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

	REF - 1						REF - 2						REF - 3						EDR - 1						EDR - 2						EDR - 3					
Taxon:	**FT1-1**	**FT1-2**	**FT1-3**	**WT1-1**	**WT1-2**	**WT1-3**	**ST1-1***	**ST1-2**	**ST1-3**	**WT1-1**	**WT1-2**	**WT1-3****	**FT1-1**	**FT1-2**	**FT1-3**	**ST1-1**	**ST1-2**	**ST1-3**	**ST1-1**	**ST1-2**	**ST1-3**	**WT1**	**WT2**	**WT3**	**ST2-1**	**ST2-2**	**ST2-3**	**WT2-1**	**WT2-2**	**WT-3**	**FT2-1**	**FT2-2**	**FT2-3**	**FT3-1**	**FT3-2**	**FT3-3**
Collembola	4	20	4	16	1	8	24	32		20	8	23	16	20	20	20	20		8	252	60	256	76	192	88	8		12	20	4		12				28
Other Small Invertebrates							4	8		8				4	4	8			8	16	4			12	76	8	8	4	8	4			4	4		8
Spiders			1				5	1				3	3	5			4	2		1	3	2	6	4	2	5		1	5	3		4	1		1	3
Centipedes								1												1	1	3	3	2		1							1		1
Millipedes																													1		1	2				
Isopods				1																	7	2	2	1	2				1	1	1					
Earthworms											1										1	2	1						4							1
Ants	4	1	4			6	21	3	17		10	17	7	28	2	11	3	6	5	2	3	11	1		14	65	6		22	9	7	19		1	6	5
Crickets							1						1	3						4										3						
Flies			3									29				3						1	1		5		1			9			1			
Beetles			1	1	1	2	3			1	2	13	5	3			1			1	3			1	2	3	1		3		3	7			2	4
Beetle pupa	1																																			
Beetle larva			1																												3					1
Opilionids																							2	10												
Lepidoptera																											1									
Hemipteran																																2				
Total Number of Organisms	9	21	14	18	2	16	58	45	17	29	21	85	32	63	26	42	28	8	13	269	94	281	92	222	189	90	16	18	64	33	12	47	8	6	9	51

Notes:
*Indicates that samples were counted three times for a quality assurance/quality control test, and the highest number was used.
**Collembola were in mineral oil pockets with the rest of the specimens and could not be sorted. All collembola were counted for a total of 23.

REF = Reference location
EDR = Ecologically differentiable reach
FT = Field transect
WT = Wooded transect
ST = Successional transect

TABLE 55
TERRESTRIAL REPTILE AND AMPHIBIAN SURVEY RESULTS SUMMARY

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Habitat Type:			Maintained Field								Forested Floodplain								Successional Field								
Location:			EDR - 1			EDR - 2			EDR - 3		REF-1[a]	REF-2	REF-3	EDR - 1			EDR - 2			EDR - 3			REF-1[a]	REF-2	REF-3	EDR - 1			EDR - 2			EDR - 3			REF-1	REF-2	REF-3
Species	**Scientific Name**	**Transect**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**1**	**1**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**1**	**1**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**1**	**1**
Spring 2007																																						
Black Racer	*Coluber constrictor*					-*					-						x			-			-												-		
Carolina Anole	*Anolis carolinensis*					-					-									-			-		x										-		
Chorus Frog	*Pseudacris feriarum*					-					-									-			-												-		
River Cooter	*Pseudemys concinna*					-			x		-									-			-												-		
Turtle (unknown)	N/A				x	-					-						x			-			-			x									-		

Notes:
1. Terrestrial herptile surveys were conducted from May 29 to 30, 2007.
* The "-" symbol is used to indicate that a survey was performed, but no species were observed. Empty boxes indicate that no survey was performed along that particular transect.
[a] = Transect line different from previous investigations.
N/A = Not applicable.
EDR = Ecologically differentiable reach
REF = Reference location

TABLE 57
AQUATIC REPTILE AND AMPHIBIAN SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	EDR	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
Spring 2007							
5_21_07	1	Snapping Turtle	1	Sight	Backwater	33° 35' 41.8"	85° 49' 44.0"
5_21_07	1	Copperhead	1	Sight	Mud Bar	33° 35' 25.8"	85° 49' 57.5"
5_21_07	1	River Cooter	1	Sight	Gravel Bar	33° 35' 17.9"	85° 50' 04.5"
5_21_07	1	Stinkpot	1	Sight	Island	33° 35' 10.8"	85° 50' 33.0"
5_21_07	1	Turtle	NA	Sign	Sand Bar	33° 35' 07.9"	85° 50' 39.6"
5_21_07	1	Snake	1	Sight	NA	33° 35' 07.1"	85° 50' 41.3"
5_21_07	1	Copperhead	1	Sight	Water	33° 35' 07.2"	85° 50' 45.8"
5_21_07	1	Turtle	NA	Sign	Deposition	33° 35' 03.1"	85° 51' 01.4"
5_21_07	1	Turtle	NA	Sign	Bank	33° 34' 54.4"	85° 51' 13.4"
5_21_07	1	Copperhead	1	Sight	Island	33° 34' 52.2"	85° 51' 25.5"
5_21_07	1	Turtle	NA	Track	Deposition	33° 34' 52.4"	85° 51' 28.4"
5_21_07	1	Frog	1	Sight	Bank	33° 34' 41.3"	85° 51' 52.8"
5_21_07	1	Turtle	1	Sight	Log	33° 34' 38.9"	85° 51' 56.4"
5_21_07	1	Turtle	1	Sight	Log	33° 34' 34.5"	85° 52' 07.9"
5_21_07	1	Black Racer	1	Sight	Bank	33° 34' 34.1"	85° 52' 12.9"
5_21_07	1	Frog	1	Sight	Bank	33° 34' 33.0"	85° 52' 16.0"
5_21_07	1	Turtle	4	Sight	Deposition	33° 34' 31.6"	85° 52' 44.0"
5_21_07	1	Garter Snake	1	Sight	Deposition	33° 34' 31.6"	85° 52' 44.0"
5_22_07	1	Common Map Turtle	1	Sight	Bank	33° 34' 53.1"	85° 54' 22.1"
5_22_07	1	Common Map Turtle	8	Sight	Deadfall	32° 34' 45.3"	85° 54' 42.2"
5_22_07	1	Turtle	1	Sight	Mid-Channel	32° 34' 45.9"	85° 54' 47.8"
5_22_07	1	Copperhead	1	Sight	Mid-Channel	32° 34' 45.9"	85° 54' 47.8"
5_22_07	2	Turtle	1	Sight	Deadfall	33° 34' 10.9"	85° 56' 04.7"
5_22_07	2	Common Map Turtle	1	Sight	Deposition	33° 33' 47.5"	85° 56' 40.4"
5_22_07	2	Common Map Turtle	1	Sight	Log	33° 33' 56.3"	85° 57' 21.9"
5_22_07	2	Stinkpot	1	Sight	Bank	33° 33' 49.5"	85° 57' 36.7"
5_22_07	2	Eastern Painted Turtle	1	Sight	Mid-Channel	33° 33' 10.0"	85° 58' 45.3"
5_22_07	2	Turtle	1	Sight	Mid-Channel	33° 33' 11.0"	85° 59' 16.4"
5_22_07	2	Snake	1	Sight	Mid-Channel	33° 32' 59.1"	86° 00' 01.3"
5_22_07	2	Turtle	NA	Sight	NA	33° 33' 04.8"	86° 00' 14.2"
5_23_07	3	Stinkpot	1	Sight	Sand Bar	33° 33' 30.4"	86° 00' 42.7"
5_23_07	3	Softshell Turtle	1	Sight	Sand Bar	33° 33' 37.1"	86° 00' 45.9"
5_23_07	3	Cottonmouth	1	Sight	Bank	33° 33' 41.1"	86° 01' 02.6"
5_23_07	3	Eastern Painted Turtle	1	Sight	Bank	33°33'39.2"	86°01'05.1"
5_23_07	3	Stinkpot	1	Sight	Bank	33° 33' 38.8"	86° 01' 05.1"
5_23_07	3	Stinkpot	1	Sight	Deadfall	33° 33' 05.1"	86° 01' 06.3"
5_23_07	3	Common Map Turtle	1	Sight	Bank	33° 33' 17.0"	86° 01' 29.4"
5_23_07	3	Frog	1	Sight	Sand Bar	33° 33' 10.8"	86° 01' 52.7"
5_23_07	3	Common Map Turtle	1	Sight	Sand Bar	33° 33' 07.1"	86° 02' 04.1"
5_24_07	3	Common Map Turtle	1	Sight	Mud Flat	33° 32' 36.4"	86° 02' 36.2"
5_24_07	3	Turtle	NA	Sign	Mud Flat	33° 32' 33.9"	86° 02' 40.1"
5_24_07	3	Frog	1	Sight	NA	33° 32' 18.3"	86° 03' 00.2"
5_24_07	3	Common Map Turtle	1	Sight	Log	33° 32' 16.7"	86° 03' 04.6"
5_24_07	3	Copperhead	1	Sight	Mid-Channel	33° 33' 01.3"	86° 04' 27.2"
5_24_07	3	Turtle	1	Sight	Mid-Channel	33° 33' 08.6"	86° 04' 31.7"
5_24_07	3	Turtle	1	Sight	Log	33° 32' 33.4"	86° 04' 50.2"

Notes:
EDR = Ecologically Differentiable Reach (see Figure 1)
NA = Not Available or Not Applicable
NR = Not Recorded
Global positioning system coordinates in NAD 83; latitude and longitude in degrees, minutes, seconds.

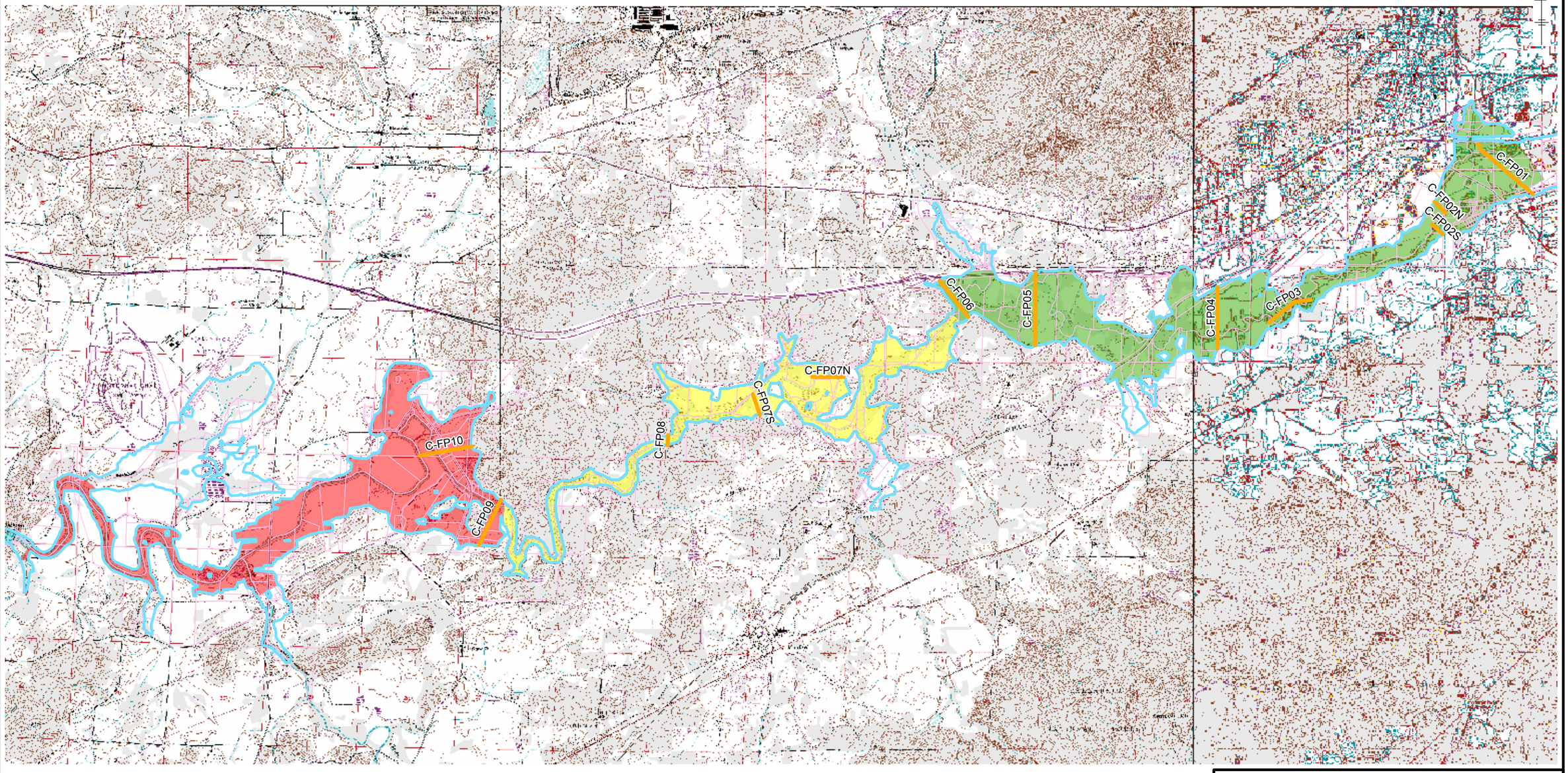
TABLE 58
REFERENCE AREA AQUATIC BIRD, MAMMAL, AMPHIBIAN, AND REPTILE SURVEY RESULTS

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
ANNISTON PCB SITE, ANNISTON, ALABAMA

Date	REF	Wildlife Species	Count	Observation Type	Habitat	Location (Northing)	Location (Southing)
Spring 2007							
5_23_07	1	Raccoon	N/A	Track	N/A	33° 35' 2.6"	85° 46' 4.9"
5_23_07	1	Raccoon	N/A	Sign	N/A	33° 35' 2.4"	85° 46' 3.4"
5_23_07	1	Muskrat	N/A	Track	N/A	33° 35' 2.4"	85° 46' 3.4"
5_23_07	1	Raccoon	N/A	Track	Deposition	33° 35' 0.8"	85° 46' 0.9"
5_23_07	1	Duck	N/A	Track	Deposition	33° 35' 0.8"	85° 46' 0.9"
5_23_07	1	Fox	N/A	Track	Deposition	33° 35' 0.8"	85° 46' 0.9"
5_23_07	1	Raccoon	N/A	Track	Bank	33° 35' 7.6"	85° 46' 6.4"
5_23_07	1	Turtle	1	Sight	Mid-Channel	33° 35' 7.6"	85° 46' 6.4"
5_23_07	1	Raccoon	N/A	Track	Deposition	33° 35' 3.4"	85° 46' 6.1"
5_23_07	1	Groundhog	N/A	Track	Bank	33° 35' 7.0"	85° 46' 8.9"
5_23_07	1	Stinkpot	1	Sight	Bank	33° 36' 0.0"	85° 46' 2.9"
5_23_07	1	Raccoon	N/A	Track	Deposition	33° 36' 0.6"	85° 46' 3.6"
5_23_07	1	Duck	N/A	Track	Deposition	33° 36' 2.7"	85° 46' 6.2"
5_23_07	1	Turtle	N/A	Track	Deposition	33° 36' 2.7"	85° 46' 6.2"
5_23_07	1	Bird	N/A	Track	Deposition	33° 36' 2.7"	85° 46' 6.2"
5_23_07	1	Deer	N/A	Track	Deposition	33° 36' 2.7"	85° 46' 6.2"
5_23_07	1	Raccoon	N/A	Track	Deposition	33° 36' 4.1"	85° 46' 8.5"
5_23_07	1	Wood Duck	N/A	Track	Deposition	33° 36' 4.1"	85° 46' 8.5"
5_23_07	1	Raccoon	N/A	Track	Mud Flat	33° 36' 5.1"	85° 47' 0.0"
5_23_07	1	Wood Duck	N/A	Track	Mud Flat	33° 36' 5.1"	85° 47' 0.0"
5_23_07	1	Turtle	1	Sight	Mud Flat	33° 36' 5.1"	85° 47' 0.0"
5_23_07	1	Beaver	N/A	Track	Mud Flat	33° 36' 5.3"	85° 47' 1.4"
5_23_07	1	Beaver	N/A	Track	Bank	33° 36' 6.4"	85° 47' 4.3"
5_23_07	1	Beaver	N/A	Sign	Dam	33° 36' 8.6"	85° 47' 8.4"
5_24_07	2	Start				33° 30' 3.3"	86° 00' 6.1"
5_24_07	2	Muskrat	N/A	Sight	Mid-Channel		
5_24_07	2	Turtle	1	Sight	Log		
5_24_07	2	Beaver	N/A	Sign	Bank		
5_24_07	2	Mallard	3	Sight	Mid-Channel		
5_24_07	2	Cottonmouth	1	Sight	Bank		
5_24_07	2	Muskrat or Beaver	1	Sight	Mid-Channel		
5_24_07	2	End				33° 29' 6.9"	86° 00' 2.3"
5_24_07	3	Start				33° 23' 7.9"	86° 04' 6.8"
5_24_07	3	Green Frog	N/A	Sight	Bank		
5_24_07	3	Muskrat or Beaver	N/A	Sight	Bank		
5_24_07	3	End				33° 23' 6.2"	86° 04' 4.7"

Notes:
1. Global positioning system coordinates in NAD 83; latitude and longitude in degrees, minutes, seconds.
EDR = Ecologically differentiable reach (see Figure 2-1)
N/A = Not available or not applicable

Figures



LEGEND:

- 100-YEAR FLOODPLAIN
- TAX PARCEL
- 2001/2002 FLOODPLAIN TRANSECTS

ECOLOGICALLY DIFFERENTIABLE REACHES

- UPPER REACH
- MIDDLE REACH
- LOWER REACH

0 5,500 11,000 Feet

GRAPHIC SCALE

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

ECOLOGICALLY DIFFERENTIABLE REACHES IN OPERABLE UNIT 4

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
1

SYR-85 EAB KFS JCR
Anniston (10207.003)
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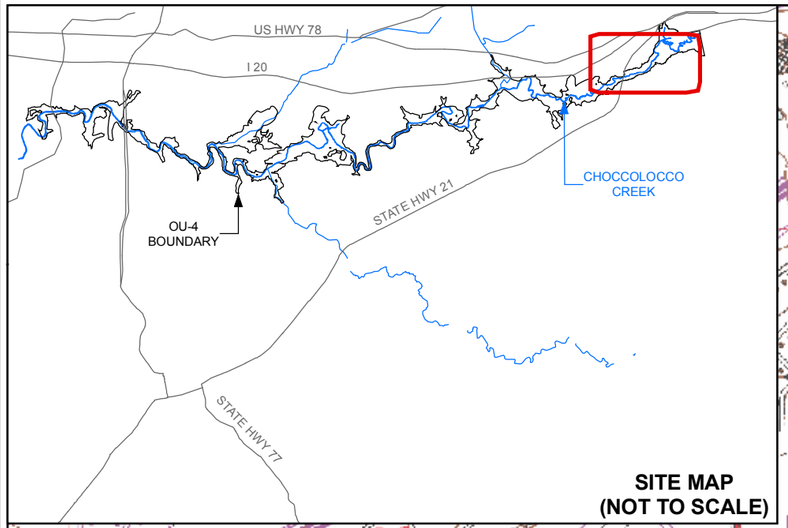

