Forest Health Subcommittee

Desired Conditions Draft Version February 2021

Committee Focus:

Wildfire Management, Fire Suppression, and Post Wildfire Salvage.

How do we develop wildfire management and suppression strategies that will maintain economic, environmental, and social values?

Timber Harvest and Forest Health.

How can we develop timber management strategies that support local community economies and protect, restore and enhance forest health?

Overall:

The overall goal is to achieve ecological, social, and economic resilience across the landscape and in surrounding communities. This is informed by an understanding of the disturbance processes that influence these landscapes and communities, and the structures and functions those processes create. Historical information and current research are used to assess how these processes shaped the landscape and surrounding communities in the past. Date on existing past and anticipated future conditions, are used to forecast how these processes may operate moving forward.

Appropriate management actions are implemented across the landscape to build ecological resilience and provide for the social and economic well-being of affected and/or adjacent communities. Our overall desire is forest health. As part of that, we want land managers to have flexibility to make land management decisions based on wildlife needs, vegetation need, will consider what is best needed for that specific landscape. When developing the purpose and need for a project, it is recognized the Forest Service needs to take a multiple use approach, when balancing the multiple use, the forest service will consider the needs of forest health to assure a resilient and sustainable landscape.

A steady and adequate supply of timber products and service work, accounting for local ecosystem and market conditions, is essential to the economic well-being of surrounding communities and supports timely management of forest stands to achieve appropriate structure, density, and species composition. The desired condition is that lands classified as suitable for timber production are managed for regularly scheduled timber harvest as the primary management action. In addition, lands that are not suitable for timber production but that are available for timber harvest are commercially treated as necessary to manage for the specified objectives of the management area.

Desired Conditions

1. Unless prohibited by law, timber harvest may be used as a resource management tool in Management Areas classified as not suitable for timber production. Timber removal should be treated as a byproduct of restoration actions necessary to meet the stated objectives of each Management Area.

   Native cover types such as grasslands, shrublands, woodlands, and forests are important to protect, restore, and enhance across the landscape. Native grass, forb, and shrub species are also important to protect, restore, and enhance because they provide necessary forage and cover for many species. The desired condition is that grassland, shrubland, woodland, and forested environments exist in appropriate locations across the landscapes informed by past conditions, site specific data and research, and anticipated future conditions.

In areas designated as Wildland-Urban Interface (WUI) in Community Wildfire Protection Plans, ecological desired conditions are secondary to wildfire protection objectives. These areas are managed at lower densities and fuel loadings to provide for safe and effective suppression actions.

Forest resiliency is important for the future of our communities and our forests. Understanding historical disturbance patterns and processes across the landscape should inform how forests are managed to build resilience to future disturbances. Historical reference conditions are used appropriately to guide management decisions and inform discussions on the effects of different management actions. However, as our understanding of historical conditions and anticipated future conditions increases, managers need the flexibility to respond to current information and data. The desired condition is for disturbance processes to occur across an appropriate range of forest density, structure, species composition, and old forest to provide for ecologically and socially resilient landscapes.

2. The safety of firefighters and the public is the top priority for all decisions made concerning suppression and use of fire on the landscape. The desired condition is to protect communities and the landscape from high severity wildfire while using managed fire to decrease fuel loads and promote stand compositions described in other desired condition statements. Current research and site-specific information, as well as anticipated future conditions, are used to determine appropriate fire behavior characteristics for different vegetation types.

    a. Prescribed fire can be used in all management areas across the landscape, and is preceded by density and fuels reduction treatments such as mechanical treatments, and other fuel reduction methods wherever possible to maximize the effectiveness of these management actions for changing fire behavior.
    b. Decisions of whether to manage wildfire to achieve resource management benefits depend on consideration of the fire's location, expected behavior, and values at risk. Values at risk include but are not limited to adjacent private property, local communities, timber value, wildlife habitat, and local infrastructure.
    c. If catastrophic wildfire does occur, timely post-fire treatments, including timber salvage where appropriate, are desired to mitigate hazardous conditions, ensure public and fire fighter safety, maintain the integrity of existing infrastructure, stabilize areas prone to erosion, prevent invasive species, provide economic benefits to local economies while maintain habitat for species that depend on post-fire environments.

3. Fuels desired condition: Landscapes that are in fire regime condition class 1 or exhibit a low vegetation departure score and conditions are maintained over time. Wildland fire disturbances and their associated effects occur within natural fire historical regimes similar to those that occurred prior to the modern fire exclusion (suppression) era.

