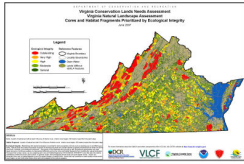


SYNOPSIS OF THE VIRGINIA CONSERVATION LANDS NEEDS ASSESSMENT

The VCLNA is a flexible, widely applicable tool for integrating and coordinating the needs and strategies of different conservation interests, using GIS (Geographic Information System) to model and map land conservation priorities and actions in Virginia. The VCLNA consists of seven complex models:

ECOLOGICAL MODEL



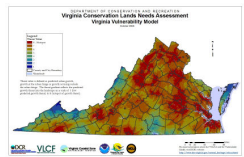
The **Ecological Model** is a collection of models and products including the Virginia Natural Landscape Assessment (VaNLA), DGIF's Wildlife Action Plan, and a biodiversity assessment using species and natural community information from DCR's Natural Heritage Program. The VaNLA is a landscape-scale GIS analysis for identifying, prioritizing, and linking natural habitats in Virginia. It identifies and connects the most important natural, unfragmented lands based on considerations of biological and ecological value and integrity.

CULTURAL ASSET MODEL



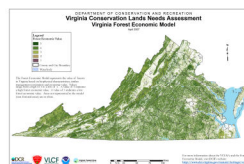
The **Virginia Cultural Asset Model** is a statewide model showing the cultural value of lands in Virginia. The Division of Natural Heritage worked closely with the Virginia Department of Historic Resources to identify and prioritize important cultural assets in Virginia, including archaeological and architectural sites, and American Indian Areas.

VULNERABILITY MODEL



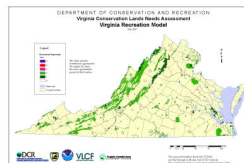
The **Virginia Vulnerability Model** (or growth prediction model) are four statewide and one composite model showing predicted growth patterns across the landscape. The model uses GIS and statistical methods to analyze housing allocation, lot size estimation, growth hotspot, residential land conversion hotspots and travel time proximity in an effort to model urban, suburban (urban fringe) and rural (outside the urban fringe) growth patterns.

FOREST ECONOMICS MODEL



The **Forest Economics Model** is a GIS effort to map viable forestland with economic value. The Division worked closely with the Virginia Department of Forestry to analyze biophysical parameters, management constraints and socioeconomic influences.

RECREATION MODEL



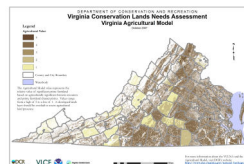
The **Virginia Recreation Model** is a GIS effort to map the value of lands as they contribute to recreational opportunity. The Division worked closely with the Virginia Department of Game and Inland Fisheries as well as DCR's Division of Planning and Recreation and numerous collaborators and data contributors to analyze a variety of recreational datasets (including but not limited to hunting, fishing, wildlife watching, parks, trails, population density influences and public access) in an effort to model recreational value across the landscape.

WATERSHED INTEGRITY MODEL



The **Virginia Watershed Integrity Model** is a GIS effort to map the relative value of land as it contributes to water quality and watershed integrity. The Division worked closely with the Virginia Department of Forestry and Virginia Commonwealth University Center for Environmental Studies to analyze a variety of parameters focused on identifying important terrestrial features that contribute to water resources, and, therefore watershed integrity.

AGRICULTURAL MODEL



The **Virginia Agricultural Model** is a GIS effort to map important agricultural lands in Virginia, developed in cooperation with the Department of Agriculture and Consumer Services and the Virginia Department of Historic Resources. This model analyzed parameters such as soils, slope, land use and historic farms.