## PRELIMINARY RESULTS FOR AQUATIC SYSTEMS*

Our initial approach to identifying aquatic communities as conservation targets in the Central Appalachian Forest ecoregion was to conduct expert interviews to identify "no regrets" aquatic communities. After determining that this approach was not feasible, we attempted a coarse scale target identification process (Moyle et al. 1999). Using this methodology 8-digit HUCs[1] were analyzed for relative quality based on land cover, number of dams, point source discharges and other variables assessing degree of hydrologic alteration. This coarse scale target identification process did not adequately separate subwatersheds of high quality from those of lesser quality. Ultimately, we used our matrix community sites and sites where we had known aquatic rarities as surrogates for aquatic community targets. Twenty-nine of our target elements were classified as aquatic.

Fourteen out of 28 of the matrix forest sites in the portfolio contained 82 selected Element Occurrences for aquatic elements. Forty-seven of the standard sites outside matrix forest contained 72 selected Element Occurrences for aquatic elements. Of the approximately 55,000 miles of stream in the Central Appalachian Forest ecoregion, 4,286 miles of stream are contained within matrix block sites. 152 lakes and reservoirs totaling 4949 acres are also contained within matrix forest occurrences in the portfolio. Although these statistics cannot be used to assess our progress in meeting goals for aquatic elements, they do indicate that the portfolio already captures some portion of the aquatic diversity of the ecoregion.

*Editors' Note*: Freshwater aquatic analysis for the Central Appalachian Forest ecoregion was in process at the time of this publication. It is combined with the analysis of Southern Lower New England and was scheduled to be complete by June 2004.

* Anderson, M.G. and S.L. Bernstein (editors). 2003. Preliminary results for aquatic systems. Based on Thorne, J. et al. 2001. Central Appalachian Forest Ecoregional Plan; First Iteration. The Nature Conservancy, Conservation Science Support, Northeast & Caribbean Division, Boston, MA.

[1] The US Environmental Protection Agency's Hydrologic Unit Classification (HUC) that identifies large watersheds