

1 Introduction

This document compiles, researches, and evaluates selected flora and fauna entity set geospatial data requirements and compares the results to the Tri Services Spatial Data Standards (TSSDS) Release 1.75. This report was prepared by the Michael Baker Corporation, 420 Rouser Road, Airport Office Park, Building 3, Coraopolis, Pennsylvania 15108, through Contract No. DACA39-96-D-0005 with the Tri-Service CADD/GIS Technology Center, U.S. Army Engineer Waterways Experiment Station (WES), 3909 Halls Ferry Road, Vicksburg, Mississippi 39180-6199.

Purpose

The purpose of this project is to review and evaluate the selected Geographical Information System (GIS) data sets to determine the extent to which flora and fauna related features (entities), attributes, and domain values could potentially be incorporated into the TSSDS. Under this project, data sets from the following organizations were evaluated:

- Eglin Air Force Base
- Aberdeen Proving Ground
- Patuxent River Naval Air Station
- Camp Pendelton
- USACE Wala Wala District
- Integrated Taxonomic Information System
- U.S. Forest Service "Forest Inventory and Analysis Data Base Retrieval System"
- USDA PLANTS National Database

The above data sets were selected by Tri-Services Center and through collaboration with Baker based on the 60% submittal.

Applicability

This report is applicable to DoD project management and technical design personnel involved in the procurement of environmental services from GIS contractors or the development of TSSDS compliant databases. Likewise, this report would also be useful to contractors who are involved with the development of TSSDS compliant environmental databases for DoD organizations.

Background

As more environmental clean-up and restoration projects within the DoD begin to take advantage of the capabilities of GIS, the use of the environmental portions of the TSSDS has been increasing. GIS has been used for more than a decade by planning professionals, landscape architects, and those in forestry and wildlife management agencies. In addition, numerous databases exist to capture and manage flora and fauna data. Federal agencies, through the Federal Geospatial Data Committee (FDGC), are currently developing standards for metadata, taxonomy, and vegetation. Geospatial standards developed by these agencies may be valuable for inclusion into TSSDS. Knowledge of available databases may also be critical when developing or modifying geospatial standards.