

FY07 Regen Proposed Action

Background

In 2006 and 2007, district personnel reviewed stands from previous projects that need additional timber harvests and/or reforestation treatments to complete their regeneration sequences. Many of these stands have interfering understory vegetation and need reforestation treatments, such as herbicide application, site preparation, and/or fencing, to facilitate the development of adequate advance regeneration. Other stands have received a final harvest but need additional reforestation treatments to ensure that they become fully stocked. Stands were prioritized for treatment based on review and recommendations of the reforestation needs for each stand. The stands with the greatest reforestation needs were proposed for treatment in this project and fall into the following categories:

1. Stands that have received a final regeneration harvest but require additional reforestation treatments to ensure that they become fully stocked.
2. Stands that need additional reforestation treatments prior to and after final harvest.
3. Stands that need a shelterwood seed cut and reforestation treatments prior to and after final harvest. Current relative stand density is too high in these stands to allow for the development of adequate advanced regeneration prior to final harvest.
4. Stands that need reforestation treatments or blowdown salvage as a result of incurring severe damage from the July 2003 storm.
5. Stands in Management Area (MA) 2.2 – Late Structural Linkages that are proposed for uneven-aged treatments to improve vertical diversity within this MA.

See Table 3 for the list of stands in each category.

Proposed Action

The FY07 Regen project area is located on the Marienville Ranger District of the Allegheny National Forest (ANF) in northwestern Pennsylvania and consists of 473 acres in 30 stands scattered across the district (see attached maps). The Forest Service proposes to implement vegetation treatments and associated road maintenance activities to help achieve the desired condition described in the ANF Land and Resource Management Plan (LRMP).

Vegetation Treatments

Reforestation only is proposed for stands that need additional reforestation treatments in order to reduce vegetative interference and increase the desirable regeneration.

Delayed shelterwood (SH) removal is proposed for stands that have had the shelterwood seed cut completed but additional reforestation treatments need to be done to obtain adequate desirable regeneration before the removal cut can take place.

Shelterwood seed cuts and shelterwood removal cuts are proposed in stands that weren't cut heavy enough to complete regeneration sequences in stands previously harvested. The shelterwood seed cut would be light, mostly from the intermediate canopy layer to reduce shade to the forest floor. Next reforestation treatments will be done and then the shelterwood removal cut would take place once adequate desirable regeneration is established.

Salvage thin is proposed in stands to harvest down and/or damaged trees and increase the diameter growth and health of the residual stand.

Individual tree and group selection are proposed to increase vertical diversity within stands in MA 2.2.

Table 1: Timber Harvest Summary

Harvest Summary	Total Acres
SH Seed Cut/SH Removal	283
Delayed SH Removal	58
Salvage Thin	24
Individual Tree Selection (Uneven Aged)	39
Group Selection (Uneven Aged)	39
Reforestation Only	69

To ensure the development of diverse tree seedlings in stands where regeneration harvests are planned or have occurred, the following reforestation activities in Table 2 are proposed to occur:

Table 2: Reforestation Treatment Summary

Reforestation Treatment	Total Acres
Herbicide	423
Site Preparation	369
Fertilizer	69
Fence	361
Tree Shelter	31
Planting	169
Release	449
Prescribed Burn	47

See Table 3 for proposed treatments for individual stands.

Road Maintenance Activities

1. Road maintenance activities will occur on approximately 17.4 miles of forest roads. Road maintenance activities would include limestone surfacing, pit run surfacing, culvert replacement, grading, brushing, etc.
2. Material from ten existing stone pits (Forest Road [FR]185G, FR214, FR219, FR221B, FR237, FR327.2, FR361, FR385D, FR443B, and FR683 pits) could be utilized to provide surfacing material needed for road maintenance.
3. No new road construction or road management changes are planned with this project.

Purpose and Need for Action

The purpose of the project is to implement LRMP direction and complete regeneration sequences and reforestation treatments in stands where the regeneration sequence has been initiated but has not been completed yet. The LRMP provides programmatic direction for how the ANF is to be managed for sustainable, multiple benefits. The LRMP divides the forest into management areas, each with a specific management objective and associated standards and guidelines. Proposed

treatment units lie within MA's 1.0 (31 acres), 2.2 (51 acres), and 3.0 (386 acres). The goals and objectives for MA 1.0 are detailed on pages 102-105, for MA 2.2 on pages 109-112, and for MA 3.0 on pages 113-115 in the LRMP (USDA-FS 2007). All proposed treatments are consistent with management direction applicable to MA's 1.0, 2.2, and 3.0.

There are several site-specific opportunities for vegetation management within the project area that would change or enhance present conditions to help achieve the desired future condition described in the ANF LRMP. An opportunity to enhance a resource is defined as a "need."

