

Terms and Definitions– (DRAFT 09/08/08)

Incorporates approved definitions for collaboration, forest health and restoration.

Climate change –

- a. Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use.¹
- b. "Climate change" means a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.²

Discussion point –

What does the group call climate change due to natural internal processes or external forcings?

Collaboration – A process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond what any one group could envision alone. [Assumes NO END GOALS]³

Constructive dialogue –

- a. A discussion between representatives of parties to a conflict that is aimed at resolution.⁴

Ecosystem services –

- a. A full suite of goods and services vital to human health and livelihood – natural assets. Many of these goods and services are traditionally viewed as free benefits to society, or "public goods" - wildlife habitat and diversity, watershed services, carbon storage, and scenic landscapes, for example. Lacking a formal market, these natural assets are traditionally absent from society's balance sheet; their critical contributions are often overlooked in public, corporate, and individual decision-making.⁵

Forest health – The term "forest health" refers to conditions at multiple scales, including microclimates, that enable forested land –

- (A) to be durable, resilient, and less prone to uncharacteristic wildfire, insect, or pathogen outbreaks, while supporting viable native species assemblages and ecosystem services;

¹ Glossary of Terms used in the IPCC Fourth Assessment Report <http://www.ipcc.ch/glossary/index.htm>

² UNFCCC – Full Text of the Convention – Article 1 -Definitions - http://unfccc.int/essential_background/convention/background/items/2536.php

³ adapted from FSH 2409.19 - RENEWABLE RESOURCES HANDBOOK CHAPTER 60 - STEWARDSHIP CONTRACTING. December 2005

⁴ Merriam-Webster Online <http://www.merriam-webster.com/dictionary/dialogue>

⁵ USDA Forest Service – Ecosystem Services <http://www.fs.fed.us/ecosystems-services/>

- (B) to have, or to develop, natural conditions consisting of historic species composition, function and structure, hydrologic function, sediment regime that are within the natural range of variability and anticipated future conditions.⁶

Local (community) –

- a. An area determined by the group. The definition of local community is directly related to the project and community involved. In some cases, the local community might be defined by an area within a 15- to 20-mile radius from the project area, while other times it might be described as a county, group of counties, hub zone, and so forth.⁷

Mitigation –

- a. Mitigation includes: (a) avoiding the impact altogether by not taking a certain action or parts of an action; (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (e) compensating for the impact by replacing or providing substitute resources or environments. (40 CFR Part 1508.20)⁸
- b. EPA - Measures taken to reduce adverse impacts on the environment.
- c. Stream net - The act of alleviating or making less severe.
- d. Bureau of Reclamation - Methods or plans to reduce, offset, or eliminate adverse project impacts. Action taken to avoid, reduce the severity of, or eliminate an adverse impact. Mitigation can include one or more of the following: Avoiding impacts. Minimizing impacts by limiting the degree or magnitude of an action. Rectifying impacts by restoration, rehabilitation, or repair of the affected environment. Reducing or eliminating impacts over time. Compensating for the impact by replacing or providing substitute resources or environments to offset the loss.
- e. Lasting Forests - Actions to avoid, minimize, reduce, eliminate, or rectify the impact of a development or management practice.

Natural conditions –

- a. Early-successional forests will regenerate by different processes during a different time period than existing late-successional forests. Silviculturally created stands may look and function differently from current old-growth stands that developed over the last 1,000 years. Late-successional reserves represent a network of existing old-growth forests that are retained in their **natural condition** with natural processes, such as fire, allowed to function to the extent possible.⁹

Discussion point -

See definitions of “historic range of variability” or “natural range of variability.”

⁶ adapted from DeFazio’s draft legislation “Pacific Northwest Forest Legacy Act”

⁷ FSH 2409.19 - RENEWABLE RESOURCES HANDBOOK CHAPTER 60 - STEWARDSHIP CONTRACTING. December 2005

⁸ Source: The Willamette National Forest Land and Resource Management Plan. 1990. Final Environmental Impact Statement. References Section. <http://www.fs.fed.us/r6/willamette/manage/forestplan/index.html>

⁹ Regional Ecosystem Office – Information Center – Definitions http://www.reo.gov/general/definitions_n-p.htm#N

“Natural Range of Variability – the variation in extent or occurrence through time of ecosystems, and species resulting from naturally occurring biotic or abiotic disturbances.”¹⁰

OR

“*Natural range of variability*: The naturally occurring variation over time of the composition and structure found in an ecosystem represents the range of conditions occurring over hundreds of years prior to industrial-scale society.”¹¹

