

**DECISION NOTICE
AND
FINDING OF NO SIGNIFICANT IMPACT**

For

**The Hazanet Project
On
The Nantahala National Forest
Cheoah Ranger District
Graham County, North Carolina**

Compartments 25 through 35

June, 2003

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1.0 INTRODUCTION

This Decision Notice (DN) and Finding of No Significant Impact (FONSI) documents my decision to perform a variety of vegetation management activities to improve tree growth, harvest timber, improve wildlife habitat, improve access, and designate stands for development of future old growth on National Forest System lands in Graham County, North Carolina. The project area is comprised of approximately 7,968 acres north of Robbinsville, NC and south of Fontana Village, NC. About 20% of the area will receive some type of treatment. Treatments include prescribed burning, two-age and group selection regeneration, tree thinning, timber stand improvement including vine control, road construction and helispot development, designation of stands for future old growth, and development of vernal pools and grass/forb habitat for wildlife.

The actions described below are needed to contribute to the products and services outlined in the Nantahala and Pisgah National Forests Land and Resource Management Plan (LRMP) Amendment 5 (USDA March 1994). More specifically, actions are needed to provide for a long term healthy forest condition, including better growing conditions for young trees, and to provide for wildlife habitat diversity while contributing to the nation's supply of timber through sustainable forest management. The Purpose and Need section of the Environmental Assessment (EA) discusses these needs more fully. I have reviewed the EA for the Hazanet Project, which was prepared by an interdisciplinary team. I have also considered the comments received during the 30-day comment period. The EA is available for review at the Cheoah District Ranger's Office, Robbinsville, North Carolina.

2.0 DECISION

Based on the analysis documented in the EA and consideration of comments received, it is my decision to implement **Alternative 3** with modifications. Specific actions are described below. Acres are approximate.

Alternative 3 regenerates 415 acres through timber harvest, thins 51 acres, applies prescribed burning to 351 acres, and reestablishes 40 acres by planting following southern pine beetle attack. Treatment to promote future oak regeneration will be applied to 102 acres, while vine control and other timber stand improvement investments will be made on an additional 514 acres. Additional access to the area will be provided in the form of 1.35 miles of system road construction, 1.1 miles of temporary road construction, 0.2 miles reconstruction of existing road, and development of four helispots. Nine vernal pools will be developed. Watershed rehabilitation activities will improve conditions along FS 2440A, Dummy Branch Road. Alternative 3 with modifications avoids all management activities in cerulean warbler habitat.

I have decided to drop the activities associated with Stand 29-1 due to concerns for protecting the integrity of the scenery from the Appalachian Trail. By dropping these 33 acres of two-age regeneration, 0.5 miles of temporary road construction and 0.4 miles of

road reconstruction will now be unnecessary. The two vernal pool proposed to be developed in Stand 29-1 will also be eliminated. These modifications are reflected in the description of Alternative 3 in the paragraph above.

A more detailed description follows:

Two-Age Regeneration Harvests

Regenerate 14 stands totalling approximately 397 acres using the two-age regeneration harvest method, with an average desired residual basal area (RBA) of 10-30 square feet per acre consisting of well-formed small sawtimber and poletimber trees and wildlife den trees. Carry the residual stems through mid-rotation (60 years) or full rotation (future option). Stands selected for this treatment and approximate acreages are 29-3 (23 acres), 29-5 (26 acres), 30-9A (21 acres), 30-13 (36 acres), 30-23 (23 acres), 31-1B (20 acres), 31-6 (29 acres), 34-3 (32 acres), 34-9 (40 acres), 34-17A (34 acres), 34-17B (15 acres), 35-3 (25 acres), 35-9B (38 acres), and 35-14 (35 acres). Regenerate these stands by natural regeneration.

Treat the following stands prior to regeneration harvesting: 1) Stand 29-5: chainsaw slash all stems 1" – 7.5" dbh and grapevines and smokevines; 2) Stands 29-3, 30-9A, 31-1B, 31-6, 34-3, 34-17A and 34-17B: inject undesirable stems (striped maple, silverbell, black gum, sourwood, red maple, and black birch) 1" – 7.5" dbh with Garlon 3A and chainsaw slash grapevines and smokevines.

Use conventional ground skidding and yarding methods to harvest timber from stands 29-3, 30-23, 31-6, 34-9, and 35-3. Use a skyline logging system to harvest timber from stands 29-5, 31-1B, and 35-14. Use conventional ground skidding and skyline yarding on stands 30-9A, 30-13, and 34-17B. Use helicopter yarding on stands 34-3 and 34-17A. Use a combination of helicopter yarding and ground skidding on stand 35-9B.

Prepare the two-age harvest units for natural regeneration by chainsaw felling of undesirable or damaged residual stems. Monitor regeneration composition and development in these stands and control undesirable reproduction (sprout clumps of red maple, striped maple, silverbell, sourwood, dogwood, yellow poplar, and blackgum) in stands where it exceeds 20% of stocking after the first growing season by treating with streamline application of Garlon 4 (triclopyr) herbicide in mineral oil (20% solution).

Slash/Burn/Plant

Three stands totalling approximately 40 acres (25-2, 25-15, 33-11) are insufficiently stocked or damaged by southern pine beetle. Prepare these stands for regeneration by chainsaw slashing and prescribed burning. Slash all stems in Stand 25-2, and only stems below 7.9" at diameter breast height (dbh) in Stands 25-15 and 33-11. After a summer burn, plant them with shortleaf or white pine on a 15-foot by 15-foot spacing. If planted with shortleaf pine, release these pines with a thinline application of Garlon 4 to competing vegetation one to three years after planting.

