

Landscape Restoration & Management Plan

Glossary

Listed below are some common (and not so common!) terms relating to ecological restoration (words that are italicized and underlined are also defined):

Best Available Science – Disclosure of the relevant science that was considered to insure that science was appropriately interpreted and applied.

CFLR Fund - The Collaborative Forest Landscape Restoration Fund established by section 4003(f) of Title IV of the Omnibus Public Land Management Act of 2009.

CFLR Program - The Collaborative Forest Landscape Restoration Program established under section 4003(a) of Title IV of the Omnibus Public Land Management Act of 2009.

Composition – The mixture of species (plant or animal). Sometimes composition is measured as *species richness*, which is the number of species present, or as a *diversity index*, which considers number of species and the relative amount of each species.

Designated Uses – The reference condition for water quality. All the benefits a body of water could serve for humans, wildlife, and ecosystem processes if it was of optimum quality.

Ecological Departure – The difference between the existing condition and the reference condition. A measure of within 33% of the reference condition is considered similar or *Good*; a measure of 33-66% of the reference condition is a moderate departure or *Fair*; a measure greater than 66% of the reference condition is a significant departure or *Poor*.

Ecological Restoration – The process of assisting the recovery of resilience and adaptive capacity of ecosystems that have been degraded, damaged, or destroyed through human intervention by implementing ecological restoration treatments.

Ecological Restoration Treatments – All treatments that help recover the resilience and adaptive capacity of ecosystems that have been degraded, damaged, or destroyed.

Ecosystem – A complex web of relationships among the biotic and abiotic components of an area. Ecosystems are interwoven at multiple scales such as a single tree or an entire forest and are often described by structure, composition, and function.

Ecosystem Function – Nature's basic processes and how they work. To help us work with nature's complexity, we can focus on four fundamental processes that operate in any ecosystem: water cycle, mineral cycle, energy flow, and succession.

Existing Condition – Measures of the structure, composition and/or function of an ecosystem such as forest structure, species composition, water quality, habitat quality, stream condition.

Fire Regime – The natural frequency, intensity and severity of *wildland* fire in the *pre-suppression era*. The national, coarse-scale classification of fire regimes includes five groups:

- ❖ I - frequent (0-35 years), low severity;
- ❖ II - frequent (0-35 years), stand replacement severity;
- ❖ III - 35-100+ years, mixed severity;
- ❖ IV - 35-100+ years, stand replacement severity; and
- ❖ V - 200+ years, stand replacement severity.

Fire Regime Condition Class (FRCC) – A classification describing the relative degree of *departure* from historical *fire regimes*, possibly resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, canopy closure, and fuel loadings.

- ❖ 1 - less than 33 percent departure;
- ❖ 2 - 33-66 percent departure;
- ❖ 3 - >66 percent departure.

Forest Restoration By-products - Forest products derived from *active ecological restoration* using tools such as commercial timber sales and permits, stewardship contracts, special forest products sales and permits, and through *woody biomass* utilization.

Forest Stand – A delineated area of forest similar in *structure* and *composition*.

Forest Structure – The age, size, and density of trees in a forest area, summarized as a *successional class*.

LANDFIRE - The *Landscape Fire and Resource Management Planning Tools Project* is a five-year, multi-partner project producing consistent and comprehensive maps and data describing vegetation, wildland fuel, and fire regimes across the United States

Large Tree Retention – Vegetation treatment methods applicable to areas outside of identified old-growth stands to maximize the recruitment and retention of large trees in a manner that is appropriate for the forest type.

Leveraged Funds – All non-Federal funds invested in the landscape in planning, conducting, and monitoring ecological treatments. Leveraged funds are any financial or in-kind contributions from foundations and other non-governmental organizations, State, local and tribal governments, and private investments. Some examples include private capitalization of infrastructure for woody biomass processing, collaborators time to monitor implementation of landscape ecological restoration plan, and private foundation grants to collaborating groups for capacity building.

Noxious Weeds - The President's Executive Order on Invasive Species defines invasive species as “*an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.*” All ecosystems (rangelands, forests, grasslands, riparian areas, wetlands, lakes, and streams) are vulnerable to invasion by non-native weed species. The State of New Mexico maintains a list of species considered noxious

in the state. The list places a weed designated as noxious into one of three categories for treatment:

- ❖ Class A species are currently not present in New Mexico, or have limited distribution. Preventing infestations of these species and eradicating existing infestations is the highest priority.
- ❖ Class B species are currently limited to portions of the state. In areas with severe infestations, management should be designed to contain the infestation and stop any further spread.
- ❖ Class C species are wide-spread in the state. Management decisions for these species should be determined at the local level, based on feasibility of control and level of infestation.

