

Using ArcGIS to Inventory Biological Surveys of the Tennessee Coalfield

The Office of Surface Mining (OSM) in Knoxville, Tennessee acquires significant amounts of biological survey data during the review and approval of coal mining permit applications under the Surface Mining Control and Reclamation Act of 1977 (SMCRA). This biological survey data is used to help control the potential environmental impacts of surface coal mining operations. The goal of this project was to develop a Biological Survey Database (BSD) of fish, birds, bats, and macro-invertebrates which would allow staff to identify the location of previous surveys in ArcMap and retrieve them for reuse during the review of new permit applications in the office. The BSD consists of thematic spatial data in an ArcSDE geodatabase containing the geographic locations of previously known biological surveys and related attribute data in a Microsoft SQL Server database. OSM also plans to use BSD data with mobile GIS technology at proposed surface coal mining operations.