Thinning

Thin stand 25-7 (about 22 acres) and stand 35-9C (about 29 acres), harvesting the smaller-diameter class, poorer-quality, and damaged trees, leaving the better-quality “crop” trees. Thin stand 25-7 for firewood and/or small roundwood products.

Group Selection

Implement uneven-aged management with harvesting by group selection in stand 33-8 (72 acres, 18 net). Groups will have diameters up to twice the height of adjacent trees. Groups will be located to capitalize on patches of large mature timber, patches of sparse, low-quality, or damaged timber, and patches with good advanced reproduction. Some high-quality growing stock trees, den trees, and snags will be retained in groups as practicable. Treat the groups prior to regeneration harvesting as follows: inject undesirable stems (striped maple, silverbell, black gum, sourwood, red maple, and black birch) 1” – 7.9” dbh with Garlon 3A. Thinline spray undesirable stems under 1” dbh with Garlon 4. Group openings will be regenerated naturally to hardwoods, with site preparation by chainsaw slashing, with a summer prescribed burn in this stand. After the first growing season, conduct a streamline application of a 20% solution of Garlon 4 (triclopyr) herbicide in mineral oil to sprout clumps of undesirable species in the groups in these three stands (black gum, silverbell, striped maple, red maple, yellow poplar, dogwood, and sourwood).

Oak Midstory Preharvest Treatment

Treat five stands (102 acres) with an oak midstory preharvest treatment and vine control. These stands will be regenerated 10-15 years from the present time. These stands, with their site-specific treatments, are as follows: 1) Stand 30-9B (19 acres): chainsaw slash all stems 1” – 6” dbh and slash all grapevines and smokevines, leaving a ½ acre area of grapevines. Two or three growing seasons later, thinline spray all undesirable sprouts (striped maple, silverbell, black gum, sourwood, red maple, and black birch) with Garlon 4; 2) Stand 31-5 (19 acres): same as #1; 3) Stand 35-9A (24 acres): inject undesirable stems 1” – 7.5” dbh with Garlon 3A, thinline spray undesirable stems under 1” dbh with Garlon 4, and slash all grapevines and smokevines, leaving a ½-acre area of grapevines; 4) Stand 35-13 (23 acres): same as #3; 5) Stand 35-24 (17 acres): same as #3.

Vine Control and Other Timber Stand Improvement

Perform vine control work by chainsaw slashing on about 235 acres in the following stands: stand 28-15 (38 acres), stand 31-8 (33 acres), stand 34-8 (33 acres), stand 34-10 (21 acres), stand 34-12 (19 acres), stand 34-14 (28 acres), stand 35-11 (20 acres), stand 35-12 (23 acres), and stand 35-15 (20 acres). In these stands, leave one-half acre of grapevine clumps for every 20 acres.

Conduct timber stand improvement with herbicide in two stands totalling about 75 acres. These are stand 29-17 (about 29 acres) and stand 33-19 (about 46 acres). Treatment will consist of a thinline spray of Garlon 4 to remove undesirable stems competing with and/or overtopping desired vegetation.

Conduct timber stand improvement with herbicide and vine slashing in six stands totalling about 165 acres. These are stand 29-2 (35 acres), stand 29-4 (25 acres), stand 29-9 (30 acres), stand 30-15 (23 acres), stand 30-24 (28 acres), and stand 30-29 (24 acres). Treatment will consist of a thinline spray of Garlon 4 to remove undesirable stems competing with and/or overtopping desired vegetation. In addition, grapevines and smokevines will be chainsaw slashed, while leaving a ½ acre area of grapevine clumps for every 20 acres.

Perform a silvicultural cleaning treatment and vine control in stand 31-3 (20 acres). Select the best one or two stems per clump of existing merchantable species, and chainsaw slash the remaining stems in the clumps. Chainsaw slash grapevines and smokevines, leaving a 1/2 acre area of grapevine clumps in the stand.

Prescribed Burning

Conduct four prescribed burns for fuels reduction and wildlife habitat improvement during the late dormant season on approximately 351 total acres in the following stands: 1) Compartment 25, stands 3, 4, and 5 (100 acres); 2) Compartment 25, stands 7, 8, 10, and 21 (115 acres); 3) Compartment 29, stands 1b, 11, and 12 (100 acres); and 4) Compartment 34, stands 7, 9, and 13 (36 acres). Use control lines along existing roads and creeks where possible, and handline when necessary.

Watershed Rehabilitation

Conduct watershed rehabilitation work on Forest Service (FS) road #2440A (Dummy Branch Road). Relocate this road from where it leaves state road (SR) #1242 to the gap (about 0.1 mile) to avoid the riparian area. Shift the road left and grade it into the gap. At milepost 0.2, an old culvert has washed out, cutting the road in two and causing off-site erosion. Replace the culvert and repair the slump. Install other culverts as needed. Install a gate to enable quick access in case of wildfire. Maintain the road by brushing and mowing.

