

AECI Fescue Mitigation

by Kale Horton, Aug 14, 2006



Office of Surface Mining Mid-Continent Region personnel used mobile computing technologies provided through the national TIPS program assessing the condition and suitability of wildlife habitat inadvertently seeded with Kentucky-31 tall fescue (*Festuca arundinacea*). This habitat assessment was conducted at the Associated Electric Cooperative, Inc. (AECI) Prairie Hill mine in north-central Missouri.

Prior to Federal implementation of the State program, the Missouri Land Reclamation Program approved a permit revision excluding the future seeding of KY-31 in wildlife habitat on all AECI mine sites due to the potential adverse effects to wildlife. Subsequent to the permit revision, AECI inadvertently seeded 10 parcels of forested wildlife habitat, totaling 54.1 hectares with a tall fescue ground cover mix at the Prairie Hill Mine. In order to offset any potential losses identified in the wildlife habitat and aid in bond release, AECI proposed several mitigation sites.

Real time mobile mapping technology provided through TIPS was used to capture the field data of the wildlife habitat seeded with KY-31 and the wildlife areas proposed for mitigation. Wildlife habitat models were digitally created in the office using ArcGIS QuickForm applications and downloaded to the mobile computing devices for field application. Wildlife habitat suitability information collected in the field was imported into ArcGIS to quantify the adverse impacts of the affected wildlife habitat and determine the effectiveness of the proposed mitigation. Through the use of habitat models and technologies provided by TIPS, this study resulted in an efficient solution to a long-standing permit issue.