

ENCLOSURE 2
Utah Northern Goshawk Project
Desired Habitat Condition

The desired habitat condition (DHC) is a portrayal of land conditions expected to result from implementing the proposed management direction (Enclosure 4). It describes the desired habitat quantity, quality and distribution for the goshawk and its prey that the agency intends to continuously strive for over time.

The habitat assessment by Graham et al. (1999, in press) states that all forested landscapes in Utah are potentially suitable as goshawk habitat for some portion of their lifecycle (Conservation Strategy and Agreement for the Management of Northern Goshawk Habitat in Utah (HCS), page 4). Forested landscapes include those areas dominated by coniferous and aspen forest; but not woodlands such as pinyon-juniper.

In general, when forested landscapes of Utah are in a properly functioning condition they will provide excellent habitat for the goshawk and its prey (Graham et al. 1999, in press). Desired habitat attributes important to the home range of the goshawk and its prey, as stated in the HCS, include :

1. Diverse forest cover types with strong representation of early seral tree species dominate the landscape.
2. High quality habitat patches that are no more than 60 miles apart, preferably less than 20 miles apart, exist throughout landscapes (connected habitat).
3. Forested landscapes have 40% of the coniferous land area and 30% of the aspen land area dominated by large trees, well distributed. Large trees are defined based on the average size of trees found in the area and by the site potential.
4. Habitats for prey and other associated species are present to meet their needs as described by Reynolds et al. 1992 and Graham et al. 1999, in press (i.e., snags, down woody, cover, etc.).
5. A variety of structural stages as recommended by Reynolds et al. (1992) are present.

A balance of structural stages across the landscape is needed to ensure that the larger structural stages are sustained over time. Tree densities in the smaller structural stages should promote accelerated tree growth into the larger structural stages and maintain crown development important to meeting desired canopy closures in the larger stages. Outside of nest areas, it is desired to have open understories in the larger structural stages with trees irregularly spaced (Reynolds et al. 1992; Graham et al. 1999, in press).

An essential component of goshawk home range is goshawk nesting habitat. Nesting habitat and the associated post-fledgling family area are an important component in contributing to habitat connectivity across landscapes. This habitat is also important for the continuous recruitment of individuals (goshawks) into the population. Both habitat connectivity and continuous recruitment are important components for sustaining viable populations of the northern goshawk in Utah. Thus, it is desirable to have nesting habitat and the associated post-fledgling areas well-distributed within and across forested landscapes. Desired nest area habitat varies from the overall home range habitat in that it typically occurs in older-aged stands that have a higher density of large trees, high tree canopy cover, and higher understory tree density.

To understand relationships of these desired habitat conditions they must be viewed in scales at tens of thousands of acres or larger. Scales greater than hundreds of thousands of acres are too large to ensure that desired habitat connectivity attributes are sufficiently distributed.

Achieving desired habitat conditions requires the restoration and protection of degraded habitats, protection of native processes (Graham et al. 1999, in press), and maintenance of habitats already in desired conditions. Vegetative management should emphasize managing forest landscapes within their bio-physical limits and understanding how disturbances influence the resulting stand composition and structures (Graham et al. 1999, in press). Native species should be emphasized in forest management activities. Their persistence in landscapes gives the best indication of ecosystem sustainability because native species evolved with the disturbance events of the preceding several thousand years (USDA Forest Service, PFC, 1997).

The habitat outlook should be favorable for the goshawk and its prey when forest management emphasizes properly functioning condition, importance of large trees, maintenance and restoration of native processes, adaptive management, and the role of fire (Graham et al. 1999, in press).