

**Developing an Aspen Management Protocol
Provided to the SE Idaho Aspen Working Group**

Western Watersheds Project is providing this initial set of recommendations that we believe need to be addressed in dealing with the decline of aspen communities. WWP believes the Aspen Working Group should develop a protocol incorporating this and other recommendations to provide a systematic, integrated approach that ensures recovery and long-term maintenance of aspen communities prior to supporting any aspen projects. These recommendations do not address legal requirements for public participation, disclosure and analysis required under various Federal laws. The following discussion does not cite specific references since the AWG has heard numerous presentations and been provided much of the needed information. WWP will assist in providing additional information if needed.

Background

Research conducted by agency scientists has shown aspen are declining due to browsing or conifer invasion brought on by the absence of fire. Prescribed fire or mechanical harvesting are proposed to remove invading conifers and stimulate root sprouting. The role of livestock as a causative factor is generally not addressed even though research has shown that conifer recruitment increases in the presence of livestock due to the depletion of the native grasses and other ground covering vegetation that suppress conifer seedling establishment and carry cooler ground fires that kill these seedlings. The role of water developments in or adjacent to aspen stands is not addressed. These induce concentrations of livestock in aspen stands with the result that the native grasses and flowers are depleted and replaced by non-desirable plants such as coneflower. Acknowledgment of aspen stands as a **community** of aspen plus understory shrubs, grasses, forbs and associated wildlife species is needed as is the restoration of natural fire regimes based on healthy natural systems. These have been thrown out of balance by past management.

Recommendations

1. Provide baseline data, photos and analysis of the status of aspen stands including:

- a. Age distribution and density of aspen based on belt transects
- b. Counts of first year aspen shoots in early summer before allowing livestock in the area to document potential recruitment
- c. Size and frequency of conifers along belt transects
- d. Understory plant community composition compared to potential plant community (species frequency, dominant native/exotic species and ground cover)
- e. Evidence of aspen disease and damage such as cankers
- f. Level of utilization (end of season) on forbs, grasses, and shrubs in and adjacent to the aspen stands
- g. Level of browsing on aspen first year and older stems
- h. Pellet counts of livestock and wildlife

2. Mapping, Area and Management Analysis:

- a. Using GIS, develop maps of the treatment area and allotment(s) showing locations and areas of vegetation types, past timber harvests and current status, past vegetation treatments and current status, riparian areas and current status, extent of old growth and mature forest, proximal water sources (*developments and natural*), topography and monitoring locations (*prior and proposed*). Identify summer and winter range and important wildlife habitats (*sensitive species, e.g.*).
- b. Determine if the aspen are in close proximity to water sources, are in livestock accessible areas or on steeper slopes.
- c. Describe livestock grazing systems (*current and historical*), including stocking rates vs current forage capacity on suitable lands, rest, seasons of use, utilization monitoring results, and historical actual use. (*WWP notes that use of native wildflowers is almost always ignored in utilization measures and normal data collection lacks objectivity by focusing on single species which may or may not represent actual use.*)

3. Identify causes of aspen problems (*incorporate analysis from 1 and 2 above*):

- a. Dense conifer present – analyze reasons for conifer encroachment/recruitment
 - i. Absence of fire/past fire suppression activity, including estimation of relative contribution of livestock grazing to fire suppression (loss of herbaceous fuels) vs. active human fire suppression
 - ii. Livestock induced loss of native understory grasses, forbs, and shrubs leading to recruitment of conifers and absence of ground fires
 - iii. Other
- b. Conifers not a significant issue – analysis of causes
 - i. Browsing – wildlife or livestock or both, identify relative contribution according to pellet counts along transects or other useful measures such as actual counts of animals
 - ii. Analyze the current percent bare ground; the density, reproduction and status of native vs. exotic grasses, forbs, shrubs; and age structure of the aspen compared to potential
 - iii. Analyze the spatial relationship of wild ungulates and livestock in the area to determine the degree to which wild ungulates are being limited to this aspen area by forage competition and displacement by livestock.
 - iv. Other

4. Describe a systematic approach that will recover and sustain aspen, the associated understory native plant communities and wildlife

- a. Provide for scheduled rest or protection from livestock grazing to allow recruitment of aspen on an ongoing basis, as opposed to only initially (e.g., 2 years) which merely induces another younger, even-aged stand, generally depleted of desirable native understory plant communities.
- b. Adjust stocking rates for livestock within current forage capacity (*based on considerations of slope, distance to water, soil erosion hazard, current ground cover*) and ecologically sustainable utilization rates.

- c. Modify AMPs and permits to include grazing systems, complete seasons' rest, standards for native understory vegetation utilization and aspen browsing that will allow ongoing aspen recruitment , recovery of desirable understory native species (*as opposed to coneflower, e.g.*) and structural diversity.
- d. Remove water developments in proximity to aspen stands.
- e. If minimal or no conifers are present in stand, provide rest from livestock, monitor recruitment and restoration of aspen understory over time. Include wild ungulate exclosures for comparison.
- f. If suckering is inadequate under rest, then induce suckering by cutting sufficient mature trees.
- g. If conifers are dominant, thin to reduce shading, provide rest from livestock, monitor recruitment and restoration of aspen and understory community over time. Repeat step f. above if suckering is not adequate.
- h. Allow restoration of the natural fire regime.
- i. Provide a long-term, systematic monitoring and reporting system to document the health of aspen stands (including understory native vegetation) subjected to changes in management as described. This will provide a rational basis for future management.



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