



## United States Department of the Interior

U.S. Fish and Wildlife Service  
Alabama Field Office – Birmingham Suboffice  
800 Lakeshore Drive, 229 Propst Hall  
Birmingham, AL 35229-2234



### **Project Description: Sediment and Soil Supplemental Sampling Program for the Anniston PCB Site, Anniston, Alabama**

#### 1.0 Introduction

The State of Alabama, acting through the Department of Conservation and Natural Resources (ADCNR) and the Geological Survey of Alabama (GSA), and the Secretary of the Interior, as represented by the Regional Director of the Southeast Region of the U.S. Fish and Wildlife Service (USFWS; collectively referred to as the Natural Resources Trustees or Trustees), are in the process of assessing injuries to, loss of, or destruction of natural resources from releases of hazardous substances from the Anniston Polychlorinated Biphenyl (PCB) Site, which is located in the north-eastern portion of Alabama in the vicinity of the municipality of Anniston in Calhoun County (Figure 1). Sometimes the Anniston PCB Site is also referred to in this document as the Site Assessment Area. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9601 et. seq., (CERCLA) and the Clean Water Act, 33 U.S.C. §§ 1251-1376 (Federal Water Pollution Control Act or CWA), provide authority to the Trustees to seek damages for injuries to natural resources within their trusteeship [42 U.S.C. §§ 9607(a) and (f); 33 U.S.C. § 1321]. Trustees must use recovered funds to restore, replace, rehabilitate, or acquire the equivalent of, the injured natural resources, or may elect to allow the responsible parties to directly implement restoration activities under Trustee oversight.

Environmental concerns in the area have focused primarily on the release of PCBs and other hazardous substances from the Monsanto Company's Anniston facility (Facility) between 1935 and the early 1970's. PCBs were released from the Facility during production in the form of wastewater discharges, leakage from Facility landfills, equipment washing runoff, accidental spills, atmospheric releases, storm water runoff, and miscellaneous releases from operational components. The total mass of PCBs released to the environment over the 35 years that PCBs were produced at the Facility is uncertain. However, based on Facility records, more than 45 tons of PCBs may have been discharged in process wastewater alone during a single year of production. Storm water monitoring data indicate that the release of PCBs from the Facility continued through 2001. Based on the available data, environmental media from the Facility to at least Logan Martin Dam (i.e., Snow Creek, Choccolocco Creek, Coosa River, and associated floodplains) have been contaminated by PCBs and/or other contaminants, posing potential risks to ecological receptors.

#### 2.0 Project Description

As part of the Remedial Investigation/Feasibility Study being conducted by the United States Environmental Protection Agency (USEPA), Solutia, Inc. (Solutia; a subsidiary of Eastman Chemical Company) and Pharmacia Corporation (Pharmacia, formerly known as Monsanto



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Company), Solutia/Pharmacia has conducted sampling to evaluate the concentrations of site-related chemicals of potential concern (COPCs) in sediments and floodplain soils. USFWS has acquired and reviewed all of the available sediment chemistry and floodplain soil chemistry data that have been generated under the Remedial Investigation. The results of this review indicate that the available data provide useful information on the nature and extent of contamination within the Snow Creek/Choccolocco Creek portion of the Site Assessment Area. However, the sampling programs may have missed hot spots relative to sediment and/or floodplain soil contamination, particularly in backwater areas, side channels, and oxbows where contaminated sediments may have been deposited. Little to no sampling of the areas located in Lake Logan Martin and the Coosa River has been conducted under the Remedial Investigation. For this reason, the Trustees have designed a sediment and floodplain soil sampling program to supplement existing information and better understand the nature and extent of contamination throughout the Site Assessment Area.

Acquisition of supplemental data on the distribution of PCBs in floodplain soils and sediments is needed to evaluate injuries to trust resources and to further characterize the spatial extent of contamination in the vicinity of the Site. USFWS staff have collected preliminary data that demonstrate that PCBs have come to be located throughout portions of the Coosa River (as far downstream as Lay Lake) and that at least a portion of these PCBs likely originated from the Facility.

The Sediment and Floodplain Soil Supplemental Sampling Program will be conducted jointly by USFWS, GSA, and U.S. Army Corps of Engineers. The sampling program was designed to improve upon existing information relative to contamination of sediments and floodplain soils by PCBs and other COPCs in the Site Assessment Area. More specifically, the sampling program was designed using data and information on:

- The locations that have been sampled by Solutia/Pharmacia;
- The concentrations of PCBs that have been measured in soils and sediments within Snow and Choccolocco Creeks and associated floodplains;
- The current and historical drainage patterns of Choccolocco Creek;
- The elevation of land forms within the Site Assessment Area;
- The timing of dam construction and breaching activities in the Coosa River watershed; and,
- Other relevant information.

This information was integrated to identify un-sampled or minimally sampled areas within the Site Assessment Area. Within each of the areas to be sampled, a large number of small-volume sediment or soil samples will be collected and submitted for analysis of grain size, percent



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moisture, total organic carbon, Target Analyte List (TAL) metals, and total PCBs (Aroclors). In addition, a sub-set of these samples will be analyzed for methylmercury, PCB congeners, and polychlorinated dibenzo-p-dioxins/polychlorinated dibenzofurans (PCDDs/PCDFs). Aliquots of each sample will be archived to facilitate possible future analysis for a broader suite of analytes.

The results of chemical analyses of these samples will be used to evaluate the distribution of PCBs within the Site Assessment Area and, potentially, to support the design of sampling programs in subsequent years to better characterize contaminant distributions and potential effects on trust resources. In addition, these results may be used to determine if relationships between total PCB concentrations and the levels of other COPCs can be established for sediments and/or soils. In this way, it may be possible to estimate wildlife exposure to other COPCs at locations where only total PCB data are available.

### 3.0 Project Schedule

This project will be initiated in 2013 and will be completed by 2015.

### 4.0 Budget

The budget for this project is \$275,000.