

Functions	Definition
Air nitrogen removal	A measure of the landscape's potential to improve air quality through the removal of airborne nitrogen.
Carbon storage	The ability of the landscape to store carbon as organic matter in soil and plant structures
Carbon uptake	The ability of the landscape to remove carbon from the atmosphere
Channel equilibrium	A measure of the degree to which forces acting upon a stream channel are balanced by geomorphic changes to that channel.
Denitrification	A measure of the ability to remove nitrogen from the water cycle due to plant uptake, filtration of sediments, or gaseous volatilization.
Evaporation	A measure of the potential to lose water to the atmosphere (from open bodies of water, exposed soil, ground cover and canopy cover).
Infiltration	A measure of the ability of free standing water on the ground surface to move vertically downward through the soil.
Interception	A measure of the ability to capture and accumulate precipitation falling on foliage, stems, branches, organic litter and inorganic surfaces such as rock, pavement, structures, etc. This function is viewed in terms of how these landscape conditions prevent rainfall from immediately reaching soil and either infiltrating or running off.
Nitrogen storage	A measure of the ability of a landscape to store nitrogen.
Organic matter production	The production of carbon compounds in aboveground biomass, detritus, and belowground biomass
Plant dispersal	Processes and properties that provide for the movement of organisms, and especially seeds/propagules, from one location to another for reproduction/colonization of new areas and daily/seasonal/annual migrations necessary for population viability.
Transpiration	A measure of the landscape's ability to transfer soil moisture into the atmosphere as a function of photosynthesis.

Services

Definition

Aesthetics - noise	The extent to which anthropogenic noise sources can be screened or masked by the landscape and natural design features.
Aesthetics - visual	The extent to which visual disturbance from anthropogenic sources can be screened or blocked by the landscape and natural design features.
Air quality	The ability of landscape and design features to filter and protect people from pollutants emitted or mobilized by wind, vehicles, or other forces.
Air temperature regulation	The localized thermal benefits provided by shading, evaporative cooling, surface albedo, and other natural conditions that affect temperature within an immediate area.
Amphibian support	A measure of the landscape's ability to provide the life history requirements for species survival (connectivity, cover/refugia, foraging, hibernation, nesting), as appropriate.
Bat support	A measure of the landscape's ability to provide the life history requirements for species survival (connectivity, cover/refugia, foraging, hibernation, nesting), as appropriate.
Biodiversity support	The ability of landscape and design features to support life cycle requirements for a wide range of species groups. This measure incorporates performance values for insects/invertebrates, resident fish, amphibians, reptiles, songbirds, raptors, bats, small mammals, large mammals, and natural plant succession.
Carbon sequestration	Captures the movement of carbon through the landscape.
Erosion regulation	The ability of soil to withstand the erosive forces of wind and water, which helps conserve key nutrients and protects water quality. Note that while an impervious surface may protect the soil within a selected survey area from exposure to erosive forces, it can also concentrate runoff from that survey area leading to increased erosion in downslope non-impervious areas.
Food web support	The ability of landscape and design features to support the ecological food web, based on primary production and habitat suitability for each trophic level.
Insect/invertebrate support	A measure of the landscape's ability to provide the life history requirements for species survival (connectivity, cover/refugia, foraging, hibernation, nesting), as appropriate.
Large mammal support	A measure of the landscape's ability to provide the life history requirements for species survival (connectivity, cover/refugia, foraging, hibernation, nesting), as appropriate.
Mass wasting	Geomorphic process by which soil, sand, and rock move downslope typically as a mass, largely under the force of gravity, but frequently affected by water and soil saturation.
Natural plant succession	Ability of natural vegetation communities to develop and advance over time. Natural plant succession involves factors that promote the predictable, gradual, and sequential change of a native terrestrial plant community towards a climax plant community particular to a specific ecoregion.
Pollinator support	The ability of landscape and design features to support feeding, breeding, and refugia requirements for important pollinator species.

