

**Forest Service Handbook
National Headquarters - Washington Office
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Forest Service Handbook 2090.11 – Ecological Classification and Inventory Handbook

Chapter 2 - Classification of Potential Natural Communities

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Approved by: F. Dale Robertson, Chief

Date approved:

Responsible Staff:

Last Change: This amendment is the first in a new numbering series corresponding to the year in which material was amended. Since this amendment replaces all text except Interim Directives (ID), do not check for the last transmittal received for this title. Replace the entire title text except ID's.

Superseded Document(s): Entire Title except ID's, 00--1 thru 2.81; Transmittal, 2/86; and Amendment 1, 5/86.

Digest: Following is an explanation of the changes throughout the directive by section.

This amendment changes the title of the handbook to include direction for inventory, eliminates the reserved chapter for field procedures, renames and rewrites the text for chapter 1 (formerly chapter 2) on Classification of Ecological Types, retitles chapter 2 (formerly chapter 1) Classification of Potential Natural Communities and deletes section on interrelationships and making interpretations. It also adds text for chapter 3 (Ecological Unit Inventories) and chapter 4 (Interpretations and Applications). It also incorporates direction previously issued in FSM 2060.5 through 2062.9.

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2.1 - Potential Natural Community

Identify and describe potential natural communities as defined in FSM 2060.5. A potential natural community is not a precise assembly of species with identical proportions of a species from place to place or even in the same place from year to year. Variability appears in productivity and occurrence of individual species. Determine the limits of variability to distinguish them through use of the classification. If variability is too great for acceptable management application, use further classification subdivisions.

2.11 - Sampling

Sample sites that have vegetation expression presumed to be representative of potential natural community.

2.12 - Classification

Develop the classification of the potential natural community by grouping sites with similar floristics and composition.

The description of the potential natural community shall include information on species composition and a measure of species dominance such as cover, weight, and basal area. Regions are responsible for correlating potential natural community classifications between forests and regions. The examination of vegetation for potential natural community classification should integrate soils and physical characteristics.

2.13 - Successional Relationships

Base the potential natural community on the best available representation of the community type. Many influences modify or even temporarily destroy vegetation on a site, but may not preclude recovery or reestablishment of a potential natural plant community. If the disturbance factor ceases to be an effective influence, the potential natural community of the site will eventually be restored. The potential natural community, identified within the framework of its environment as a part of an ecological type, represents a relatively stable environment even if the vegetation is modified or temporarily changed.

Deterioration of the plant community is sometimes followed by site deterioration. The cumulative effect of such detrimental influences reduces the opportunity for reestablishing the potential natural community and the productive capacity of the site. Severe site deterioration may permanently alter the potential of the site. In such instances, recognize a different potential natural community and describe it on the basis of the altered potential.

2.14 - Naming Potential Natural Communities

Use two or more common names of characteristic, diagnostic, or prominent species to name potential natural communities. Where one layer exists, choose two names; for example,

Western Wheatgrass - Green Needlegrass. Where more than one vegetation layer exists, names should come from each layer beginning with the tallest layer; for example, Mountain Big sagebrush/Idaho Fescue. Exceptions are possible; for example, where the shrubs are shorter than the herb layer, the herb species will precede the shrub species. For convenience, additional names may be used to denote phases of a potential natural community or other local variations. According to local convention, scientific names may be substituted for common names or used in combination with them.

2.15 - Potential Natural Community Descriptions

A minimum set of description core data includes:

1. A species list.
2. Some measure of composition or dominance.
3. Production parameters such as weight, cover, basal area, incremental growth and site index.
4. A measure of constancy, by species.
5. Some general environmental data.

Ideally, a well described potential natural community will show all communities within the sere to be expected following different kinds of disturbance.