Pre-suppression Old Growth – A *reference condition* applicable within old growth stands that approximates the *composition* and *structure* of *forest stands* prior to the period of active fire suppression (circa 1900-1910).

Project Decisions – Agency decisions made in compliance with NEPA.

Proposal – A collaborative forest landscape restoration proposal described in section 4003(b) of Title IV of the Omnibus Public Land Management Act of 2009.

Reference Condition – The composition of landscape vegetation and disturbance attributes that, to the best of our collective expert knowledge, can sustain current native ecological systems and reduce future hazards to native diversity. Quantified, it provides a base line for measuring ecological *departure*. The value is often a modeled value estimating structure, composition or function of a particular *ecosystem*. The value is often +/- 33 percent, reflecting the range of variability inherent in natural systems.

Reference Period - The time frame thought to support the *reference* condition. It is the period prior to European settlement and the associated disturbances (fire suppression, grazing, logging and road building). Sometimes referred to as the *pre-suppression era* (circa 1900-1910) referencing when fire suppression began to effectively eliminate fire from most wildlands in the western United States, the *pre-settlement era*, a slightly earlier period referring to when the exclusion of fire was resulting from fire suppression as well as grazing, road building, logging and settlement in general within the SWJML.

Resource Management Plans - A land and resource management plan prepared for one or more units of land of the National Forest System described in Section 3(1)(A) under Section 6 of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1604) or equivalent plans used by other Federal agencies. The Valles Caldera Trust is exempted from the Forest and Rangeland Renewable Resources Planning Act of 1974 (U.S.C. 2000)

Secretary – The Secretary of Agriculture, acting through the Chief of the Forest Service.

Stream Condition – Measures of stream bank morphology, water quality, benthic and vegetative diversity. The *reference condition* is summarized as *Proper Functioning*

Condition; a moderate *departure* is summarized as *Functioning at Risk*; a significant departure is summarized as *Not Properly Functioning*.

Successional Class – stage of forest growth and development, abbreviated as s-class. Basic five forest s-classes include:

- ❖ A: early-open; grass and seedlings
- ❖ B: mid-closed; young forest, trees 5-16” d.b.h., canopy density >50%
- ❖ C: mid-open; young forest, trees 5-16” d.b.h., canopy density < 50%
- ❖ D: late-open; mature forest, trees +16” d.b.h., canopy density < 50%
- ❖ E: late-closed; mature forest, trees +16” d.b.h., canopy density >50%

Title IV – Title IV of the Omnibus Public Land Management Act of 2009 which created the *Collaborative Forest Landscape Restoration Program* and *Fund*.

Uncharacteristic Wildland Fire – Wildland fire burning at an intensity, severity or size that would be uncharacteristic in the natural *fire regime*.

Water Quality – Water quality is the ability of a water body to support all appropriate *designated uses* for humans and wildlife; drinking water and fish habitat are two examples. If water supports a beneficial use, water quality is said to be good or unimpaired implying that harmful substances (pollutants) are absent from the water, and needed substances (oxygen, nutrients) are present. If water does not support a beneficial use, water quality is said to be poor or impaired. Designated uses are the *reference condition* or baseline for measuring *ecological departure*.

Wildland Fire – A non-structural fire burning through natural vegetation such as forests and rangelands. Described by *intensity* (how fast and hot the fire is burning) and *severity* (the effects of the fires to *ecosystem structure*, *composition*, and *function*). A wildland fire burning at a severity and intensity or size that would not have occurred during the pre-suppression era is considered an *uncharacteristic* wildland fire. Other types of wildland fire include:

- ❖ *Prescribed fire* – Management ignited under “prescribed conditions” to achieve specific resource benefits
- ❖ *Wildfire* – An unplanned, unwanted wildland fire including unauthorized human caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to put the fire out.
- ❖ *Wildland fire use* – Managing a naturally occurring wildland fire to achieve resource benefits.

Woody Biomass - The by-product of management, restoration, and hazardous fuel reduction treatments, including trees and woody plants (i.e., limbs, tops, needles, leaves, and other woody parts) grown in a forest, woodland, or rangeland environment.