Improving Access

Perform the following road construction work in order to provide additional access for resource management in the project area: 1) Stand 29-5: Construct 0.1 mile off of FS #438A to access the stand (temporary road); 2) Stand 29-3: Construct 0.5 mile off FS 438A to access this stand (temporary road); 3) Stand 31-1B: Construct 0.1 mile off FS 439 to access this stand (temporary) 4) Stand 33-8: Construct 0.5 mile off of Sarvis Branch Road to this stand (system road); 5) Stand 34-9: Construct 0.6 mile off of FS #2627C to access stand 9 and the lower part of stand 17 (system road); 7) Stand 35-3:

Construct 0.25 mile off SR #129 to an existing landing to access this stand (system road); and 8) Stand 35-14: Construct 0.4 mile off of FS #2627A to access this stand (temporary road). Total road construction will be 1.35 miles of new system road and 1.1 miles of temporary road. All these road segments will be closed following completion of the project. The new system road segments will remain available to open for future resource management.

Perform the following road reconstruction work in order to maintain and upgrade existing FS roads: 1) Compartment 33: Reconstruct about 0.2 mile of the Sarvis Branch Road. Total road reconstruction will be 0.2 miles of system road.

Conduct helispot site development and maintenance in the following stands: 1) Stand 35-15 (an existing helispot/wildlife opening): Cut back saplings in the flight approach path, then do a summer prescribed burn. Thinline spray (Garlon 4) sprouts after the next growing season, and maintain the spot with prescribed burns as necessary; 2) Stands 26-8 and 26-14: Develop helispots on Yellow Creek Mountain along FS Trail #48. Slash down trees in late spring, prescribed burn in late summer, and seed with cover crop/grasses. Treat sprouts with thinline herbicide application (Garlon 4) after the first growing season. Maintain with periodic prescribed burns. Locate the helispots here for the additional purposes of fire control access; 3) Stands 27-4 and 27-9: same as #2.

Wildlife Habitat Improvements

Conduct a wildlife opening rehabilitation in Stand 35-9C. Treatment will consist of resowing of perennial grasses and clover as necessary, liming and fertilizing the area, and develop a vernal pool.

Create several additional vernal pools in existing roadbeds or log landings in order to increase habitat and drinking water supplies for amphibians and bats. These pools will be located in Stands 30-13 (2 pools), 33-8 (2 pools), 33-11 (1 pools), and compartment 35 above stand 3 (3 pools).

Following sale closure, seed roads and landings with a grass/clover mix, and maintain as linear wildlife openings. Rehabilitate existing openings by reseeding with a grass/clover mix and/or native species mixtures, depending on availability of mixes at the time roads are to be seeded.

Old Growth Designations

Designate approximately 684 acres for old growth in the following stands: 25-18 (53 acres), 26-1 (52 acres), 27-10 and 11 (50 acres), stands 28-4, 5, and 13 (53 acres), 29-11 (102 acres), 30-3 (60 acres), 31-4 (50 acres), 32-3,4 and 5 (77 acres), 33-1 and 18 (67 acres), 34-7 (62 acres), and 35-7 and 8 (58 acres).

In addition to standard LRMP requirements, the following mitigation measures are part of this decision:

For protection of health and safety: During prescribed burning adjacent to trails, trailheads will be posted with appropriate information, and lookouts will be placed to intercept through-hikers during the time of the burn. This will mitigate potential safety concerns.

For protection of water quality: Comply with the forest practices guidelines and standards found in the North Carolina Forest Practices Guidelines Related to Water Quality. Revegetate all disturbed soil promptly with seeding mixtures appropriate to the specific season; revegetate and/or mulch disturbed soil at stream crossings the same day. Use brush barriers, silt fence, or other measures for 300 feet either side of perennial stream crossings.

If rock is exposed during road construction or reconstruction, a soil scientist or geologist will be consulted to determine if exposed rock is of high iron sulfide content. If so, the acid producing rock will be removed to a dry waste area and encapsulated with twelve inches of limestone.

In order to protect the acid-producing rock disposal site adjacent to FS 2510, no ground disturbing activity will be allowed at the disposal site. Additional non-acidic fill could be added on top of the site if necessary to complete road reconstruction activities.

For protection of wildlife habitat: Leave up to ten well-formed dogwood, serviceberry and other soft-mast producers per acre during site preparation; do not treat grapevines with herbicide. Protect active den trees; leave an average of 2 snags per acre in regeneration harvest unit openings where possible.

Temporarily close roads to horse and/or bicycle use following seeding until the new grass/clover stand is sufficiently established.

For protection of *Carex hitchcockiana*: Exclude the population of *Carex hitchcockiana* in Stand 34-17B from the two-age harvest, an area of approximately one acre along an unnamed tributary of Cochran Creek.

For protection of the Indiana Bat: This project will comply with the Terms and Conditions in the Biological Opinion of the U. S. Fish and Wildlife Service for the protection of the Indiana bat.

This includes retention of standing trees with more than 25% exfoliating bark, shellbark, shagbark and bitternut hickories, snags, hollow, den, and cavity trees, trees in buffer zones along intermittent and perennial streams, and shade trees adjacent to some of the large snags. These measures will be implemented when the stands are marked for sale.

Prescribed burning: Prepare a burning plan, including smoke management guidelines, prior to prescribed burning; conduct a post-burn evaluation following treatment. Conduct prescribed burns so as to insure the duff layer remains intact and soil texture and color are

not affected. Burns must be supervised by a certified burning boss, and must be conducted only when Cumulative Severity Index values are less than established critical values.