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

SMALL MAMMAL SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT FALL 2006

ECOLOGICAL SURVEY LOCATIONS UPPER REACH (EDR-1)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 2

SYR-85 MTK ROCH EAB SYR-KFS JCR
Anniston (10207.003)
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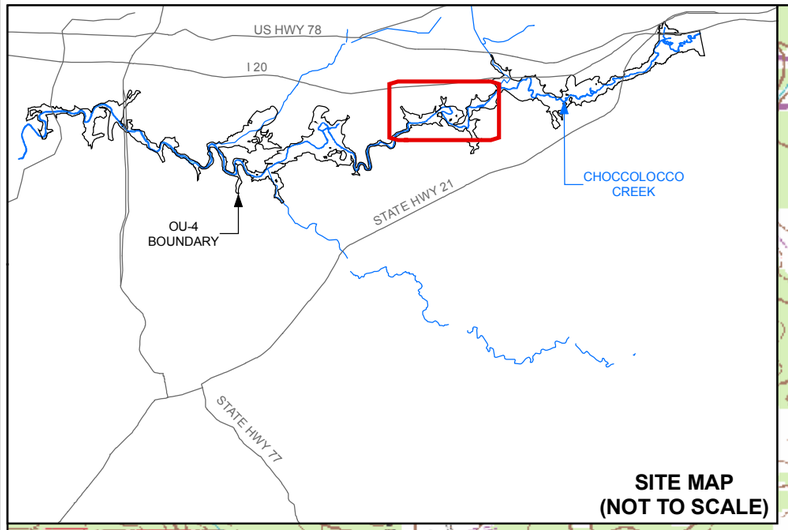

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

SMALL MAMMAL SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT FALL 2006

ECOLOGICAL SURVEY LOCATIONS MIDDLE REACH (EDR-2)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 3

SYR-85 MTK ROCH EAB SYR-KFS jcr
Anniston (10207.003)
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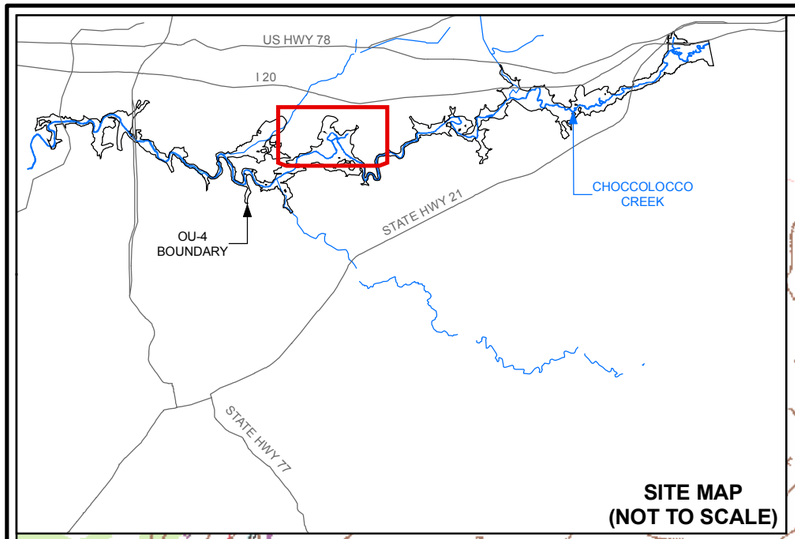

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

SMALL MAMMAL SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT FALL 2006

ECOLOGICAL SURVEY LOCATIONS LOWER REACH (EDR-3)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 4

SYR-85 MTK ROCH EAB SYR-KFS jcr
Anniston (10207.003)
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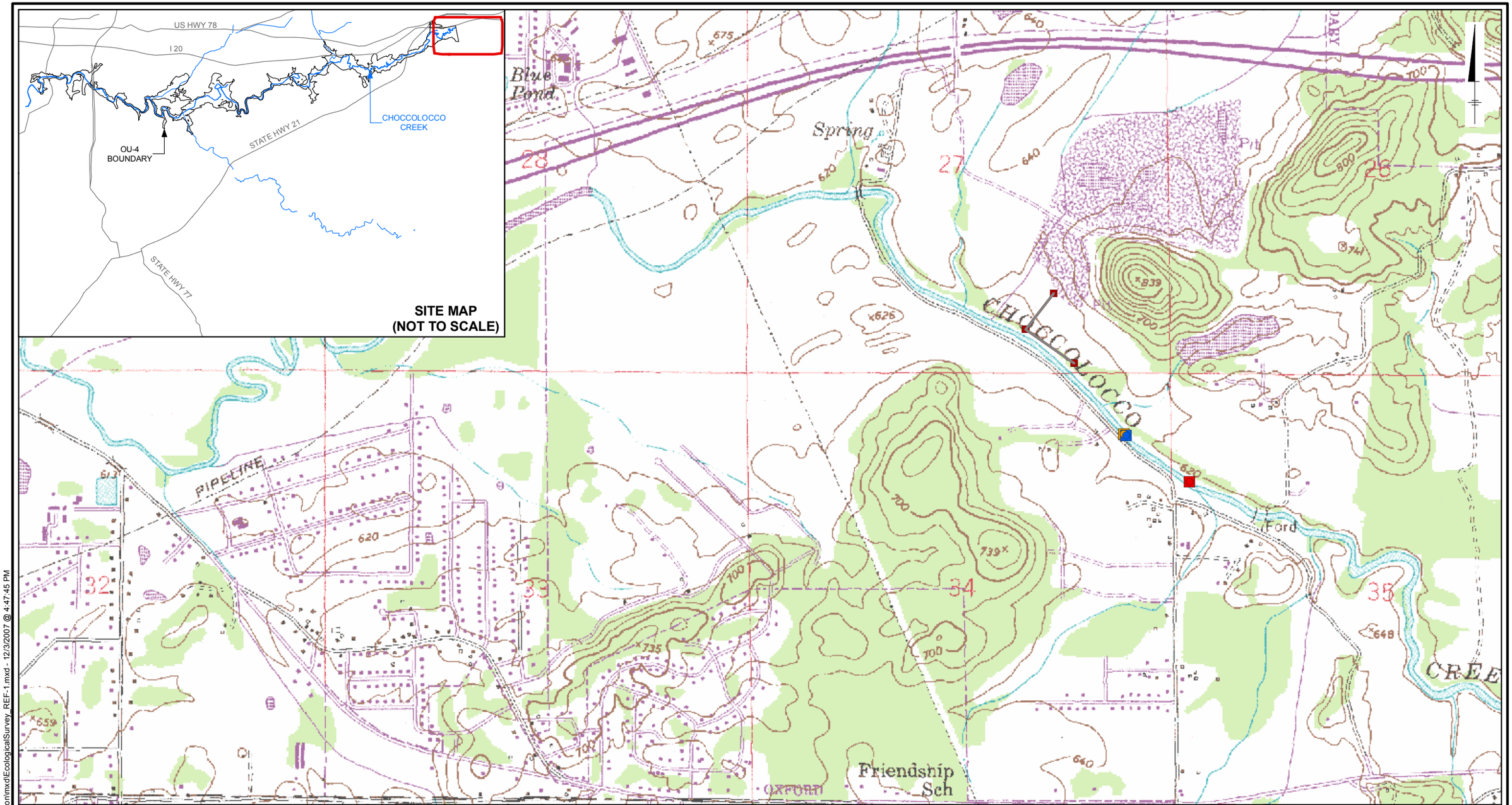
SITE MAP (NOT TO SCALE)



LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

SMALL MAMMAL SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT FALL 2006

ECOLOGICAL SURVEY LOCATIONS REFERENCE AREA 1

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 5

SYR-85 MTK ROCH EAB SYR-KFS JCR
Anniston (10207.003)
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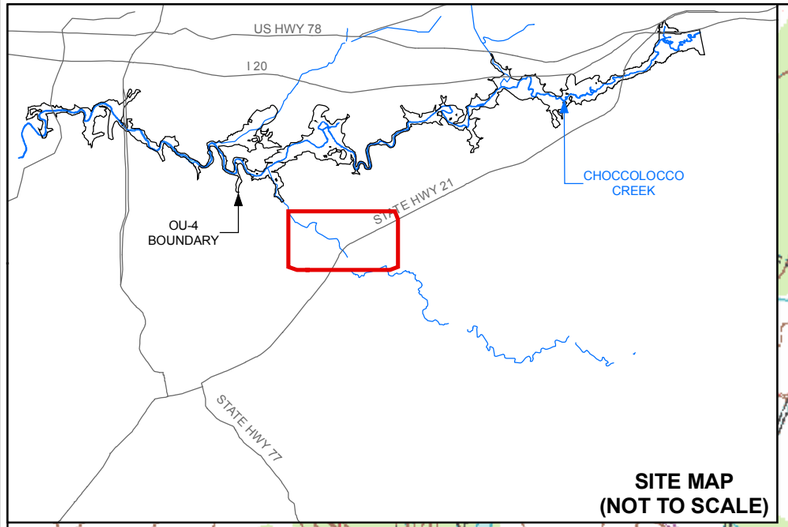

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

SMALL MAMMAL SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
FALL 2006

ECOLOGICAL SURVEY LOCATIONS REFERENCE AREA 2

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 6

SYR-85 MTK ROCH EAB SYR-KFS JCR
Anniston (10207.003)
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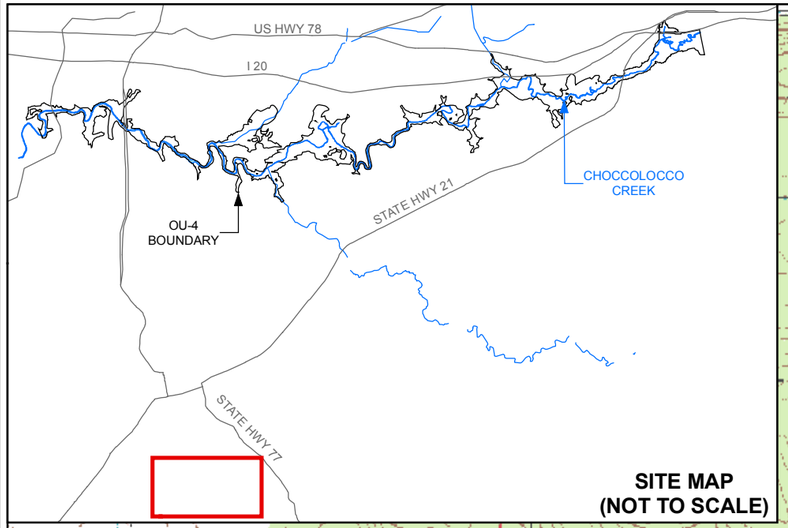

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

SMALL MAMMAL SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT FALL 2006

ECOLOGICAL SURVEY LOCATIONS REFERENCE AREA 3

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 7

SYR-85 MTK ROCH EAB SYR-KFS JCR
Anniston (10207.003)
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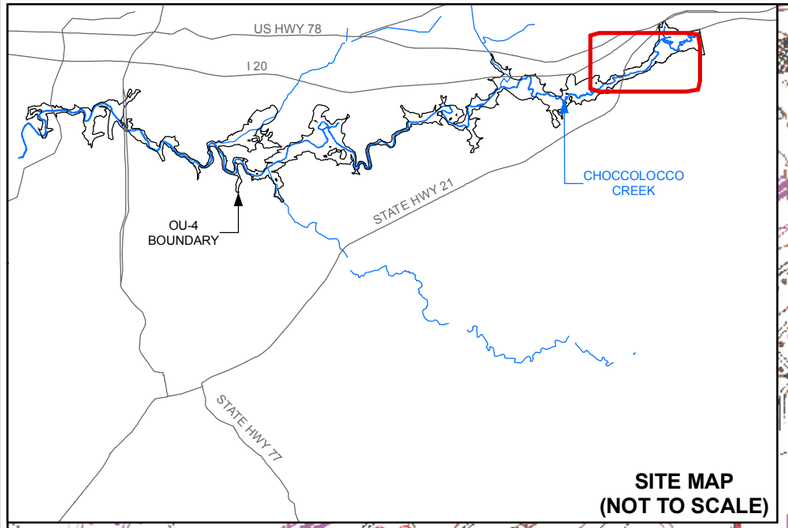

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

SMALL MAMMAL SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
WINTER 2007

ECOLOGICAL SURVEY LOCATIONS UPPER REACH (EDR-1)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 8

SYR-85 MTK KEW jcr
Anniston (10207.003)
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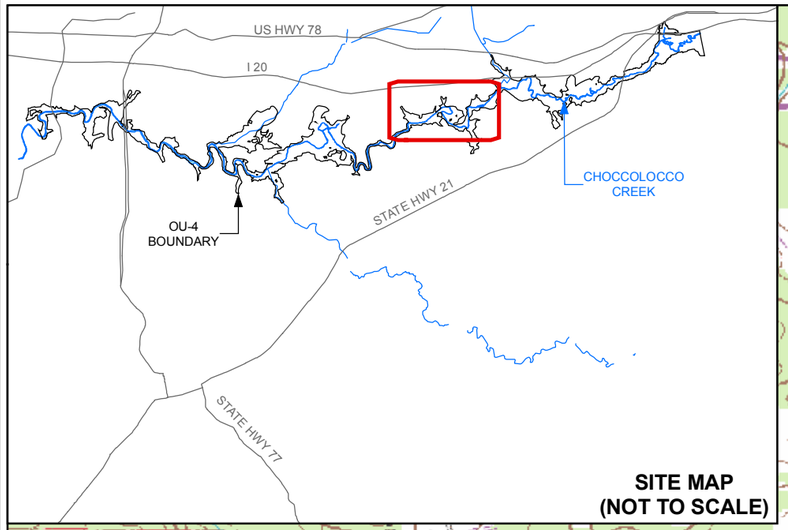

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

SMALL MAMMAL SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT WINTER 2007

ECOLOGICAL SURVEY LOCATIONS MIDDLE REACH (EDR-2)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 9

SYR-85 MTK KEW JCR
Anniston (10207.003)
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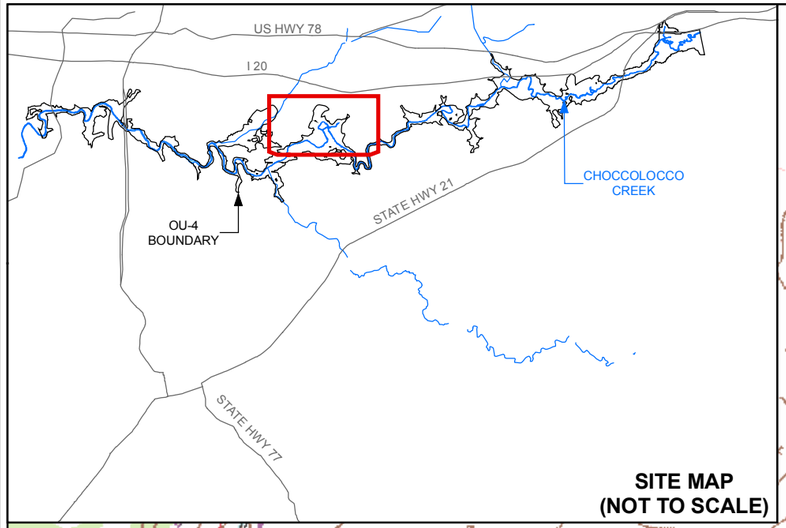

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT POINT

SMALL MAMMAL SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT WINTER 2007

ECOLOGICAL SURVEY LOCATIONS LOWER REACH (EDR-3)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 10

SYR-85 MTK KEW JCR
Anniston (10207.003)
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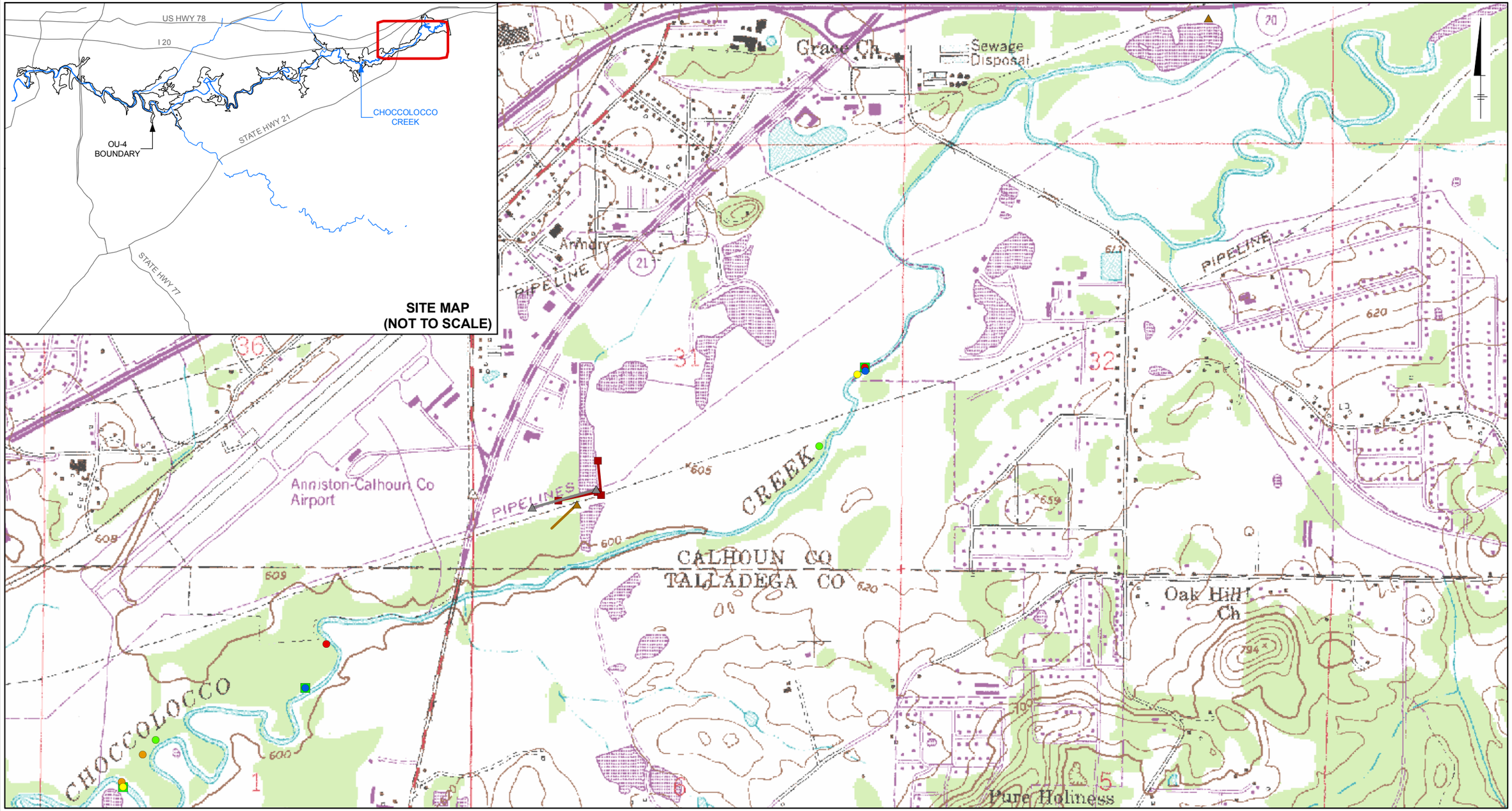
SITE MAP (NOT TO SCALE)



LEGEND:

- WILDLIFE SURVEY TRANSECT (INCLUDING TERRESTRIAL REPTILES AND AMPHIBIANS)
- MOLLUSK SURVEY LOCATION

SMALL MAMMAL AND SOIL MACROINVERTEBRATE SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT SPRING 2007

ECOLOGICAL SURVEY LOCATIONS UPPER REACH (EDR-1)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 11

SYR-85 MTK KEW JCR
Anniston (10207.003)
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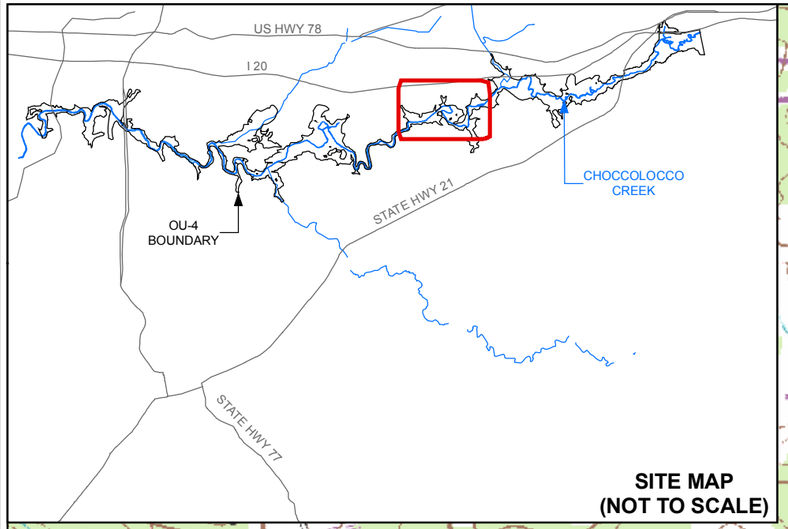