Old growth –

- a. Forests that have accumulated specific characteristics related to tree size, canopy structure, snags and woody debris and plant associations. Ecological characteristics of old-growth forests emerge through the processes of succession. Certain features - presence of large, old trees, multilayered canopies, forest gaps, snags, woody debris, and a particular set of species that occur primarily in old-growth forests - do not appear simultaneously, nor at a fixed time in stand development. Old-growth forests support assemblages of plants and animals, environmental conditions, and ecological processes that are not found in younger forests (younger than 150-250 years) or in small patches of large, old trees. Specific attributes of old-growth forests develop through forest succession until the collective properties of an older forest are evident.¹²

Discussion point –

The McKenzie Group should walk through some 150-250 year-old stands before adopting this criterion for “old growth”

Plantation –

- a. A forest established by planting or/and seeding in the process of afforestation or reforestation. It consists of introduced species or, in some cases, indigenous species.¹³

These are often very dense and dominated by a single tree species. They rarely contain legacy features such as large trees, snags, and down wood.

Discussion point –

In Oregon, if the landowner intends to plant or seed a tree species not native to the operating area, the Forest Practices Act rules require the landowner to submit for approval a plan for an alternate practice. The vast majority of reforestation projects in Oregon involve the use of native species (the act requires that the species must be ecologically suited to the planting site), either through artificial reforestation, natural reforestation, or as residual seedlings/saplings/poles. Your definition should read “...consists of indigenous species, or in some cases, introduced species.”

Restoration – The renewing and returning of a natural system so that its functions and qualities are comparable to its natural range of variability.(Stream net)

Riparian –

¹⁰ <http://www.moricelakes-ifpa.com/glossary/index.html#N>

¹¹ <http://www.biodiversitybc.org/EN/main/where/131.html>

¹² [pg. 45] Committee on Environmental Issues in Pacific Northwest Forest Management, Board on Biology, National Research Council. 2000. *Environmental Issues in Pacific Northwest Forest Management*, National Academy Press, Washington, D.C. 280 pp. Read online at <http://www.nap.edu/catalog/4983.html>

¹³ Convention on Biological Diversity – Forest Biodiversity Definitions
<http://www.cbd.int/programmes/areas/forest/definitions.aspx>

- a. A geographic area containing an aquatic ecosystem and adjacent upland areas that directly affect it. This includes floodplain, woodlands, and all areas within a horizontal distance of approximately 100 feet from the normal line of high water of a stream channel or from the shoreline of a standing body of water. (*FEMAT, IX-30*)¹⁴

Discussion point -

The Northwest Forest Plan established riparian reserve buffer widths equal to the height of up to 2 site potential trees, and the plan recognized that riparian reserves would provide both aquatic and terrestrial benefits.

Stewardship –

- a. Caring for the land and its resources to pass healthy ecosystems to future generations.¹⁵
- b. *Another definition that has been debated or at least misunderstood in our group is the definition of stewardship.*

Forest Service Handbook explaining Stewardship Authority:

“The general purpose of stewardship contracting is to achieve land management goals for National Forest System lands while meeting local and rural community needs. The intent of stewardship contracting is to accomplish resource management with a focus on restoration. Stewardship contracting is a tool and should be used when it is the most effective tool for accomplishing land management objectives. Appropriate examples include:

1. Road and trail maintenance or obliteration to restore or maintain water quality
2. [Recovering] Soil productivity, habitat for wildlife and fisheries, or other resource values.
3. Setting of prescribed fires to reduce wildfire hazards, improve the composition, structure, condition, and health of forest stands or to improve wildlife habitat.
4. Removing vegetation or other activities to promote healthy forest stands, reduce wildfire hazards, or achieve other land management objectives.
5. Watershed restoration and maintenance.
6. Restoration and maintenance of wildlife and fish habitat.
7. Control of noxious and exotic weeds and reestablishment of native plant species.”

Section 61.2 gives examples under each of these seven examples.¹⁶

- c. *General definition of stewardship, made from scratch:*

Stewardship involves the oversight and administration of resources that are entrusted to a person or group for the sake of long-term sustainability and productivity. For a watershed, entrusted resources would include geology, soil, water and trees that are administered to maintain and produce drinking water, clean air, habitats for aquatic and terrestrial species, products for societal and cultural use, natural experience, and community sustenance.

