

## *State Lands*

The use of GIT for management of state lands by SFOs is slightly greater, but has a much longer history than for private lands, particularly in the area of RS. SFOs were among the earliest state government GIT users, particularly to meet state land management responsibilities (Warnecke and Decker 2002). Large tracts of forested land owned and managed by state government have historically provided strong incentives for effective use of geographic data and GIT. State land management was likely one of the first GIT applications by SFOs because it is used to maximize long term revenues to support state government, education and other functions. Responses from the 1993 survey indicate that GIT provides several benefits to lands management. Examples include improved understanding of conditions and competing resource issues, as well as enhanced capabilities to plan and meet management needs (Warnecke and Herrington 1994). Almost two thirds of the SFOs report current use of GIS for state land management, while at least 16 SFOs used GPS, and 16 indicated use of RS.



*Oregon*

The Department of Forestry's State Forest Management Program uses ArcView™ and several custom Map Objects™ applications for state land issues. Applications include reforestation and natural resources protection such as for soils and water resources, as regulated by the Forest Practices Act. One MapObjects™ application is the Forest Activity Notification System (FANS), which is used by field foresters to identify activities that impact the forest and to implement plans for protection. FANS is a new system that is just beginning to be used, and will undergo further development.



*Indiana*

The Division of Forestry's State Forest program area is developing and using GIS for resource management on four of its nine state forests, with plans to expand as resources permit. Computer-based systems are being used to track state land management activities and associated natural and cultural features, thereby improving decision-making. In addition, the Cooperative Forest Management (CFM) program area is investigating using GIS for the mapping of public and privately owned managed lands for use as a management tool. A contract with Purdue University has been established for a federally funded pilot area study to see if the project will yield benefits sufficient to justify further work. The study is currently underway, and will utilize available data from forest management files, hard copy map records, and GIS data from other arenas.



*Missouri*

The Forestry Division manages approximately 650,000 forested acres of the nearly one million acres owned or leased by the Missouri Department of Conservation (MDC). These lands are distributed around the state, with a concentration in the Ozarks. Forestry Division GIS staff maintain a statewide spatial database of forest inventory data for these lands. The management of

MDC Conservation Areas (CA), which can be several thousands of acres, can be quite complex. This work is guided by management plans produced by inter-divisional planning teams. Use of GIS during presentations by these teams has proven to be an excellent aid in the planning process and the subsequent production of maps for the project area.



*West Virginia*

A primary use of GIS by the Division of Forestry is for state lands. Efforts have focused on documentation of state forest and management boundaries, and forest characterization for the revision of state forest management plans. Historical compartment and stand information have been digitized from legacy plan maps, and one of eight state forests has completed a recent forest inventory in a digital format to be used with GIS. At least one more state forest inventory is planned to be conducted using GIS.



*Wisconsin*

The Division of Forestry uses GIS and GPS for timber management on state lands. Automated forest compartment stand maps for the six major state forests in Wisconsin were completed by the Division of Forestry and DNR's GIS Services Section in 1994. The automated maps were developed using SPOT imagery and infrared aerial photography. These data were installed at field offices in each of the state forests with appropriate hardware and software to give field foresters the ability to update them and tabulate data compiled for individual stands. These changes are then uploaded to DNR's central database.



*Washington*

DNR is one of the biggest and most established users of GIS, particularly for state lands management. In fact, DNR was one of the earliest state agencies to use computer aided mapping to help manage its over three million acres of state land (Warnecke, et.al. 1992). It was an early innovator of RS as well, using LANDSAT satellite data over 20 years ago for a forest inventory of western Washington. This led to additional work involving the evaluation of LANDSAT data for monitoring forest harvest activities on state lands. Currently, DNR uses GIS on state lands for assessing sustainable harvest level calculations; forest planning and tracking systems; watershed planning; conservation planning; salmon recovery analysis; environmental analysis; and ecosystem planning. In addition, several key data layers such as transportation, cadastral, and hydrography are being converted to newer ESRI data formats to assist in state land management efforts.