



# MDC Resource Science

## Ecological Sites: A Useful Tool for Land Management

Science Notes



# Ecological Sites: A Useful Tool for Land Management

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## BACKGROUND INFORMATION

Ecological sites are part of a Natural Resources Conservation Service (NRCS) land classification that is based on biotic factors, such as plant species and communities, and abiotic factors (e.g., climate). These factors produce ecological sites with distinctive physical and vegetative characteristics that influence the land's ability to produce vegetation and respond to disturbance.

The Missouri Department of Conservation (MDC) is a member of a multi-agency, multi-discipline partnership designed to develop

robust, useful ecological sites for the state of Missouri. The Missouri approach and partnership has recently served as a model for ecological site work across the rest of the country and has been proposed for adoption as for an initiative to accelerate the development of "Provisional"

## Ecological Site

Descriptions (ESDs) nationwide in five years. Missouri is now situated to quickly and precisely cover the entire state with provisional ecological site concepts and to accelerate those drafts into completed, approved documents. Ecological site data and documents are already being used by MDC in addition to NRCS in Missouri.

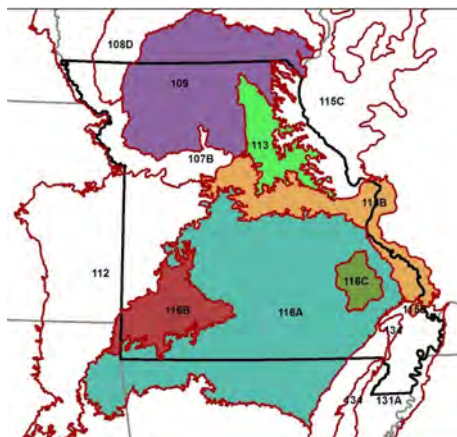


Figure 1. Major Land Resource Areas (MLRAs) in Missouri, colored areas showing Missouri-owned



Figure 2. The Ecological Sites of Missouri.

management at a variety of scales, from eco-region to landscape, and from field to farm. For instance, the

## EFFORTS

Although still in the "provisional" stage of development, the Missouri ESDs contain sufficient information for use in conservation planning and land management. Ecological sites can help drive resource planning and

proposed management of the land must match the ESD when enrolling in federal cost-share programs, for example, a prairie ESD cannot qualify to be managed as a forest. This ensures that the land in question can support the proposed use of the land, such as woodland, forest or prairie. Ecological site information is available through NRCS websites.

Additionally, MDC has created internal products available to land managers.

## MANAGEMENT IMPLICATIONS

-ESDs positively influence development of sound management goals and objectives for conservation areas and private land thereby allowing land managers and property owners to make optimal land use decisions based

on the type of vegetation that the site best produces, such as forest, woodland, or grassland.

-Online tools are available to inform land management planning, including mandated use in federal cost-share programs for MDC Private Land Services.

-Overview of ecological site project: <http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/technical/ecoscience/desc/>

-Web Soil Survey: <http://websoilsurvey.nrcs.usda.gov>

-Field Office Technical Guide: <http://efotg.sc.egov.usda.gov>

-Ecological data including full species lists, associated foliar cover, productivity estimates, wildlife, forestry, and hydrological interpretations are available for land managers to access when creating management plans in order to recommend vegetation that will be well supported by the ecological site.

-The use of ESDs improves inter-agency cooperation by providing common language for partner agencies to apply management across the landscape.

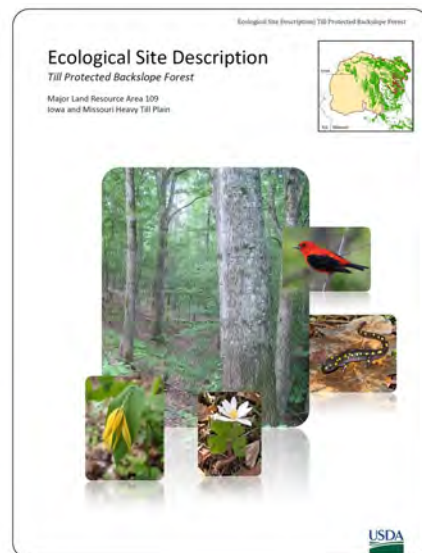


Figure 3. Example Ecological Site Description, the write-up associated with each Ecological Site.

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