

Answers to the "Older Forests" Questions for
The Federal Forestland Advisory Committee
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I have been involved with older forest research and issues for over 30 years. I chaired the Society of American Foresters' committee on Scheduling the Harvest of Old Growth Timber, 1980-84, was a member of the congressionally appointed Scientific Panel on Late-Successional Forest Ecosystems (a forerunner of the Northwest Forest Plan) in 1991, and currently am project steward for the older forests project of the National Commission on Science for Sustainable Forestry. A prepublication version of the latter report is available to the committee. The opinions I offer here are based in these and other efforts, but are my own and not necessarily agreed to by the other participants in the cited works. Interforest LLC is a consulting firm working to make the world safe for sustainable forestry through the application of science to forest investment, management and certification.

1. How should older forests be defined?
2. What process(es) should be used to determine the appropriate amount of older forest?
3. What federal policies would you change to deal with these issues?
4. What barriers exist that would prevent these policies from being implemented and how would you overcome those barriers?

Definition

The basic definition of old growth is simply a forest that is dominated by big, old trees, both live and dead, standing and fallen, and that usually contains many other smaller trees. The individual trees are irregularly distributed over the land, and their diverse sizes give rise to a layered appearance. Most true old-growth forests give an overwhelming impression of diversity instead of uniformity. Older forests are reservoirs of species that are often rare or absent in younger forests. The forests themselves are an important element of biodiversity because of their unique age and form.

Old growth forests share many attributes, but they also differ in many ways. Efforts to conserve them must be sensitive to these differences and must consider forests of all developmental stages, not just the oldest ones. Unless some younger forests become older forests, one day in the future there will be no old growth forests. Forest policies and management practices may need to be as diverse as the forests they address.

Old growth characteristics don't develop instantaneously at some magical age; they accrue slowly over time. Effective conservation of forest biodiversity requires us to see the forest as plants and animals experience it, not as black or white (e.g., pristine old growth vs. everything else).

Old forests are essential for maintaining a full suite of forest biodiversity and for important aesthetic and spiritual benefits. In addition they sequester large amounts of carbon per unit area, protect watersheds and provide unique recreational space. From all these points of view, there is now an older forest deficit in the United States. The Pacific Northwest is fortunate to have more older forest than any other region, but it still needs more, particularly at lower elevations and on flood plains.

Summary points:

- Definitions must be biologically flexible, widely accepted and specific to forest type;
- Old forests ^{are} a part of a whole cycle which must be recognized in their successful protection and management;
- Any useful definition has to take location and structure into account
- Both biodiversity and aesthetic/spiritual outcomes need to be considered
- Forests grown on long rotations for ultimate harvest and use for wood products can provide some older forest values, and should not be excluded from old forest definitions.

Amount

Processes to determine the appropriate amount of old growth should take into account the following principles:

- Risk, that is how likely the older trees in a given forest type are to be lost to catastrophic fire, insect attack, disease or other agents of destruction should be a primary determinant of old forest amount. Redundancy, replication of old forests, should be geared to the estimates of these risks in a given forest type.
- Each major forest type would ideally contain older forests to provide balanced habitats and forms across the full spectrum of forest ages.
- The full forest cycle would be provided for; some young forests would be designated to become older forests and managed accordingly.
- For each forest type, a balanced array of forest ages, including those that will become older and those that will not, should be provided.
- In general, larger contiguous areas within a forest type should be favored over an equal total area of dispersed, smaller areas, but this can be modified for specific habitat considerations.
- Location should be an important determinant, along with extent, so that, for example, lower elevation and stream and riverside areas have a portion of the total older forest area.

Policies

The bulk of older forests in the Pacific Northwest now exist on federally managed lands. This fact alone indicates that federal policy has been important in relation to older forests. The progress report of the Northwest Forest Plan indicates increasing amounts of older forests on federal land. On the other hand, fires, and federal fire policy, have been important causes of old forest loss, particularly east of the Cascade Mountains in Oregon. Perhaps the most important principle to be served in sustainable forest management generally is the coordination of purpose, so that many diverse goals can be achieved within one larger forest area. Thus, any policy change that enhances the coordination of goals and practices across the landscape will aid all forest management, and will result in the most efficient way to conserve and provide old forests. These are some policy changes that should be considered:

- Forest management and conservation are largely sciences of place; nation-wide or even state-wide rules quickly become awkward in local application. More local influence, in the form of greater management and regulatory flexibility and local participation is an important avenue to better older forest management.
- Incentives for both public and private forest managers to produce older forests are a key policy ingredient that is now lacking or underdone. These are particularly important for flood plains and lower elevation sites that are in private ownership.
- Federal policy change should embody the creation of a balanced network of older forests across the landscape. This might, for example, include harvesting older forests in some locations to provide the means to establish older forests in locations where they are now rare or absent.

Barriers

As always, a major barrier to policy change is existing policy. Many, including me, now think that all forest policy in the United States needs to be rethought and changed where appropriate. Most of the laws now affecting forest policy were drafted and passed over three decades ago. Much science has been done, and the country has changed in many ways, since then. Another major barrier to policy change is the continual clash of special interests over public forests. Some years ago I characterized this as the "big piñata" theory of policy making. Any group with a long enough stick can hit the federal forest piñata and hope what they want falls out. It is probably safe to say that the vector of these contending groups is not necessarily what the country or the forest needs. We need a mechanism that will allow enlightened compromise and its implementation regarding forest policy. Over a decade ago, we tried the Seventh American Forest Congress and found an (to me at least) an amazing degree of agreement on major principles regarding forests. If that were still to be the case, it might form the foundation for a new forest policy discussion and change.