4. High forest density can create risks and negatively influence associated resources. Maintaining a healthy forest density will 1) reduce fire risk, 2) reduce insect and disease activity, 3) increase understory forage production for both livestock and wildlife, and 4) enable sufficient upland water input to rivers and streams to maximize water flow and quality. The desired condition is reduced forest density across the landscape particularly ladder fuels and tree species that have encroached

due to fire suppression and other management activities. Dense forest patches that are important for certain wildlife species are managed for at the tree clump or stand scale and are dispersed and interwoven throughout the landscape. Forest density is managed to decrease the effects of natural disturbance processes to low levels across the landscape, where mortality of individual trees and small patches of trees provides for important wildlife habitat.

5. The desired condition is a range of forest structures across the landscape to maximize resilience to future climatic conditions and disturbance processes, and to maintain or produce wildlife habitat. This range is informed by historical conditions, site specific data and research, and anticipated future conditions.

6. The desired condition is an appropriate range of species composition at each site across the landscape to provide resilience to future climatic conditions and disturbance processes. This range is informed by historical conditions, site specific data and research, and anticipated future conditions.

7. Old forest structure is important for forest resiliency and provides habitat to many wildlife species. The desired condition is an appropriate amount and type of old forest structure that is well-distributed across the landscape. This includes an appropriate mixture of densities and species among young and mid-aged trees and an abundance of large, old trees. Old forest conservation is integrated and balanced with other desired conditions.

   Special plant habitats (including, but not limited to aspen, mountain mahogany, cottonwood, sagebrush steppe, and whitebark pine) are important to manage and sustain, and take precedence for management actions where they are found. The desired condition is for each special habitat to be healthy; regenerate naturally; and have a range of young, mid-age, and old conditions so they are resilient to future disturbances. Historical ranges, site specific data and research, and anticipated future conditions are considered when managing for special habitats.

8. The level of snags needed in any particular area is very site specific and appropriate management approaches vary based on the current condition of the landscape. Too low a level of snags and down wood will impact species viability while too high a level of snags and down wood will impact vegetation health. Forest health is the overall priority and snag and down wood treatments should balance wildlife and vegetation needs for the landscape. Retain existing snags and green trees to provide for recruitment of future snags and down wood as appropriate to support life history requirements for a diverse array of wildlife.

   Snag and down wood density vary depending on geographic and ecological conditions. A mix of clumps, as well as areas of more widely distributed snags, occur within and among stands. In fire-prone areas, higher amounts of snags and down wood occur mostly on parts of the landscape where fire is less likely to frequently consume dead wood. Areas of flat to moderate slope (or the lower third on slopes), concave or straight topography, and north and east aspects are examples of areas that tend to burn less frequently and/or less severely. At the landscape scale, higher amounts of snags and down wood occur in moister plant associations and at higher elevations.

Tables to Be Included in Standards and Guidelines

Associated with Desired Condition Number 5 above:

Potential Vegetation Group (PVG)	Current Total Acres	Stand Initiation	Stem Exclusion	Understory Reinitiation	Old Forest Single Story	Old Forest Multi Story
Cold Upland	160,000	20%-45%	15%-30%	10%-25%	5%-20%	10%-25%
Moist Upland	95,000	20%-30%	20%-30%	15%-25%	10%-20%	15%-20%
Dry Upland	1,230,000	15%-30%	10%-20%	0%-5%	40%-65%	1%-15%

Associated with Desired Condition Number 6 above:

PVG	Shade-intolerant Dominant Species Composition	Intermediate-tolerant Dominant Species Composition	Shade-tolerant Dominant Species Composition
Cold Upland	40%-60% (western larch, western white pine, whitebark pine, lodgepole pine)	5%-20% (Douglas-fir)	25%-50% (Engelmann spruce, subalpine fir, grand fir)
Moist Upland	30%-60% (western larch, western white pine, ponderosa pine, lodgepole pine)	20%-40% (Douglas-fir)	10%-30% (grand fir, Engelmann spruce, subalpine fir)
Dry Upland	75%-90% (ponderosa pine, western larch)		5%-20% (grand fir and Douglas-fir)

Associated with Desired Condition Number 7 above:

PVG-Old Forest Stage	Historical Range of Variability	Existing Condition
Cold PVG-OFSS	5%-20%	1%
Cold PVG-OFMS	10%-25%	20%
Moist PVG-OFSS	10%-20%	5%
Moist PVG-OFMS	15%-20%	47%
Dry PVG-OFSS	40%-65%	3%
Dry PVG-OFMS	1%-15%	20%