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT (INCLUDING TERRESTRIAL REPTILES AND AMPHIBIANS)
- MOLLUSK SURVEY LOCATION

SMALL MAMMAL AND SOIL MACROINVERTEBRATE SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
SPRING 2007

ECOLOGICAL SURVEY LOCATIONS MIDDLE REACH (EDR-2)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 12

SYR-85 MTK KEW JCR
Anniston (10207.003)
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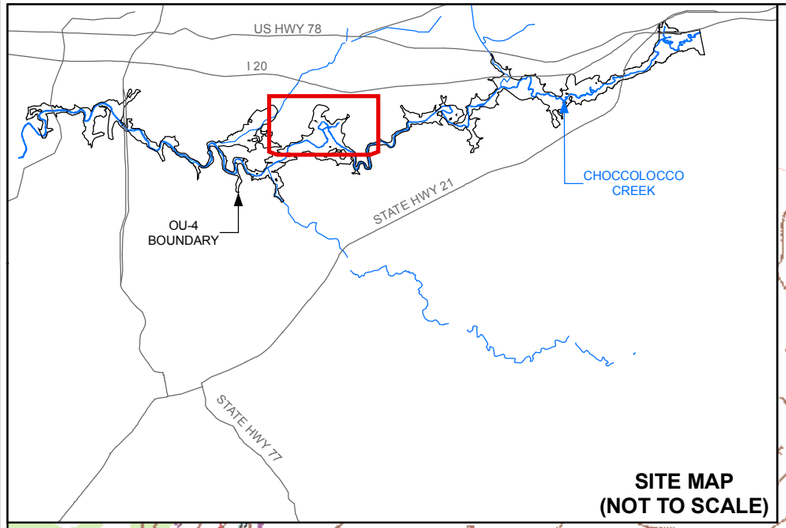

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT (INCLUDING TERRESTRIAL REPTILES AND AMPHIBIANS)
- MOLLUSK SURVEY LOCATION

SMALL MAMMAL AND SOIL MACROINVERTEBRATE SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT SPRING 2007

ECOLOGICAL SURVEY LOCATIONS LOWER REACH (EDR-3)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 13

SYR-85 MTK KEW JCR
Anniston (10207.003)
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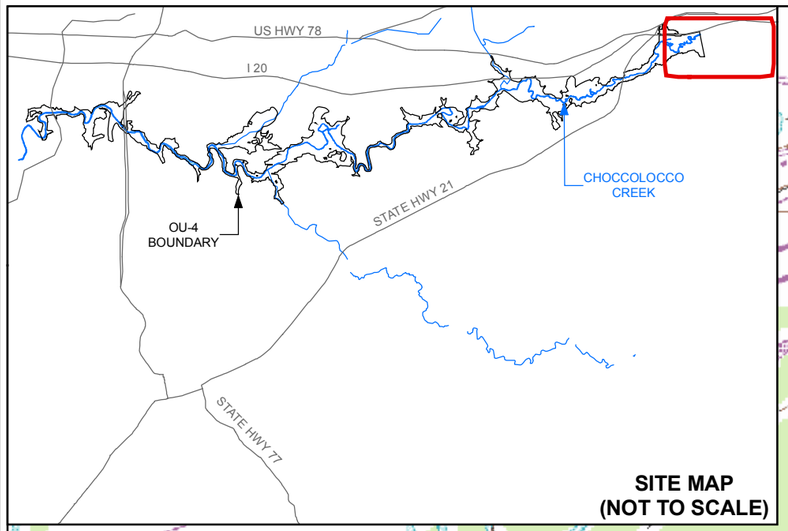

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT (INCLUDING TERRESTRIAL REPTILES AND AMPHIBIANS)

SMALL MAMMAL AND SOIL MACROINVERTEBRATE SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT SPRING 2007

ECOLOGICAL SURVEY LOCATIONS REFERENCE AREA 1

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
14

SYR-85 MTK KEW jcr
Anniston (10207.003)
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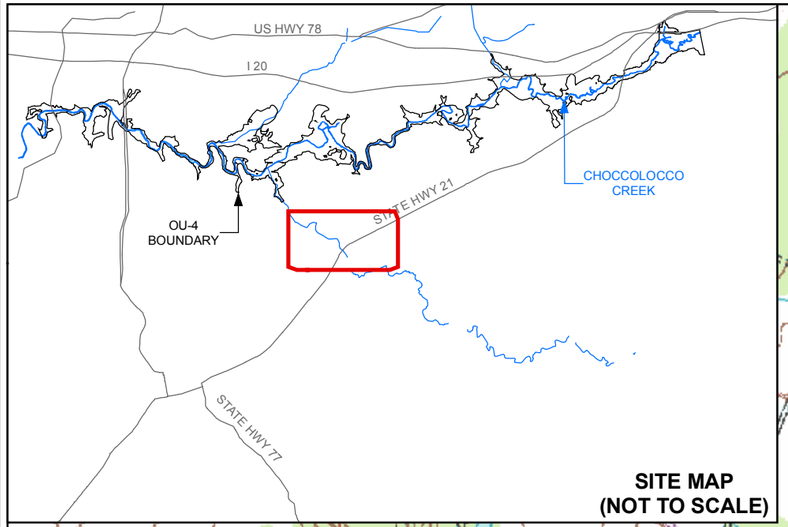

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT (INCLUDING TERRESTRIAL REPTILES AND AMPHIBIANS)

SMALL MAMMAL AND SOIL MACROINVERTEBRATE SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT SPRING 2007

ECOLOGICAL SURVEY LOCATIONS REFERENCE AREA 2

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 15

SYR-85 MTK KEW JCR
Anniston (10207.003)
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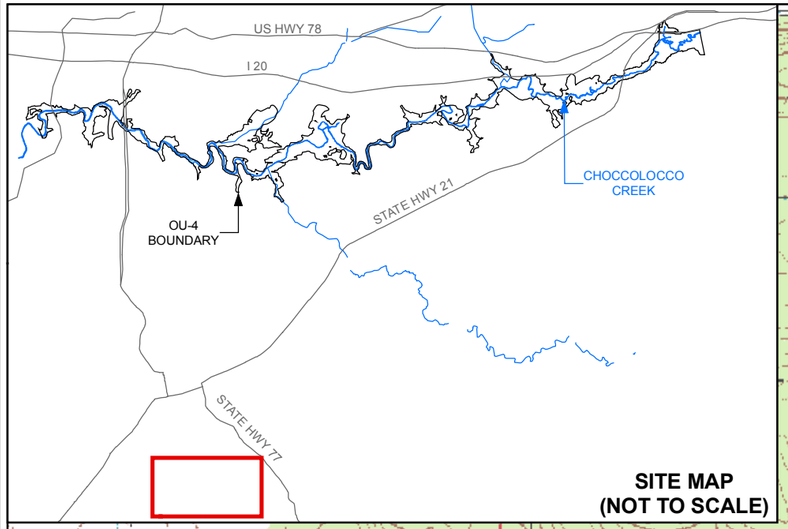

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT (INCLUDING TERRESTRIAL REPTILES AND AMPHIBIANS)

SMALL MAMMAL AND SOIL MACROINVERTEBRATE SURVEY LOCATION:

- MAINTAINED FIELD TRANSECT
- SUCCESSIONAL FIELD TRANSECT
- FORESTED TRANSECT

BENTHIC SURVEY LOCATION:

- DEPOSITIONAL
- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT SPRING 2007

ECOLOGICAL SURVEY LOCATIONS REFERENCE AREA 3

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 16

SYR-85 MTK KEW JCR
Anniston (10207.003)
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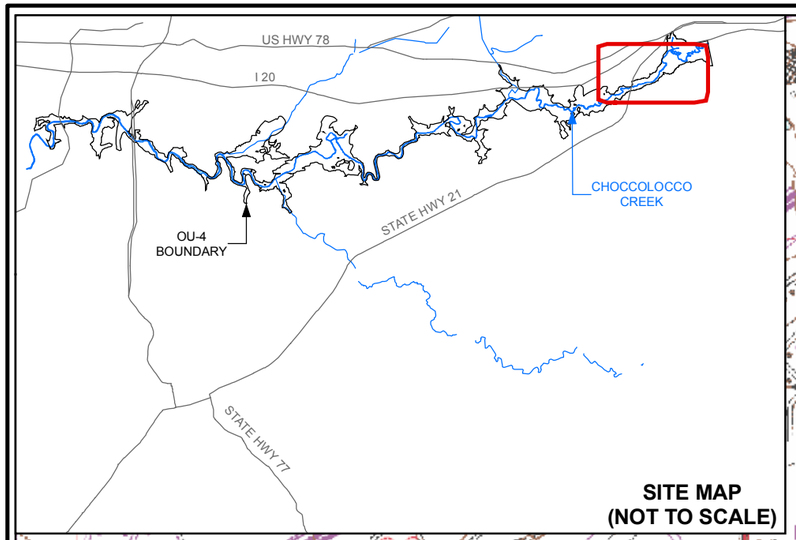

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT SUMMER 2007

ECOLOGICAL SURVEY LOCATIONS UPPER REACH (EDR-1)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 17

SYR-85 MTK KEW JCR
Anniston (10207.003)
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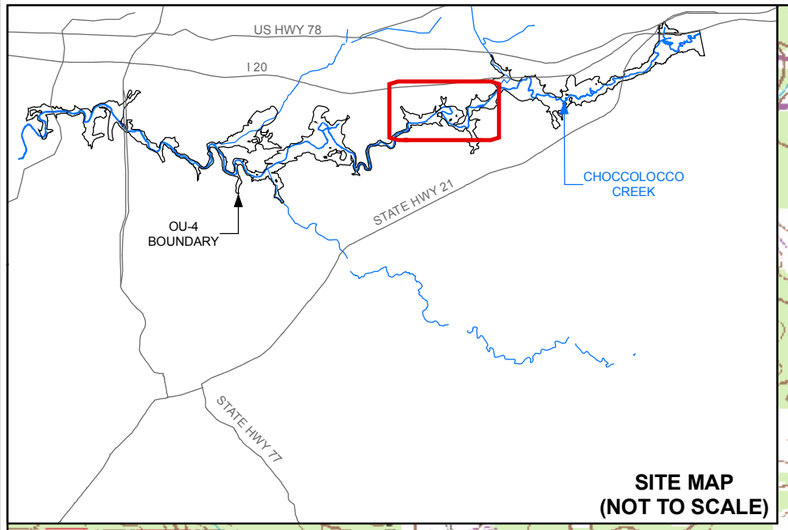


SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

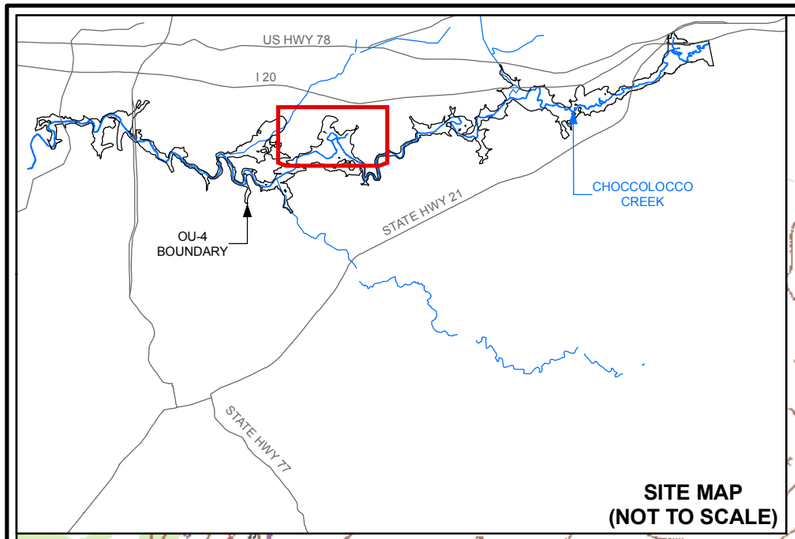
ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
SUMMER 2007

ECOLOGICAL SURVEY LOCATIONS MIDDLE REACH (EDR-2)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
18

SYR-85 MTK KEW JCR
Anniston (10207.003)
Q:\Anniston_PCB_Site\OU4_SiteCharacterization\mxd\EcologicalSurvey_EDR-2_Summer2007.mxd - 12/3/2007 @ 4:34:12 PM



SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT SUMMER 2007

ECOLOGICAL SURVEY LOCATIONS LOWER REACH (EDR-3)

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 19

SYR-85 MTK KEW JCR
Anniston (10207.003)
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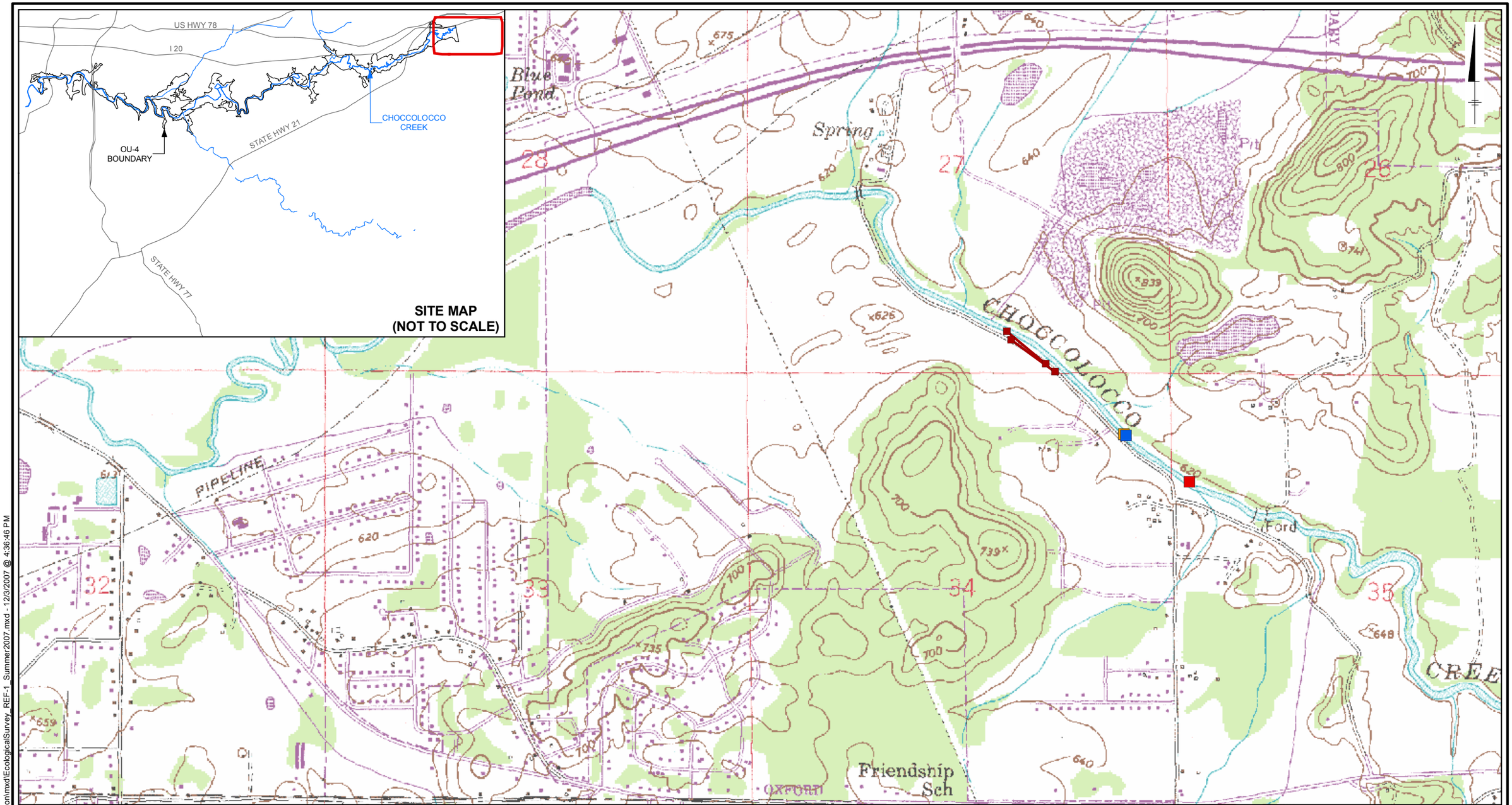
SITE MAP (NOT TO SCALE)



LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT SUMMER 2007

ECOLOGICAL SURVEY LOCATIONS REFERENCE AREA 1

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 20

SYR-85 MTK KEW JCR
Anniston (10207.003)
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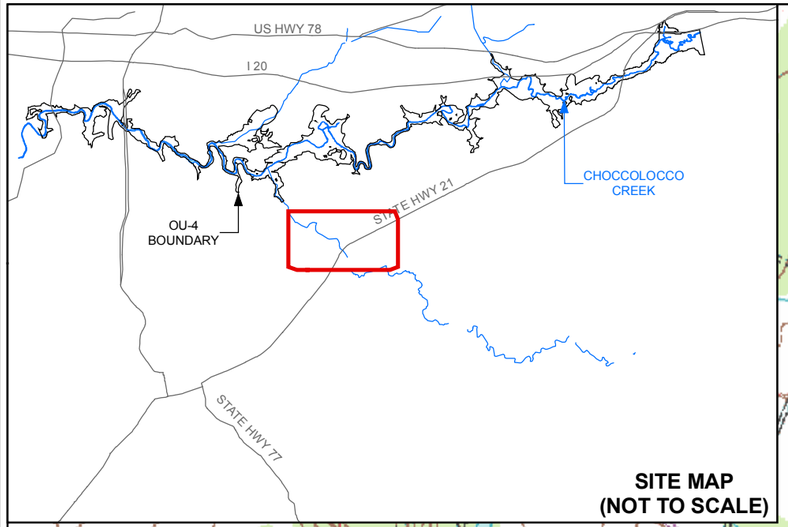

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
SUMMER 2007

ECOLOGICAL SURVEY LOCATIONS REFERENCE AREA 2

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 21

SYR-85 MTK KEW JCR
Anniston (10207.003)
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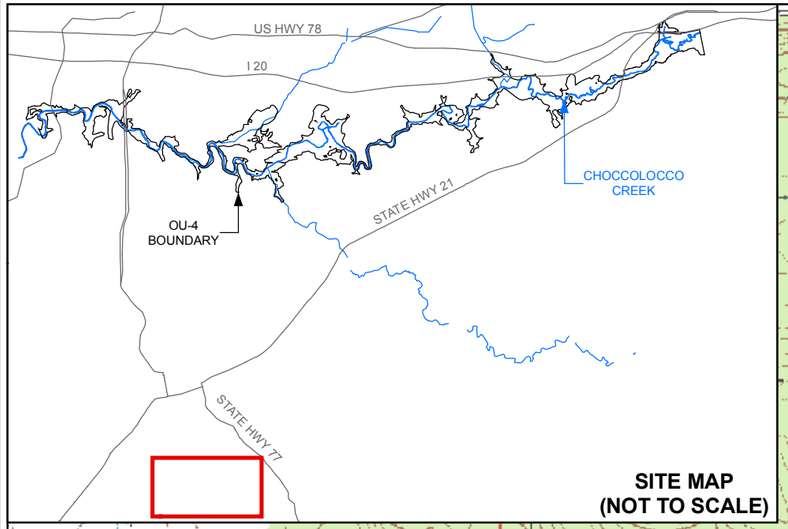

SITE MAP (NOT TO SCALE)

LEGEND:

- WILDLIFE SURVEY TRANSECT

FISH SURVEY LOCATION:

- BACKWATER
- RIFFLE
- RUN
- EMERGENT AQUATIC VEGETATION

0 1,200 2,400 Feet

GRAPHIC SCALE

NOTES:

1. USGS TOPOGRAPHY MAPS DOWNLOADED FROM THE GIS DATA DEPOT.
2. ALL LOCATIONS ARE APPROXIMATE.

ANNISTON PCB SITE
ANNISTON, ALABAMA
OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT
SUMMER 2007

ECOLOGICAL SURVEY LOCATIONS REFERENCE AREA 3

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE 22

SYR-85 MTK KEW JCR
Anniston (10207.003)
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Appendix A

Photographs of Small Mammal and Soil Macroinvertebrate Community Survey Locations

REF1 - Forested Transect 1

REF1 - Maintained Field Transect 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-1

12/03/07 SYR-D85-DJH
10207003/10207G45.cdr

REF2 - Forested Transect 1

REF2 - Successional Field Transect 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-2

12/03/07 SYR-D85-KLS
10207003/10207G46.cdr

REF3 - Maintained Field Transect

REF3 - Successional Field Transect 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-3

12/03/07 SYR-D85-DJH
10207003/10207G47.cdr

EDR1 - Forested Transect 1

EDR1 - Forested Transect 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-4

12/03/07 SYR-D85-DJH
10207003/10207G20.cdr

EDR1 - Forested Transect 3

EDR1 - Maintained Field Transect 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-5

12/03/07 SYR-D85-DJH
10207003/10207G21.cdr

EDR1 - Maintained Field Transect 2

EDR1 - Maintained Field Transect 3

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-6

12/03/07 SYR-D85-DJH
10207003/10207G22.cdr

EDR1 - Successional Field Transect 1

EDR1 - Successional Field Transect 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE A-7

12/03/07 SYR-D85-DJH
10207003/10207G23.cdr

EDR1 - Successional Field Transect 3

EDR2 - Forested Transect 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-8

12/03/07 SYR-D85-DJH
10207003/10207G24.cdr

EDR2 - Forested Transect 2

EDR2 - Forested Transect 3

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-9

12/03/07 SYR-D85-DJH
10207003/10207G25.cdr

EDR2 - Maintained Field Transect 1

EDR2 - Maintained Field Transect 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-10

12/03/07 SYR-D85-DJH
10207003/10207G26.cdr

EDR2 - Maintained Field Transect 3

EDR2 - Successional Field Transect 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-11

12/03/07 SYR-D85-DJH
10207003/10207G27.cdr

EDR2 - Successional Field Transect 2

EDR2 - Successional Field Transect 3

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-12

12/03/07 SYR-D85-DJH
10207003/10207G28.cdr

EDR3 - Forested Transect 1

EDR3 - Forested Transect 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-13

12/03/07 SYR-D85-DJH
10207003/10207G29.cdr

EDR3 - Forested Transect 3

EDR3 - Maintained Field Transect 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-14

12/03/07 SYR-D85-DJH
10207003/10207G30.cdr

EDR3 - Maintained Field Transect 2

EDR3 - Maintained Field Transect 3

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-15

12/03/07 SYR-D85-DJH
10207003/10207G31.cdr

EDR3 - Successional Field Transect 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF SMALL MAMMAL COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
A-16

12/03/07 SYR-D85-DJH
10207003/10207G32.cdr

ARCADIS BBL

Appendix B

Photographs of Benthic Macroinvertebrate and Mollusk Community Survey Locations

REF1 - Riffle 1

REF1 - Run 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-1

11/21/07 SYR-D85-DJH
10207003/10207G01.cdr

REF1 - Emergent Aquatic Vegetation 1

REF1 - Deposition 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-2

12/03/07 SYR-D85-DJH
10207003/10207G02.cdr

REF2 - Riffle 1

REF2 - Run 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-3

12/03/07 SYR-D85-DJH
10207003/10207G03.cdr

REF2 - Emergent Aquatic Vegetation 1

REF3 - Run 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-4

12/03/07 SYR-D85-DJH
10207003/10207G04.cdr

REF3 - Emergent Aquatic Vegetation 1

REF3 - Backwater 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-5

12/03/07 SYR-D85-DJH
10207003/10207G05.cdr

REF3 - Deposition 1

REF3 - Riffle 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-6

12/03/07 SYR-D85-DJH
10207003/10207G06.cdr

EDR1 - Riffle 2

EDR1 - Run 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
B-7

12/03/07 SYR-D85-DJH
10207003/10207G07.cdr

EDR1 - Run 2

EDR1 - Emergent Aquatic Vegetation 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-8

12/03/07 SYR-D85-DJH
10207003/10207G08.cdr

EDR1 - Emergent Aquatic Vegetation 2

EDR1 - Backwater 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-9

12/03/07 SYR-D85-DJH
10207003/10207G09.cdr

EDR1 - Backwater 2

EDR1 - Deposition 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-10

12/03/01 SYR-D85-DJH
10207003/10207G10.cdr

EDR1 - Deposition 2

EDR2 - Riffle 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
B-11

12/03/07 SYR-D85-DJH
10207003/10207G11.cdr

EDR2 - Riffle 2

EDR2 - Run 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
B-12

12/03/07 SYR-D85-DJH
10207003/10207G12.cdr

EDR2 - Run 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
B-13

12/03/07 SYR-D85-DJH
10207003/10207G13.cdr

EDR2 - Emergent Aquatic Vegetation 1

EDR2 - Emergent Aquatic Vegetation 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-14

12/03/07 SYR-D85-DJH
10207003/10207G14.cdr

EDR2 - Backwater 1

EDR2 - Backwater 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
B-15

12/03/07 SYR-D85-DJH
10207003/10207G15.cdr

EDR2 - Deposition 1

EDR2 - Deposition 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-16

12/03/07 SYR-D85-DJH
10207003/10207G16.cdr

EDR3 - Riffle 1

EDR3 - Riffle 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
B-17

12/03/07 SYR-D85-DJH
10207003/10207G17.cdr

EDR3 - Run 1

EDR3 - Run 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
B-18

12/03/07 SYR-D85-DJH
10207003/10207G18.cdr

EDR3 - Emergent Aquatic Vegetation 1

EDR3 - Emergent Aquatic Vegetation 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-19

12/03/07 SYR-D85-DJH
10207003/10207G19.cdr

EDR3 - Backwater 1

EDR3 - Backwater 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE B-20

12/03/07 SYR-D85-DJH
10207003/10207G49.cdr

EDR3 - Deposition 1

EDR3 - Depostion 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF BENTHIC COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
B-21

12/03/07 SYR-D85-DJH
10207003/10207G50.cdr

ARCADIS BBL

Appendix C

Photographs of Fish Community Survey Locations

REF1 - Riffle 1

REF1 - Run 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE C-1

12/03/07 SYR-D85-DJH
10207003/10207G33.cdr

REF1 - Emergent Aquatic Vegetation 1

REF2 - Riffle 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE C-2

12/03/07 SYR-D85-DJH
10207003/10207G34.cdr

REF2 - Run 1

REF3 - Run 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE C-3

12/03/07 SYR-D85-DJH
10207003/10207G35.cdr

REF3 - Emergent Aquatic Vegetation 1

REF3 - Backwater 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

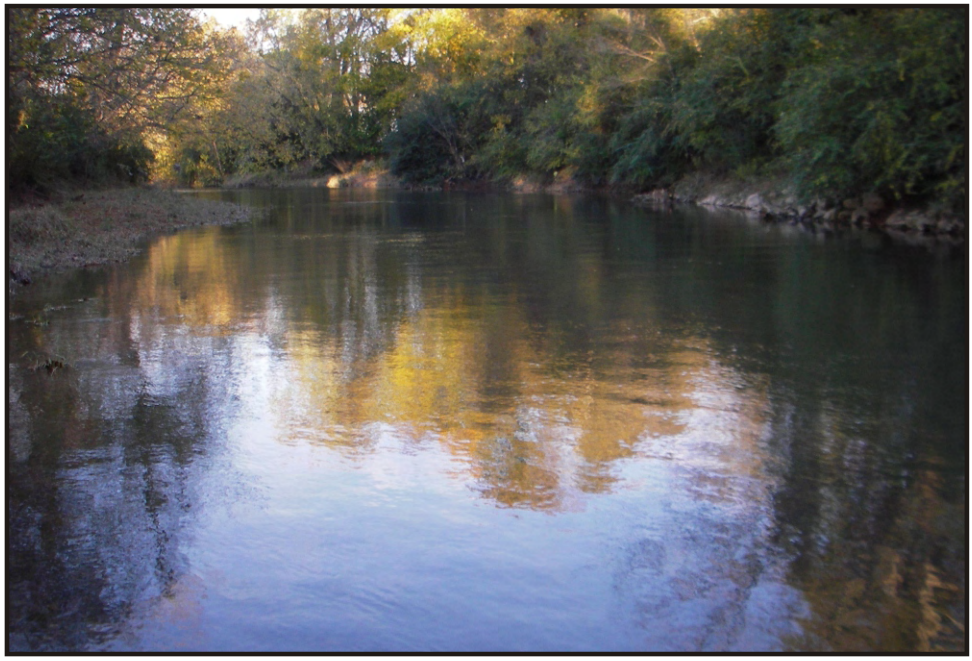
PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE C-4

12/03/07 SYR-D85-DJH
10207003/10207G36.cdr

EDR1 - Riffle 1



EDR1 - Run 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
C-5

12/03/07 SYR-D85-DJH
10207003/10207G42.cdr

EDR1 - Run 2

EDR1 - Backwater 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE C-6

12/03/07 SYR-D85-DJH
10207003/10207G37.cdr

EDR2 - Riffle 1

EDR2 - Riffle 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE C-7

12/03/07 SYR-D85-DJH
10207003/10207G38.cdr

EDR2 - Run 2

EDR2 - Emergent Aquatic Vegetation 1 and 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE C-8

12/03/07 SYR-D85-DJH
10207003/10207G39.cdr

EDR2 - Backwater 1

EDR2 - Backwater 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
C-9

12/03/07 SYR-D85-DJH
10207003/10207G40.cdr

EDR3 - Riffle 1

EDR3 - Riffle 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE C-10

12/03/07 SYR-D85-DJH
10207003/10207G43.cdr

EDR3 - Run 1

EDR3 - Emergent Aquatic Vegetation 1

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE C-11

12/03/07 SYR-D85-DJH
10207003/10207G41.cdr

EDR3 - Backwater 1

EDR3 - Backwater 2

ANNISTON PCB SITE
ANNISTON, ALABAMA

OU-4 PHASE 1 ECOLOGICAL SURVEY REPORT

PHOTOGRAPHS OF FISH COMMUNITY SURVEY LOCATIONS

ARCADIS BBL
Infrastructure, environment, facilities

FIGURE
C-12

12/03/07 SYR-D85-DJH
10207003/10207G44.cdr

ARCADIS BBL

Appendix D

Physical Characteristics/Water Quality Field Data Sheets

Fall 2006 and Spring 2007

ARCADIS BBL

Appendix D

Physical Characteristics/Water Quality Field Data Sheets

Fall 2006

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choccolocco Creek	LOCATION REF1 RI-1 (Photo #22, Benthic #3)
LAT 33.59645 LONG 85.77653	NOTES Upstream on sharp bend of road
SAMPLE# REF1 RI-1, RI-1R	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 11/9/06 TIME 4:30 AM (PM)
REASON FOR SURVEY Bentl Comm.	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 0.9 (ft) or m Water Velocity 1.58 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 14.0 °C **Specific Conductance** 0.105 **Dissolved Oxygen** 9.26 **pH** 5.7 **Turbidity** 48 **WQ Instrument Used** U-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☒ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	5
Boulder	> 256 mm (10")	10			
Cobble	64-256 mm (2.5"-10")	10	Muck-Mud	black, very fine organic (FPOM)	5
Gravel	2-64 mm (0.1"-2.5")	60			
Sand	0.06-2mm (gritty)	20	Marl	grey, shell fragments	trace
Silt	0.004-0.06 mm	0			
Clay	< 0.004 mm (slick)	0			

Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition - Form 1
Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION REF 1 RU-1 (Photo #23, Benthic #3)
LAT 33.59805 LONG 85.77914	Run near pnt in off road
SAMPLE# REF 1 RU-1, RU-1R	NOTES
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 11/9/06 TIME 4:00 AM (PM)
	REASON FOR SURVEY Benthic Comm.

* 5 sweeps

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 3.1 (ft) or m Water Velocity 0.55 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	Temperature 14.2 °C Specific Conductance 0.107 Dissolved Oxygen 10.0 pH 6.7 Turbidity 40 WQ Instrument Used U-22 Water Odors ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other Water Surface Oils ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other Turbidity (if not measured) ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	Odors ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other Oils ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse Deposits ☐ Sludge ☐ Sawdust ☐ Paper fiber ☑ Sand ☑ Relict shells ☐ Other trace

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	leaves 10
Boulder	> 256 mm (10")	10			
Cobble	64-256 mm (2.5"-10")	< 5	Muck-Mud	black, very fine organic (FPOM)	10
Gravel	2-64 mm (0.1"-2.5")	≠ 20			
Sand	0.06-2mm (gritty)	65	Marl	grey, shell fragments	< 5
Silt	0.004-0.06 mm	< 5			
Clay	< 0.004 mm (slick)	–			

Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition - Form 1
Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choc. Creek	LOCATION REF-1 EAV-1 (photo #24, #3)
LAT 33.59811 LONG 85.77923	NOTES Small EAV patch near launch area
SAMPLE# REF1 EAV-1; EAV-1R	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 11/6/06 TIME 220 AM (PM)
REASON FOR SURVEY Phyto. Comm.	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 20 % ☒ %cloud cover ☐ clear/sunny	Water Depth 1.4 (ft) or m Water Velocity 0.2 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 18.4 °C **Specific Conductance** 0.113 **Dissolved Oxygen** 9.8 **pH** 6.7 **Turbidity** 16 **WQ Instrument Used** V-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☒ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	15			
Sand	0.06-2mm (gritty)	40	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	40			
Clay	< 0.004 mm (slick)	< 5			

Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition - Form 1
Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Cheaha Creek	LOCATION REF-2 (RI-1) (photo #20, benthic #2)
LAT 33.50404 LONG 86.00479	NOTES Approximately 60 yds downstream of Rte. 21 Bridge
SAMPLE# REF-2 RI-1, -1R	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/29/06 TIME 4:10 AM (PM)
REASON FOR SURVEY Benthic Community	

5 sweep passes per sample; replicate collected approx. 10 yds downstream in riffle.

WEATHER CONDITIONS

Now
- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 0.9 (ft) or m

Water Velocity 1.7 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION none

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 14.8 °C
Specific Conductance 0.076
Dissolved Oxygen 10.03
pH 6.76
Turbidity <1
WQ Instrument Used U-22

Water Odors
☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other

Turbidity (if not measured)
☑ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☑ Sand ☑ Relict shells (trace) ☐ Other

Oils
☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		10	Detritus	sticks, wood, coarse plant materials (CPOM)	<5
Boulder	> 256 mm (10")	20			
Cobble	64-256 mm (2.5"-10")	30	Muck-Mud	black, very fine organic (FPOM)	<5
Gravel	2-64 mm (0.1"-2.5")	30			
Sand	0.06-2mm (gritty)	10	Marl	grey, shell fragments	<5
Silt	0.004-0.06 mm	0			
Clay	< 0.004 mm (slick)	0			

Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition - Form 1
Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Cheaha Creek	LOCATION REF-2 (RV-1) (photo #21, benthic #2)
LAT 33.50378 LONG 86.00445	NOTES Approximately 10 yds downstream of bridge
SAMPLE# REF-2 RUN-1, -1R	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/29/06 TIME 3:50 AM (PM)
REASON FOR SURVEY Benthic Comm.	

5 sweep passes per sample

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 2.1 (ft) or m Water Velocity 0.68 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION None

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 14.9 °C
Specific Conductance 0.075
Dissolved Oxygen 10.19
pH 6.67
Turbidity <1
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other

Turbidity (if not measured)
☒ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand ☒ Relict shells ☐ Other trace

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		20	Detritus	sticks, wood, coarse plant materials (CPOM)	10
Boulder	> 256 mm (10")	15			
Cobble	64-256 mm (2.5"-10")	35	Muck-Mud	black, very fine organic (FPOM)	5
Gravel	2-64 mm (0.1"-2.5")	20			
Sand	0.06-2mm (gritty)	10	Marl	grey, shell fragments	<5
Silt	0.004-0.06 mm	0			
Clay	< 0.004 mm (slick)	0			

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PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Cheaha Creek	LOCATION REF-2 (EAV-1) (photo #22, benthic #2)
LAT 33.50350 LONG 86.00411	NOTES Emergent vegetation upstream of bridge (bedrock overlain by deposits)
SAMPLE# REF-2 EAV-1, -1R	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/29/06 TIME 315 AM (PM)
REASON FOR SURVEY Phyto. Comm.	

15 jabs per sample

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 0.9 (ft) or m Water Velocity 0.13 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☒ Rooted emergent ☐ Rooted submergent ☒ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 14.9 °C **Specific Conductance** 0.075 **Dissolved Oxygen** 10.21 **pH** 6.86 **Turbidity** 2.2 **WQ Instrument Used** U-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☒ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand ☒ Relict shells ☐ Other **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock	underlain	none exposed	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	50			
Sand	0.06-2mm (gritty)	45	Marl	grey, shell fragments	5
Silt	0.004-0.06 mm	5			
Clay	< 0.004 mm (slick)	0			

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

TALLADEGA CREEK

STREAM NAME CHEAHA	LOCATION background 3 RU-1 photo 3
LAT 33.383857N LONG 086.098887W	Deep run downstream of rd 303
SAMPLE# REF3 RU-1 RU1R	NOTES Bridge Beneath LAV Rods.
INVESTIGATORS MHF, AJS, DEC	
FORM COMPLETED BY MHF	DATE 11:00 TIME 11/1/06 AM PM
REASON FOR SURVEY Benthic	

5 passes along Deeper run for RU1 & RU1R

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 0.80 ft or m Water Velocity 0.88 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☒ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 14.0 °C **Specific Conductance** 0.039 **Dissolved Oxygen** 11.85 **pH** 5.45 **Turbidity** 0.80 ntu **WQ Instrument Used** HORIBA **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	10
Boulder	> 256 mm (10")	10			
Cobble	64-256 mm (2.5"-10")	25	Muck-Mud	black, very fine organic (FPOM)	<5
Gravel	2-64 mm (0.1"-2.5")	50			
Sand	0.06-2mm (gritty)	15	Marl	grey, shell fragments	<5
Silt	0.004-0.06 mm	<5			
Clay	< 0.004 mm (slick)	<5			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

TALLADEGA CREEK

STREAM NAME CHEAHA	LOCATION Background 3 EAV1 photo 2 camera 3
LAT 33.383588 LONG 086.079208 W	
SAMPLE# CBF3 EAV-1, EAV1R	NOTES Alligator weed downstream from rt.303 bridge
INVESTIGATORS MHF AJS DEC	
FORM COMPLETED BY MHC	DATE 11/1/06 TIME 1030 (AM) PM
	REASON FOR SURVEY Bentaic

IS TOK /sample for EAV1 & EAV1R

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___%☐ %cloud cover ☒ clear/sunny	Water Depth 2.20 (ft) or m Water Velocity 0.02 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present

☒ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 14.2 °C
Specific Conductance 0.039
Dissolved Oxygen 11.89
pH 5.65
Turbidity 1.30 ntu
WQ Instrument Used HORIBA

Water Odors
☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	5
Boulder	> 256 mm (10")	5			
Cobble	64-256 mm (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	< 5
Gravel	2-64 mm (0.1"-2.5")	60			
Sand	0.06-2mm (gritty)	20	Marl	grey, shell fragments	< 5
Silt	0.004-0.06 mm	10			
Clay	< 0.004 mm (slick)	<5			

