## Level III and IV Ecoregions of EPA Region 3

Ecoregions denote areas of general similarity in ecosystems and in the type, quality, and quantity of environmental resources; they are designed to serve as a spatial framework for the research, assessment, management, and monitoring of ecosystems and ecosystem components. Ecoregions are directly applicable to the immediate needs of state agencies, including the development of biological criteria and water quality standards and the establishment of management goals for nonpoint-source pollution. They are also relevant to integrated ecosystem management, an ultimate goal of most federal and state resource management agencies.

The approach used to compile this map is based on the premise that ecological regions can be identified through the analysis of the spatial patterns and the composition of biotic and abiotic phenomena that affect or reflect differences in ecosystem quality and integrity (Wiken 1986; Omernik 1987, 1995). These phenomena include geology, physiography, vegetation, climate, soils, land use, wildlife, and hydrology. The relative importance of each characteristic varies from one ecological region to another regardless of the hierarchical level. A Roman numeral hierarchical scheme has been adopted for different levels of ecological regions. Level I is the coarsest level, dividing North America into 15 ecological regions. Level II divides the continent into 52 regions (Commission for Environmental Cooperation Working Group 1997). At level III, the continental United States contains 104 regions (United States Environmental Protection Agency [USEPA],1998). Level IV is a further subdivision of level III ecoregions. Explanations of the methods used to define the USEPA's ecoregions are given in Omernik (1995), Griffith and others (1994), and Gallant and others (1989).

The level III and IV ecoregion map on this map was compiled at a scale of 1:250,000 and depicts revisions. It revises and subdivides earlier level III ecoregions that were compiled at a smaller scale (USEPA 1998; Omernik 1987). It includes previously published level IV ecoregions (Woods and Omernik, 1996; Woods and others, 1996). It expands level IV coverage to include, for the first time, western West Virginia and the Coastal Plain and Piedmont of Delaware, Maryland, and Virginia. Compilation of this map was part of a collaborative project with the United States Environmental Protection Agency (EPA) Region III Environmental Services Division, the EPA National Health and Environmental Effects Research Laboratory (NHEERL), and state environmental resource management agencies from Pennsylvania, Virginia, Maryland, and West Virginia.

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