

Assessing Cultural Landscapes

Delaware Water Gap National Recreation Area (NRA), in partnership with the National Park Service's Philadelphia Support Office and Iowa State University, is completing a cultural landscapes inventory to evaluate the historic significance and integrity of its 70,000-acre rural landscape. The park's surviving structures, villages, circulation networks, field and forest patterns, topographic and geologic features, and archeological features lay witness to thousands of years of cultural landscape history. A 1996 historic resources study identified agriculture, industry, community planning, and transportation as primary areas of historic significance and considered surviving landscape patterns as dominant features. While much information has been collected about the park's structures, this is the first comprehensive inventory of its cultural landscape.

In the summer of 1995, Delaware Water Gap NRA was selected as a test park for the then developing National Park Service Cultural Landscapes Inventory (CLI). The CLI, which today is the official inventory of National Park Service-managed historic landscapes, is an evaluated inventory containing information on the location, size, historical development, significance, and management of cultural landscapes throughout the National Park System. The CLI framework contains a hierarchy for looking at the landscape as a whole and also subdividing into smaller, more identifiable, components and features. The inventory is completed in three progressively more detailed levels from Level 0 through Level 2. The CLI findings are then input into a database called CLAIMS (Cultural Landscapes Automated Inventory Management System) which incorporates written descriptions, scanned images, and maps utilizing a Microsoft Access program.

During the summers of 1995 through 1998, students from Iowa State lived at the park and joined a core field team of park and regional staff. Fieldwork for the CLI began at the component landscape scale and included farmsteads, vacation homes, mill sites, villages, resorts, churches with cemeteries, and Boy Scout camps. Sketch plans of each property were developed and all existing cultural landscape features recorded. GPS points were taken at most properties to create the first data layer for the cultural landscape inventory in anticipation of linking the component

landscape information to the park's GIS database. All other information was collected manually for later input into the CLAIMS database.

To begin evaluating change at the component landscape scale, two sets of baseline information were used: 1) a complete set of 1939 aerial photographs and 2) a complete topographic survey of the park created in 1963 just before demolition began for the proposed Tock's Island Dam. Together these surveys provided a consistent picture of the entire landscape at two distinct historic periods. With these two resources in hand, the team was able to make excellent comparisons between the early- and mid-20th century and the existing landscape patterns. Preliminary integrity determinations of each property were then made. By the summer of 1998, the park's CLI team clearly saw that consistent and repeating land use patterns were intact throughout the entire valley and were undoubtedly highly significant cultural landscape characteristics. But to fully evaluate the park's larger landscape systems, a different approach was needed than the manual approach used to document the smaller landscape components. Drawing upon the sophisticated spatial analysis capabilities of Arc View GIS and the expertise of computer specialists at the park and at Iowa State, the team developed an approach for scanning and geo-rectifying the 1939 aerial photographs. As electronic images, these could be overlaid on corresponding 1993 digital-ortho photography. This is proving to be an effective approach for comparing and contrasting the historic landscape patterns over a large geographic area.

The existing conditions inventory and a preliminary evaluation (CLI Level 1) of the park's most significant component landscapes have been completed. Documenting the larger landscape patterns using GIS technology is underway. The next steps for the park are twofold: 1) complete a full comparative analysis and evaluation using National Register criteria for all component landscapes and large landscape systems and 2) link the tabular data from the CLAIMS database to the park's GIS spatial coverages. Park resource managers will then be equipped with comprehensive information to manage cultural landscape features and patterns and plan for future landscape rehabilitation.

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