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

TALLADEGA CREEK

STREAM NAME ~~CREEK A~~	LOCATION Background #3 photo #1 camera 3
LAT 33.3838°N LONG 086.07948°W	
SAMPLE# REF & BW-1 (BW1-R)	NOTES small backwater below Rt 503 bridge on right side of channel
INVESTIGATORS ASS, MHF, DEL	
FORM COMPLETED BY MHF	DATE 10:00 TIME 9/1/06 (AM) PM
REASON FOR SURVEY Benthic	

Dredge sample from small backwater for BW1 & BW1R

WEATHER CONDITIONS	Now	INSTREAM FEATURES
sunny 95°	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 0.8 (ft) or m Water Velocity 0.00 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present

☒ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 15.4 °C
Specific Conductance 0.04
Dissolved Oxygen 11.83
pH 5.57
Turbidity 32.7 ntu
WQ Instrument Used HORIBA

Water Odors
☒ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand
☒ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	10%
Boulder	> 256 mm (10")	0%			
Cobble	64-256 mm (2.5"-10")	10%	Muck-Mud	black, very fine organic (FPOM)	<5%
Gravel	2-64 mm (0.1"-2.5")	40%			
Sand	0.06-2mm (gritty)	40%	Marl	grey, shell fragments	<5%
Silt	0.004-0.06 mm	10%			
Clay	< 0.004 mm (slick)	<5%			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION UBW-1 (photo #26, benthic #1)		
LAT 33.59245 LONG 85.83146		Small backwater area off channel	
SAMPLE# UBW-1 *(UBW-1R)	NOTES	near riffle #1	
INVESTIGATORS * Collected within 5 yards of same sediment composition			
FORM COMPLETED BY JCV	DATE 10/24 TIME 1:15 AM (PM)	REASON FOR SURVEY	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 1.2 (ft) or m Water Velocity -0.03 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae ☒ detritus
WATER QUALITY (within 1 m of substrate)	**Temperature** 14 °C **Specific Conductance** 0.155 **Dissolved Oxygen** 12.15 **pH** 7.76 **Turbidity** 132 **WQ Instrument Used** U-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	50 organics leaves sticks
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	<5			
Sand	0.06-2mm (gritty)	10	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	85			
Clay	< 0.004 mm (slick)	<5			

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choc. Creek	LOCATION UBW-2 (photo #18, benthic pg)
LAT 33.57841 LONG 85.86131	Backwater area across from
SAMPLE# UBW-2*(UBW-2R)	NOTES Slough access entrance
INVESTIGATORS BBL	* taken within 5 yds of UBW-2.
FORM COMPLETED BY JCV, SME	DATE 10/25/00 TIME 2:50 AM (PM)
REASON FOR SURVEY Benthic Comm.	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 15 %☑ %cloud cover ☐ clear/sunny	Water Depth 1.1 (ft) or m Water Velocity 0.03 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION None	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 12.8 °C **Specific Conductance** 0.149 **Dissolved Oxygen** 10.62 **pH** 7.36 **Turbidity** 21.1 **WQ Instrument Used** U22 **Water Odors** ☐ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☐ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** trace ☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand ☒ Relict shells ☐ Other trace

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	40
Gravel	2-64 mm (0.1"-2.5")	<1			
Sand	0.06-2mm (gritty)	5	Marl	grey, shell fragments	<5
Silt	0.004-0.06 mm	90			
Clay	< 0.004 mm (slick)	<5			

* Observed great blue heron in backwater, pair of wood ducks

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

(photo # 21, benthic #1)

STREAM NAME Chace Creek	LOCATION URU-2 (slight depositional)
LAT 33.58178 LONG 85.85390	NOTES Broad run area downstream along straightway of Riffle #2
SAMPLE# URU-2 (URU-2R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/25/05 TIME 1100 (AM) PM
REASON FOR SURVEY Benthic community	

URU-2 (10 minute) URU-2R (10 minute) - 10 yards downstream

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- 95 % ☒ %cloud cover
- ☐ clear/sunny

INSTREAM FEATURES

Water Depth 1.1 (ft) or m

Water Velocity 0.72 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present

☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 12.3 °C

Specific Conductance 0.151

Dissolved Oxygen 10.65

pH 6.2

Turbidity 7.8

WQ Instrument Used U-22

Water Odors

☒ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils

☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☒ None ☐ Other

Turbidity (if not measured)

☐ Clear ☐ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors

☒ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits

☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand
☐ Relict shells ☐ Other

Oils

☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	5
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	<5	Muck-Mud	black, very fine organic (FPOM)	<5
Gravel	2-64 mm (0.1"-2.5")	20			
Sand	0.06-2mm (gritty)	60	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	10			
Clay	< 0.004 mm (slick)	10			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION UEAV-2 (photo #17, benthic #1)
LAT 33.57858 LONG 85.86137	Entrance to backwater
SAMPLE# UEAV-2 (UEAV-2R)	NOTES
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/25 TIME 3:30 AM (PM)
REASON FOR SURVEY Phytophilus comm.	

15 jabs - per sample; replicate taken in same location.

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- 70 % ☒ %cloud cover
- ☐ clear/sunny

INSTREAM FEATURES

Water Depth 1.8 ft or m

Water Velocity 0.04 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present

☒ Rooted emergent ☐ Rooted submergent ☒ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 13.1 °C
Specific Conductance 0.149
Dissolved Oxygen 11.12
pH 6.84
Turbidity 18.7
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

NA

Odors
☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

Oils
☐ Absent ☐ Slight ☐ Moderate ☐ Profuse

NA INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)

Substrate Type	Diameter	% Composition in Sampling Reach
Bedrock		
Boulder	> 256 mm (10")	
Cobble	64-256 mm (2.5"-10")	
Gravel	2-64 mm (0.1"-2.5")	
Sand	0.06-2mm (gritty)	
Silt	0.004-0.06 mm	
Clay	< 0.004 mm (slick)	

NA ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)

Substrate Type	Characteristic	% Composition in Sampling Area
Detritus	sticks, wood, coarse plant materials (CPOM)	
Muck-Mud	black, very fine organic (FPOM)	
Marl	grey, shell fragments	

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choccolocco Creek	LOCATION UEAV-1 (photo #19, benthic #1)
LAT 33.57952 LONG 85.86051	NOTES Two patches of ?alligator weed approximately 10-15 yds (20 yds between)
SAMPLE# UEAV-1 (UEAV-1R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/25/06 TIME 1137 AM (PM) — REASON FOR SURVEY Phytotillus

15 jabs per sample

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 85 % ☒ %cloud cover ☐ clear/sunny	Water Depth 1.8 (ft) or m Water Velocity 0.44 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☒ Rooted emergent ☐ Rooted submergent ☒ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 12.7 °C **Specific Conductance** 0.148 **Dissolved Oxygen** 10.8 **pH** 6.81 **Turbidity** 7.0 **WQ Instrument Used** U-22 **Water Odors** ☐ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☐ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE NA	**Odors** ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☐ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (NA) **(should add up to 100%)**

Substrate Type	Diameter	% Composition in Sampling Reach
Bedrock		
Boulder	> 256 mm (10")	
Cobble	64-256 mm (2.5"-10")	
Gravel	2-64 mm (0.1"-2.5")	
Sand	0.06-2mm (gritty)	
Silt	0.004-0.06 mm	
Clay	< 0.004 mm (slick)	

ORGANIC SUBSTRATE COMPONENTS (NA) **(does not necessarily add up to 100%)**

Substrate Type	Characteristic	% Composition in Sampling Area
Detritus	sticks, wood, coarse plant materials (CPOM)	
Muck-Mud	black, very fine organic (FPOM)	
Marl	grey, shell fragments	

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION URU-1 (photo #25, Benthic #1)
LAT 33.59257 LONG 85.83113	Downstream of Riffle #1
SAMPLE# URU-1 *(URU-1R)	NOTES
INVESTIGATORS BBL	* Collected 10 yds downstream in similar habitat
FORM COMPLETED BY JCV	DATE 10/24/06 TIME 3:00 AM (PM)
REASON FOR SURVEY Benthic Community	

(URU-1 - 10 minutes worth of kicks) (URU-1R - 10 minutes worth of kicks)

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 1.3 ft or m

Water Velocity 1.0 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present

☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 14.0 °C
Specific Conductance 0.154
Dissolved Oxygen 11.6
pH 6.57
Turbidity 47.2
WQ Instrument Used V-22

Water Odors
☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand ☒ Relict shells (some) ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)

Substrate Type	Diameter	% Composition in Sampling Reach
Bedrock		0
Boulder	> 256 mm (10")	5
Cobble	64-256 mm (2.5"-10")	<5
Gravel	2-64 mm (0.1"-2.5")	40
Sand	0.06-2mm (gritty)	40
Silt	0.004-0.06 mm	15
Clay	< 0.004 mm (slick)	<5

ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)

Substrate Type	Characteristic	% Composition in Sampling Area
Detritus	sticks, wood, coarse plant materials (CPOM)	<5
Muck-Mud	black, very fine organic (FPOM)	0
Marl	grey, shell fragments	<5

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chace Creek	LOCATION UDEP-2 (photo #20, benthic #1)
LAT 33.58001 LONG 85.85999	NOTES Depositional area on northern shore
SAMPLE# UDEP-2 (UDEP-212)	
INVESTIGATORS GBL	
FORM COMPLETED BY JCV	DATE 10/25 TIME 1220 AM (PM)
	REASON FOR SURVEY Benthic Survey

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- 90 % ☒ %cloud cover
- ☐ clear/sunny

INSTREAM FEATURES

Water Depth 1.1 (ft) or m

Water Velocity 0.31 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION none

Indicate the dominant type and record the dominant species present

☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 12.6 °C
Specific Conductance 0.150
Dissolved Oxygen 11.19
pH 6.29
Turbidity 6.3
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors (organic)
☒ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand
☒ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	35			
Sand	0.06-2mm (gritty)	40	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	25			
Clay	< 0.004 mm (slick)	<1			

* Turtle at depositional location (painted?)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chace Creek	LOCATION URI-2 (photo # 22, Benthic bf)
LAT 33.58327 LONG 086.85305	Small riffle area upstream of former oxbow*
SAMPLE# URI-2 (URI-2R)	NOTES
INVESTIGATORS	
FORM COMPLETED BY JCV	DATE 10/25 TIME 925 (AM) PM
REASON FOR SURVEY Benthic Community	

URI-2 (8 sweeps on left side) URI-2R (8 sweeps right side)

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 90 %☒ %cloud cover ☐ clear/sunny	Water Depth 0.4 (ft) or m Water Velocity 0.74 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 12.2 °C **Specific Conductance** 0.155 **Dissolved Oxygen** 10.11 **pH** 6.14 **Turbidity** 9.8 **WQ Instrument Used** U-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	<5
Boulder	> 256 mm (10")	<5			
Cobble	64-256 mm (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	<5
Gravel	2-64 mm (0.1"-2.5")	40			
Sand	0.06-2mm (gritty)	40	Marl	grey, shell fragments	5
Silt	0.004-0.06 mm	10			
Clay	< 0.004 mm (slick)	<5			

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* Note mottled sculpin observed and caught in kick netting

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choc. Creek	LOCATION URI-1 photo #27 - Benthic #1
LAT 33.59270N LONG 85.83116 W	Riffle #1 - accessed via canoe
SAMPLE# URI-1 *(URI-1R)	NOTES on Weaver property FP-#2N
INVESTIGATORS * replicate collected ~15yds downstream	
FORM COMPLETED BY JCV	DATE 10/24 TIME 1115 (AM) PM
	REASON FOR SURVEY Benthic

URI-1 (5 passes along riffle) URI-1R (5 passes along riffle)

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 0.2 ft or m

Water Velocity 3.4 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present

☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☒ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 13.1 °C
Specific Conductance 0.152
Dissolved Oxygen 10.27
pH 6.03
Turbidity 78.4
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☑ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256 mm (10")	5			
Cobble	64-256 mm (2.5"-10")	30	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	45			
Sand	0.06-2mm (gritty)	20	Marl	grey, shell fragments	<5
Silt	0.004-0.06 mm	0			
Clay	< 0.004 mm (slick)	0			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choc. Creek	LOCATION UDEP-1 (photo# 24, Benthic #1)
LAT 33.59001 LONG 85.83301	NOTES Sediment deposit off main channel below blowdown (rep taken 5yd downs)
SAMPLE# UDEP-1 (UDEP-1R)	
INVESTIGATORS	
FORM COMPLETED BY JCV	DATE 10/24/06 TIME 420 AM (PM)
REASON FOR SURVEY Benthic Community	

WEATHER CONDITIONS

Now
- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 3.4 (ft) or m

Water Velocity 0.36 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION none

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 14 °C
Specific Conductance 0.157
Dissolved Oxygen 11.03
pH 6.23
Turbidity 0
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other

Turbidity (if not measured)
☒ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand ☒ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	60
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	20
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	40	Marl	grey, shell fragments	5
Silt	0.004-0.06 mm	30			
Clay	< 0.004 mm (slick)	5			

UDEP-1 3.5" rec.

UDEP-1R 3.25" rec.

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocco Creek	LOCATION MBW-1 (photo #11, benthic #1)
LAT 33.56845 LONG 85.94642	NOTES Looks like old oxbow that was cut off.
SAMPLE# MBW-1 (MBW-1R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/26/06 TIME 3:00 AM (PM)
	REASON FOR SURVEY Benthic Comm.

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 65 % %cloud cover ☐ clear/sunny	Water Depth 1.4 (ft) or m Water Velocity 0.03 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 14.8 °C
Specific Conductance 0.169
Dissolved Oxygen 11.01
pH 6.93
Turbidity 69.3
WQ Instrument Used U-22

Water Odors
☑ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☑ None ☐ Other

Turbidity (if not measured)
☐ Clear ☑ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☑ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand
☐ Relict shells ☐ Other

Oils
☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	20
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	< 5	Muck-Mud	black, very fine organic (FPOM)	10
Gravel	2-64 mm (0.1"-2.5")	20			
Sand	0.06-2mm (gritty)	30	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	45			
Clay	< 0.004 mm (slick)	< 5			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION MRV-2 (photo #8, benthic #1)
LAT 33.56240 LONG 85.94236	NOTES Downstream of bridge; past riffle
SAMPLE# MRV-2 (MRV-2R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/27 TIME 1115 (AM) PM
REASON FOR SURVEY Benthic Comm.	

* 10 min sweep effort; replicate collected

WEATHER CONDITIONS

Now
- [x] storm (heavy rain)
- [ ] rain (steady rain)
- [ ] showers (intermittent)
- ____% %cloud cover
- [ ] clear/sunny

INSTREAM FEATURES

Water Depth 1.2 (ft) or m

Water Velocity 2.4 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present
- [ ] Rooted emergent
- [ ] Rooted submergent
- [ ] Rooted floating
- [ ] Free floating
- [ ] Floating Algae
- [ ] Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 14.5 °C

Specific Conductance 0.17

Dissolved Oxygen 10.2

pH 6.4

Turbidity 22.7

WQ Instrument Used U-22

Water Odors
- [x] Normal/None
- [ ] Sewage
- [ ] Petroleum
- [ ] Chemical
- [ ] Fishy
- [ ] Other

Water Surface Oils
- [ ] Slick
- [ ] Sheen
- [ ] Globs
- [ ] Flecks
- [x] None
- [ ] Other

Turbidity (if not measured)
- [ ] Clear
- [x] Slightly turbid
- [ ] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other

SEDIMENT/ SUBSTRATE

Odors
- [x] Normal
- [ ] Sewage
- [ ] Petroleum
- [ ] Chemical
- [ ] Anaerobic
- [ ] None
- [ ] Other

Deposits
- [ ] Sludge
- [ ] Sawdust
- [ ] Paper fiber
- [x] Sand
- [x] Relict shells
- [ ] Other

Oils
- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	< 5
Boulder	> 256 mm (10")	5			
Cobble	64-256 mm (2.5"-10")	20	Muck-Mud	black, very fine organic (FPOM)	< 5
Gravel	2-64 mm (0.1"-2.5")	40			
Sand	0.06-2mm (gritty)	30	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	5			
Clay	< 0.004 mm (slick)	—			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choc. Creek	LOCATION MEAV-2 (photo #10, benthic #1)
LAT 33.56807 LONG 85.94642	Bottom side of island below
SAMPLE# MEAV-2 (MEAV-2R)	NOTES MBW-1.
INVESTIGATORS	
FORM COMPLETED BY JCW	DATE 10/26/06 TIME 4:00 AM (PM)
REASON FOR SURVEY	

15 jabs per sample.

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 90 % ☒ %cloud cover ☐ clear/sunny	Water Depth 0.2 (ft) or m Water Velocity 0.01 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☒ Rooted emergent ☐ Rooted submergent ☒ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 14.5 °C **Specific Conductance** 0.170 **Dissolved Oxygen** 12.05 **pH** 6.93 **Turbidity** 75 **WQ Instrument Used** U-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE NA	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand ☒ Relict shells ☐ Other trace

INORGANIC SUBSTRATE COMPONENTS (NA) (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	50
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	<5			
Sand	0.06-2mm (gritty)	50	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	40			
Clay	< 0.004 mm (slick)	<5			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION MRUN-1 (photo #13; benthic #1)
LAT 33.5707 LONG 85.94669	NOTES Downstream of riffle and emergent vegetation island
SAMPLE# MRUN-1 (MRUN-1R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/26/06 TIME 1220 AM (PM) REASON FOR SURVEY Benthic comm.

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- 85% ☒ %cloud cover
- ☐ clear/sunny

INSTREAM FEATURES

Water Depth 1.3 (ft) or m

Water Velocity 0.70 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION none

Indicate the dominant type and record the dominant species present

☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 13.6 °C
Specific Conductance 0.171
Dissolved Oxygen 10.74
pH 6.88
Turbidity 3.8
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand ☒ Relict shells ☐ Other trace

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	<5
Boulder	> 256 mm (10")	<5			
Cobble	64-256 mm (2.5"-10")	40	Muck-Mud	black, very fine organic (FPOM)	<5
Gravel	2-64 mm (0.1"-2.5")	30			
Sand	0.06-2mm (gritty)	20	Marl	grey, shell fragments	5
Silt	0.004-0.06 mm	<5			
Clay	< 0.004 mm (slick)	<1			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION MEAV-1 (photo #14, benthic #1)
LAT 33.56968 LONG 85.94427	Two strips of EAV on tailout of
SAMPLE# MEAV-1 (MEAV-1P)	NOTES riffle sample left/right
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/26/06 TIME 1055 (AM) PM
REASON FOR SURVEY Phytoph. Community	

(15 jabs per sample)

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 95 % ☒ %cloud cover ☐ clear/sunny	Water Depth 0.6 (ft) or m Water Velocity 1.1 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 13.5 °C **Specific Conductance** 0.173 **Dissolved Oxygen** 10.4 **pH** 7.01 **Turbidity** 6.8 **WQ Instrument Used** V-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand ☒ Relict shells ☐ Other **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	50			
Sand	0.06-2mm (gritty)	40	Marl	grey, shell fragments	20
Silt	0.004-0.06 mm	<5			
Clay	< 0.004 mm (slick)	<5			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

*NOTE: NO PHOTO #6

STREAM NAME Chocc. Creek	LOCATION MDEP-2 (photo # 7, benthic #1)
LAT 33.56875 LONG 85.94374	NOTES Upstream from put-in along north shore
SAMPLE# MDEP-2 (MDEP-2R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/27/06 TIME 1:10 AM (PM)
REASON FOR SURVEY Benthic Comm.	

