Appendix 6 - Monitoring for Armuchee Ridges Thinning & Restoration Project

Resource Assessed	Monitoring Question/Objective	Frequency	Field Method/Data Collection	Documentation Format	Primary Responsibility
Soil Productivity & Water Quality	Are Best Management Practices (BMPs) being implemented through timber sale contract provisions, and according to Forest Plan standards?	During operational periods (timber sales, site prep, road construction and maintenance)	Evaluate implementation of Best Management Practices, timber sale contract provisions. All timber sale units are evaluated for implementation.	Field inspection forms, filed in Timber Sale Contracts, reviewed by FSR	District Timber Sale Administrator, Harvest Inspector, Forest Service Representative (FSR)
Soil Productivity & Water Quality	Are the Best Management Practices and applicable Forest Plan standards effective in meeting soil productivity and water quality standards?	During operational periods and within 6 months to 1 year after operations end.	Field evaluation of the effectiveness of BMPs to meet Forest Plan standards. Random sample of harvest units using line transects & point samples	Field inspection forms, filed in S.O.	Interdisciplinary Team (Forest personnel in hydrology, soils, timber)
Best Management Practices Implementation – Audit by GFC	Were Best Management Practices implemented per Georgia's Forestry BMP Handbook and effective in protecting water quality?	During operational periods and within 6 months to 1 year after operations end.	Field evaluation of randomly selected harvest units and prescribed burns by Georgia Forestry Commission water quality personnel.	Completion of GFC Best Management Practice Audit Form, filed in state database	Georgia Forestry Commission Water Quality personnel
Revegetation of Disturbed Areas	Were the prescribed revegetation efforts on disturbed sites such as skid trails, landings, skid trails, and firelines implemented and effective in establishing ground cover and erosion protection?	Within one growing season of revegetation operations.	Field visual evaluation of disturbed areas that have been revegetated to assess that have been seeded and rehabilitated to ensure revegetation is successful.	Field visual inspection of random sample of revegetated areas.	Timber Sale Administrator, Wildlife Biologist

Resource Assessed	Monitoring Question/Objective	Frequency	Field Method/Data Collection	Documentation Format	Primary Responsibility
Non-Native Invasive Plants	Are NNIS populations present within harvest units?	During timber sale layout, prior to harvest	Field inventory and mapping of NNIS populations during the timber sale layout process.	Inventoried populations will be mapped using GPS and filed at the District	District Silviculturist, District Wildlife Biologist
Non-Native Invasive Plants	Are timber sale contract provisions to limit the spread of NNIS plants effective?	1-2 field seasons after harvest activities have been completed	Field inspections to identify establishment or spread of NNIS	Inspection report of findings	District Silviculturist, District Wildlife Biologist
Threatened and Endangered Plants	Are timber sale contract provisions being implemented to protect the *Stachys nuttallii* population during activities?	During timber sale layout, prior to harvest	Field inspection to ensure area is flagged to keep equipment off plants and to preserve the light regime in the population.	Inspection report of findings	District Wildlife Biologist
Timber	Are timber harvest activities adhering to applicable Forest Plan standards?	Throughout the life of the timber sale contract	Field inspections through all phases of harvesting to ensure contract provisions are being met and implemented in compliance with the Forest Plan.	Timber Sale inspection reports	Harvest Inspector, Timber Sale Administrator, Forest Service Rep
Timber	Are harvested stands regenerated and restocked within five years of harvest?	One and three years after planting trees, and at 5 years or later after site prep has been completed with natural regen	Field evaluation of representative sample plots and/or field inspection will be used to determine stocking, composition and condition of regeneration.	Report documented in District FACTS database	District Silviculturist

Resource Assessed	Monitoring Question/Objective	Frequency	Field Method/Data Collection	Documentation Format	Primary Responsibility
Fire and Fuels	Are conditions prior to a prescribed burn "in prescription" to meet parameters identified in burn plan?	4-48 hours prior to ignition	Fuel moisture conditions will be assessed using fuel moisture sticks and field inspection of site. Weather conditions and other consideration identified in the burn plan will be reviewed and documented prior to ignition to ensure burn is within prescription.	Prescribed Burn Plan	District Fire Management Officer, District Ranger
Fire and Fuels	Did the prescribed burn accomplish prescribed changes in fuels?	Pre-burn in and post burn during periods of leaf-on	Establishment of fire monitoring plots using FSM 5140 protocols.	Prescribed Burn Plan	District Fire Management Officer
Ground Cover Vegetation	Did prescribed fire result in desired changes in ground cover s (grasses, forbs, etc)?	Pre-burn in and post burn during periods of leaf-on	Establishment of fire monitoring plots using FSM 5140 standard procedures. These plots will not only measure changes in fuels, but will also gather information on the changes to ground cover.	Prescribed Burn Plan	District Fire Management Officer, District Wildlife Biologist
Heritage	Are Forest Plan standards effective in protecting cultural and heritage resources?	During and immediately after harvest activities	Field inspections of sites to ensure the protection or avoidance of heritage resources.	Inspection report of findings	Timber Sale Administrator, Archeologist, District Ranger