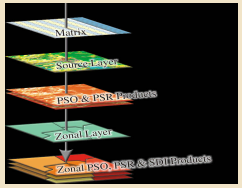
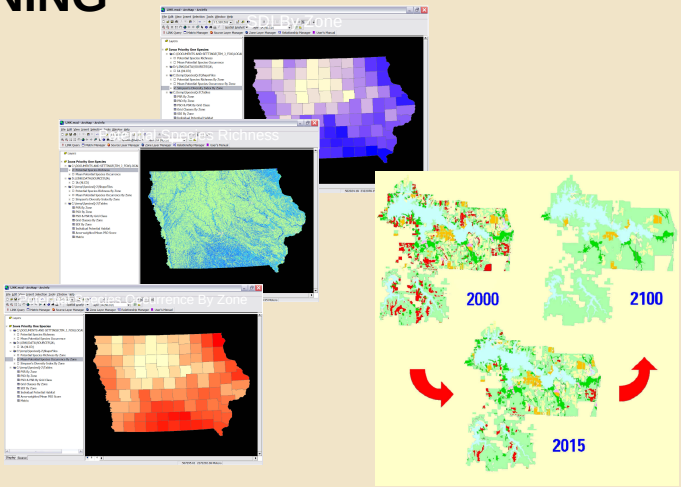
GEOGRAPHIC INFORMATION SYSTEM TOOLS FOR CONSERVATION PLANNING

Decision Support Systems (DSS) allow a natural resources manager to organize existing geographical, physical, and biological data for better management of natural resources. DSS tools prioritize both species and habitats most in need of management action. UMESC has developed various geographic information systems DSS tools to assist resource managers.



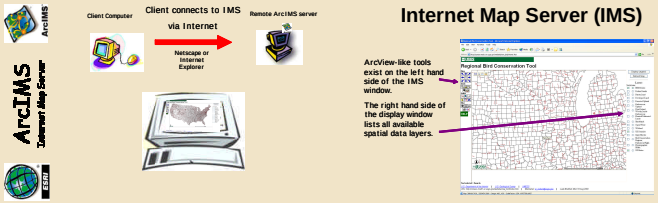


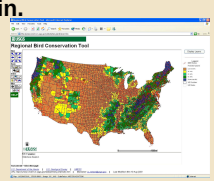
The CCP GIS Query, Clipping, and Edit Tools calculate potential species habitat, occurrence, and richness and can be used with minimal software investment.

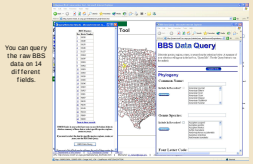
The LINK Tool calculates potential species occurrence (PSO), potential species richness (PSR), land cover diversity (SDI) (See Figures Above), and the area and proportion of land cover type for areas ranging from small local management units to large states or Bird Conservation Regions.

The internet-available Regional Bird Conservation Tool summarizes land cover and bird survey data across the continental United States.

The Long-Term Resource Monitoring Program land cover data viewer, now in development, provides users a means of accessing land cover data for the Upper Mississippi River floodplain.







The UMESC now has a set of DSS planning tools that improve the objectivity of conservation planning at geographic scales ranging from local to continental. The tools are especially useful for resolving uncertainties regarding benefits of alternative management scenarios. Maps, tables, and charts help explain the predicted consequences of alternative management actions.

Decision Support Users include:

- Upper Mississippi River
- Columbia River
- National Park Service
- Great Lakes Ecosystem Team
- Everglades Ecosystem Team
- National Wildlife Refuge System

U.S. Department of the Interior
U.S. Geological Survey

Upper Midwest Environmental Sciences Center
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