forest GUILD

Policy Statement:

Silviculture for Natural Forests

Approved by the members Spring, 1999

Silviculture is the management, within a forest, of space and species over time to achieve or maintain desired conditions. Such desired conditions pertain, for instance, to stand health and vigor as well as wildlife habitat, biological diversity, water filtration and aesthetics. When achieved, these forest conditions enable the sustainable yield of intangible and tangible forest products, including but not limited to commercial timber.

The Forest Guild stresses that not all forest lands are the appropriate targets of the silviculture at issue in this policy statement. Because of societal expectations and special resource characteristics, some forest areas are most appropriately reserved from active management of the timber resource. Likewise, the Guild recognizes that there is a place and need for high yield/fiber production plantations. However, intensive silviculture associated with plantation forestry should seldom occur at the expense of natural forests.[1] The Guild believes that maintenance and enhancement of our natural forests is both ecologically wise and economically prudent.

Where human intervention in natural forests is judged to be appropriate, the Forest Guild believes that silvicultural techniques must be selected and implemented so as to perpetuate natural forest dynamics, as manifested through structure, complexity and diversity. The choice of appropriate technique should be guided by case-specific considerations, including:

- Ecological requirements of the tree species currently present and desired to be present within the forest type being managed (e.g., relative shade tolerance);
- Residual seed bed conditions for successful natural regeneration when hand planting is not employed;
- Effects of timber harvest on forest flora and fauna;
- Soil types, depth, slope and aspect;
- Pest/pathogen activity and other sources of stand damage;
- Societal expectations regarding the character of and benefits derived from natural forests;
- Financial and other landowner objectives for the managed forest;
- Effects on water quality and quantity and associated riparian and aquatic ecosystems;
- Cumulative effects of stand-specific silvicultural decisions on forest structures and ecological processes at the landscape level; and

[1] Plantation silviculture will be the focus of a future Forest Stewards Guild Policy Statement.

- Generally, the compatibility of the silvicultural system's harvest interventions with the long-term ecological integrity of the forest.

The Guild believes that no silvicultural technique is inherently inappropriate for use on the natural forests of North America. Rather, most problems and issues facing the forestry profession stem from improper use of silvicultural treatments in addition to logging that is bereft of any valid silvicultural intention. While the abuses associated with inappropriate clearcutting are most easily observed and grasped by the general public, abusive harvesting is not confined to even-aged silviculture. Common to most improper timber harvesting is single-focus maximization of a particular attribute such as financial return or annual increment, thereby fostering ecological imbalance and dysfunction. The result is the loss of the natural character of the forest as well as reduced biological diversity at both the stand and landscape levels. Examples of inappropriate silviculture for natural forests include:

- Selection harvesting characterized by "high-grading," where the healthier, highest valued trees are removed and the remainder left behind, leading to a degraded forest condition and depletion of the forest's commercial value;
- Short rotation (relative to a species' age of biological maturity) even-aged systems broadly applied to natural forests that significantly truncate their age and size class distribution across the landscape;
- Large regeneration harvest units (e.g., clearcuts) that, due to their spatial and temporal distribution, far exceed the bio-physical regeneration requirements and alter/simplify the natural pattern of forest stands across the landscape;
- Extensive use of even-aged systems in forest types where natural disturbance regimes typically lead to uneven-aged forest structures;
- Large-scale stand conversions, such as converting a diverse hardwood forest to a pure softwood forest;
- Planting of non-indigenous tree species; and
- Generally, any harvesting activities that fail to imitate natural stand dynamics and maintain the ecological integrity of the forest at the landscape level, within the historical range of variability.

There are no simple solutions to enlightened forest management. Good silviculture, by necessity, must be as varied and complex as the forests it is applied to and the ownerships it is applied on. But the need for flexibility is no blanket endorsement of "anything goes." The Forest Guild promotes silviculture that honors the natural processes of forest ecosystems and that lays a thoughtful hand on the land.