

Biodiversity Ecosystem Question 1 – Old-Growth Associated Species and Subspecies

Goal: Maintain healthy forest ecosystems by maintaining a mix of habitats at different spatial scales capable of supporting the full range of naturally occurring flora, fauna, and ecological processes native to Southeast Alaska.

Objective: Maintain a forest-wide system of old-growth forest habitat to sustain old-growth associated species and resources.

Background: An integrated old-growth Conservation Strategy was developed provide a sufficient amount and distribution of habitat to maintain viable populations of old-growth associated species after 100 years and full implementation of the 1997 Tongass Land and Resource Management (1997 Forest Plan; USDA 2008b; p. D-17). This strategy was reviewed, revised, and incorporated into the 2008 Forest Plan Amendment (2008 Forest Plan). The Conservation Strategy includes two major components. First is the system of large, medium and small old-growth reserves (OGRs) well distributed throughout the Tongass. This system of reserves is made up of areas allocated to the old-growth habitat Land Use Designations (LUDs), plus lands in all the rest of the non-development LUDs, which essentially maintain the integrity of the old-growth system. This component provides adequate habitat for old-growth dependent or associated species, and provides for connectivity between reserves in order to prevent genetic isolation of populations. In response to concerns for small island endemic taxa, the 1997 and 2008 Forest Plans both protect all islands less than 1,000 acres from additional harvest of old-growth forest (USDA 2008c, D-10).

The second major element of the Conservation Strategy is a series of standards and guidelines applicable to those portions of the Tongass open to consideration for timber harvest (referred to as the matrix). The matrix includes lands designated as experimental forest, modified landscape, scenic viewshed and timber production LUDs and sometimes excludes the recreational river LUD. Within the matrix, components of the old-growth ecosystem are maintained by standards and guidelines to protect important areas and provide old-growth forest habitat connectivity. This component includes the beach and estuary fringe, riparian buffers, and other forest-wide standards and guidelines that preclude or significantly limit timber harvest in areas of high hazard soils, steep slopes, karst terrain, visually sensitive travel routes and use areas, and in timber stands technically not feasible to harvest. It also includes a number of species specific standards and guidelines such as raptor nest and wolf den protection areas (USDA 2008b, D-10).

During National Environmental Policy Act (NEPA) analysis for the 2008 Forest Plan, a comprehensive review and mapping effort was completed for small old-growth reserves (OGRs). This review focused primarily on small OGRs because they received differing levels of review during the development of the 1997 Forest Plan. The large and medium OGRs were generally not reviewed because they received a rigorous review during the development of the 1997 Forest Plan. They were designed to meet reserve strategy objectives (USDA 1997, p. 3-82), and few modifications were anticipated. The total acres of old-growth LUDs were increased by 38,749 acres from the 1997 Forest Plan to the 2008 Forest Plan (USDA 2008c, D-29). In addition, OGR locations were finalized for all but thirteen old-growth reserves (identified in Appendix K of the 2008 Forest Plan Amendment). OGR locations are not expected to change unless they meet the limited circumstances described in Appendix K of the 2008 Forest Plan.

Biodiversity Ecosystem Question 1: Is the old-growth habitat protected under the Forest Plan being maintained to support viable and well distributed populations of old-growth associated species and subspecies?

Evaluation Criteria

This monitoring is focused on the OGR system component of the Conservation Strategy, the changes in the total acres and acres of productive old-growth (POG) forest in the system of large, medium, and small habitat reserves (including old-growth habitat and other non-development LUDs). This assessment will be completed by reviewing project level environmental documents and Forest Plan amendments for their effects on the spatial distribution, size, and composition of old-growth habitat reserves compared to those designated in the 2008 Forest Plan. The other component of the Conservation Strategy, old-growth protected within the matrix, is monitored as part of Biodiversity Ecosystem monitoring questions 2 and 3.

National Forest System (NFS) lands on the Tongass total 16,773,804 acres. Of these NFS lands, 1,221,173 acres or seven percent are in the old-growth habitat LUD. Combined with the other non-development LUDs, reserves total 13,324,832 acres or 79 percent of the Tongass National Forest acres (table 1).

