

Appendix K

Old-growth Habitat Reserve Criteria

Introduction:

These criteria serve as guidelines for further evaluating the design of reserves at the project level as described in the Old-growth Habitat Land Use Designation Standards and Guidelines (Wildlife section).

Consider first, in any modification of mapped reserves, “non-development” Land Use Designations that maintain the integrity of the old-growth forest ecosystem and contribute to a Forest-wide system of reserves (e.g., Wilderness, Monument, LUD II, Remote and Semi-remote Recreation, Wild River, Municipal Watersheds, etc.). Where “non-development” Land Use Designations do not fulfill size, spacing, and composition criteria of the Forest-wide system of old-growth habitat reserves, add or modify old-growth reserves to meet criteria.

Rules Applicable to all Reserves:

- A. Spacing should generally consider the four cardinal directions.
- B. Reserves should be more circular rather than linear in shape to maximize the amount of interior (secure from the effects of forest edge) forest habitat.
- C. Minimize to the extent feasible, the amount of early seral habitat and roads within mapped reserves.
- D. Consider site-specific factors in placing reserves to help meet multiple biodiversity or wildlife habitat objectives. Factors include, but are not limited to:
 1. Important deer winter range to maintain important deer habitat capability to meet public demand for use of the deer resource (see Wildlife Forest-wide Standards and Guidelines.)
 2. Known or suspected goshawk nesting habitat (see TES Forest-wide Standard and Guidelines.)
 3. Known or suspected marbled murrelet nesting habitat (see TES Forest-wide Standard and Guidelines.)
 4. The largest remaining blocks of contiguous old growth within a watershed.
 5. Rare features such as underrepresented forest plant associations or stands with some of the Forest’s highest volume timber stands.

Basic Criteria for Allocating Reserves:

- A. **Large Reserves:** a contiguous landscape of approximately 40,000 acres, of which at least 20,000 acres must be productive old growth forest. At least 10,000 acres of the productive old growth forest (over 8,000 board feet per acre) component should be in the high volume class strata (greater than 25,000 board feet per acre). Large reserves shall not be greater than 20 miles apart, edge to edge, across the entire forest. Landscapes within the range of brown bears should include at least 1 Class I anadromous fish stream.
- B. **Medium Reserves:** a contiguous landscape of approximately 10,000 acres of which at least 5,000 acres must be productive old-growth forest. At least 2,500 acres of the productive old growth forest component should be in the high volume class strata. Medium reserves shall not be greater than 8 miles from the nearest Large or Medium reserve across the entire forest.
- C. **Small Reserves:** a contiguous landscape of at least 16% of the area of each Value Comparison Unit (VCU), and 50% of that area shall be productive old-growth forest.

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Specific Design Criteria for Small Reserves:

Small reserves are required in all VCU's except as noted below. When needed, small reserves shall be 16% of the area of a VCU and at least 50% of that size shall be productive old growth forest. The preferred biological objective is for each reserve to contain at least 800 acres of contiguous productive old-growth forest, but may contain a minimum of 400 acres of productive old-growth forest.

- A. Additional criteria for assessing the need for and designing of a small reserves:
 - 1. VCU's that have been separated (as denoted by decimal extensions, e.g., 597.1 and 597.2) may be combined for computation purposes.
 - 2. In very large VCU's that that contain relatively little old growth and the computational rule requires an amount of old growth that exceeds 50% of the existing old growth in the VCU, map a reserve of at least 800 acres of productive old growth.
 - 3. Small reserves are not required:
 - a) In VCU's that already contain sufficient acres (16%/50% calculation) of productive old growth forest in a non-development Land Use Designation (LUD).
 - b) In VCU's with less than 800 acres of productive old-growth forest.
- B. Mapping of old growth computational allocation:
 - 1. In VCU's that are partially allocated to a non-development LUD, compare the computed acreage required to the acres of productive old growth in the non-development LUD. If productive old growth acres within the non-development LUD exceed the computed acres for the small reserve, no further allocation is necessary in that VCU. If the non-development LUD acres are less than the area necessary for a small reserve, first use the productive old growth acres in the existing non-development LUD to establish a small reserve and then add additional acres of productive old growth to achieve the required small reserve size and composition.
 - 2. In very large VCU's, the allocated old growth may be mapped in separate reserves as long as each reserve has a minimum of 800 acres of productive old growth. However, larger contiguous reserves are preferred to fragmented smaller reserves.
 - 3. In VCU's that are separated by saltwater channels, reserves may be separated but attempt to retain 800 acres of productive old growth in each.
 - 4. Where VCU boundaries do not match watershed or ecological boundaries, up to 30% of the allocated old growth acres in a VCU may be mapped in an adjacent VCU if the resulting reserve achieves old growth reserve objectives. The resulting small reserve in both VCU's must be contiguous.
 - 5. In VCU's with a computational allocation of less than 800 acres of productive old growth forest, attempt to design the reserve contiguous with old growth acres in a non-development LUD in an adjacent VCU to establish a larger contiguous reserve. Do not map isolated reserves with less than 400 acres of productive old growth.
 - 6. Attempt to avoid existing roads, clearcut units, and log transfer facilities within small reserves.
 - 7. Attempt to identify and map contiguous blocks of productive old growth forest. Old growth forest that constitutes scattered fragments of unsuitable timberland does not contribute to meeting small reserve design. Including riparian, beach and estuary habitats as contributing elements to contiguous old growth reserve design is acceptable.
- C. In designing small reserves, include consideration of landscape linkages between larger reserves.