

## NATIONAL ECOLOGICAL MAPPING FRAMEWORKS

Ecological regions are groupings of ecosystems that display similar patterns in the type, quality and quantity of environmental resources. Ecoregions are identified and mapped through a classification process that captures ecosystem homogeneity at specific scales. Ecoregions provide a spatial framework for : (1) the development of integrated ecosystem management strategies; (2) the development of environmental criteria and standards; (3) resource inventory and assessment; (4) ecosystem research.

At the national level, there are three widely recognized and commonly used terrestrial ecoregion type systems, each using a different conceptual approach and mapping protocol. The Natural Resources and Conservation Service's (NRCS) Major Land Resource Areas (MLRAs) focus on agricultural potential and soils capabilities. The MLRA classification system provides a spatial framework for addressing national and regional agricultural issues, extrapolating research results and delivering conservation programs. The United States Forest Service's (USFS) National Hierarchical Framework of Ecological Units is based on Robert Bailey's ecological classification system and has established a spatial framework for ecologically driven resource management, inventory and assessment. The United States Environmental Protection Agency's (USEPA) Ecoregions Mapping Program utilizes James Omernik's ecological classification system and stresses the applicability of the framework to the development of biological criteria for water quality standards and the establishment of management goals for non-point source pollution.

Recognizing the advantages a common and nationally consistent ecoregion framework has to offer over competing independent systems, a number of interagency efforts have gotten underway over the past seven years to promote the integration of the three federal natural resource frameworks. These efforts include a 1996 Memorandum of Understanding signed by nine federal agencies, committing each to work toward a better understanding of the strengths and weaknesses of the current frameworks; the development of a common interagency framework; and the creation of a map of common ecological regions for the conterminous United States. A National Interagency Technical Team (NITT) has been formed to coordinate these federal activities.

Against this backdrop, Missouri has taken several important steps toward a common framework and a common set of ecological regions. Final drafts of the USEPA's Ecoregions of Missouri and USDA's revised Major Land Resource Areas strongly complement the state's effort, through the Missouri Ecological Classification System Project, to attain commonality and consistency in an ecological framework.