Herbicide use: Apply herbicides according to labeling and site-specific analysis; all formulations and additives must be registered with EPA and approved for Forest Service use. Use application rates at or below those listed as typical rates in the Record of Decision for the Final Environmental Assessment on Vegetation Management in the Appalachian Mountains (ROD, FEIS-Veg. Mgmt.); use selective rather than broadcast applications. Forest Service supervisors and contract representatives must be certified pesticide applicators. Sign treated areas in accordance with FSH 7109.11.

Apply no herbicides within 100 feet of public or domestic water sources, or within 30 feet of perennial or intermittent streams. Mix herbicides at the District work center and dispense into application equipment on National Forest land at least 100 feet from surface water.

In addition to the above measures, apply all standards and guidelines for the appropriate management areas (MAs), as found in the LRMP, as amended. Also, apply all 99 mitigating measures found in the ROD, FEIS-Veg. Mgmt., and incorporated in the LRMP by Amendment #2 in July 1989, as needed.

For protection of scenic quality:

Table 2.2.4 lists stands requiring mitigation to meet visual quality objectives (VQOs). Following Table 2.2.4 is the numbered list of mitigation measures that correspond to the numbers in the last column of the table.

Table 2.2.4. Stands requiring Mitigation to Meet Visual Quality Objectives

Unit #	Proposed Treatment	Mitigation
25-2	Slash/burn/plant	None
25-7	Thin	1, 4
25-15	Slash/burn/plant	None
29-3	Two-Age	5, 7, 13
29-5	Two-Age	3
30-9A	Two-Age	5, 6, 8, 12
30-13	Two-Age	5, 7, 12
30-23	Two-Age/Thin	5, 6
31-1B	Two-Age	5, 7, 8
31-6	Two-Age	5,7, 12
33-8	Group Selection	4, 5
34-3	Two-Age	9
34-4	Two-Age	10
34-9	Two-Age	5,9
34-17A	Two-Age	9
34-17B	Two-Age	9
35-3	Two-Age	11
35-9B	Two-Age	1, 9, 12

Unit #	Proposed Treatment	Mitigation
35-9C	Thin	1, 4
35-14	Two-Age	5, 14

Scenery Mitigation Measures

With implementation of the following mitigation, as specified in the preceding charts, proposed activities will meet or exceed their assigned VQOs.

1. No new roads or landings should be built on Wauchechea Bald Trail or Yellow Creek Mountain Trail.
2. [Eliminated with elimination of Stand 29-1 from the project.]
3. Leave a minimum of 35 rba/ac of trees with well-formed crowns. Minimize size of cable landing, and place on top of ridge to minimize cut/fill banks. Leave a 50 foot buffer of un-cut screen below new and existing roads. Screen cable landings to extent possible.
4. Lop and scatter, or burn logging debris to within 4 ft. of the ground, for 50 feet beyond the edge of open road or trail.
5. Screen all roads, skid roads and decking areas; i.e., vegetative screen between road and viewpoint (usually on downhill side). Screen cable landings to extent possible (where applicable).
6. Leave a minimum of 25 rba/ac throughout unit; select leave-trees with well-formed crowns.
7. Leave a minimum 30 rba/ac throughout unit; select leave-trees with well-formed crowns.
8. Minimize size of cable landing, and place on top of ridge to minimize cut/fill banks. Screen cable landing to extent possible.
9. Leave a minimum of 15 rba/ac throughout unit; select leave-trees with well-formed crowns.
10. Drop 4C portion of unit.
11. Limit opening along Gladdens Creek Road to 500 linear feet. Leave a 150 foot buffer along US 129. Leave a minimum of 25 rba/ac in western ½ of unit.
12. In Two-Age and Group Selection units, move boundary 100 feet below ridge (cutting only those trees necessary for cable corridors, where applicable).
13. Insure 330 ft. buffer between proposed and existing harvest areas if existing is less than 20% of adjacent stand height.
14. Leave a minimum of 20 rba/ac throughout unit; select leave-trees with well-formed crowns.

3.0 REASONS FOR MY DECISION

Forest regeneration by two-age harvest, group selection harvest, and planting of southern pine beetle killed stands will fulfill the need to increase the percentage of very young forest to meet LRMP direction for MA 3B. This need is especially prominent in the Hazanet area due to the presence of a significant population of golden-winged warblers, a watch list species that prefers young forest as habitat. Alternative 3 creates more early successional habitat than Alternative 1 or Alternative 2.

The regeneration and release of oak species is a priority to provide future hard mast production, supports LRMP goal #6 to restore productivity of oak-hickory forest communities, and LRMP Goal #5 to emphasize high quality hardwood species on highly productive sites. Timber stand improvements (TSI) such as vine cutting and prescribed burning will provide better growing conditions for young trees, maintain or increase the mast-producing component of stands for wildlife benefits, and sustain a diversity of tree species.

Thinning of stands is needed to provide more favorable growing conditions for hard mast producers such as various species of oaks. Two LRMP goals are to restore oak-hickory forests essential for wildlife, and to produce high quality hardwood sawtimber. This thinning will remove small damaged trees and sprout clumps such as from yellow poplar that could interfere with good growth of the better-formed trees for both mast production and sawtimber production.

Pre-harvest oak midstory treatment will increase the availability of sunlight to oak seedlings and saplings in the selected stands. This will allow the young oaks to grow large enough to be competitive if a removal of overstory trees takes place in the future. While Alternative 3 has fewer acres receiving the mid-story oak treatment than Alternative 2, there are still enough acres receiving treatment to ensure the future regeneration of the oaks in this area.

