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Setting the Allowable Harvest

On National Forests

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The Public Lands During the Remainder of the 20th Century:
Planning, Law and Policy in the Federal Land Agencies

Natural Resources Law Center and
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The best references for examining how the Forest Service determines the allowable harvest for a national forest includes the Forest Service Manual. For general planning procedures, refer to Section 1900 and the associated Handbooks, and for timber management, refer to Section 2400 and its associated Handbooks. The following list includes a selection of references from among the many which relate to timber harvest planning. They should be adequate for most purposes.


Johnson, Norman. 1977. A comment on "techniques for prescribing optimal timber harvest and investment under different objectives - discussion and syntheses." Forest Science. 23(4)


O'Toole, Randall. 1983. The citizens' guide to FORPLAN. Eugene OR: Cascade Holistic Consultants: 51p
The allowable cut of a national forest is determined through a process which considers the capability of the forest to produce timber, local issues identified by the public, concerns and opportunities defined by the forest staff, and national program objectives.

A. Forest capability is determined through the Forest Service land management planning process which occurs at the forest level.

B. Local issues are identified through a number of formal and informal processes involving input at the district, forest, and regional levels.

C. Concerns and opportunities are identified by the management/planning staff of the Forest Service.

D. National Program objectives are defined with: (1) the results of the Resources Planning Act mandated resource assessment and program analyses, (2) input from the forest level planning analyses, and (3) the Presidents Statement of Policy as it relates to harvest levels.
E. In this process, information on forest capability and local objectives flows from the district level through the forest to the national level. Information on national objectives flows down from the national level through the regional offices to the forests. At each interface between organizational levels, a dialogue occurs to reconcile differences between the downward flow of harvest objectives and the upward flow of forest capability and local objectives.

II. Simply stated, forest timber production objectives are determined by considering RPA and national production objectives, inputs from forest publics on key issues, inputs on management concerns and opportunities by forest staff, and forest capability.

III. A major determinant of the level of timber harvesting is the budget appropriated to the Forest Service for timber programs. The RPA program is important because it provides the best estimate of the level and intensity of timber management that will take place in future years.
A. The mandate to achieve long term non-declining sustained yield means that harvests in the current time period are associated with harvests in the future. If intensive management is programmed and there are sufficient volumes of mature timber available, higher budgets mean higher current and future timber harvests.

B. The RPA assessment and program analyses are key inputs into the process which determines the annual timber program appropriation or budget.

C. Congressional appropriation processes and input from the executive branch of government are major focal points for the annual timber program. Budgets determine how many roads will be constructed and how much timber volume will be offered.

D. Both the congressional and executive branch budget agendas are affected by inputs from groups which have vested interests in Forest Service timber harvesting programs.

IV. Interactions between harvest objectives or targets, budgets and planned budgets, management prescriptions, and forest capability determine which lands are suited for timber production.
A. A major result of forest planning is specification of lands suited for timber production. For a particular timber stand to be designated as suitable for timber production it must:

1. be available for timber management,
2. be possible to regenerate it following harvest with reasonable regeneration technology,
3. be environmentally stable in the sense that soils and other environmental attributes are not irreparably damaged,
4. not be needed to meet other forest objectives, and
5. be cost efficient in meeting the objectives of the forest plan.

B. Items 1-3 are relatively easy to understand since they result from resource inventories and analyses of these inventories. Items 4 and 5, however, are not so obvious.

1. In order to determine if specific lands are needed to meet other objectives of the forest plan, forest potential described in terms of the full range outputs is brought together with the objectives for the forest
plan; and land is allocated to specific management prescriptions to meet all objectives (including timber) in-so-far-as-possible.

a. The potential of a piece of land is determined by the basic capability of the land to produce the various outputs and by the range of management prescriptions used in the evaluation.

b. The level of an objectives is very important in determining whether land is needed to meet that particular objective. For Example:

If the recreation objective is set very low, little land will be required for recreation management, and more could be deemed suitable for timber production.

If the timber objective is set very high relative to the timber potential of the forest, much of the forested land will be required to meet the timber objective. As a result, a
higher proportion of land will be deemed suitable for timber production.

If both the timber and recreation objective are set high, there is a chance that the objectives will not be attainable.

It is not unusual for the analyses to show that it is possible to achieve multiple objectives.

2. Cost efficiency is merely a statement that the timber management objectives should be attained as efficiently as possible "given the objectives of the plan" and that the available lands which are best suited for timber production should be used.

V. To summarize, forest plans result in a portion of a forest being designated as suitable for timber production. These lands are identified by jointly considering land capability, forest objectives, and planned budgets. Given the lands suited for timber production, management prescriptions determine the level of production and thus the allowable harvest.

VI. Resolution of conflicts between local and national objectives is accomplished through a process of
negotiation. The Forest Service is a hierarchical organization, and negotiation is a reflection of the decision process of the agency and its structure. The RPA and appropriation processes produce budgets and output objectives at the top of the organization. Forest capability and local objectives produce budget requests and output statements at the ground level. The two sets of information collide at each level in the organization, and to attain a single set of objectives, negotiation occurs.

The Forest Service Manual describes this process with the following figure and language:
1. **Stage 1.** This stage involves regional input to the development of the national RPA Assessment and Program. It involves an analysis of State and local plans and other available information on regional capability and research needs. Using this information, regional line offices provide input into the national RPA process.

2. **Stage 2.** Once the RPA recommended Program is finalized, the Chief distributes to each Region its share of the national program in terms of output targets and associated costs. At this point, the second stage of regional planning begins with the development of a Regional Guide which:

   a. Provides standards and guidelines for various management activities that may be carried out on the National Forests. These Standards and guidelines specify the actual criteria to be applied to management activities.

   b. Provides planning direction for developing individual Forest Plans, including those issues or concerns raised at the National or Regional level that can only be assessed or resolved by the Forests. Planning direction essentially defers the final decision on an issue to an
individual Forest, within limits established by the region.

c. Displays the Regional RPA Program and distributes tentative resource targets among the individual National Forests. RPA-assigned objectives are used as the basis for one of the alternatives examined in the Forest planning process.

d. Reflects the general coordination of National Forest System, State, and Private Forestry, and forestry research programs.

The Regional Guide is subject to change as new and better data on biological capabilities and on social, economic, and environmental effects become available through the National Forest and State planning processes. Local plans and other available information are analyzed to develop better estimates of Regional capability.