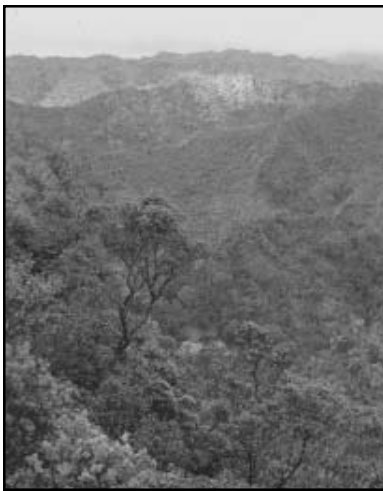

Resource Inventorying and Monitoring

Management of any resource requires current information on its status. Since 1985, the Center has been monitoring land use, vegetation, disturbance, soil erosion, and wildlife on military installations as part of the Land Condition-Trend Analysis (LCTA) program. Accurate and precise data collection is the important first step in assessing resource condition and making land management decisions.

The Center works closely with land managers to develop monitoring programs that recognize the primacy of the military mission and the importance of natural resources. State-of-the-art technology is used at each step from experimental design, to plot allocation, to data collection and analysis. Remote sensing and geographic information systems (GIS) are used for vegetation mapping and monitoring. Data are recorded electronically for error-free downloading and rapid computer processing. Global Positioning System (GPS) receivers pinpoint plot locations, plant community boundaries, and rare species populations. The strength of any monitoring program is consistency. The Center develops sampling designs to meet both current and future information requirements.



Data analysis, interpretation, and report preparation are the final stages of a monitoring program. Based on a foundation of ecology and natural resources management, the Center's staff analyze and apply the data to answer installation questions. The goal is to detect and predict resource response to the changing conditions of land use and environmental factors.



Typical Data Collected:

- Plant basal area, canopy cover, diversity, and frequency
- Woody plant density and basal area
- Plant productivity
- Disturbance and land uses – qualitative and quantitative
- Estimation of tactical concealment parameters
- Physical attributes – soil type, topography, weather, etc.
- Surveys for mammals, birds, reptiles, fish, and insects
- Cultural resource information – documenting historic and prehistoric sites

These data are archived in databases for summary and analysis. Reports integrate, summarize, and display resource information.