The new road construction and reconstruction complies with the LRMP direction that the road system be planned to progressively access all lands suitable for timber production. The road construction proposed will incrementally increase the accessibility of the suitable timber base in the project area. This will make future management activities more efficient. A project scale Roads Analysis was completed to better inform the decision-making process regarding road management in the project area. One finding of the analysis was recognition that some new road construction would be appropriate to permit more efficient resource management for this 3B management area.

Construction of helispots will increase accessibility to remote areas for fire control purposes.

The designation of 684 acres stands for small patches of old growth will meet LRMP direction to designate at least 50 acres of every compartment for future old growth. The purpose of these small patches is to increase biological diversity by providing some

structural components of old growth. With project implementation, every compartment in the project area will have at least 50 acres selected for long-term development of old growth characteristics.

Relocation of Dummy Branch Road, FS 2440A, will improve watershed conditions by reducing the amount of roadbed in riparian areas (streamside zones).

Wildlife habitat diversity will benefit from the prescribed burning, 9 vernal pools and additional acres of grass/forb habitat to be created. There is a need to increase the amount of grasses and forbs and vernal pools in the project area. These habitat components are in short supply here, just as they are across the Nantahala National Forest. The LRMP directs the use of prescribed fire to create and maintain desired wildlife habitat. In this case an understory burn will clear underbrush and will be followed by a flush of herbaceous vegetation and berry production from invigorated soft mast producers. Activities to rehabilitate wildlife openings and construct small waterholes will improve the habitat for a variety of wildlife species. All these activities support LRMP Goal #3 to enhance the diversity of plant communities for wildlife habitat.

4.0 SCOPING AND PUBLIC INVOLVEMENT

Scoping is defined by the National Environmental Policy Act as “an early and open process for determining the scope of issues to be addressed, and for identifying the issues related to a proposed action.” Scoping continues throughout project planning and analysis.

After initial internal scoping with a Forest Service interdisciplinary team, the Hazanet Project was listed in the January, 1999 Schedule of Proposed Actions mailed to the Forest-wide list of over 100 recipients. The project was subsequently listed in every quarterly Schedule of Proposed Action since January 1999. In June 1999 a scoping letter was mailed to 70 persons. This letter included a map identifying the project area, and a request for comments. A notice requesting comments was also placed in the Graham Star on June 7, 1999. In response, comments were received from three individuals, two government agencies, and five non-governmental organizations. The following major issues were identified through scoping and addressed in the EA:

- Impacts to grass/forb and early successional habitat;
- Impacts to Endangered, Threatened, and Sensitive species;
- Impacts to cerulean warbler and golden-winged warbler;
- Impacts to scenery, including views from the Appalachian Trail.

5.0 ALTERNATIVES CONSIDERED

Three alternatives were considered for detailed analysis. Alternative 3, with modifications, is the alternative I selected for implementation, as described in detail in the previous pages. Alternatives 1 and 2 are described briefly below, along with my rationale for not selecting them.

Alternative 1: No action - This alternative proposes no activity to move the area toward the desired conditions described in the LRMP. Grass/forb habitat would continue to be provided in the current amount of 28 acres. The existing 77 acres of early successional habitat in the project area would be reduced to zero by 2007. Habitat for disturbance related species would decline while habitat for species that prefer closed canopy conditions would increase slightly. The views from the Appalachian Trail would continue as they are today. Previous investments in timber stand improvement and wildlife habitat improvements would not be maintained. No additional access would be provided for vegetation management and fire control. Existing watershed rehabilitation needs would remain.

My reasons for not selecting this alternative: The no action alternative does not result in the desired conditions for the area as determined in the LRMP 3B. The area is currently lacking in early successional habitat and this condition would continue. Vines and undergrowth that are interfering with the growth of high value hardwoods and mast producers would continue to impede tree growth. Areas with little advanced oak regeneration might lose most of their oak component in the long term. Existing young trees will have a poor chance for long term survival since they may be overgrown by vines, or they may be shaded out by the existing overstory.

Alternative 2: Proposed Action - This alternative was designed to meet the project objectives discussed in Chapter 1, while applying certain protective measures to activity areas that fall into the range of suitable habitat for cerulean warblers.

Alternative 2 would regenerate 402 acres through timber harvest, thin 99 acres, apply prescribed burning to 351 acres, and reestablish 40 acres by planting following southern pine beetle attack. An oak midstory treatment to promote future oak regeneration would be applied to 235 acres, while vine control and other timber stand improvement investments would be made on an additional 514 acres. Additional access to the area would be provided in the form of 1.35 miles of system road construction, 2.3 miles of temporary road construction, 0.6 miles reconstruction of existing road, and development of four helispots. Eleven vernal pools would be developed. Watershed rehabilitation activities would improve conditions along FS 2440A, Dummy Branch Road, and the road to access stand 29-1.

My reasons for not selecting this alternative:

While Alternative 2 is compatible with the objectives for MA 3B, I believe Alternative 3 provides the better choice among the two action alternatives. Alternative 2 would provide 3% less early successional habitat than the selected alternative, so would be of less benefit to the golden-winged warblers and a variety of other species in the project area. At the same time, Alternative 2 would require 1.2 miles more temporary road construction than the selected alternative. Alternative 2 also has activity on about 174 acres of cerulean warbler habitat whereas the selected alternative does not.

