

Northern Goshawk Collaborative I.D. Working Group
Eagar South Demonstration Site Recommended Monitoring Activities

August 15, 2007

This demonstration project will treat approximately 3,500 acres of predominantly ponderosa pine forest according to the Management Recommendations of the Northern Goshawk (RM-217) in three phases, in order to test the applicability of this prescription to meet objectives for wildlife habitat improvement, fire risk reduction, and cost-effectiveness. This activity will be undertaken as a part of the White Mountain Stewardship Contract and be included in the monitoring of the entire contract. Additional monitoring elements have been included to further assess the unique nature of this project.

The intent of the Group's monitoring will be to assess ecological, economical, and social impacts of this demonstration project in relation to its objectives. The following are the recommended monitoring activities to be conducted by the Group, the U.S. Forest Service, and other collaborative partners.

ECOLOGICAL MONITORING	Objective to be monitored	Monitoring activity	Measures/Indicators	Responsibility or Funding Source
1. Wildlife / wildlife habitat	Test assumption of improving habitat for prey base (focal species: Steller's jay, n. flicker, cottontail, Abert's and red squirrels, chipmunk, ground squirrel)	Survey 1) point counts; 2) transects; or 3) trapping 2-3 years post-treatment	Post-treatment surveys, plus control areas; population indices.	AGFD to pursue funding; USFS some songbird and squirrel surveys
	Occupancy of NoGo nest sites	Field survey	Visual observation	USFS
	Adult NoGo survival (esp. female)	Field survey/marketing female adults	Visual observation/marketing	AGFD to pursue funding/ability
	Reproductive success of NoGo	Field survey	Visual observation	AGFD/USFS
	Vegetative structural changes and impacts to species requiring more dense cover/linear movement corridors/other habitat parameters	Track ongoing Black Bear research project undertaken by AGFD	Vegetative sampling, monitor bear movements	AGFD; need more funding for collars MPM Board track progress
		Infer vegetative impacts to Wild Turkey and Mule Deer from previous research on Coconino and Kaibab Forests	Literature review	???
		Migratory songbird point counts	Part of ongoing stewardship contract monitoring effort	USFS contractor; Stewardship Contract and All-Birds funding
2. Vegetative Characteristics	Result of treatment on overall structural diversity; clumps, corridors, cover, insects and disease.	Incorporate vegetative plot protocol and potential GIS spatial analysis of Stewardship Contract	VSS, patch-size, openings, other veg data from USFS Plot Protocol	USFS through Stewardship Contract budget; possible ForestERA project
	Result of treatment on understory herbaceous / forb production	Incorporate vegetative plot protocol	Pre- / Post-treatment surveys, plus control areas	USFS through Stewardship Contract budget

	Implementation of Guidelines; determine if prescription met veg intent of guidelines or is moving forest towards meeting Guidelines	Incorporate vegetative plot protocol of Stewardship Contract; USFS review	VSS, patch-size, openings, other veg characteristics	USFS through Stewardship Contract budget
3. Fire risk and fuels	Determine fuel load and fire risk reduction of Guidelines	Veg plot data and USFS models: tons/acre, size distribution, crown density	Intensity, rate of spread, group-to-group torching, ground-to-crown torching	(USFS): Wadleigh, Palmer, Rugg

ECONOMIC MONITORING	Objective to be monitored	Monitoring activity	Measures/Indicators	Responsibility or Funding Source
1. Internal USFS costs	Determine layout / marking costs for comparison to “typical” fire-risk reduction treatments	Track costs	Staff, supplies, time	USFS
2. Product utilization and value	Determine volume and product utilization (which will help determine size-class of trees removed) for comparison to “typical” fire-risk reduction treatments	Track volume, sales of material	Volume; type of wood sold	USFS / Future Forests / Dr. Lay Gibson
	Cost to Contractor by acre	Contract costs	Volume, payments	USFS / Future Forests
3. Large-diameter tree removal	Determine if Guidelines remove trees >16” dbh and to what extent, to compare with “typical” fire-risk reduction treatments	Number trees >16” dbh harvested	Environmental analysis for current conditions; GPS every >16” tree to be removed	USFS

SOCIAL MONITORING	Objective to be monitored	Monitoring activity	Measures/Indicators	Responsibility or Funding Source
1. Interactions between USFS and adjacent jurisdictions	Determine project perceptions by adjacent entities	Direct communication within Working Group; surveys; personal contacts; field reviews	Delineate concerns and/or support from adjacent land managers	Working Group
2. Perceptions by public	Determine if public stakeholders perceive significant differences, improvements, or impacts from Guidelines v. “typical” fire risk treatments.	Surveys, field reviews	Level of support / opposition	Working Group