



The Ecological Site Information System (ESIS) is the repository for the data associated with the collection of forestland and rangeland plot data and the development of ecological site descriptions. ESIS is organized into two applications and associated databases:

Ecological Site Description (ESD)

Overview -- The Ecological Site Description (ESD) application provides the capability to produce automated ecological site descriptions from the data stored in its database. ESD is the official repository for all data associated with the development of forestland and rangeland ecological site descriptions by the Natural Resources Conservation Service.

Looking across any landscape it is not difficult to recognize that some parts are different from other parts in regard to the kinds and amounts of vegetation. To understand this variation across the landscape, we classify these different parts into units called ecological sites. Ecological site is defined as “a distinctive kind of land with specific characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation”. Any land inventory, analysis, and resulting management decisions require the knowledge of these individual sites and their interrelationships to one another on the landscape. The ecological site description is the document that will contain information about the individual ecological sites.

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The data comprising a ecological site description is presented in four major categories:

- Site Characteristics -- Identifies the site and describes the physiographic, climate, soil, and water features associated with the site.
 - Plant Communities -- Describes the ecological dynamics and the common plant communities comprising the various vegetation states of the site. The disturbances that cause a shift from one state to another are also described.
 - Site Interpretations -- Interpretive information pertinent to the use and management of the site and its related resources.
 - Supporting Information – Provides information on sources of information and data utilized in developing the site description and the relationship of the site to other ecological sites.
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Ecological Site Inventory (ESI)

Overview -- The Ecological Site Inventory (ESI) application provides the capability to enter, edit, and retrieve rangeland, forestry, and agroforestry plot data. ESI is the official repository for all plot data collected via the Soil-Woodland Correlation Field Data Sheet (ECS-005), the Windbreak-Soil-Species Evaluation Data Sheet (ECS-004) and the Production and Composition Record For Native Grazing Lands (RANGE-417).

Data Use -- The collection of plot data is an important activity conducted by the Natural Resources Conservation Service. The data are used to develop inventories for planning, to monitor ecological change, to provide data to make management decisions, for the development of ecological site descriptions, for obtaining data for hydrologic models, for studies of treatment effects, and for many other purposes.

Available Data -- ESI contains inventory data collected on thousands of plots over the past 40 years. All of this data is made available to the public through the ESI application. The data may be viewed in a variety of standard report formats or through the use of custom queries tailored to an individual needs. The data may also be downloaded for use in other applications. Inventory data collected on rangeland plots includes the total annual production of all plant species of a plant community, as well as the production (by weight measurement) and composition of individual plant species comprising the plant community.

The inventory data collected on forestland plots includes: composition and relative abundance of the overstory and understory plant species; stand densities (basal area); and site productivity, as measured by site index.

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In addition to plant community data, inventories on both rangeland and forestland plots includes data relative to the physiographic features of the site (soil, slope, aspect, landform, etc.).