6.0 FINDINGS REQUIRED BY LAWS AND REGULATIONS

The selected alternative is consistent with the Land and Resource Management Plan for the Nantahala and Pisgah National Forests (LRMP) and all Amendments to the LRMP, as required by NFMA 1976, 16 usc1604(I). The following paragraphs discuss my reasoning for this finding:

1. The actions support the goals, objectives and standards for the affected Management Areas in the project area, as described in Chapter III of the LRMP Amendment 5 (1994). See Chapter I – Purpose and Need for the Project, in the EA.
2. Required mitigating measures to prevent or lessen adverse impacts have been fully applied in the actions. The project is reasonable and feasible, and will result in applying the management practices that meet the LRMP overall direction for protecting the environment while producing goods and services.
3. The actions of this project will meet all requirements of the Endangered Species Act and all agreements with the State Natural Heritage Program, in that the impacts to Proposed, Endangered, Threatened, and Sensitive (PETS) species or critical habitat for these species are insignificant and will not affect the population viability of any PETS species.
4. The actions of this project include timber harvest on those lands the LRMP identifies as suitable for timber production (Management Areas 1B, 2A, 3B, 4A and 4D).
5. For Stands 29-3, 29-5, 30-9A, 30-13, 30-23, 31-1B, 31-6, 34-3, 34-9, 34-17A, 34-17B, 35-3, 35-9B, and 35-14, I have determined that two-age is an appropriate method of harvest to meet the LRMP’s objectives and requirements, since the desire is to regenerate shade intolerant species, address aesthetic concerns, and retain mast production in the stands. Two-age is also appropriate due to terrain and stand configuration. See Appendix C in the EA.
6. The actions of this project which affect vegetation comply with the seven requirements of 36 CFR 219.27(b) by following the Forest-wide General Direction and Standards, as well as applicable mitigation measures given in Amendment 2 of the LRMP.
 - a. The actions of this project are suited to the multiple use goals established for the area; potential environmental, biological, cultural resource, aesthetic, engineering and economic impacts have been considered.
 - b. Regeneration checks of existing harvested stands in the area show that these lands can be restocked within five years.
 - c. Actions were not chosen primarily because they will give the greatest dollar return or the greatest output of timber.
 - d. Actions were chosen after considering potential effects on residual trees and adjacent stands.
 - e. No permanent impairment of site productivity is expected from actions.
 - f. Actions will provide benefits, consistent with desired conditions, for water quality and quantity, wildlife and fish habitat, regeneration of desired tree species, recreation use, and other resources.

- g. Actions are feasible and practical in terms of transportation requirements, labor supply and contract administration costs.
7. There are no significant irreversible or irretrievable resource commitments.

7.0 FINDING OF NO SIGNIFICANT IMPACT

I have determined that Alternative 3 is not a major federal action, individually or cumulatively, and will not have a significant impact on the quality of the human environment. Therefore, an environmental impact statement will not be prepared. I have considered both context and intensity in my determination that is based on environmental analyses documented in the environmental assessment.

7.1 CONTEXT

The actions of this decision and resulting physical and biological effects are limited to the project area and adjacent landscape, and are therefore local in nature. The activities are limited to a small portion of the landscape and occur in common forest types.

7.2 INTENSITY

7.2.1 Both beneficial and adverse impacts are considered. There will be no significant effects as a result of the action (EA Chapter III). Any potential adverse effects are reduced through mitigating measures.

7.2.2 The actions will have minimal effects on the public health and safety. Herbicides to be used have been approved by the Environmental Protection Agency for the described uses and have been subjected to a risk assessment (VMEIS APPENDIX A). Smoke management guidelines will be applied during the prescribed burning to alleviate safety concerns (EA pp. 20-21, 92-93).

7.2.3 The actions in this decision will not affect any unique characteristics of the geographic area (historic or cultural resources, park lands, prime farm lands, wetlands, wild and scenic rivers, or ecologically critical areas). This is based on information gathered through records and site-specific surveys (EA Chapter III and Appendix A).

7.2.4 Based on public involvement, the effects on the quality of the human environment are not highly controversial (EA pp. 5-6 and Appendix D)

7.2.5 The actions do not involve highly uncertain, unique, or unknown environmental risks to the human environment (EA throughout Chapter III). All actions described have been conducted before, and district staff members have considerable expertise in carrying out these actions.

7.2.6 The actions in this decision will not set a precedent for future actions with significant effects nor do they represent a decision in principle about a future consideration. All actions have been conducted previously in other parts of the Forest.

7.2.7 The cumulative effects of the proposed actions have been analyzed and no significant effects are anticipated (EA pp. 26, 30, 32, 34,38, 49, 56, 58, 59, 61, 64, 65, 67, 68, 69, 88, 90, 92).

7.2.8 This action does not adversely affect cultural resources listed or eligible for listing in the National Register of Historic Places and will not cause loss or destruction of significant scientific, cultural, or historical resources (EA pg. 88).

7.2.9 The Hazanet Project **is not likely to adversely affect** the Indiana bat or the Appalachian Elktoe mussel. The proposed project will have no effect on any other federally proposed or listed species. The project may impact individuals of *Euphorbia purpurea*, *Helianthus glaucophyllus*, *Scutellaria saxatilis*, northern bush katydid (*Scudderia septentrionalis*), rock-loving grasshopper (*Trimerotropis saxatilis*), frosted elfin (*Callophrys irus*), Diana fritillary butterfly (*Speyeria diana*), Santeetlah dusky salamander (*Desmognathus santeetlah*), southern Appalachian salamander (*Plethodon teyahalee*), *Gomphus consanguis*, and *Gomphus viridifrons*, but will not impact their viability across the Forest. The project will have no impact on any other sensitive species (EA Appendix A). Concurrence with this project's Biological Evaluation was obtained from the U.S. Fish and Wildlife Service on May 14, 2003.

