



1. Organizational Approach to GIT:

The Kentucky Governor's Office includes the Natural Resources and Environmental Protection Cabinet, which is comprised of several departments and their associated divisions, including the Department of Natural Resources (DNR) (<http://www.nr.state.ky.us/nrepc/dnr/dnrhome2.htm>) and its Division of Forestry (<http://www.nr.state.ky.us/nrepc/dnr/forestry/dnrdof.html>). While other divisions within DNR have been active users of GIS, the Division of Forestry is a newcomer to GI processes and is in the midst of increasing its GIS capabilities. The Division is making little use of remote sensing at present. The Division is comprised of nine districts across the state. Each of these districts are using, or will be using GIS in the near future. Use of GIT is enterprise-wide for primary Division applications, and mostly on an individual project level for all other uses. The Division receives its network support, servers, data storage libraries, and GIS technical support from the Office of Information Services (OIS) (www.nr.state.ky.us/nrepc/ois/gis/), the official information branch of the Natural Resources and Environmental Protection Cabinet and its component agencies. The GIS Coordinator is the Division's only dedicated, full-time GIS staff person. The Coordinator's role is to provide Division personnel throughout the state with the fundamental skills for data gathering and data production. The Coordinator's responsibilities include providing technical training for Division personnel for GPS and GIS software; developing applications for Division mapping and data-gathering efforts, including software and programming; and interacting with local, state, and federal agencies in regards to GI. There are no specific policies related to Division GIT usage. Issues regarding GIT for the Division center on the technical training of employees.

2. GIT Applications and Data Utilized:

The Division uses ArcView GIS in several primary applications on **private lands**: 1) Wildland **fire** mapping, where it is used for determination of fire origin, acres burned, and recording of attribute data; 2) Logging inspections, where it is used to map landings, skid trails, and acres logged; 3) Determination of Best Management Practices (BMP) violation locations, and recording of attribute data; and 4) Forest management and stewardship, where it is used to map and record attribute data of examined stands. Data types used for applications include digital raster graphics (DRGs), digital orthophotos and internally collected GPS data. The Division has network access to the Office of Geographic Information's (OGI) vast library of basemap data, including digital raster graphics (DRGs), digital orthophotos, 10-meter SPOT imagery and digital elevation models (DEMs), as described below. The Division also has access to a comprehensive vector library of statewide political, jurisdictional, physiographic, and demographic data through OGI as well. All of these products may be accessed by any of the nine district offices via the network.

OGI was recently awarded a \$1.3 million NASA grant for the "Kentucky Landscape Snapshot Project" (<http://kls.state.ky.us>). The goal of the project is to gain a clearer picture of forest, urban and rural landscape in Kentucky. It will be conducted with several agencies, including the Division, other parts of DNR, the U.S. Forest Service (USFS), Morehead State University, Space Imaging, and the U.S. Geological Survey's (USGS) EROS Data Center. The project was initiated in early 2002 and involves the use of satellite data to generate forest **land cover** maps for the entire state. These maps will be compared with early versions and analyzed to determine land cover change. The project also addresses **forest characterization** through Forest Inventory and Analysis (FIA) program work. One potential Division application of project data involves the analyses of annual rates of growth for all Kentucky forests for economic and commercial uses, which may provide more accurate estimates for overall forest productivity and landowner returns.

3. Statewide and Other GIT Linkages:

Kentucky has an official Office of Geographic Information (OGI) (<http://ogi.state.ky.us>) established by statutory directive mandating an institutional approach for statewide GIT coordination, in response to increasing use and attention to GI/GIT in several agencies dating back to the 1970s. Kentucky's one GI/GIT coordination group is the Geographic Information Advisory Council (GIAC). OGI is located in the Governor's Office for Technology and provides GIT coordination among all Cabinets. As described above, the Division and DNR are components of the Natural Resources and Environmental Protection Cabinet within the Kentucky Governor's Office, which participate in GIAC.

The state geographic information clearinghouse (<http://ogi.state.ky.us/>), supported by OGI, has created a multiplicity of data products (including remote sensing) by refining raw data into useable, affordable and widely available data products used in GIS. OGI is currently developing a service that will enable GIS users to use the statewide digital basemap across the internet with a plug-in for their GIS software. Users will not have to download and ingest the basemap data; they will be able to use the data as if it were on their desktop. Additionally, OGI makes its data freely available to agencies in state government and the general public via internet. The Division acquires its data for use with GIS from OIS, which serves as the primary linkage from the Division and other parts of the Natural Resources and Environmental Protection Cabinet to OGI.