

With GIS software users in nearly every FWS office in Region 4, the need to support those users requires an update to the former GIS Plan. The rapid advent of landscape level initiatives within the Service, coupled with widespread GIS use, has led to the need for a formal support structure within the Region and the need to plan for the growth of GIS technology in the Service. The Regional GIS Committee endorses the following recommendations as the base for GIS operations in Region 4.

**1. Maintain the Regional GIS Center in Cookeville through a cross-program agreement for a Regional GIS Center Coordinator and GIS Specialists.**

Currently a cross-program agreement is in place between the Regional Office and the Cookeville Field Office that establishes a Regional GIS Center in Cookeville, TN. Under the agreement, the Regional GIS Center has the following obligations: 1) coordinate Regional GIS activities and communication, 2) develop and conduct the annual Regional GIS training with assistance from the Regional GIS Committee, 3) lead the Regional GIS Committee, 4) serve as point of contact for technical GIS questions that cannot be answered locally, 5) manage the Regional GIS website on the Internet and Intranet, and 6) manage the Regional GIS data server with assistance from the Regional GIS Committee.

The current agreement provides for ½ FTE for an IT Specialist (GIS) as a coordinator and up to ½ FTE of combined efforts from IT Specialist (GIS), Cartographer, Computer Assistant and others assigned to work on GIS issues both in-house and remotely in the Regional GIS Center in Cookeville, TN.

**2. Establish additional GIS centers throughout the Region as needed.**

As the need for GIS support in the Region grows, additional support centers may be needed to supplement the services provided by the Regional GIS Center at Cookeville. This additional support network will become an even greater necessity as additional landscape level projects emerge in the Region involving multiple agencies that require numerous staff members to maintain and develop extensive data sets and perform analysis. Also, future agency partnerships may require GIS support and data development that are beyond the core mission of the Service and do not fall under the operational guidelines of the Regional GIS Center; therefore, these will have to be supported by the additional GIS centers. The additional centers may be located in Service offices, with both Service and non-Service employees, or in non-Service offices, with both Service and non-Service personnel.

**3. Conduct ongoing GIS training for the Southeast Region and ensure training opportunities are available for all Southeast Region GIS users.**

The annual GIS training in Cookeville has been a staple of GIS instruction in the Region since 1999. The training is held on the campus of Tennessee Technological University in Cookeville, TN. It is provided to all Service employees in the Southeast Region at no cost except for travel, lodging, and meals. Emphasis is placed on meeting the GIS training needs of users in the Region at all skill levels.

GIS personnel in the Region who also serve as IT support for their offices should attend both a GIS and IT training in a given calendar year.

Regional GIS personnel will have access to ESRI online GIS training at no additional charge as appropriated by the current Federal software agreement with ESRI.

The Committee will develop an onsite training team to deliver training to offices throughout the Region. The Committee will continually evaluate training needs and ensure training opportunities are made available in the most cost effective manner.

#### **4. Continue to support the Southeast Region GIS Committee.**

The Regional GIS Committee was formed to set standards, disseminate information, foster utilization of GIS technology to its fullest, to facilitate the use of GIS at the appropriate level to meet station and regional needs, and provide guidance to field biologists in identifying conservation priorities and initiatives. The current Committee is comprised of 16 members and strives to include representatives from nearly every state and program in the Region. The primary makeup of the Committee should include experts in current and emerging GIS technologies and applications. The Committee is committed to developing relationships with partners, including other government programs as well as non-government organizations. The Committee is responsible for identifying and making recommendations to the Regional Directorate regarding user needs such as training, technical support, equipment and data needs.

#### **5. Support landscape-level initiatives throughout the Region.**

Regional initiatives such as Strategic Habitat Conservation, Climate Change, and the Southeast Aquatic Resource Partnership utilize landscape planning and analysis over a large, diverse geographic area. Scientific examination of these Regional initiatives must include an analysis of the spatial data to adequately assess the current status and forecast landscape changes for planning purposes. The Regional GIS Coordinator will work with program managers to ensure that a GIS representative is available to participate on any major initiative teams addressing landscape issues. The GIS professional(s) on these teams will be able to advise the team on issues of data quality, availability, appropriateness, etc. They will also be able to provide guidance and support on the tools and analyses necessary to address the objectives of the initiative. This will allow us to better assess the current status of our trust resources, better model the potential impacts to these resources, and more effectively forecast changes to the landscape in an effort to take a strategic approach to conservation.

Spatial analysis support for landscape-level initiatives requires significant data storage capabilities. The continued support for a Regional GIS data server will be essential for sharing and cataloging spatial data for initiatives like Strategic Habitat Conservations, Climate Change and the planning of new refuges.

#### **6. Maintain Regional expertise in all major areas of GIS to advise and support the adoption and use of current and emerging technologies and tools.**

In order to properly support current and future GIS needs of Regional users, the Committee is comprised of experts in the following fields: IT, Realty, Strategic Habitat Conservation, Coastal Ecosystems, Contaminants Expertise, Modeling, GPS, Cartography, Remote Sensing, NCTC-certified GIS instructors, and Climate Change. It is imperative that the Region maintain experts in the above mentioned fields on the GIS Committee and at various offices throughout the Region.

#### **7. Develop and Maintain GIS databases and Information for Planning and Support of R4 Mission and Goals.**

Sharing of information with partners, the public and within the Service is essential to the support of Region 4's missions, goals and initiatives. Progress and success can only be as good as the information we have to analyze, formulate decisions with and base forecasts on. Improving GIS is a goal of the FWS 2005 IRTM Strategic Plan and as the FWS 2006 National GIS Strategic Plan becomes a reality, so does understanding the need for continued development, maintenance and updating of the Region's geographic databases. Propagation of these spatial data and their integration with existing databases may be applied to systems such as: RMIS (Refuge Management Information Systems), FacMIS (Facilities Management Information Systems), or RPMIS (Real Property Management Information Systems). Consideration of these systems must be given before these GIS tools can become effective. Assessment of current staffing and funding levels in the RO Refuge and Realty Division will be necessary to determine when such realization and utilization of GIS tools could be fully achieved.