7.2.10 This action does not threaten to lead to violation of federal, state, or local laws imposed for the protection of the environment. This will be ensured by carrying out the proposed action in a way that is consistent with the standards and guidelines, management requirements and mitigation measures established in the LRMP and this Decision Notice. For water quality, North Carolina Best Management Practices will be met through application of LRMP standards.

8.0 IMPLEMENTATION

This decision may be implemented no sooner than 5 business days following the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition.

9.0 APPEAL RIGHTS

This decision is subject to appeal pursuant to 36 CFR.215.7. A written Notice of Appeal must be postmarked or received within 45 days after the date notice of this decision is published. Any appeal of this decision must be fully consistent with 36 CRF 215.14, "Content of an Appeal," including the reasons for appeal, and must be filed with the Appeal Deciding Officer at this address: Regional Forester, USDA Forest Service Regional Office, ATTN: Appeals Deciding Officer, 1720 Peachtree Rd. NW, Suite 811N, Atlanta, GA 30309.

For additional information on the appeals process or this decision, contact Carol Milholen at National Forests in North Carolina, 160A Zillicoa Street, Asheville, North Carolina 28801 (828) 257-4860.

/s/John F. Ramey

6/9/03

JOHN F. RAMEY
Forest Supervisor

Date

Hazanet Project
Appendix D to the Environmental Assessment
Response to Comments

This appendix to the Hazanet Project Environmental Assessment (EA) is the Forest Service Response to Comments. The EA was available for a 30-day comment period beginning April 26, 2003, and closing May 27, 2003. During this comment period, three written responses were received. This appendix contains a summary of the key issues and comments in those letters, and the Forest Service response to those comments.

1) Two commenters expressed concern about potential visual impacts of the project from viewpoints along the Appalachian Trail (AT). Comments regarding specific stands are listed below:

- **Stand 29-1 is clearly visible from the AT and falls within the AT foreground viewing area. Therefore, this unit should be dropped.**
- **Screening below the road to Stand 29-3 will be critical to meeting the partial retention Visual Quality Objective (VQO).**
- **Road and landing construction for Stand 29-5 could have visual impacts. Required mitigations appear adequate.**

Response: With the modifications described and the scenery mitigation measures prescribed in the decision notice, all project activities will meet or exceed their assigned visual quality objectives.

The Forest Service agrees that Stand 29-1 falls within the AT foreground viewing area. Therefore, all activities associated with this stand will be dropped from the project.

We recognize the respondent's concern with impacts to views from the AT from activities associated with Stands 29-3 and 29-5. With the prescribed scenery mitigation measures outlined in the EA (pp.21-23), these stands will meet or exceed their assigned visual quality objectives.

2) One commenter expressed concern about safety of AT hikers and integrity of AT during prescribed burns.

- **Warn hikers of burning and take precautions for their safety.**

Response: Trailheads will be posted with appropriate information and lookouts will be placed to intercept through-hikers during the time of the burn (EA p. 19)

- **Do not use the AT for mechanized line construction.**

Response: All control firelines will utilize existing landscape features including creeks, existing roads, trails and handlines where needed (EA p. 18). Only mist blowers and/or fire rakes (both handtools) will be used on the trail.

- **Start burn at AT and back down slope to prevent damage to the old growth forest along the AT in this area.**

Response: Prescribed burns are conducted so as to insure the duff layer remains intact and soil texture and color are not affected (EA p. 20). These low intensity burns are accomplished by backing, flanking, and strip head firing techniques.

3) One commenter expressed concern about silvicultural treatments and associated road construction. This commenter felt the outcomes from our proposed actions are not well understood or not supported by science:

- **Removing undesirable species does not serve the best interest of species diversity;**
- **The use of Triclopyr will have a direct impact on the food web and water quality;**
- **Thinning does not aid the ecosystem – let nature take care of itself;**
- **Preharvest midstory oak treatments seem contradictory to science;**
- **Allowing for one-half acre of vines for every 20 acres in the project area may not be enough;**
- **The use of herbicides on grapevines is a bad idea;**
- **Combating southern pine beetle by replanting more pines does not seem to be an effective solution;**
- **The 684 acres designated for old growth are inappropriate due to location;**
- **Road construction is inappropriate due to the high likelihood of encountering Anakeesta formation;**
- **Road removal is better for watershed improvement than road relocation;**
- **Wildlife habitat improvements will only be good for game species.**

Response: The choice of available silvicultural systems was determined in the LRMP Amendment 5. These silvicultural prescriptions were developed with public involvement and with expertise of the silvicultural researchers at Bent Creek Experimental Forest and at that point were subject to considerable amount of peer review. The use of herbicides was analyzed in depth in the Final Environmental Impact Statement Vegetation Management in the Appalachian Mountains (1989) and there are standards in the LRMP that govern herbicide use on the forest. This project was determined to be fully consistent with those standards.

- **Removing undesirable species will not eliminate these species from the stand; simply reduce their frequency so that the mast producing trees have a chance to fully develop.**
- **The herbicide Triclopyr is labeled and appropriate for the forest management uses proposed by this project. It will be applied directly to the specific plant to be**

suppressed. It is not highly mobile in the soil and is rapidly broken down by soil microorganisms and ultraviolet light. No herbicides will be used within 100 feet of any aquatic resource in the project area. Additional mitigation measures will be implemented in regard to herbicide use (see Decision Notice, p. 8).

