

Overview of the National Wadeable Streams Assessment Program (WSA)

Susan Holdsworth¹, Steve Paulsen², Laura Gabanski¹, and Michael T. Barbour³

¹U.S. Environmental Protection Agency, Office of Wetlands, Oceans, and Watersheds, Washington, DC

²U.S. Environmental Protection Agency, Office of Research and Development, Corvallis, OR

³Tetra Tech, Inc., Owings Mills, MD

Abstract

Recent critiques of water monitoring programs have claimed that EPA and states cannot make statistically valid inferences about water quality and ecological condition, and lack data to support management decisions regarding the Nation's aquatic resources. These critiques have stemmed from reviews of the General Accounting Office (2000), the National Research Council (2001), the National Academy of Public Administration (2002), the Heinz Center Report (2002), and most recently, the draft Report on the Environment (2003). The primary reasons for this inability to produce adequate reporting of ecological condition are (1) the targeted monitoring designs used by water quality agencies, which are not conducive to extrapolation to comprehensive coverage, and (2) the question of comparability of the ecological data gathering tools, which, to date, have precluded aggregating data and/or assessments for regional and national scales.

WSA will maximize partnerships among EPA, states and tribes, and other agencies to use the best combination of monitoring tools and strategies to answer key environmental questions at national, and regional scales, and to establish a framework to address issues at state and local scales. The basic framework of WSA is to build upon previous large-scale programs, such as EMAP and NAWQA, and to benefit from existing state agency expertise and knowledge of aquatic resources. Randomly generated sampling locations stratified by ecoregion (Level II) and EPA region will enable reporting at regional scales. Standard Operating Procedures (SOPs) and a strict Quality Assurance Program will be used to ensure the highest data integrity for the assessment. The data collection from 600 stream sites in the western US (EPA Regions 8-10) over a two year period (2001 and 2002) will be complemented by a scheduled sampling of 500 stream sites in 2004 throughout EPA Regions 1-7.