Category	Service	Definition
Air Quality	Air Quality Sv.	The ability of landscape and design features to filter and protect people from pollutants emitted or mobilized by wind, vehicles, or other forces.
Biodiversity	Biodiversity Support Sv.	The ability of landscape and design features to support life cycle requirements for a wide range of species groups. Currently, this measure incorporates performance values for amphibians, insects/invertebrates, songbirds, and natural plant succession, with model expansions planned for the future.
	Pollinator Support Sv.	The ability of landscape and design features to support feeding, breeding, and refugia requirements for important pollinator species.
	Food Web Support Sv.	The ability of landscape and design features to support the ecological food web, based on primary production and habitat suitability for each trophic level. Currently this draws from Insects/Invertebrates and Natural Plant Succession with model expansions planned for the future.
Climate	Carbon Sequestration Sv.	Uptake and storage of carbon by the landscape. Currently includes the process of carbon removal from the atmosphere. Future model expansion will include storage of carbon as organic matter in soil and plant structures.
Soil	Soil Quality Sv.	General measure of soil health, based primarily on soil particle sizes (e.g., combinations of clay, silt, sand, etc.), the ability of organic matter to become incorporated into the soil, and the protection of soil microbial communities.
	Erosion Regulation Sv.	The ability of soil to withstand the erosive forces of wind and water, which helps conserve key nutrients and protects water quality.
Water Quality	Water Quality Sv.	The ability of landscape and design features to remove particulates, including sediments and other suspended pollutants, from flowing water or runoff.
	Total (Water) Nitrogen Removal Sv.	The ability of landscape and design features to remove bioavailable nitrogen from flowing or infiltrated water (in the root zone of plants) through vegetative metabolic processes and/or denitrification.
Water Quantity	Water Quantity Control Sv.	The ability of the landscape to manage and convey a selected storm event (e.g., a 25-year storm). This metric incorporates processes such as interception, evaporation, infiltration and surface storage to predict a landscape's potential for water retention.
Wellbeing	Air Temperature Regulation Sv.	The localized thermal benefits provided by shading, evaporative cooling, surface albedo, and other natural conditions that affect temperature within an immediate area.
	Aesthetics - Visual Sv.	The extent to which visual disturbance from anthropogenic sources can be screened or blocked by the landscape and natural design features.
	Aesthetics - Noise Sv.	The extent to which anthropogenic noise sources can be screened or masked by the landscape and natural design features.

Services

Definition

Raptor support	A measure of the landscape's ability to provide the life history requirements for species survival (connectivity, cover/refugia, foraging, hibernation, nesting), as appropriate.
Reptile support	A measure of the landscape's ability to provide the life history requirements for species survival (connectivity, cover/refugia, foraging, hibernation, nesting), as appropriate.
Resident fish support	A measure of the landscape's ability to provide the life history requirements for species survival (connectivity, cover/refugia, foraging, hibernation, nesting), as appropriate.
Small mammal support	A measure of the landscape's ability to provide the life history requirements for species survival (connectivity, cover/refugia, foraging, hibernation, nesting), as appropriate.
Soil quality	General measure of soil condition, based primarily on soil particle sizes (e.g., combinations of clay, silt, sand, etc.), the ability of organic matter to become incorporated into the soil, and the protection of soil biota.
Soil stability	The capacity of the landscape to limit the redistribution and loss of soil resources by wind and water. Attributes used to estimate soil stability include dominant soil particle sizes, canopy and basal vegetative cover, slope, and soil disturbance characteristics. This model contributes significantly to the EI erosion regulation model.
Songbird support	A measure of the landscape's ability to provide the life history requirements for species survival (connectivity, cover/refugia, foraging, hibernation, nesting), as appropriate.
Vegetation support	The ability of landscape to provide resources for plant growth and reproduction.
Water conveyance	A estimate of a landscape's ability to convey ordinary high water (OHW) from one location to another through channelized stream systems. Water conveyance evaluates the difference between a channelized map unit's bankfull dimensions and its dimensions at OHW levels. The difference suggests the system's capacity to convey water through the system during periods of elevated flow.
Water nitrogen removal	The ability of landscape and design features to remove bioavailable nitrogen from flowing or infiltrated water (in the root zone of plants) through vegetative metabolic processes and/or denitrification.
Water provisioning	A measure of the landscape's potential to provide stored water for use by humans. Whether water is being adequately provisioned depends, in part, on what the desired use is for the water. This measure is based on a minimum volume and depth of naturally stored water to make it easily useful for a variety of purposes (e.g., pumping for use in fire suppression).
Water quality	The ability of landscape and design features to remove particulates, including sediments and other suspended pollutants, from flowing water or runoff.
Water quantity control	The ability of the landscape to manage and convey a selected storm event (e.g., a 25-year storm). This metric incorporates processes such as interception, evaporation, infiltration and surface storage to predict a landscape's potential for water retention.
Water temperature regulation	A measure of the landscape's ability to maintain cool surface water temperatures.