This proposal is based on the following needs for action:

- 1) A need exists to complete regeneration sequences in stands with previously initiated regeneration treatments, in stands that were severely damaged by the July 2003 storm (stand replacing), or in stands that received a final regeneration harvest and need additional reforestation treatments to ensure regeneration success. This will help foster sustainable forest management and provide for forested canopy and a diversity of habitats in MAs 1.0, 2.2, and 3.0.
- 2) A need exists to improve the spatial arrangement of age classes in MA 3.0 within the FY07 Regen project area. Even-aged harvests would create 341 acres of early successional habitat (zero to 10 year old age class) over the next decade within MA 3.0.
- 3) A need exists to provide a diversity of age and structural classes across the ANF landscape, including early structural, late structural and multi-aged forested conditions, to achieve desired future conditions.
- 4) A need exists to salvage timber in MA 3.0 in response to decline, mortality, windthrow, blowdown and other factors.
- 5) A need exists to apply group selection cuts in MA 2.2 on an extended rotation (to restore understory to mature forest conditions) to hasten stand development processes, initiate understory development, and develop more complex stand structure. Group selection cuts should range from one-half to three acres, depending on the forest type, and should simulate gap phase dynamics by creating gaps in the forest canopy to develop multiple age classes, multi-layered canopies, irregular canopy cover, larger trees, down woody material, and complex vertical structure.
- 6) A need exists to achieve the desired condition in MA 1.0, which is to provide early structural habitat to sustain species associated with early structural conditions, especially ruffed grouse. The forest area managed under this prescription contains predominantly shade intolerant species, such as aspen stands. Even-aged timber stands in a balanced variety of age (from zero to 50 years of age) and structural stages (early structural to mid structural stages) are evident.

Decision to be Made

The Marienville District Ranger will be the Responsible Official for this project. The decision to be made is:

1. Whether or not the proposed activities and alternatives respond to the issues, accomplish Forest Plan direction, and meet the purpose and need defined for this project.
2. If the information in this analysis is sufficient to implement the proposed activities.

3. Which alternative to implement.
4. If an environmental impact statement is needed.

A decision is expected in January 2008 with possible implementation to begin in spring of 2008.

Table 3: FY07 Regen Project – Proposed Treatments

Category	Comp	Stand	Acres	MA	Harvest Treatments ¹	Reforestation Treatments ²
3	620	2	31	3.0	SH Seed Cut/SH Removal	H, SP, TS, P, R, PB
3	620	26	16	3.0	SH Seed Cut/SH Removal	H, SP, TS, P, R, PB
3	635	35	19	3.0	SH Seed Cut/SH Removal	H, SP, TS, P, R
1	635	40	7	3.0	Reforestation Only	Fer, R
1	635	67	8	3.0	Reforestation Only	Fer, R
3	650	103	27	3.0	SH Seed Cut/SH Removal	H, SP, TS, P, R
3	652	62	7	3.0	SH Seed Cut/SH Removal	H, SP, TS, P, R
2	652	76	5	3.0	Delayed SH Removal	H, SP, TS, P, R
1	653	118	5	3.0	Reforestation Only	H, SP, Fer, F, P, R
1	673	96	14	1.0	Reforestation Only	H, SP, Fer, F, P, R
1	673	98	6	1.0	Reforestation Only	H, SP, Fer, F, P, R
1	673	99	11	1.0	Reforestation Only	H, SP, Fer, F, P, R
3	684	1	39	3.0	SH Seed Cut/SH Removal	H, SP, TS, P, R
4	684	31	10	3.0	Salvage Thin	--
4	684	32	10	3.0	Salvage Thin	--
4	684	58	4	3.0	Salvage Thin	--
3	688	12	33	3.0	SH Seed Cut/SH Removal	H, SP, TS, P, R
1	705	26	1	2.2	Reforestation Only	H, SP, Fer, F, P, R
1	705	29	6	2.2	Reforestation Only	H, SP, Fer, F, P, R
1	706	41	3	3.0	Reforestation Only	H, SP, Fer, F, P, R
1	706	42	3	3.0	Reforestation Only	H, SP, Fer, F, P, R
3	716	22	31	3.0	SH Seed Cut/SH Removal	H, SP, TS, P, R
5	846	71	18	2.2	Individual Tree/Group Selection	H, SP, TS, P, R
3	846	95	19	3.0	SH Seed Cut/SH Removal	H, SP, TS, P, R
1	850	68	5	2.2	Reforestation Only	H, SP, TS, P, R
2	853	36	18	3.0	Delayed SH Removal	H, SP, TS, P, R
2	866	6	35	3.0	Delayed SH Removal	H, SP, TS, P, R
5	866	31	21	2.2	Individual Tree/Group Selection	H, SP, TS, P, R
3	866	45	40	3.0	SH Seed Cut/SH Removal	H, SP, TS, P, R
3	882	91	21	3.0	SH Seed Cut/SH Removal	H, SP, TS, P, R

Notes:

1. SH = Shelterwood
2. H = Herbicide, SP = Site Preparation, Fer = Fertilization, P = Planting, F = Fence, TS = Tree Shelter, R = Release, PB = Prescribed Burn