Ecological Site Descriptions: An Overview

Homer Sanchez and Jeff Repp; USDA-NRCS; Contact Author Email: homer.sanchez@ftw.usda.gov

Ecological sites are defined as a distinctive kind of land with specific physical characteristics that differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation. An ecological site is recognized and described on the basis of the characteristics that differentiate it from other sites in its ability to produce and support a characteristic plant community. Ecological site descriptions provide decision makers with vital information concerning the interaction among soils, vegetation, and land management. Recently a move to incorporate the concepts of resilience into the model is gaining momentum. Resilience to change is based on the amount of disruption needed to change a set of mutually reinforcing processes to a different set of mutually reinforcing processes. This change in emphasis from thresholds to resilience allows the manager to focus on within state dynamics that can be manipulated by management actions, rather than on after the fact actions to repair or restore lost functions or values. The mutually reinforcing processes or feedbacks must be identifiable and recognizable in order for management to have the opportunity to adapt to changes to prevent the likelihood of threshold limits from being crossed. Applying this concept to riparian ecological sites presents some unique challenges due to the nature of the soil-hydrology-vegetation associations and their permanence on the landscape. The concept of looking at riparian ecological sites as functional units within a stream segment made up of a complex of soil-hydrology-vegetation associations is being explored in this forum.

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