WEATHER CONDITIONS

Now

- [x] storm (heavy rain)
- [ ] rain (steady rain)
- [ ] showers (intermittent)
- ___% %cloud cover
- [ ] clear/sunny

INSTREAM FEATURES

Water Depth 4 (ft) or m

Water Velocity 0.33 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present

- [ ] Rooted emergent
- [ ] Rooted submergent
- [ ] Rooted floating
- [ ] Free floating
- [ ] Floating Algae
- [ ] Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 14.6 °C

Specific Conductance 0.157

Dissolved Oxygen 10.0

pH 6.47

Turbidity 21

WQ Instrument Used U-22

Water Odors

- [x] Normal/None
- [ ] Sewage
- [ ] Petroleum
- [ ] Chemical
- [ ] Fishy
- [ ] Other

Water Surface Oils

- [ ] Slick
- [ ] Sheen
- [ ] Globs
- [ ] Flecks
- [x] None
- [ ] Other

Turbidity (if not measured)

- [ ] Clear
- [x] Slightly turbid
- [ ] Turbid
- [ ] Opaque
- [ ] Stained
- [ ] Other

SEDIMENT/ SUBSTRATE

Odors

- [x] Normal
- [ ] Sewage
- [ ] Petroleum
- [ ] Chemical
- [ ] Anaerobic
- [ ] None
- [ ] Other

Deposits

- [ ] Sludge
- [ ] Sawdust
- [ ] Paper fiber
- [ ] Sand
- [ ] Relict shells
- [ ] Other

Oils

- [x] Absent
- [ ] Slight
- [ ] Moderate
- [ ] Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)

Substrate Type	Diameter	% Composition in Sampling Reach
Bedrock		0
Boulder	> 256 mm (10")	0
Cobble	64-256 mm (2.5"-10")	0
Gravel	2-64 mm (0.1"-2.5")	< 5
Sand	0.06-2mm (gritty)	20
Silt	0.004-0.06 mm	75
Clay	< 0.004 mm (slick)	<5

ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)

Substrate Type	Characteristic	% Composition in Sampling Area
Detritus	sticks, wood, coarse plant materials (CPOM)	30
Muck-Mud	black, very fine organic (FPOM)	30
Marl	grey, shell fragments	15

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chase Creek	LOCATION MRI-2 (photo #9, Benthic #1)	
LAT 33.56810 LONG 85.94684	NOTES Riffle on left side of island at EAV-2	
SAMPLE# MRI-2 (MRI-2R)		
INVESTIGATORS BBL		
FORM COMPLETED BY JCV	DATE 10/27 TIME 9:10 (AM) PM	REASON FOR SURVEY Benthic Comm.

* 5 sweeps per sample

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☒ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☐ clear/sunny	Water Depth 0.6 (ft) or m Water Velocity 1.34 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 14.5 °C **Specific Conductance** 0.165 **Dissolved Oxygen** 9.98 **pH** 6.30 **Turbidity** 4.0 **WQ Instrument Used** U-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☐ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	<5
Boulder	> 256 mm (10")	<<			
Cobble	64-256 mm (2.5"-10")	20	Muck-Mud	black, very fine organic (FPOM)	5
Gravel	2-64 mm (0.1"-2.5")	60			
Sand	0.06-2mm (gritty)	15	Marl	grey, shell fragments	5
Silt	0.004-0.06 mm	<5			
Clay	< 0.004 mm (slick)	0			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choc Creek	LOCATION MDEP-1 (photo #12, benthic #1)
LAT 33.57059 LONG 85.94489	Inner bend downstream of EAV #1
SAMPLE# MDEP-1* (MDEP-1R)	NOTES
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/26/06 TIME 210 AM (PM)
	REASON FOR SURVEY Benthic Comm.

*Replicate taken 5 ft downstream

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☒ showers (intermittent) (sprinkle)
- 80 % ☒ %cloud cover
- ☐ clear/sunny

INSTREAM FEATURES

Water Depth 1.3 (ft) or m

Water Velocity 0.07 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION None

Indicate the dominant type and record the dominant species present

☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 13.9 °C
Specific Conductance 0.171
Dissolved Oxygen 10.82
pH 6.99
Turbidity 7.9
WQ Instrument Used YSI-22

Water Odors
☒ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand
☐ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	20
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	40
Gravel	2-64 mm (0.1"-2.5")	fine 5			
Sand	0.06-2mm (gritty)	60	Marl	grey, shell fragments	20
Silt	0.004-0.06 mm	35			
Clay	< 0.004 mm (slick)	0			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chacc. Creek	LOCATION MRI-1 (L) (R) (photos #16, 15, benthic #1)
LAT 33.56944 LONG 85.94401	Split riffle (looking downstream)
SAMPLE# MRI-1 (MRI-1R)	NOTES Left, right sides
INVESTIGATORS BBZ	
FORM COMPLETED BY JCV	DATE 10/26 TIME 1000 (AM) PM
REASON FOR SURVEY Benthic Comm.	

* Work head of riffle

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 95 % ☒ %cloud cover ☐ clear/sunny	Water Depth 0.9 (ft) or m Water Velocity 1.53 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	Temperature 13.4 °C Specific Conductance 0.175 Dissolved Oxygen 10.1 pH 6.92 Turbidity 7.7 WQ Instrument Used U-22 Water Odors: ☐ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☒ Fishy ☐ Other Water Surface Oils: ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other Turbidity (if not measured): ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other Deposits: ☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand ☒ Relict shells ☐ Other Oils: ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	<5
Boulder	> 256 mm (10")	30			
Cobble	64-256 mm (2.5"-10")	30	Muck-Mud	black, very fine organic (FPOM)	<1
Gravel	2-64 mm (0.1"-2.5")	30			
Sand	0.06-2mm (gritty)	10	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	<1			
Clay	< 0.004 mm (slick)	0			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION LEAV-2 (photo #25, benthic #2)
LAT 33.56279 LONG 86.01653	NOTES Along inner bend downstream of LDEP-2
SAMPLE# LEAV-2 (LEAV-2R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV.	DATE 10/29/06 TIME 1115 (AM) PM
REASON FOR SURVEY Phyto comm.	

15 jabs per sample

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 1.1 ft or m Water Velocity 0.21 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☒ Rooted emergent ☐ Rooted submergent ☒ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 14.2 °C **Specific Conductance** 0.109 **Dissolved Oxygen** 10.35 **pH** 8.02 **Turbidity** 69.3 **WQ Instrument Used** V-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☒ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other **Oils** ☐ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	<5			
Sand	0.06-2mm (gritty)	35	Marl	grey, shell fragments	<5
Silt	0.004-0.06 mm	60			
Clay	< 0.004 mm (slick)	<5			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocco Creek	LOCATION LEAV-1 (photo #3, benthic)
LAT 33.56042 LONG 86.01277	Downstream of backwater entrance
SAMPLE# LEAV-1 (LEAV-1R)	NOTES
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/28/06 TIME 11:45 (AM) PM
REASON FOR SURVEY Phyto. Community	

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ____% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 1.8 (ft) or m

Water Velocity 0.03 ft/sec or m/sec
(within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present
☒ Rooted emergent ☐ Rooted submergent ☒ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY
(within 1 m of substrate)

Temperature 15.4 °C
Specific Conductance 0.087
Dissolved Oxygen 9.63
pH 5.68
Turbidity 276
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☒ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

NA

Odors
☐ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand
☐ Relict shells ☐ Other

Oils
☐ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (NA) (should add up to 100%)

Substrate Type	Diameter	% Composition in Sampling Reach
Bedrock		
Boulder	> 256 mm (10")	
Cobble	64-256 mm (2.5"-10")	
Gravel	2-64 mm (0.1"-2.5")	
Sand	0.06-2mm (gritty)	
Silt	0.004-0.06 mm	
Clay	< 0.004 mm (slick)	

ORGANIC SUBSTRATE COMPONENTS (NA) (does not necessarily add up to 100%)

Substrate Type	Characteristic	% Composition in Sampling Area
Detritus	sticks, wood, coarse plant materials (CPOM)	
Muck-Mud	black, very fine organic (FPOM)	
Marl	grey, shell fragments	

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION LRV-1 (photo #2 benthic 1)
LAT 38.56207 LONG 86.01363	NOTES Downstream from riffle series Channel braids
SAMPLE# LRV-1 (LRV-1R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/28/06 TIME 235 AM (PM)
REASON FOR SURVEY Benthic comm.	

5 sweeps per sample, replicated taken 10 yds downstream

WEATHER CONDITIONS

Now
- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 0.9 (ft) or m

Water Velocity 2.7 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION NA

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 15.8 °C
Specific Conductance 0.092
Dissolved Oxygen 10.14
pH 5.94
Turbidity 348
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☒ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand ☒ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256 mm (10")	<5			
Cobble	64-256 mm (2.5"-10")	35	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	35			
Sand	0.06-2mm (gritty)	30	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	<5			
Clay	< 0.004 mm (slick)	0			

Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition - Form 1
Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION LRU-2 (photo # 27, benthic #1)
LAT 33.56298 LONG 86.01469	NOTES Downstream of LRU-1
SAMPLE# LRU-2 (LRU-2R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/29/06 TIME 9:30 (AM) PM
REASON FOR SURVEY Benthic Comm.	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 1.3 (ft) or m Water Velocity 2.95 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION NA	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 13.8 °C **Specific Conductance** 0.111 **Dissolved Oxygen** 10.26 **pH** 7.24 **Turbidity** 69.7 **WQ Instrument Used** V-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☒ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☒ Relict shells ☐ Other trace

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256 mm (10")	<5			
Cobble	64-256 mm (2.5"-10")	sm 60	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	10	Marl	grey, shell fragments	trace
Silt	0.004-0.06 mm	<5			
Clay	< 0.004 mm (slick)	0			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chico Creek	LOCATION LBW-1 (photo # 4, benthic 1)
LAT 33.56074 LONG 086.01231	NOTES Backwater across from oxbow
SAMPLE# LBW-1 (LBW-1R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/28/06 TIME 1240 AM (PM)
	REASON FOR SURVEY Benthic Survey

WEATHER CONDITIONS

Now
- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 0.5 (ft) or m

Water Velocity 0.03 (ft/sec) or m/sec
(within 1 m of substrate)

AQUATIC VEGETATION NA

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY
(within 1 m of substrate)

Temperature 15.3 °C
Specific Conductance 0.093
Dissolved Oxygen 8.63
pH 6.31
Turbidity 235
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☒ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors organic
☒ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand
☒ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	30
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	<5			
Sand	0.06-2mm (gritty)	30	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	60			
Clay	< 0.004 mm (slick)	<5			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choce. Creek	LOCATION LBW-2 (photo # 23, benthic # 2)
LAT 33.56090 LONG 86.01837	NOTES Backwater area from small trib.
SAMPLE# LBW-2 (LBW-2R)	
INVESTIGATORS	
FORM COMPLETED BY JCV	DATE 10/29/06 TIME 1:00 AM (PM)
REASON FOR SURVEY Benthic Comm.	

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 0.9 ft or m

Water Velocity 0.21 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present

☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 14.0 °C
Specific Conductance 0.197
Dissolved Oxygen 11.71
pH 6.57
Turbidity 35.6
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☒ Slightly turbid ☐ Turbid ☒ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	60
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	20
Gravel	2-64 mm (0.1"-2.5")	10			
Sand	0.06-2mm (gritty)	30	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	60			
Clay	< 0.004 mm (slick)	0			

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PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION LDEP-1 (photo# 1, Benthic 1)
LAT 33.56056 LONG 86.01204	NOTES Downstream edge of aquatic veg. islands
SAMPLE# LDEP-1 (LDEP-1R)	
INVESTIGATORS ZBL	
FORM COMPLETED BY JCV	DATE 10/28/06 TIME 355 AM (PM)
REASON FOR SURVEY Benthic macro comm.	

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 1.5 (ft) or m

Water Velocity 0.29 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION None

Indicate the dominant type and record the dominant species present

☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 15.9 °C
Specific Conductance 0.094
Dissolved Oxygen 9.87
pH 6.63
Turbidity 287
WQ Instrument Used U-22

Water Odors
☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☑ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

Oils
☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	≤5			
Sand	0.06-2mm (gritty)	5	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	85			
Clay	< 0.004 mm (slick)	≤5			

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION LDEP-2 (photo #26, benthic #2)
LAT 33.56312 LONG 86.01498	Downstream of blowdown
SAMPLE# LDEP-2 (LDEP-2R)	NOTES along outer bend.
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/29 TIME 1030 (AM) PM
REASON FOR SURVEY Benthic Survey	

WEATHER CONDITIONS

Now
- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 1.1 (ft) or m

Water Velocity 0.08 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION none

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 14.1 °C
Specific Conductance 0.110
Dissolved Oxygen 10.3
pH 7.56
Turbidity 41.6
WQ Instrument Used V-22

Water Odors
☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☒ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	40
Gravel	2-64 mm (0.1"-2.5")	<5			
Sand	0.06-2mm (gritty)	15	Marl	grey, shell fragments	5
Silt	0.004-0.06 mm	80			
Clay	< 0.004 mm (slick)	<5			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION LRI-1 (photo #3, benthic #1)
LAT 33.56131 LONG 86.01262	NOTES riffle downstream of backwater
SAMPLE# LRI-1 (LRI-1R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/28/06 TIME 1110 AM (PM)
REASON FOR SURVEY Benthic Comm.	

5 passes sweeps per sample

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 1.4 (ft) or m Water Velocity 3.77 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 15.6 °C **Specific Conductance** 0.086 **Dissolved Oxygen** 10.2 **pH** 5.89 **Turbidity** 287 **WQ Instrument Used** U-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☒ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	< 5
Boulder	> 256 mm (10")	5			
Cobble	64-256 mm (2.5"-10")	30	Muck-Mud	black, very fine organic (FPOM)	< 5
Gravel	2-64 mm (0.1"-2.5")	45			
Sand	0.06-2mm (gritty)	20	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	< 5			
Clay	< 0.004 mm (slick)	—			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choc. Creek	LOCATION LRI-2 (photo #24, benthic #2)
LAT 33.56193 LONG 86.01693	NOTES Right side of island downstream of EAV-2.
SAMPLE# LRI-2 (LR-2R)	
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 10/29/06 TIME 1200 AM (PM)
REASON FOR SURVEY Benthic Comm.	

WEATHER CONDITIONS

Now
- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 1.2 (ft) or m

Water Velocity 2.63 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 14.4 °C
Specific Conductance 0.110
Dissolved Oxygen 11.20
pH 7.82
Turbidity 72
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☒ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☒ Sand ☒ Relict shells ☐ Other

Oils
☐ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256 mm (10")	<5			
Cobble	64-256 mm (2.5"-10")	10	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	60			
Sand	0.06-2mm (gritty)	20	Marl	grey, shell fragments	
Silt	0.004-0.06 mm	5			
Clay	< 0.004 mm (slick)				

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(Form modified by BBL, Inc. 7/11/02)

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Appendix D

Physical Characteristics/Water Quality Field Data Sheets

Spring 2007

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocco. Creek	LOCATION Upper EDR - Riffle #1		
LAT 33.59270 LONG 85.83116	Picture - # 100-0145 (Kick)		
SAMPLE# URI-1 (C-1R)	NOTES 100-0146 (Quadrat)		
INVESTIGATORS			
FORM COMPLETED BY JCV	DATE 5/14/07 TIME 515 AM (PM)	REASON FOR SURVEY Benthic / Mollusk	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) %☐ %cloud cover ☑ clear/sunny	Water Depth 1.8 (ft) or m Water Velocity 3.3 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☑ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 24 °C **Specific Conductance** .135 **Dissolved Oxygen** 9.95 **pH** 7.37 **Turbidity** 25 **WQ Instrument Used** U-22 **Water Odors** ☐ Normal/None ☐ Sewage ☐ Petroleum ☑ Chemical (Treated) ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☑ None ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	—
Boulder	> 256 mm (10")	5			
Cobble	64-256 mm (2.5"-10")	30	Muck-Mud	black, very fine organic (FPOM)	—
Gravel	2-64 mm (0.1"-2.5")	40			
Sand	0.06-2mm (gritty)	25	Marl	grey, shell fragments	< 5
Silt	0.004-0.06 mm	—			
Clay	< 0.004 mm (slick)	—			

Mollusk - Asiatic Clam size: min = 0.3 cm max = 1.3 cm n = 56 Photo # 100-0149

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocco. Creek	LOCATION Upper EDR - Run #1
LAT 33.59257 LONG 85.83113	photo # 100-0148
SAMPLE# URV-1 (URV-1R)	NOTES
INVESTIGATORS JCV	
FORM COMPLETED BY JCV	DATE 5/14/07 TIME 1710 AM (PM)
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___%☐ %cloud cover ☒ clear/sunny	Water Depth 2.3 (ft) or m Water Velocity 1.36 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 24.0 °C **Specific Conductance** 0.128 **Dissolved Oxygen** 9.94 **pH** 8.05 **Turbidity** 38 **WQ Instrument Used** U-22 **Water Odors** ☐ Normal/None ☐ Sewage (WWTP treated) ☐ Petroleum ☒ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☒ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☐ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	5
Boulder	> 256 mm (10")	5			
Cobble	64-256 mm (2.5"-10")	tr < 5	Muck-Mud	black, very fine organic (FPOM)	—
Gravel	2-64 mm (0.1"-2.5")	45			
Sand	0.06-2mm (gritty)	35	Marl	grey, shell fragments	< 5
Silt	0.004-0.06 mm	15			
Clay	< 0.004 mm (slick)	tr < 5			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choc. Creek	LOCATION Upper EDR - Backwater #1
LAT 33.59243 LONG 85.83146	✓ Picture - 100-0147
SAMPLE# UBW-1 (-1R)	NOTES
INVESTIGATORS JCV, GMG	
FORM COMPLETED BY JCV	DATE 5/14/07 TIME 1530 AM (PM)
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS

Now
- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 1.5 ft or m

Water Velocity 0.10 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present
- ☒ Rooted emergent (edge)
- ☐ Rooted submergent
- ☐ Rooted floating
- ☐ Free floating
- ☐ Floating Algae
- ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 24.5 °C

Specific Conductance 0.125

Dissolved Oxygen 9.36

pH 7.81

Turbidity 33

WQ Instrument Used U-22

Water Odors
- ☐ Normal/None
- ☐ Sewage
- ☐ Petroleum
- ☐ Chemical
- ☐ Fishy
- ☐ Other

Water Surface Oils
- ☐ Slick
- ☐ Sheen
- ☐ Globs
- ☐ Flecks
- ☐ None
- ☐ Other

Turbidity (if not measured)
- ☐ Clear
- ☐ Slightly turbid
- ☐ Turbid
- ☐ Opaque
- ☐ Stained
- ☐ Other

SEDIMENT/ SUBSTRATE

Odors
- ☒ Normal
- ☐ Sewage
- ☐ Petroleum
- ☒ Chemical
- ☐ Anaerobic
- ☐ None
- ☐ Other

Deposits
- ☒ Sludge
- ☐ Sawdust
- ☐ Paper fiber
- ☒ Sand
- ☒ Relict shells
- ☐ Other

Oils
- ☒ Absent
- ☐ Slight
- ☐ Moderate
- ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)

Substrate Type	Diameter	% Composition in Sampling Reach
Bedrock		—
Boulder	> 256 mm (10")	—
Cobble	64-256 mm (2.5"-10")	—
Gravel	2-64 mm (0.1"-2.5")	< 5
Sand	0.06-2mm (gritty)	15
Silt	0.004-0.06 mm	80
Clay	< 0.004 mm (slick)	—

ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)

Substrate Type	Characteristic	% Composition in Sampling Area
Detritus	sticks, wood, coarse plant materials (CPOM)	40
Muck-Mud	black, very fine organic (FPOM)	5-10
Marl	grey, shell fragments	—

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chace Creek	LOCATION Upper Reach - Depositional #1
LAT 33.59001 LONG 85.83301	Photo # 100-0150
SAMPLE# VDEP-1 (-1R)	NOTES
INVESTIGATORS JCV	
FORM COMPLETED BY JCV	DATE 5/14/07 TIME 1740 AM PM
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS — Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☑ clear/sunny

INSTREAM FEATURES

Water Depth 2.2 (ft) or m

Water Velocity 0.38 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION To Not

Indicate the dominant type and record the dominant species present

☑ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 23.9 °C

Specific Conductance 0.129

Dissolved Oxygen 9.71

pH 8.1

Turbidity 16.2

WQ Instrument Used V-22

Water Odors
☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other

Turbidity (if not measured)
☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

