Master Planning Council (MPC)

MEETING NOTES - October 13, 2006

Office of the Architect for the University

Summary: University of Virginia Biodiversity Analysis

Meeting Agenda

- Report on the University of Virginia Biodiversity Analysis – Presented by Rickie White and Jessica Dyson, NatureServe

Report on the University of Virginia Biodiversity Analysis

Rickie White and Jessica Dyson, NatureServe

About NatureServe

NatureServe is a non-profit conservation organization that provides the scientific information and tools needed to help guide effective conservation action. NatureServe and its network of natural heritage programs are the leading source for information about rare and endangered species and threatened ecosystems.

NatureServe carries on a legacy of conservation work that began when The Nature Conservancy helped to establish the first state natural heritage program in 1974. Over the next two decades The Nature Conservancy and a collection of public and private partners built a network of natural heritage programs in the United States to collect and manage data about the status and distribution of species and ecosystems of conservation concern. In 2001, The Nature Conservancy transferred this role to NatureServe, along with professional staff, databases, and responsibility for the scientific standards and procedures under which the network operates. NatureServe is headquartered in Arlington, Virginia, with regional offices in four U.S. locations and in Canada.

University of Virginia Analysis

To assist with the Grounds master planning process, NatureServe has assembled existing and collected new information to create a comprehensive biodiversity analysis of University and Foundation lands. Biodiversity inventory and analyses address conflicts with regulated species and habitats, maintain the natural heritage of the University and Commonwealth, and enhance the environmental health and quality of life for the University community and the region.

Project Deliverables

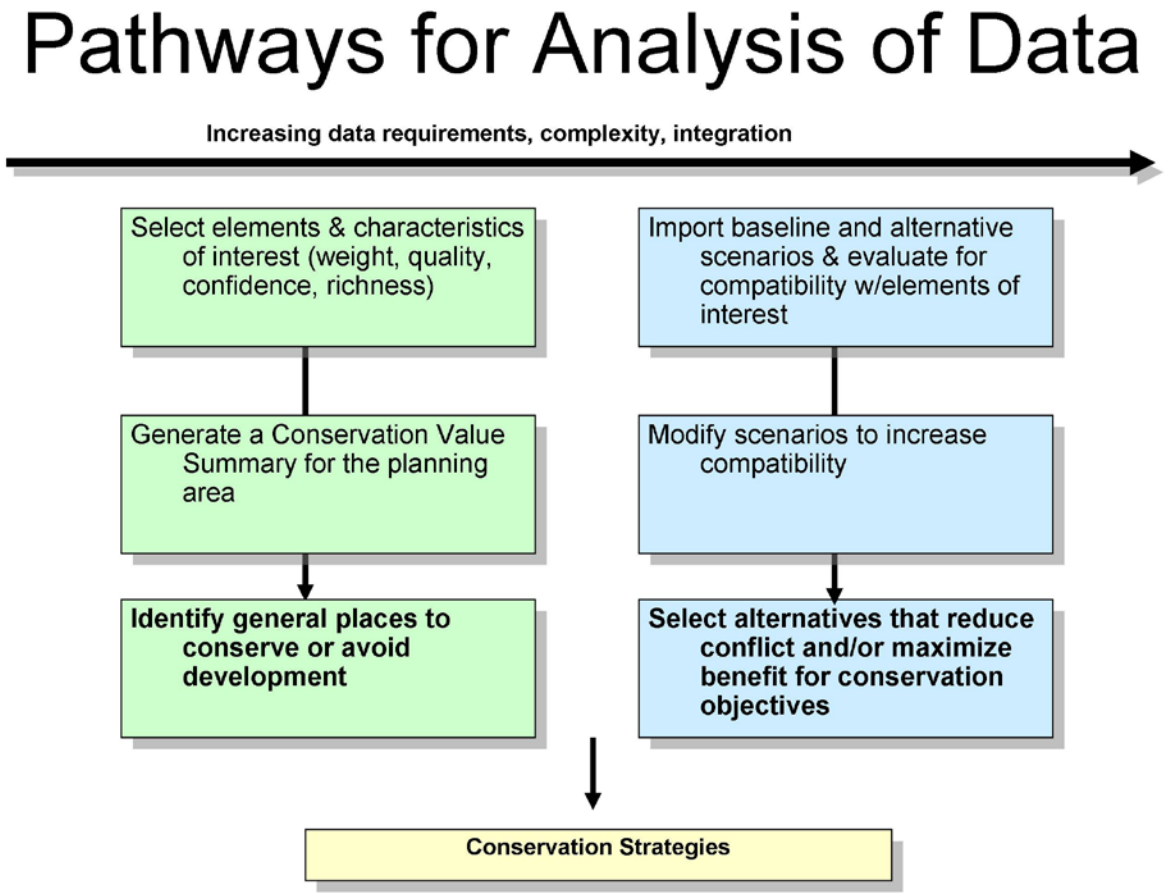
The deliverables for this project consist of a project report, *University of Virginia Biodiversity Analysis: Data Acquisition and Development, Analysis, and Conservation Assessment*, and a GIS based tool, NatureServe VISTA.

NatureServe VISTA is a software extension to ESRI's ArcGIS industry standard GIS software. UVa's VISTA project inputs data from Virginia's Natural

Heritage program as well as data gathered from other state agencies, University faculty, and data collected by the consultant team during the analysis. Data collection by the consultant team included a stream habitat survey by the Williamsburg Environmental Group and fresh-water mussel survey conducted by the Virginia Natural Heritage program. NatureServe also produced a Landscape Integrity Layer using land cover data supplied by UVa.

Data Analysis

The VISTA tool offers two pathways for analysis of data to guide Land Use Planning decisions. The first creates a Conservation Value Summary (CVS) by which the conservation value of individual targets can be combined to produce an overall summary or index of conservation value across the landscape according to user-defined values. The CVS creates an overlay of Grounds and UVa. property that identifies areas that are important for the conservation of the elements (species, habitat, or another conservation goal). The second pathway of analysis allows land use development alternatives to be compared against conservation goals set by the University.



The most valuable product for this project is the VISTA tool itself. Natureserve's goal is to make it easy for partners to become proficient enough in this tool that they need minimal support from our organization to incorporate biodiversity into planning decisions. As opposed to a static report, the VISTA tool can continue to accept new data and reprocess this data to improve the quality of the conservation analyses.