Biodiversity Ecosystem 1 Table 1. Land Use Designations (LUD) for National Forest System Lands from the 2008 Forest Plan (USDA 2008b, p. 3-2)

Non-development LUDs (13,324,832 acres)		Development LUDs (3,448,972)	
Wilderness/Non Development (5,916,026 acres)	Natural Setting/Non Development (7,408,806 acres)	Development (3,448,972 acres)	Development Overlay Group¹ (249,570 acres)
Wilderness	LUD II	Experimental Forest	Minerals Transportation & Utility Systems
Wilderness National Monument	Remote Recreation	Modified Landscape	
	Semi-Remote Recreation	Scenic Viewshed	
Non-wilderness National Monument	Old-growth Habitat	Timber Production	
	Enacted Municipal Watershed		
	Research Natural Area		
	Special Interest Area		
	Wild River		
Scenic River			
Recreational River			

¹The two LUDs in this group are always overlay LUDs. Areas allocated to these LUDs are managed according to the underlying LUD until such time that mineral or transportation/utility development is approved, if at all. The Minerals overlay LUD has an area (249,570 acres) associated with it; no acreages are calculated for the Transportation and Utility System LUD because it is defined as a series of corridors of undefined width and imprecise locations.

Monitoring Results

A correction to the 2008 Forest Plan was made in 2012 (Forest Plan Errata, February 6, 2012), to correct a mapping error for a small OGR in Value Comparison Unit (VCU) 7470 on the Ketchikan-Misty Fiords Ranger District. As a result of the correction, the size of the small OGR, as well as the acres of POG contained within, increased. Although the errata fixed the mapping error, the acres reported for OGR size and POG were not updated in the errata. This will be corrected with new errata. With the exception of this one correction to the mapped small OGR, there were no other changes made to the spatial distribution, size, and composition of the old-growth habitat LUD or other non-development LUDs since implementation of the 2008 Forest Plan Amendment.

Evaluation of Results

The old-growth habitat protected under the Forest Plan has been maintained in the system of small, medium, and large OGRs. According to the analysis in the 2008 Forest Plan Final Environmental Impact Statement (FEIS), the OGR system, along with implementation of the standards and guidelines for protecting old-growth in the matrix, continues to support viable and well distributed populations of old-growth associated species and subspecies. The conservation strategy as implemented in the 2008 Forest Plan provides a sufficient amount and distribution of habitat to maintain viable populations of old-growth associated species after 100 years of Forest Plan implementation. Although this does not represent a “no risk” conservation strategy, it represents a balance of wildlife conservation measure that considers the best available scientific information and reflects an acceptable level of risk for continued species viability (USDA 2008c, p. D-17). New information does not support any changes to the Forest Plan Conservation Strategy at this time.

Action Plan

Continue to detail descriptions of change in old-growth reserves and associated rationale in project level National Environmental Policy Act (NEPA) documents. Changes in OGRs should be assessed relative to forest structure (using the Size Density map) and distribution of the small, medium, and large OGRs (including non-development LUDs) to monitor reserve function at the biogeographic province or island scale. Focus on landscapes within Phase One areas of the Timber Sale Program Adaptive Management Strategy (i.e. Prince of Wales Island, Wrangell Island, etc.).

Citations

USDA Forest Service, Tongass National Forest. 2008a Tongass Land and Resource Management Plan, Final Environmental Impact Statement, Record of Decision, Forest Service Document R10-MB-603a.

USDA Forest Service, Tongass National Forest. 2008b Tongass Land and Resource Management Plan, Forest Service Document R10-MB-603b.

USDA Forest Service, Tongass National Forest. 2008c Tongass Land and Resource Management Plan, Final Environmental Impact Statement, Forest Service Document R10- MB-603c.

USDA Forest Service, Tongass National Forest. 1997 Tongass Land and Resource Management Plan, Forest Service Document R10-MB-338-CD.