Oils
☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	50
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	—	Muck-Mud	black, very fine organic (FPOM)	25
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	35	Marl	grey, shell fragments	5-10
Silt	0.004-0.06 mm	35			
Clay	< 0.004 mm (slick)	5			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION Upper Reach - Riffle #2
LAT 33.58327 LONG 85.85305	NOTES Photo # 101-199
SAMPLE# URI-2,-2R	
INVESTIGATORS ABBL	
FORM COMPLETED BY JCV	DATE 5/17/07 TIME 0850 (AM) PM
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☑ clear/sunny	Water Depth 1.0 (ft) or m Water Velocity 0.58 (ft/sec) or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 20.4 °C **Specific Conductance** 0.129 **Dissolved Oxygen** 10.09 **pH** 8.34 **Turbidity** 23 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	< 5
Boulder	> 256 mm (10")	< 5			
Cobble	64-256 mm (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	< 5
Gravel	2-64 mm (0.1"-2.5")	35			
Sand	0.06-2mm (gritty)	45	Marl	grey, shell fragments	5
Silt	0.004-0.06 mm	10			
Clay	< 0.004 mm (slick)	< 5			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION Upper Reach - Run #2	
LAT 33.58178 LONG 85.85390	NOTES Photo # 101-200	
SAMPLE# URU-2 (-2R)		
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/17/02 TIME 925 (AM) PM	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___%☐ %cloud cover ☑ clear/sunny	Water Depth 1.5 ft or m Water Velocity 0.21 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 20.5 °C **Specific Conductance** .130 **Dissolved Oxygen** 10.22 **pH** 8.16 **Turbidity** 33 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____ **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		-	Detritus	sticks, wood, coarse plant materials (CPOM)	5
Boulder	> 256 mm (10")	-			
Cobble	64-256 mm (2.5"-10")	< 5	Muck-Mud	black, very fine organic (FPOM)	< 5
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	55	Marl	grey, shell fragments	5-10
Silt	0.004-0.06 mm	10			
Clay	< 0.004 mm (slick)	10			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choce Creek	LOCATION Upper Reach - EAV #1	
LAT 33.57952 LONG 85.86051	NOTES Photo # 101 - 207	
SAMPLE# VEAV-1 (-1R)		
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/17/07 TIME 1100 (AM) PM	REASON FOR SURVEY

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☑ clear/sunny

INSTREAM FEATURES

Water Depth 2.2 (ft) or m

Water Velocity 0.19 ft/sec or (m/sec)
(within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present

☑ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 21.5 °C
Specific Conductance 0.130
Dissolved Oxygen 10.75
pH 8.13
Turbidity 17
WQ Instrument Used U-22

Water Odors
☑ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other_____

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☑ None ☐ Other_____

Turbidity (if not measured)
☐ Clear ☑ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other_____

SEDIMENT/ SUBSTRATE

Odors
☑ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other_____

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand
☐ Relict shells ☐ Other_____

Oils
☐ Absent ☐ Slight ☐ Moderate ☐ Profuse

NA **INORGANIC SUBSTRATE COMPONENTS** (should add up to 100%)

Substrate Type	Diameter	% Composition in Sampling Reach
Bedrock		
Boulder	> 256 mm (10")	
Cobble	64-256 mm (2.5"-10")	
Gravel	2-64 mm (0.1"-2.5")	
Sand	0.06-2mm (gritty)	
Silt	0.004-0.06 mm	
Clay	< 0.004 mm (slick)	

ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)

Substrate Type	Characteristic	% Composition in Sampling Area
Detritus	sticks, wood, coarse plant materials (CPOM)	
Muck-Mud	black, very fine organic (FPOM)	
Marl	grey, shell fragments	

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc Creek	LOCATION Upper Reach - EAV#2
LAT 33.57858 LONG 85.86134	NOTES Photo # 101 - 203
SAMPLE# UEAV-2 (-2R)	
INVESTIGATORS	
FORM COMPLETED BY JCV	DATE 5/17/07 TIME 1135 AM PM
	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 1.7 (ft) or m Water Velocity 0.10 ft/sec or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.7 °C **Specific Conductance** 0.131 **Dissolved Oxygen** 11.22 **pH** 8.44 **Turbidity** 31. **WQ Instrument Used** YJ-22 **Water Odors** ☐ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☐ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☐ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) NA			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock			Detritus	sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256 mm (10")				
Cobble	64-256 mm (2.5"-10")		Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")				
Sand	0.06-2mm (gritty)		Marl	grey, shell fragments	
Silt	0.004-0.06 mm				
Clay	< 0.004 mm (slick)				

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choc. Creek	LOCATION Upper Reach - Backwater #2
LAT 33.57841 LONG 85.86131	NOTES Photo # 101 - 204
SAMPLE# UBW-2 (-2R)	
INVESTIGATORS ABBL	
FORM COMPLETED BY JCV	DATE 5/17/07 TIME 1130 AM (PM)
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☑ clear/sunny	Water Depth 1.1 (ft) or m Water Velocity 0.05 ft/sec or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 22.4 °C **Specific Conductance** .135 **Dissolved Oxygen** 11.13 **pH** 8.28 **Turbidity** 45 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	—	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	< 5			
Sand	0.06-2mm (gritty)	5	Marl	grey, shell fragments	5
Silt	0.004-0.06 mm	85			
Clay	< 0.004 mm (slick)	< 5			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choccolocco Creek	LOCATION Upper Reach - Depositional #2
LAT 33.58001 LONG 85.85999	
SAMPLE# UDEP-2 (-212)	NOTES Photo # 101-105
INVESTIGATORS	
FORM COMPLETED BY JCV	DATE 5/17/07 TIME 1303 AM (PM)
	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☑ clear/sunny	Water Depth 0.8 (ft) or m Water Velocity 0.13 ft/sec or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 22.7 °C **Specific Conductance** 0.127 **Dissolved Oxygen** 11.59 **pH** 8.14 **Turbidity** 18 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		-	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	-			
Cobble	64-256 mm (2.5"-10")	-	Muck-Mud	black, very fine organic (FPOM)	25
Gravel	2-64 mm (0.1"-2.5")	35			
Sand	0.06-2mm (gritty)	35	Marl	grey, shell fragments	10 - 15
Silt	0.004-0.06 mm	30			
Clay	< 0.004 mm (slick)	< 5			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chicc Creek	LOCATION Mid Reach - Run # 2
LAT 33.56240 LONG 85.94236	
SAMPLE# MRU-2 (-2R)	NOTES Photo # 101-104
INVESTIGATORS	
FORM COMPLETED BY JCV	DATE 5/16/07 TIME 920 (AM) PM
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 90 %☒ %cloud cover ☐ clear/sunny	Water Depth 1 ft or m Water Velocity .47 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.9 °C **Specific Conductance** 0.141 **Dissolved Oxygen** 10.17 **pH** 8.47 **Turbidity** 18.3 **WQ Instrument Used** U-22 **Water Odors** ☐ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☐ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	< 5
Boulder	> 256 mm (10")	< 5			
Cobble	64-256 mm (2.5"-10")	25	Muck-Mud	black, very fine organic (FPOM)	< 5
Gravel	2-64 mm (0.1"-2.5")	40			
Sand	0.06-2mm (gritty)	25	Marl	grey, shell fragments	5-10
Silt	0.004-0.06 mm	5			
Clay	< 0.004 mm (slick)	—			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chace Creek	LOCATION MRI-2
LAT 33.56810 LONG 85.94684	NOTES No photo previous fall
SAMPLE# MRI-2, -2R	
INVESTIGATORS ABBL	
FORM COMPLETED BY JW	DATE 5/16/07 TIME 1005 (AM) PM
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- 80 % ☑ %cloud cover
- ☐ clear/sunny

INSTREAM FEATURES

Water Depth 0.5 (ft) or m

Water Velocity 1.27 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present

☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 21.6 °C

Specific Conductance 0.169

Dissolved Oxygen 10.32

pH 8.21

Turbidity 14

WQ Instrument Used U-22

Water Odors
☑ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☑ None ☐ Other

Turbidity (if not measured)
☐ Clear ☑ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☑ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand
☐ Relict shells ☐ Other

Oils
☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	< 5
Boulder	> 256 mm (10")	trace < 5			
Cobble	64-256 mm (2.5"-10")	s, m 20	Muck-Mud	black, very fine organic (FPOM)	< 5
Gravel	2-64 mm (0.1"-2.5")	f, m 55			
Sand	0.06-2mm (gritty)	f, c 20	Marl	grey, shell fragments	5
Silt	0.004-0.06 mm	tr < 5			
Clay	< 0.004 mm (slick)	—			

Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition - Form 1
Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chico. Creek	LOCATION MEAV-2	
LAT 33.56804 LONG 85.94642		
SAMPLE# MEAV-2, -2R	NOTES No photo previous fall	
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/16/07 TIME 1040 (AM) PM	REASON FOR SURVEY Phyto.

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 40 % ☑ %cloud cover ☐ clear/sunny	Water Depth 0.2 (ft) or m Water Velocity 0.02 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☑ Rooted emergent ☐ Rooted submergent ☑ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.5 °C **Specific Conductance** 0.176 **Dissolved Oxygen** 10.67 **pH** 8.34 **Turbidity** 20 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	45
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	—	Muck-Mud	black, very fine organic (FPOM)	35
Gravel	2-64 mm (0.1"-2.5")	trace fine <5			
Sand	0.06-2mm (gritty)	50	Marl	grey, shell fragments	5-10
Silt	0.004-0.06 mm	35			
Clay	< 0.004 mm (slick)	5			

Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition - Form 1
Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chace. Creek	LOCATION MBW-1	
LAT 33.56845 LONG 85.94642	NOTES No photo previous fall	
SAMPLE# MBW-1, -1R		
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/16/07 TIME 1100 AM PM	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 55 % %cloud cover ☐ clear/sunny	Water Depth 1.3 (ft) or m Water Velocity -0.01 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.7 °C **Specific Conductance** 0.172 **Dissolved Oxygen** 10.24 **pH** 8.26 **Turbidity** 25 **WQ Instrument Used** V-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	15
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	trace f. <5	Muck-Mud	black, very fine organic (FPOM)	20
Gravel	2-64 mm (0.1"-2.5")	f 15			
Sand	0.06-2mm (gritty)	f,m 35	Marl	grey, shell fragments	5-10
Silt	0.004-0.06 mm	45			
Clay	< 0.004 mm (slick)	trace <5			

Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition - Form 1
Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choc. Creek	LOCATION MDEP-2	
LAT 33.56875 LONG 85.94374	NOTES No Photo previous tall	
SAMPLE# MDEP-2, -2P		
INVESTIGATORS ABBL		
FORM COMPLETED BY SCV	DATE 5/16/07 TIME 1135 AM PM	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 60 % ☐ %cloud cover ☐ clear/sunny	Water Depth 3.8 ft or m Water Velocity 0.30 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 21.6 °C
Specific Conductance 0.162
Dissolved Oxygen 10.19
pH 8.17
Turbidity 17
WQ Instrument Used U-22

Water Odors
☐ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☐ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☐ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand
☐ Relict shells ☐ Other

Oils
☐ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	2 5
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	—	Muck-Mud	black, very fine organic (FPOM)	3 5
Gravel	2-64 mm (0.1"-2.5")	trace f <5			
Sand	0.06-2mm (gritty)	f,m 25	Marl	grey, shell fragments	20
Silt	0.004-0.06 mm	- 65			
Clay	< 0.004 mm (slick)	trace <5			

Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition - Form 1
Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION MRI-1	
LAT 33.56944 LONG 85.94401	NOTES Photo # 101-191	
SAMPLE# MRI-1, -1R	previous fall	
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/16/07 TIME ~~1255~~ AM (PM)	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 60 % ☑ %cloud cover ☐ clear/sunny	Water Depth 0.8 (ft) or m Water Velocity 1.5 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.4 °C **Specific Conductance** 0.166 **Dissolved Oxygen** 10.12 **pH** 8.10 **Turbidity** 6.8 **WQ Instrument Used** V-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☑ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	trace
Boulder	> 256 mm (10")	30			
Cobble	64-256 mm (2.5"-10")	35	Muck-Mud	black, very fine organic (FPOM)	trace
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	10	Marl	grey, shell fragments	5 - 10
Silt	0.004-0.06 mm	trace			
Clay	< 0.004 mm (slick)	—			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chacc. Creek	LOCATION MEAV-1	
LAT 33.56968 LONG 85.94427		
SAMPLE# MEAV-1, -1R	NOTES Photo # 101-192 previous fall	
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/16/07 TIME 1310 AM (PM)	REASON FOR SURVEY Phyto.

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 50 %☒ %cloud cover ☐ clear/sunny	Water Depth 0.6 (ft) or m Water Velocity 1.0 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☑ Rooted emergent ☐ Rooted submergent ☑ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.5 °C **Specific Conductance** 0.189 **Dissolved Oxygen** 10.17 **pH** 8.02 **Turbidity** 9 **WQ Instrument Used** V-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☑ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☑ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		-	Detritus	sticks, wood, coarse plant materials (CPOM)	35
Boulder	> 256 mm (10")	-			
Cobble	64-256 mm (2.5"-10")	Small < 5	Muck-Mud	black, very fine organic (FPOM)	35
Gravel	2-64 mm (0.1"-2.5")	f, m 50			
Sand	0.06-2mm (gritty)	f, m 40	Marl	grey, shell fragments	20
Silt	0.004-0.06 mm	trace			
Clay	< 0.004 mm (slick)	trace			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chace. Creek	LOCATION MDEP-1	
LAT 33.57059 LONG 85.94489		
SAMPLE# MDEP-1, -1R	NOTES Photo# 101-193 previous fall location	
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/16/07 TIME 1440 AM PM	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___%☐ %cloud cover ☐ clear/sunny	Water Depth 1.2 (ft) or m Water Velocity 0.06 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.8 °C **Specific Conductance** 0.166 **Dissolved Oxygen** 10.23 **pH** 8.22 **Turbidity** 11 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	20
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	—	Muck-Mud	black, very fine organic (FPOM)	35
Gravel	2-64 mm (0.1"-2.5")	trace fine <5			
Sand	0.06-2mm (gritty)	65	Marl	grey, shell fragments	25
Silt	0.004-0.06 mm	30			
Clay	< 0.004 mm (slick)	—			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chace. Creek	LOCATION MBW-2	
LAT 33.56549 LONG 85.95584	NOTES Photo 101 - 195	
SAMPLE# MBW-2, -2R		
INVESTIGATORS ABBL		
FORM COMPLETED BY JW	DATE 5/16/07 TIME 1545 AM (PM)	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 30% ☑ %cloud cover ☐ clear/sunny	Water Depth 0.4 (ft) or m Water Velocity -0.02 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 22.0 °C **Specific Conductance** 0.183 **Dissolved Oxygen** 9.87 **pH** 8.13 **Turbidity** 46 **WQ Instrument Used** V-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	20
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	—	Muck-Mud	black, very fine organic (FPOM)	35
Gravel	2-64 mm (0.1"-2.5")	f <5			
Sand	0.06-2mm (gritty)	f, m 30	Marl	grey, shell fragments	trace
Silt	0.004-0.06 mm	60			
Clay	< 0.004 mm (slick)	trace <5			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Shoal Creek	LOCATION Lower Reach – EAV #1
LAT 33.56042 LONG 86.01277	Photo – 100-0170
SAMPLE# LEAV-1 -1R	NOTES
INVESTIGATORS	
FORM COMPLETED BY JCW	DATE 5/15/07 TIME 0830 (AM) PM
REASON FOR SURVEY Bethic	

15 jab sweeps / sample

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☐ clear/sunny	Water Depth 2 ft or m Water Velocity -0.05 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 23.2 °C **Specific Conductance** 0.138 **Dissolved Oxygen** 9.57 **pH** 8.26 **Turbidity** 12 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☐ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE NA	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

NA **INORGANIC SUBSTRATE COMPONENTS** (should add up to 100%)

Substrate Type	Diameter	% Composition in Sampling Reach
Bedrock		
Boulder	> 256 mm (10")	
Cobble	64-256 mm (2.5"-10")	
Gravel	2-64 mm (0.1"-2.5")	
Sand	0.06-2mm (gritty)	
Silt	0.004-0.06 mm	
Clay	< 0.004 mm (slick)	

ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)

Substrate Type	Characteristic	% Composition in Sampling Area
Detritus	sticks, wood, coarse plant materials (CPOM)	
Muck-Mud	black, very fine organic (FPOM)	
Marl	grey, shell fragments	

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chuce. Creek	LOCATION Lower Reach - deposition #1	
LAT 33.56036 LONG 86.01204	Photo # 100-0171	
SAMPLE# LDEP-1 (-1R)	NOTES	
INVESTIGATORS Arcadis BBL		
FORM COMPLETED BY JCV	DATE 5/15/07 TIME 930 (AM) PM	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☑ clear/sunny	Water Depth 1.9 (ft) or m Water Velocity 0.20 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	Indicate the dominant type and record the dominant species present ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	Temperature 23.0 °C Specific Conductance 0.139 Dissolved Oxygen 10.18 pH 8.4 Turbidity 37 WQ Instrument Used U-22 Water Odors ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ Water Surface Oils ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other_____ Turbidity (if not measured) ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	Odors ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ Oils ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse Deposits ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	Diameter	% Composition in Sampling Reach	Substrate Type	Characteristic	% Composition in Sampling Area
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	40
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	2	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	5			
Sand	0.06-2mm (gritty)	5	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	80			
Clay	< 0.004 mm (slick)	5			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION Lower Reach - Riffle #1
LAT 33.56131 LONG 86.01262	Photo # 100 - 168
SAMPLE# LRT-1 (-1R)	NOTES
INVESTIGATORS Arcadis BBL	
FORM COMPLETED BY JCV	DATE 5/15/07 TIME 1045 (AM) PM
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS

Now
- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 1.6 (ft) or m

Water Velocity 2.79 (ft/sec) or m/sec
(within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY
(within 1 m of substrate)

Temperature 23.4 °C
Specific Conductance 0.139
Dissolved Oxygen 10.86
pH 8.34
Turbidity 12
WQ Instrument Used U-22

Water Odors
☐ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☐ None ☐ Other

Turbidity (if not measured)
☐ Clear ☐ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand
☐ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		-	Detritus	sticks, wood, coarse plant materials (CPOM)	< 5
Boulder	> 256 mm (10")	5			
Cobble	64-256 mm (2.5"-10")	30	Muck-Mud	black, very fine organic (FPOM)	< 5
Gravel	2-64 mm (0.1"-2.5")	40			
Sand	0.06-2mm (gritty)	25	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	< 5			
Clay	< 0.004 mm (slick)	-			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Clear Creek	LOCATION Lower Reach - Backwater #1
LAT 33.56074 LONG 86.0123	Photo # 101-169
SAMPLE# LDEP-1 (-1R)	NOTES
INVESTIGATORS Arcadis BBL	
FORM COMPLETED BY JCV	DATE 5/15/07 TIME 1205 AM (PM)
	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___%☐ %cloud cover ☑ clear/sunny	Water Depth 1.2 (ft) or m Water Velocity 0.14 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☑ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 24.2 °C **Specific Conductance** 0.138 **Dissolved Oxygen** 11.63 **pH** 8.58 **Turbidity** 150 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☐ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		-	Detritus	sticks, wood, coarse plant materials (CPOM)	30
Boulder	> 256 mm (10")	-			
Cobble	64-256 mm (2.5"-10")	-	Muck-Mud	black, very fine organic (FPOM)	35
Gravel	2-64 mm (0.1"-2.5")	tr < 5			
Sand	0.06-2mm (gritty)	35	Marl	grey, shell fragments	5-10
Silt	0.004-0.06 mm	55			
Clay	< 0.004 mm (slick)	< 5			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION Lower Reach - Run #1
LAT 33.56207 LONG 86.01363	Photo # 101-0166
SAMPLE# LRV-1 (-1R)	NOTES
INVESTIGATORS ABL	
FORM COMPLETED BY JCV	DATE 5/15/07 TIME ~~1330~~ AM (PM)
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- 60 % %cloud cover
- ☐ clear/sunny

INSTREAM FEATURES

Water Depth 1.1 (ft) or m

Water Velocity 1.75 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present

☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 24 °C
Specific Conductance 0.140
Dissolved Oxygen 11.14
pH 8.5
Turbidity 14
WQ Instrument Used U-22

