

Application of Watershed Science for Aquatic Species Recovery and Restoration through the Strategic Habitat Unit Initiative

The U.S Fish and Wildlife Service (USFWS) in cooperation with the Alabama Aquatic Biodiversity Center (AABC) of the Wildlife and Freshwater Fisheries Division (WFF) of the Alabama Department of Conservation and Natural Resources (ADCNR), the Geological Survey of Alabama (GSA), and the Alabama Clean Water Partnership (ACWP) has recently initiated efforts to provide strategic management opportunities for imperiled species in the Mobile River Basin. Through the establishment of Strategic Habitat Units (SHUs) the partners hope to recover and restore imperiled aquatic species. One part of the SHU initiative is the development of SHU-specific watershed information. For imperiled species management and recovery to proceed systematically and with some reasonable expectation of success, watersheds must be understood from a biological, water quality, and land use perspective. The GSA has for many years conducted such watershed-based investigations resulting in data and information that can be used to guide in the selection of projects to improve habitat and water quality conditions. Current SHU-related investigations are focusing on the North River, Big Canoe Creek, Terrapin Creek and Sipsey River (Tombigbee system) watersheds. The end products of these investigations will be a current biological assessment of each watershed using the fish community Index of Biological Integrity method, current assessment of mussel population status, historic and current land cover/land use analysis, compilation of historical and current water-quality information, habitat analyses at selected locations, and collection of primary water quality data as needed. These data will then be synthesized into interpretive posters, reports, and presentations to be used for SHU action plan development.

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