

An ArcView Tool for Identifying and Analyzing Forest Conservation Opportunity Areas

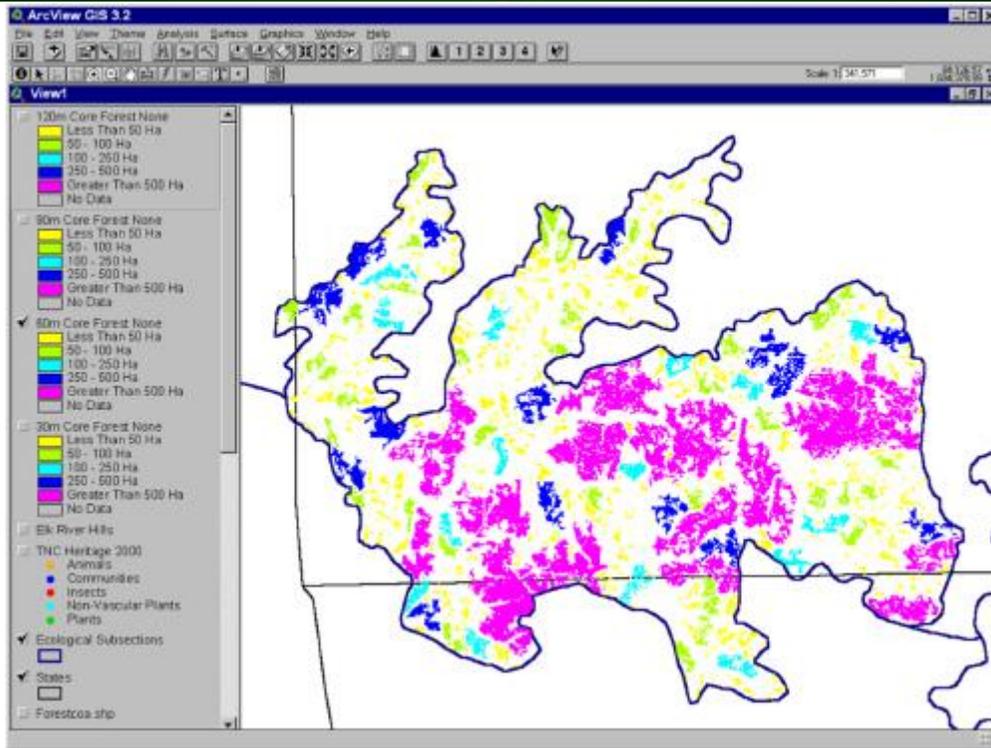
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The Missouri Resource Assessment Partnership (MoRAP) is developing an automated ArcView tool that allows novice users to identify forest or grassland conservation opportunity areas in a flexible way. Once opportunity areas (OAs) are selected, the tool allows the user to automatically intersect other data layers in order to analyze how well the OAs capture important aspects of the landscape. For example, if the user has an enduring features data layer, then he or she could determine how much of each enduring feature is within a given ecological subsection versus within the opportunity areas for that subsection. The pilot provides for analysis of the Ozark Highlands.

The National Land Cover Database (NLCD) provides the base for identifying core areas in a flexible way (core areas can be defined as forest or grassland a given distance – 30, 60, 90, 120 meters - from any edge). The Census Bureau's TIGER roads file is buffered and intersected with the core land cover to define opportunity areas. The user may select one of several different options for buffering roads. The user can then intersect other data layers available (e.g. enduring features, rare species locations) with the identified OAs.

Hence, the tool will help a user identify forest or grassland opportunity areas in a flexible way, and provide a way to analyze how well the OAs capture significant elements of biological diversity. We are designing this tool for use on an ecological subsection-by-subsection basis. However, ArcView has limitations with regard to analytical capability, and thus we anticipate that the tool will not work well for very large areas. We are working to define ecoregions such that they are small enough to avoid these types of problems.



Core Forest (above) and Core Forest Away from Roads (below). Note reduction in large forest patches in pink.