Water Odors
☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other

Turbidity (if not measured)
☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

Oils
☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)

Substrate Type	Diameter	% Composition in Sampling Reach
Bedrock		—
Boulder	> 256 mm (10")	<5
Cobble	64-256 mm (2.5"-10")	30
Gravel	2-64 mm (0.1"-2.5")	40
Sand	0.06-2mm (gritty)	30
Silt	0.004-0.06 mm	<5
Clay	< 0.004 mm (slick)	—

ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)

Substrate Type	Characteristic	% Composition in Sampling Area
Detritus	sticks, wood, coarse plant materials (CPOM)	~
Muck-Mud	black, very fine organic (FPOM)	~
Marl	grey, shell fragments	~

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc Creek	LOCATION Lower Reach - Run #2
LAT 33.56298 LONG 86.01469	
SAMPLE# LRV-2 (2R)	NOTES Photo # 100-0177
INVESTIGATORS ABBL	
FORM COMPLETED BY JCV	DATE 5/15/07 TIME 1450 AM (PM)
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 40 % ☑ %cloud cover ☐ clear/sunny	Water Depth 0.6 (ft) or m Water Velocity 1.31 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 24.5 °C **Specific Conductance** 0.148 **Dissolved Oxygen** 11.01 **pH** 8.47 **Turbidity** 12 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☐ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	
Boulder	> 256 mm (10")	tr < 5			
Cobble	64-256 mm (2.5"-10")	sm 50	Muck-Mud	black, very fine organic (FPOM)	
Gravel	2-64 mm (0.1"-2.5")	30			
Sand	0.06-2mm (gritty)	15	Marl	grey, shell fragments	trace
Silt	0.004-0.06 mm	< 5			
Clay	< 0.004 mm (slick)	—			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Choc Creek	LOCATION Lower Reach - Depositional #2
LAT 33.56312 LONG 86.01498	NOTES Photo # 100_178
SAMPLE# LDEP-2 (-2R)	
INVESTIGATORS ABBL	
FORM COMPLETED BY JCV	DATE 5/15/07 TIME 1315 AM (PM)
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 40 % ☐ %cloud cover ☐ clear/sunny	Water Depth 0.4 (ft) or m Water Velocity 0.14 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 24.1 °C **Specific Conductance** 0.151 **Dissolved Oxygen** 10.9 **pH** 8.5 **Turbidity** 120 **WQ Instrument Used** V-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	30
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	—	Muck-Mud	black, very fine organic (FPOM)	40
Gravel	2-64 mm (0.1"-2.5")	+ < 5			
Sand	0.06-2mm (gritty)	+ 20	Marl	grey, shell fragments	5-10
Silt	0.004-0.06 mm	70			
Clay	< 0.004 mm (slick)	+ <5			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION Lower Reach - LEAV#2	
LAT 33.562279 LONG 86.01653	NOTES Photo # 100 - 179	
SAMPLE# LEAV-2 (-2R)		
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/15/07 TIME 1546 AM (PM)	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 40 % ☑ %cloud cover ☐ clear/sunny	Water Depth 1.5 ft or m Water Velocity 0.67 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 24.7 °C **Specific Conductance** 0.140 **Dissolved Oxygen** 10.87 **pH** 8.58 **Turbidity** 12 **WQ Instrument Used** V-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Oils** ☐ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%) NA			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	30
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")		Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")				
Sand	0.06-2mm (gritty)		Marl	grey, shell fragments	5
Silt	0.004-0.06 mm				
Clay	< 0.004 mm (slick)				

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION Lower Reach - Riffle #2	
LAT 33.56193 LONG 86.01693	NOTES Photo # 100-181	
SAMPLE# LRI-2 (-2R)		
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/13/07 TIME 1620 AM (PM)	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 30 % ☐ %cloud cover ☐ clear/sunny	Water Depth 1.2 (ft) or m Water Velocity 2.47 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 24.6 °C **Specific Conductance** 0.123 **Dissolved Oxygen** 11.32 **pH** 8.55 **Turbidity** 10.8 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	—
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	15	Muck-Mud	black, very fine organic (FPOM)	—
Gravel	2-64 mm (0.1"-2.5")	60			
Sand	0.06-2mm (gritty)	20	Marl	grey, shell fragments	—
Silt	0.004-0.06 mm	5			
Clay	< 0.004 mm (slick)	—			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocco Creek	LOCATION Lower Reach - Backwater #2
LAT 33.56090 LONG 86.01837	NOTES Photo # 100-182
SAMPLE# LBW-2 (-2R)	
INVESTIGATORS ABBL	
FORM COMPLETED BY JCV	DATE 5/15/07 TIME 1650 AM (PM)
	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) 20 % ☑ %cloud cover ☐ clear/sunny	Water Depth 2.1 (ft) or m Water Velocity 0.09 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 24.5 °C **Specific Conductance** 0.156 **Dissolved Oxygen** 11.57 **pH** 9.0 **Turbidity** 109 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☑ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☑ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☑ Relict shells ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	50
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	—	Muck-Mud	black, very fine organic (FPOM)	30
Gravel	2-64 mm (0.1"-2.5")	5			
Sand	0.06-2mm (gritty)	35	Marl	grey, shell fragments	5-10
Silt	0.004-0.06 mm	60			
Clay	< 0.004 mm (slick)	—			

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(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION REF1 EAV-1	
LAT 33.59811 LONG 85.77923		
SAMPLE# REF1 EAV-1, -1R	NOTES previous fall location	
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/16/07 TIME 1755 AM PM	REASON FOR SURVEY Benthic - Phyto Comm.

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) %☐ %cloud cover ☑ clear/sunny	Water Depth 1.3 (ft) or m Water Velocity 0.18 ft/sec or m/sec (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☑ Rooted emergent ☐ Rooted submergent ☑ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.1 °C **Specific Conductance** 0.107 **Dissolved Oxygen** 11.4 **pH** 8.19 **Turbidity** 15 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		-	Detritus	sticks, wood, coarse plant materials (CPOM)	45
Boulder	> 256 mm (10")	-			
Cobble	64-256 mm (2.5"-10")	-	Muck-Mud	black, very fine organic (FPOM)	35
Gravel	2-64 mm (0.1"-2.5")	15			
Sand	0.06-2mm (gritty)	45	Marl	grey, shell fragments	—
Silt	0.004-0.06 mm	35			
Clay	< 0.004 mm (slick)	trace <5			

Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition - Form 1
Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocco. Creek	LOCATION REF 1 RU-1
LAT 33.59805 LONG 85.77914	
SAMPLE# REF 1 RU-1, -1R	NOTES previous fall location
INVESTIGATORS A BBL	
FORM COMPLETED BY JCV	DATE 5/16/07 TIME 1810 AM (PM)
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS

Now

- ☐ storm (heavy rain)
- ☐ rain (steady rain)
- ☐ showers (intermittent)
- ___% ☐ %cloud cover
- ☒ clear/sunny

INSTREAM FEATURES

Water Depth 2.9 (ft) or m

Water Velocity 0.53 ft/sec or m/sec
(within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 21.8 °C
Specific Conductance 0.099
Dissolved Oxygen 11.77
pH 8.27
Turbidity 30
WQ Instrument Used U-22

Water Odors
☒ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☒ None ☐ Other

Turbidity (if not measured)
☐ Clear ☒ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☒ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand
☐ Relict shells ☐ Other

Oils
☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	10
Boulder	> 256 mm (10")	10			
Cobble	64-256 mm (2.5"-10")	< 5	Muck-Mud	black, very fine organic (FPOM)	15
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	f, m 60	Marl	grey, shell fragments	< 5
Silt	0.004-0.06 mm	< 5			
Clay	< 0.004 mm (slick)	-			

Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish, Second Edition - Form 1
Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chocc. Creek	LOCATION REF 1 RI-1
LAT 33.59645 LONG 85.77653	
SAMPLE# REF 1 RI-1, -1R	NOTES previous full location
INVESTIGATORS ABBL	
FORM COMPLETED BY JCV	DATE 5/16/07 TIME 1845 AM (PM)
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___%☐ %cloud cover ☑ clear/sunny	Water Depth 1.0 (ft) or m Water Velocity 1.45 (ft/sec) or m/sec (within 1 m of substrate)

AQUATIC VEGETATION

Indicate the dominant type and record the dominant species present
☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating
☐ Floating Algae ☐ Attached Algae

WATER QUALITY (within 1 m of substrate)

Temperature 21.7 °C
Specific Conductance 0.102
Dissolved Oxygen 11.83
pH 8.32
Turbidity 20
WQ Instrument Used V-22

Water Odors
☑ Normal/None ☐ Sewage
☐ Petroleum ☐ Chemical
☐ Fishy ☐ Other

Water Surface Oils
☐ Slick ☐ Sheen ☐ Globs ☐ Flecks
☑ None ☐ Other

Turbidity (if not measured)
☐ Clear ☑ Slightly turbid ☐ Turbid
☐ Opaque ☐ Stained ☐ Other

SEDIMENT/ SUBSTRATE

Odors
☑ Normal ☐ Sewage ☐ Petroleum
☐ Chemical ☐ Anaerobic ☐ None
☐ Other

Deposits
☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand
☐ Relict shells ☐ Other

Oils
☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	5
Boulder	> 256 mm (10")	15			
Cobble	64-256 mm (2.5"-10")	15	Muck-Mud	black, very fine organic (FPOM)	5
Gravel	2-64 mm (0.1"-2.5")	50			
Sand	0.06-2mm (gritty)	20	Marl	grey, shell fragments	trace
Silt	0.004-0.06 mm	0			
Clay	< 0.004 mm (slick)	0			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chow. Creek	LOCATION REF #1 - DEP #2	
LAT 33.59833 LONG -85.77944	NOTES Photo # 102 - 213	
SAMPLE# REF1 DEP-1, -1R		
INVESTIGATORS		
FORM COMPLETED BY JCV	DATE 5/17/07 TIME 1840 AM (PM)	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☑ clear/sunny	Water Depth 2.9 (ft) or m Water Velocity 0.02 ft/sec or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.6 °C **Specific Conductance** 0.091 **Dissolved Oxygen** 11.61 **pH** 8.42 **Turbidity** 25 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☑ Sludge ☐ Sawdust ☐ Paper fiber ☑ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	25
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	0	Muck-Mud	black, very fine organic (FPOM)	<5
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	50	Marl	grey, shell fragments	10
Silt	0.004-0.06 mm	20			
Clay	< 0.004 mm (slick)	<5			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Cheaha Creek	LOCATION Reference #2 - EAV #1	
LAT 33.50350 LONG 86.00411	NOTES Photo # 101 - 206	
SAMPLE# REF-2 EAV-1, -1R		
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/17/07 TIME 1420 AM (PM)	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☒ clear/sunny	Water Depth 1.6 (ft) or m Water Velocity 0.07 ft/sec or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☒ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.0 °C **Specific Conductance** 0.095 **Dissolved Oxygen** 14.74 **pH** 9.26 **Turbidity** 7.8 **WQ Instrument Used** U-22 **Water Odors** ☒ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☒ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☒ Relict shells ☐ Other_____ **Oils** ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		not exposed	Detritus	sticks, wood, coarse plant materials (CPOM)	35
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	35
Gravel	2-64 mm (0.1"-2.5")	45			
Sand	0.06-2mm (gritty)	50	Marl	grey, shell fragments	< 5
Silt	0.004-0.06 mm	5			
Clay	< 0.004 mm (slick)	—			

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Cleaka Creek	LOCATION Reference #2 - Run #1
LAT 33.50378 LONG 86.00445	
SAMPLE# REF-2 RU-1, -1R	NOTES Photo # 101-107
INVESTIGATORS BBL	
FORM COMPLETED BY JCV	DATE 5/17/07 TIME 1440 AM (PM)
REASON FOR SURVEY Benthic	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___%☐ %cloud cover ☑ clear/sunny	Water Depth 1.3 (ft) or m Water Velocity 0.15 ft/sec or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.2 °C **Specific Conductance** 0.095 **Dissolved Oxygen** 14.5 **pH** 9.4 **Turbidity** 8.0 **WQ Instrument Used** U-22 **Water Odors** ☐ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☐ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		20	Detritus	sticks, wood, coarse plant materials (CPOM)	5 - 10
Boulder	> 256 mm (10")	20			
Cobble	64-256 mm (2.5"-10")	30	Muck-Mud	black, very fine organic (FPOM)	5
Gravel	2-64 mm (0.1"-2.5")	20			
Sand	0.06-2mm (gritty)	10	Marl	grey, shell fragments	trace
Silt	0.004-0.06 mm	-			
Clay	< 0.004 mm (slick)	-			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Chewha Creek	LOCATION Ref #2 - Riffle #1	
LAT 33.50404 LONG 86.00479	NOTES Photo # 101 - 208	
SAMPLE# REF2-RI-1, -1R		
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/14/07 TIME 1500 AM (PM)	REASON FOR SURVEY Benthics

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___%☐ %cloud cover ☑ clear/sunny	Water Depth 1 (ft) or m Water Velocity 0.56 ft/sec or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 21.4 °C **Specific Conductance** 0.095 **Dissolved Oxygen** 14.55 **pH** 9.45 **Turbidity** 12 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____ **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		10	Detritus	sticks, wood, coarse plant materials (CPOM)	5
Boulder	> 256 mm (10")	20			
Cobble	64-256 mm (2.5"-10")	30	Muck-Mud	black, very fine organic (FPOM)	< 5
Gravel	2-64 mm (0.1"-2.5")	25			
Sand	0.06-2mm (gritty)	15	Marl	grey, shell fragments	< 5
Silt	0.004-0.06 mm	—			
Clay	< 0.004 mm (slick)	—			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Talladega Creek	LOCATION Ref #3 - DEP #1		
LAT 33.38276 LONG 86.07911	NOTES Photo # 102-2R		
SAMPLE# REF3 DEP-1, -1R			
INVESTIGATORS ABBL			
FORM COMPLETED BY JCV	DATE 5/17/07 TIME 1720 AM (PM)	REASON FOR SURVEY Benthic	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___% ☐ %cloud cover ☑ clear/sunny	Water Depth 2.6 (ft) or m Water Velocity 0.09 ft/sec or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 23.4 °C **Specific Conductance** 0.029 **Dissolved Oxygen** 10.69 **pH** 8.18 **Turbidity** 12 **WQ Instrument Used** U-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☐ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☑ Sand ☑ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		0	Detritus	sticks, wood, coarse plant materials (CPOM)	10
Boulder	> 256 mm (10")	0			
Cobble	64-256 mm (2.5"-10")	< 5	Muck-Mud	black, very fine organic (FPOM)	10
Gravel	2-64 mm (0.1"-2.5")	10			
Sand	0.06-2mm (gritty)	60	Marl	grey, shell fragments	< 5
Silt	0.004-0.06 mm	~			
Clay	< 0.004 mm (slick)	~			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Talladega Creek	LOCATION Reference #3 - EAV #1	
LAT 33.38356 LONG 86.07920		
SAMPLE# REF 3 - EAV-1, -1R	NOTES Photo # 101 - 209	
INVESTIGATORS ABBL		
FORM COMPLETED BY JW	DATE 5/17/07 TIME 1610 AM (PM)	REASON FOR SURVEY Ben Phyto.

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___%☐ %cloud cover ☐ clear/sunny	Water Depth 1 (ft) or m Water Velocity 0.10 ft/sec or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 23.6 °C **Specific Conductance** 0.029 **Dissolved Oxygen** 10.9 **pH** 8.69 **Turbidity** 4.9 **WQ Instrument Used** U-22 **Water Odors** ☐ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☐ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☐ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____ **Oils** ☐ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	5 - 10
Boulder	> 256 mm (10")	< 5			
Cobble	64-256 mm (2.5"-10")	5	Muck-Mud	black, very fine organic (FPOM)	< 5
Gravel	2-64 mm (0.1"-2.5")	55			
Sand	0.06-2mm (gritty)	25	Marl	grey, shell fragments	< 5
Silt	0.004-0.06 mm	10			
Clay	< 0.004 mm (slick)	< 5			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Talladega	LOCATION Ref 3 - BW #1	
LAT 33.38387 LONG 86.07948		
SAMPLE# REF3 BW-1, -1R	NOTES Photo # 101-110	
INVESTIGATORS ABBL		
FORM COMPLETED BY JCV	DATE 5/17/07 TIME 1630 AM (PM)	REASON FOR SURVEY Benthic

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) %☐ %cloud cover ☐ clear/sunny	Water Depth 1.4 (ft) or m Water Velocity 0.04 ft/sec or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 25.9 °C **Specific Conductance** 0.029 **Dissolved Oxygen** 10.98 **pH** 8.77 **Turbidity** 9.2 **WQ Instrument Used** V-22 **Water Odors** ☐ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☐ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☐ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Deposits** ☑ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____ **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	5 - 10
Boulder	> 256 mm (10")	—			
Cobble	64-256 mm (2.5"-10")	10	Muck-Mud	black, very fine organic (FPOM)	5
Gravel	2-64 mm (0.1"-2.5")	35			
Sand	0.06-2mm (gritty)	45	Marl	grey, shell fragments	< 5
Silt	0.004-0.06 mm	10			
Clay	< 0.004 mm (slick)	< 5			

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Appendix A-1: Habitat Assessment and Physicochemical Characterization Field Data Sheets

(Form modified by BBL, Inc. 7/11/02)

PHYSICAL CHARACTERIZATION/WATER QUALITY FIELD DATA SHEET

STREAM NAME Talladega Creek	LOCATION Ref #3 - Run #1		
LAT 33.38385 LONG 86.07888	NOTES Photo # 101-211		
SAMPLE# REF3 RV-1, -1R			
INVESTIGATORS ABBL			
FORM COMPLETED BY JCV	DATE 5/1/07 TIME 1650 AM (PM)	REASON FOR SURVEY Benthic	

WEATHER CONDITIONS	Now	INSTREAM FEATURES
	☐ storm (heavy rain) ☐ rain (steady rain) ☐ showers (intermittent) ___%☐ %cloud cover ☑ clear/sunny	Water Depth 1.5 ft or m Water Velocity 0.17 ft/sec or (m/sec) (within 1 m of substrate)

AQUATIC VEGETATION	**Indicate the dominant type and record the dominant species present** ☐ Rooted emergent ☐ Rooted submergent ☐ Rooted floating ☐ Free floating ☐ Floating Algae ☐ Attached Algae
WATER QUALITY (within 1 m of substrate)	**Temperature** 23.6 °C **Specific Conductance** 0.029 **Dissolved Oxygen** 10.56 **pH** 8.71 **Turbidity** 43 **WQ Instrument Used** V-22 **Water Odors** ☑ Normal/None ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Fishy ☐ Other_____ **Water Surface Oils** ☐ Slick ☐ Sheen ☐ Globs ☐ Flecks ☑ None ☐ Other_____ **Turbidity (if not measured)** ☐ Clear ☑ Slightly turbid ☐ Turbid ☐ Opaque ☐ Stained ☐ Other_____
SEDIMENT/ SUBSTRATE	**Odors** ☑ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ None ☐ Other_____ **Oils** ☑ Absent ☐ Slight ☐ Moderate ☐ Profuse **Deposits** ☐ Sludge ☐ Sawdust ☐ Paper fiber ☐ Sand ☐ Relict shells ☐ Other_____

INORGANIC SUBSTRATE COMPONENTS (should add up to 100%)			ORGANIC SUBSTRATE COMPONENTS (does not necessarily add up to 100%)		
Substrate Type	**Diameter**	**% Composition in Sampling Reach**	**Substrate Type**	**Characteristic**	**% Composition in Sampling Area**
Bedrock		—	Detritus	sticks, wood, coarse plant materials (CPOM)	5-10
Boulder	> 256 mm (10")	15			
Cobble	64-256 mm (2.5"-10")	20	Muck-Mud	black, very fine organic (FPOM)	< 5
Gravel	2-64 mm (0.1"-2.5")	50			
Sand	0.06-2mm (gritty)	15	Marl	grey, shell fragments	5
Silt	0.004-0.06 mm	tr < 5			
Clay	< 0.004 mm (slick)	tr < 5			

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