

ESD Development Technical Workshop

February 10, 2011— Billings, MT

Background: Ecological site descriptions (ESDs) are being developed throughout the United States as a means of classifying and describing land types according to soil-geomorphic, climatic, and vegetation patterns. Individuals tasked with writing these documents often have difficulty obtaining and summarizing all of the information required for ESD production. Without a standardized method for ESD development nationally, many new and innovative tools have been developed by individuals seeking to produce ESDs as accurately and efficiently as possible. This workshop consists of three parts that provide the training necessary to write an ESD by allowing the creators of ESD development tools to share their methods in a classroom setting. Part one will provide an introduction to ESD implementation and development on the state and national levels. Part two will focus on obtaining information from commonly available data sources to create site extent maps, analyze soil and physiographic data, and interpret site-specific climate data. Part three will focus on integrating information from various sources to fill out the plant communities, hydrologic features and growth curves sections of the ESD, to produce dichotomous ecological site keys, and refine site concepts. This workshop is not intended to endorse specific ESD development tools, but to exhibit useful methods and facilitate the exchange of ideas among ESD development professionals.

Purpose: 1) Provide an overview of the ESD development effort on a national and state level.
2) Provide training and tools necessary for accurate and accelerated ESD development.
3) Create networking opportunities for ESD development professionals.

Workshop Organizer: Jamin Johanson

Workshop Committee Members: Sarah Quistberg, Jacob Owens, Shane Green

Food Sponsor: Synergy Resource Solutions, Inc.

Workshop Overview

This workshop was intended to provide an overview of the ESD development effort on a national and state level, provide training and tools necessary for accurate and accelerated ESD development, and to create networking opportunities for ESD development professionals.

Part I: ESD Implementation and Development

Joel Brown, the workshop moderator, introduced the session by defining ecological sites and ESDs, describing their importance, and introducing the Ecological Site Information Workflow.

Terrell Erickson, Pat Shaver and Homer Sanchez elaborated on the Ecological Site Information Workflow as well as the process of correlating ecological sites across state lines.

Part II: ESD Development Tools

Justin Clary, Jacob Owens, Sarah Quistberg and Jamin Johanson presented step-by-step instructions for creating ES maps and filling out the soils and climate sections of the ESDs. These tools are available on the Jornada website, and efforts are underway to make the PRISM climate summarizer (with Frost-Free and Freeze-Free Days) and an automated ESD mapping tool available for all states. These tools may require a few months to fine-tune and are expected to become available via the Jornada website.

Part III: Integrating Information to Enhance ESDs

Gale Dunn, Kendra Moseley, and Ken Spaeth presented methods of improving site concept information by collecting vegetation data, and using existing data to model site-specific growth curves and

hydrologic features sections. The Growth Curve Tool has not been made available to the public and may require individual states to express interest in the tool to Gale Dunn. The link to the RHEM model can be found in Ken Spaeth's Powerpoint and Ken is available to train on a state-by-state basis upon request.

Kirt, Alex, and Doug present very sophisticated methods of integrating data from various sources, including remote sensing, vegetation monitoring data, existing soils data, and expert knowledge, to produce improved ecological site keys and state-and-transition models.

Note: This workshop is intended to facilitate communication among professionals involved in ESD development. It is not meant to endorse certain methods of ESD development, nor is it intended to standardize the ESD development process, but rather it is an opportunity to share ideas and build relationships that will increase the accuracy and efficiency of ESD development. We acknowledge that many useful ESD development tools are not presented at this workshop and we encourage participants to respectfully share their ideas with each other and with workshop organizers.

Audience: The first section of the workshop provides an overview of ESD development and implementation at the national and state levels and is geared toward a general audience of ESD users. The remainder of the workshop is a technical training opportunity geared toward the following groups: NRCS employees and contractors involved with ESD development, partners involved with ESD development (Universities, USGS, BLM, USFS, NPS, ARS, and others), researchers and ESD users.