Data Submitted (UTC 11): 8/2/2014 12:00:00 AM
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Title:
Comments: FPR Comments

My comments regarding the FPR Proposed Action are attached in the margins (electronic sticky notes).

I suggest two significant improvements to the FPR proposed action:

1.First, reposition text to demonstrate true integration (suggestions note in attached).
2.Second, include integrated actions to apply vegetation management practices at a scale (large patches appropriate to a landscape) that progressively reduces the need and use for a historically expansive permanent road system. The intent is to localize immediate effects to biologic resources, improve operational effectiveness, and improve economic efficacy. Large/larger management patches and need for fewer permanent roads will render the biological, operational, social and economic benefits of economies-of-scale.

An argument for larger patches, complete with references is attached.

An Argument for Larger Forest Patches…

Historic patch sizes in the warm, moist rolling hills landscape were typically 1000 acres or more, sometimes 10's of thousands of acres during extreme events. High intensity, stand-replacement fire is a common disturbance regime for many forest types. Variable fire intensities within these stand-replacing fires result in a wide variation in spatial heterogeneity (from within stand to landscape) within and between burned and unburned patches (Franklin, circa 2003). Forest patches of similar stand development stage (i.e., even-aged forest) are characteristic of this landscape. Smaller patches (openings), typically ¼ to 5 acres created by mortality from insect and disease outbreak and/or localized mixed-severity fires, occurred within these larger patches. In addition, small inclusions (5 to 50 acres) of open forest understories (primarily occurring along prominent ridges and south aspects) are created or perpetuated by low-severity fires.

Wildlife and plants evolved on this landscape in response to natural disturbance processes. Franklin (1987) contends that landscape management practices should "…reduce the emphasis on dispersing small clearcut patches through the forest landscape". For example, northern goshawks (Wisdom, et. al, Vol. 2-44 & 45; Reynolds, et. al. 1992) prefer contiguous patches (400+ acres) of mid-seral and older forest for nesting and brood rearing (post-fledgling/family) habitats. Likewise, ungulate species rely on productive grass/shrub/forb forages that are most nutritious only in early forest habitats. Abundant forage, in proximity to large patches of hiding cover, to avoid predation and human disturbance are preferred by big game.

Franklin (1987) further contends that "…fragmentation (i.e., clearcuts) that results (from small clearcuts) does not enhance many resource values…and that …clearcutting generally must be avoided within the reserved patches because of the substantial vulnerability that results from placing even small cuts within a reserved tract. "Landscape management practices should "…identify and reserve large patches of primeval forest…for maintenance of interior species…" (Franklin, 1987, pg 15). Large patches of mature and old forest assure the availability habitat conditions preferred by American marten, fisher, northern goshawk and pileated woodpecker. Forest vegetation management should be applied through space and time to assure mature coniferous forest and riparian habitats, and large trees (stand and down dead) are well dispersed and available across the landscape.

Vegetative management practices emulating scale, intensity, frequency and vegetative responses to wildfire and forest development have mixed short and long term impacts and benefits to wildlife species. Suitable habitat for pileated woodpeckers and American marten, among others, are favored by: 1) Retaining large patches of mature and late mature forest; and 2) Assuring the presence of large standing and down wood for rearing and foraging (Franklin, 1987).

Generally:
?Natural processes influence local, native populations (including species viability) on large, landscape scales (mountain ranges, ecological provinces, species range, etc);
?Native species are adapted to the historic disturbance regimes and habitat conditions;
?Native animal and plant populations are the product of the quality and availability of their respective habitats;
?Forest succession (from early seral shrubs/forbs/grasses to late mature coniferous forest) is essential to native species;
?Assuring the continued local availability of suitable habitats, similar to historic conditions, are needed to maintain species throughout their respective ranges;.

"Patch" Features:
?Common (i.e., essentially even-aged) stand development stage throughout (i.e., stand-initiation; stem exclusion; stand-re-initiation; mature; and old forest).
?Bound on 'fire defensible' topographic (combinations of major ridges, streams and existing roads) or landscape features (aspect and/or landtype breaks)
?Accommodate appropriate inter-mediate (pre- and commercial thinning; low- and mixed-severity fire inclusions) disturbances (per the appropriate disturbance regime for landscape)
?Structurally diverse within patch boundary (including RHCA's; mature clumps/legacy trees retained/perpetuated through stand-initiation and stem exclusion stages; small openings or sparse understory due to low- and mixed-severity disturbances).
?Well distributed by stand development stage.

Patches are not:
?Monotypes (composition or density)
?'Localized' (i.e., 2 to 3 patches of the same stand development stage isolated to a 'corner' of an analysis area, resulting in extraordinary patches representing any particular forest stand development stage)

Forest patches approximating the historic range of availability (i.e., representing the full range from young to mid- to mature forest stand development stages), are expected to be present and well distributed on the forest landscape. Patches are expected to remain "connected" for animals and plant habitats by providing cover and moisture regimes to move between preferred habitats. PacFish buffers along all RHCAs provide "connectivity" between preferred habitats. To provide for the full range of native habitats and species, it is essential to approximate the range of historic conditions by retaining large:
?Patches of mid-seral and older forest to provide future large patches of old forest.
?Retaining large trees in treated stands to maintain more "structurally complex" managed patches.

To promote historic patch sizes characteristic of the warm, moist, rolling hills landscape, timber harvest and/or prescribed fire disturbances actions should:
?Provide for all native wildlife and plants within their natural range of ecologic variability;
?Implement vegetative management practices which emulate historic landscape disturbances and forest processes.
?Assure viability of all native plants and animals, including threatened, endangered and sensitive species.

Planned actions should create a contigous larger patch of young (stand-initiation) forest. Likewise, to assure

short- and long-term retention of one or more existing large patches of mid-seral and older forest, regeneration treatment would be deferred, indefinitely. In the long-term, planned disturbances would provide the full range of stand development stages, well distributed in patches large enough to provide for elk security, pileated woodpecker, fisher and northern goshawk habitats.

Advantages of Large Patches:
?Retention and future development of larger patches of big game hiding cover.
?Retention of mid- and mature forest patches preferred by pileated woodpecker, fisher and northern goshawk habitats, while promoting the future development of larger patches of mid-seral and mature interior forest habitats.
?Minimizes watershed impacts by localizing regeneration practices , followed by the reduction of road-induced sediments (as the result of using any combination of temporary and/or system roads that are decommissioned or place into long term storage, as appropriate).
?Managing larger patches promotes an economy-of-scale for fireline construction and post-harvest prescribed burning.
?Promotes using temporary or system roads (placed into long-term, intermittent storage), ultimately reducing road construction/maintenance costs.

Disadvantages of Larger Patches:
?In the short-term (15-20 years following stand-replacing disturbance) larger stand-initiation patches would not be fully useable by foraging elk (due to limited hiding cover within the interior of the patch). Beyond 15-20 years old, stand-initiation patches would provide both forage and cover, allowing extensive elk foraging/hiding.

Bottom Line:
To provide for larger patches of older forest thorugh time and space, it is necessary to strive for: 1) Achieving the full range of stand condition stages (young to old), well distriubed on the landscape; 2) Retaining relatively intact large (i.e., 400+ acres in area) patches of mid-seral forest beyond traditional timber rotation age (approximately 100 years) to allow them to develop into older forest; 3) Creating larger patches of young forest (avoiding “Conventional dispersed cutblock harvesting”) and favor the beneficial ecological, biological and environmental attributes of larger forest patches; and 4) Avoiding fragmenting intact large patches of mid-seral forest.

References:

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