¹⁴ Regional Ecosystem Office – Information Center – Definitions http://www.reo.gov/general/definitions_r-s.htm#S

¹⁵ Regional Ecosystem Office – Information Center – Definitions http://www.reo.gov/general/definitions_r-s.htm#S

¹⁶ REFERENCE – FOREST SERVICE HANDBOOK 2409.19 - RENEWABLE RESOURCES HANDBOOK; CHAPTER 60 – STEWARDSHIP CONTRACTING, SECTIONS 60.2, 60.3 AND 61.2

Steward –

- d. One who manages another's property, finances, or other affairs. (American Heritage Dictionary)
- e. A person who manages another's property or financial affairs; one who administers anything as the agent of another or others. (Dictionary.com)
- f. Part of Speech: *noun* Synonyms: administrator, agent, attendant, bailiff, chamberlain, curator, custodian, director, foreman, guardian, magistrate, manager, officer, proctor, reeve, seneschal, waiter (Thesaurus, Main Entry)

Sustainability –

- a. Meeting the needs of the present without compromising the ability of future generations to meet their own needs.¹⁷

Discussion point –

Scientists are recognizing that ecosystems are so dynamic that sustainability is a bit of a myth. See Jack Ward Thomas “The Instability of Stability.”¹⁸

Thinning –

- a. A felling made in an immature stand primarily to maintain or accelerate diameter increment and also to improve the average form of the remaining trees without permanently breaking the canopy. An intermediate cutting.¹⁹
- b. The term “thinning” should also include the removal of a certain component of any stand (mature or immature) to accomplish such objectives as 1) mortality salvage (storms, disease, etc.), 2) beneficial habitat modifications, 3) sustainable cash flow, 4) aesthetic improvements...
- c. The term "thinning" means a partial removal of trees in an overstocked area of trees for the purposes of improving forest health and the natural processes of the forest, through either a multiple or single entry operation using the concepts of thinning from below and variable density retention of trees to mimic natural processes. Harvest operations shall concentrate on retaining the healthiest individuals and legacy forest features.²⁰

Value added –

- a. A change in the physical state or form of the product (such as milling wheat into flour or making strawberries into jam).
- b. The production of a product in a manner that enhances its value, as demonstrated through a business plan (such as organically produced products).²¹

¹⁷ definition of sustainable development from – Our Common Future, Report of the World Commission on Environment and Development, World Commission on Environment and Development, 1987. Published as Annex to General Assembly document A/42/427, Development and International Co-operation: Environment August 2, 1987. Retrieved, 2007.11.14

¹⁸ <http://www.pnrec.org/pnrec97/thomas2.htm>

¹⁹ The Willamette National Forest Land and Resource Management Plan. 1990. Final Environmental Impact Statement. References Section. <http://www.fs.fed.us/r6/willamette/manage/forestplan/index.html>, Regional Guide for the Pacific Northwest Region. 1984

²⁰ from draft suggested definition for Representative DeFazio’s “Pacific Northwest Forest Legacy Act”

²¹ USDA definition for value-added agriculture

Additional Terms and Definitions

Operational Goal Value Priorities – (as specified in USFS operations)

ECOLOGICAL FORESTRY - Forest practices that are based on principles of natural stand development, including the role of natural disturbances in the initiation, development, and maintenance of forest ecosystems, and operating on temporal scales consistent with recovery of desired structures and processes. These elements include: (0.1) use best available science; (0.2) protect existing areas of high ecological value, such as existing and emerging old growth, roadless areas, and riparian areas, (0.3) prioritize restoration efforts in areas that are highly altered by past management such as logging, road construction, and fire exclusion, (0.4) carefully integrate restoration of aquatic and terrestrial ecosystems; (1) mimic natural disturbance by retaining legacy features of a forest at the time of all active management; (2) manipulate established stands to direct their development to desired structural and compositional conditions, using tools such as variable density thinning and prescribed burning; and (3) determine return intervals for activities based on recovery periods for key structures and processes. The end goal of ecological forestry is to return natural processes of forest renewal to the landscape and reduce the cost of management and the need for human intervention. Ecological forestry also will typically incorporate spatial considerations, including heterogeneity, from the scale of individual structures (e.g., logs) within stands and up to the landscape scale. Ecological forestry programs are typically planned, implemented and evaluated at the landscape scale, incorporating knowledge developed from the study of pattern and ecological function in natural landscapes. This includes consideration of landscape components of exceptional significance, such as aquatic features and early-successional and other communities within forest landscapes. As used in this bill, “restoration” is a synonym for ecological forestry.

ECOLOGICALLY SUSTAINABLE STANDS AND LANDSCAPES - Stands and landscapes that maintain characteristic biodiversity and ecological processes over time and are less prone to uncharacteristic disturbances, such as wildfire, insect epidemics, and severe storms, and are better able to resist them when they do occur. Disturbance processes are a natural, expected, and necessary part of healthy forests. Rather than suppress disturbance, management should tolerate natural disturbance processes and their consequences. Ecologically sustainable landscapes are highly dynamic and are not expected to provide regular and even flows of forest commodities except at very broad scales.²²

²² Proposed definitions for Senator Wyden’s draft Forest Restoration and Old Growth Protection Act