- Thinning is a demonstrated method for achieving increased growth in hardwoods including oaks. Preharvest oak midstory treatments are a successful method for promoting oak regeneration in the southern Appalachians. This method was developed locally by silvicultural researchers and has been studied for years experimentally as well as successfully demonstrated in typical resource management settings.
 - Grapevines will only be cut in the stands listed in the Decision Notice, not throughout the entire project area. These stands represent a small portion of the project area, and grapevines grow in many stands not scheduled for treatment. Grapevines will not be treated with herbicide; they will be cut by hand.
 - The planting of pines is not meant as a control measure for southern pine beetle. The Decision Notice For Suppression of Southern Pine Beetle Infestations On The Nantahala and Pisgah National Forests (April, 2001) described control measures for southern pine beetle used on the Forest. The planted pines are meant to supplement the natural regeneration in the affected stands.
 - The 684 acres designated for future old growth are selected to meet the intent of the requirement for designation of small patches in every compartment as specified in the LRMP Amendment 5. They are meant as part of an overall network of old growth described as a desired future.
 - The project scale roads analysis for the Hazanet Project found some additional road construction would be appropriate in the project area since this is a 3B management area where timber production is an objective, and since not all of the area is currently accessible. While there is a chance that Anakeesta formation will be encountered in the area, this risk is considered moderate for almost all the area. The described mitigation measures have been effectively employed in the past.
 - The road relocation described should be effective for watershed improvement by reducing the potential for sedimentation of the adjacent stream. Road removal would not be appropriate since this road is needed for future resource management purposes.
 - The wildlife habitat improvements will benefit many species that utilize vernal pools and wildlife openings. Such species may include a variety of songbirds and amphibians as well as the management indicator species chosen for this project.
4. **One commenter expressed concern with the number of Proposed, Endangered, Threatened, and Sensitive (PETS) species that might be influenced by the project. The commenter states, “Out of 11 species of plants in need of protection almost half (5) will be directly influenced by proposed management activities. Out of 14 species of wildlife, which are sensitive or of concern, 10 will be influenced...Neither of these tallies included the two federally endangered species also described as ‘unaffected.’ These species include the Appalachian Elk Toe Mussel and the Indiana Bat.”**

Response: Analysis in the Environmental Assessment indicates the management actions may impact individuals of a number of sensitive species and species of concern. However these management actions are determined not likely to adversely affect viability of the species across the forest or cause a trend to federal listing. Impacts to PETS are fully disclosed in the Biological Evaluation for this Project (Appendix A of the EA).

In regard to the Appalachian Elktoe mussel, the analysis determined that the existing habitat and population trends would continue with implementation of this project, and it is not likely to adversely affect this species. In accordance with the USDI Fish and Wildlife Service recommendations, the Indiana bat standards (Amendment 10 to the LRMP) will provide the necessary protection for the Appalachian Elktoe and its critical habitat.

In regard to the Indiana bat, the analysis determined this project is not likely to adversely affect the Indiana bat. To reduce the likelihood of direct effects to Indiana bats and indirect effects to Indiana bat habitat, this project will comply with the Terms and Conditions in the Biological Opinion of the USDI Fish and Wildlife Service for protection of the Indiana Bat and Amendment 10 to the LRMP. This project is fully consistent with those. These includes: retention of standing trees with more than 25% exfoliating bark; shellbark, shagbark, and bitternut hickories; snags; hollow, den, and cavity trees; trees in buffer zones along intermittent and perennial streams; and shade trees adjacent to some of the large snags.

5. **One commenter expressed concern over impacts to Cerulean and Golden-winged Warbler. This commenter stated that an increase in the amount of edge habitat would adversely affect cerulean warbler populations, and that these birds are known to be negatively affected by brood parasitism from brown-headed cowbirds. The commenter also questioned the need for active management for golden-winged warbler, stating that such management would increase cowbirds in the area.**

Response: The Wildlife Resource Report for the Hazanet Project discusses the issue of nest parasitism by cowbirds. Findings indicate cowbird nest parasitism is associated with highly fragmented landscapes. In a landscape such as the project area and adjacent lands, fragmentation effects are not considered significant due to the very high percent of forest cover across the landscape.

This project would exclude from timber harvesting any areas identified as suitable habitat for Cerulean warblers.

Identification of the Golden-winged warbler as a species of interest in the analysis is justified by the significant population in the project area. The North American Breeding Bird Survey indicates a significant population decline in eastern North America. This species is a high elevation, early successional habitat associate. This suggests that habitat can be created on upland sites through burning and/or logging.

The project analysis indicates that regenerating some stands of upland hardwoods or mixed pine-hardwoods would provide replacement habitat for other habitat in the area being lost as the forest ages.

6. **One commenter expressed concern regarding impact to Wilderness, stating, “Joyce Kilmer/Shining Rock [sic] has become an island of old growth surrounded by forests that are in no way protected.” The commenter is concerned that the wilderness will become a “disjunct remnant of forested landscape....”**

Response: As stated in the EA, “The closest proposed activity is removed from the wilderness boundary by at least 3.5 miles of intervening terrain, with the bulk of activities over 5 miles away.” Since the landscape matrix is well over 80% forested, there is no indication that the wilderness is at risk for becoming a disjunct remnant landscape.