



USDA-CSREES 2005 National Water Quality Conference

Implementation of Land Conservation at the Parcel Level

Abstract:

Situation:

Land preservation has become increasingly important to conservation groups as natural landscapes, agriculture, and rural characteristics become lost to subdivision and development. In West Virginia, the eastern panhandle counties have experienced much land use change in the past ten years.

Objectives:

To be effective with preservation activities, conservation groups must target high priority lands by focusing on the integration of sound scientific criteria with support from local residents and land owners. The need existed to incorporate objectives, spatial data, and preferences from many people in a systematic and documentable approach to justify preservation activities.

Methods:

The method or framework we applied was designed to extend regional-level conservation planning efforts to the individual parcel level. Parcel-level evaluation was based on four characteristics: (1) multifunctional characteristics of parcels (parcels that serve multiple land preservation goals or objectives) (2) aggregating landscape-level measures of high conservation potential or priority to the parcel level, (3) identifying the best parcels for easement purchases within a limited budget, and (4) calculating a budget for comprehensive protection of contiguous parcels within key high priority areas.

Partnerships:

We partnered with a local land trust (Cacapon Land Trust), a non for profit organization (The Canaan Valley Institute), and State and Federal Agencies such as the WV Division of Natural Resources, and the National Park Service.

Resources:

One of the main resources we had available was a group of stakeholders who were willing to contribute their local knowledge and sense of "place" to help in prioritizing areas for conservation.

Integration of Research, Teaching, and Extension:

Throughout the study, Geographic Information Systems (GIS), spatial analysis techniques, and compromise programming are used as tools to aid in examining the previously listed characteristics.

Results:

Results included identification of particular parcels that provide the greatest impact per dollar invested, and calculation of total investment required to preserve large contiguous areas of high conservation potential. This study has general implications for land trusts and other conservation groups as they target efforts towards land preservation.

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