

LandPKS Glossary

Available Water Holding Capacity (AWC or AWHC): AWC is an estimate of the amount of plant-available water that a soil can hold. For more information about how AWC is estimated in LandPKS based on soil texture and organic matter, see [Saxton & Rawls, 2006, SSSA-J](#).

Compaction Layer: A compaction layer is a near-surface layer of dense soil that is hard for crop roots and water to penetrate. Soil compaction is usually caused by the repeated impact on or disturbance of the soil surface, such as by tillage, trampling by large herbivores, and other traffic especially when soils are moist. For more information about soil health indicators, click [here](#).

Ecological Site: An ecological site is a distinctive area of land that produces different types and amounts of vegetation. Individual ecological sites differ in plant production, species composition, climate characteristics, geology, and soil properties, as well as the ability to respond to management actions and natural disturbances. For more information about ecological sites, click [here](#).

Habitat: The term “Habitat” refers to the natural home or environment of a plant, animal, or other organism. For more information about terrestrial habitats in the Land Potential Knowledge System, see Habitat Information in the Knowledge Hub.

Land Capability Class (LCC): The Land Capability Classification (LCC) System is a global tool for classifying land based on its potential for sustainable agricultural production and other uses. LCC can help determine if land is suitable for certain uses and whether there are risks for degradation. For more information about LCC, click [here](#).

Land Cover: The physical coverage of the land, usually expressed as vegetation cover, human-made features, barren land, or water. Related to, but not synonymous with, land use. [WOCAT Glossary](#)

Land Use: Human activities, which are directly related to the land, making use of its resources, or having an impact upon it. Influenced by, but not synonymous with, land cover. [WOCAT Glossary](#)

Organic Matter: Plant and animal residue in the soil at various stages of decomposition. Soil organic matter has an important role in the physical, chemical, and biological function of soils. For more information about Organic Matter, click [here](#).

Rangeland Health: The degree to which the integrity of the soil, vegetation, water, and air, as well as the ecological processes of the rangeland ecosystem, are balanced and sustained. Integrity is defined as maintenance of the structure and functional attributes characteristic of a locale, including natural range of variability. For more information about Rangeland Health, click [here](#).

Rock Fragment: Fragments of rock or minerals having a diameter of 2 millimeters or greater. This threshold is related to the fact that the spaces or pores between larger fragments are too large to hold water. LandPKS uses a threshold of >5mm when recording cover as 2-5mm fragments are easily moved by raindrops [Glossary of Soil Survey Terms](#)

Soil Color: Soil color is a tool for correctly identifying your soil and can be an important indicator of soil health. Soil color is most commonly measured using the Munsell System, which measures soil color in three components: hue, value, and chroma. For more information about soil color, click [here](#).

Soil Health: Soil health, also referred to as soil quality, is defined as the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans. This definition speaks to the importance of managing soils so they are sustainable for future generations. To learn more about soil health, see [NRCS](#). To learn more about the LandPKS SoilHealth Module, click [here](#).

Soil ID: The LandPKS SoilID module provides direct access to information about soils that have been mapped near your location. It also helps identify your soil by ranking nearby soils from most to least likely match. The SoilID module provides information from the NRCS Soil Surve and from the FAO's Harmonized World Soil Database (international). For more information about using the SoilID module, click [here](#).

Soil Limitations: These refer to characteristics such as deep, vertical cracks in dry soil, salt found on a soil's surface, high flooding risk, low PH, surface stoniness, water table depth and the depth of soil to bedrock. They can have major implications for land use. In most instances, such limitations can limit root growth and crop production; when not taken into account, they can also lead to long-term degradation of the land. For more information about the LandInfo module, click [here](#).

Soil Surface Infiltration Rate: Soil infiltration refers to the soil's ability to allow water movement into and through the soil profile. Surface infiltration rates are a measure of how fast water enters the soil. For more information about Soil Infiltration, click [here](#).

Soil Texture: Soil texture is defined by the relative fractions of sand, silt, and clay-sized particles in a soil sample. Soil texture is considered one of the soil's most important properties, influencing nearly all soil processes and functions. For more information about Soil Texture, how it is measured, and its relationship to soil structure, click [here](#).

Other Helpful Glossaries:

[OpenTEAM Glossary](#)

[Soil Health Glossary](#)

[WOCAT Glossary](#)