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Department of
Agriculture

Forest Service

Mark Twain
National Forest,
Region 9

October 2003

NE Corner Proposed Action For 30-Day Comment

The NE Corner Projects

Doniphan/Eleven Point Ranger Districts
Mark Twain National Forest
Shannon County, Missouri

For Information Contact: Mark Twain National Forest
David Doss
1104 Walnut Street
Doniphan, Missouri 63935
(573) 996-2153 ext.120
www.fs.fed.us/r9/marktwain

The NE Corner Projects Proposed Action for 30-Day Comment Involving 4.1-12 Management Area - C280, 281, 282, 283, 284, 285, 286, 287 Doniphan/Eleven Point Ranger District Mark Twain National Forest Shannon County, Missouri

September 2003

PURPOSE OF AND NEED FOR ACTION

Background

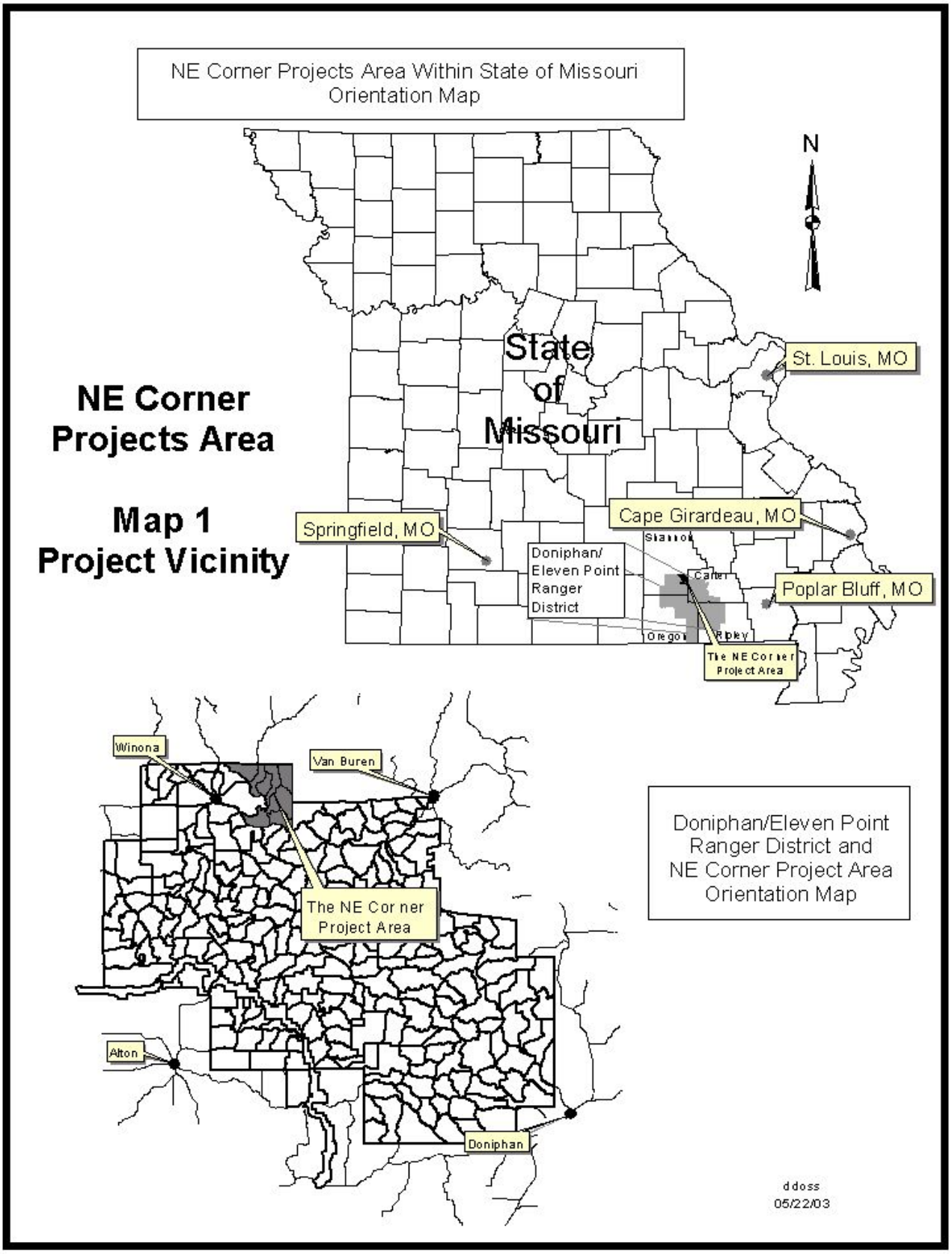
In 1992, the Forest Service adopted ecosystem management as the new framework for use and care of the National Forests and Grasslands. The Mark Twain National Forest (MTNF) has developed an ecosystem analysis process to help us determine how to manage Ozark ecosystems to meet the spirit and intent of ecosystem management. This process starts with delineating and describing the ecological setting of the area, including watershed and all parts of the ecological classification system. The ecological setting is looked at in the context of the "big picture" or landscape view, rather than as a distinct piece separate from everything else. The Council for Environmental Quality's Eleven Principles for Incorporating Consideration of Biodiversity into NEPA Analysis (1993) is also used to evaluate site-specific proposed actions as a part of a larger ecosystem management scenario. The process continues with descriptions of the natural communities, processes that create and maintain those communities, and existing and desired conditions, which leads to an identification of opportunities for action and limiting factors.

The NE Corner Projects area is within Management Area 4.1-12 of the Doniphan/Eleven Point Ranger District. The Forest Plan, pages IV-125 to IV-131, describes the forest practices, standards, and guidelines for managing 4.1 areas. The 4.1 Prescription "emphasizes the management of shortleaf pine in its natural range on sites where it is recognized as a dominant or characteristic member of the natural community." (Forest Plan, p. IV-125).

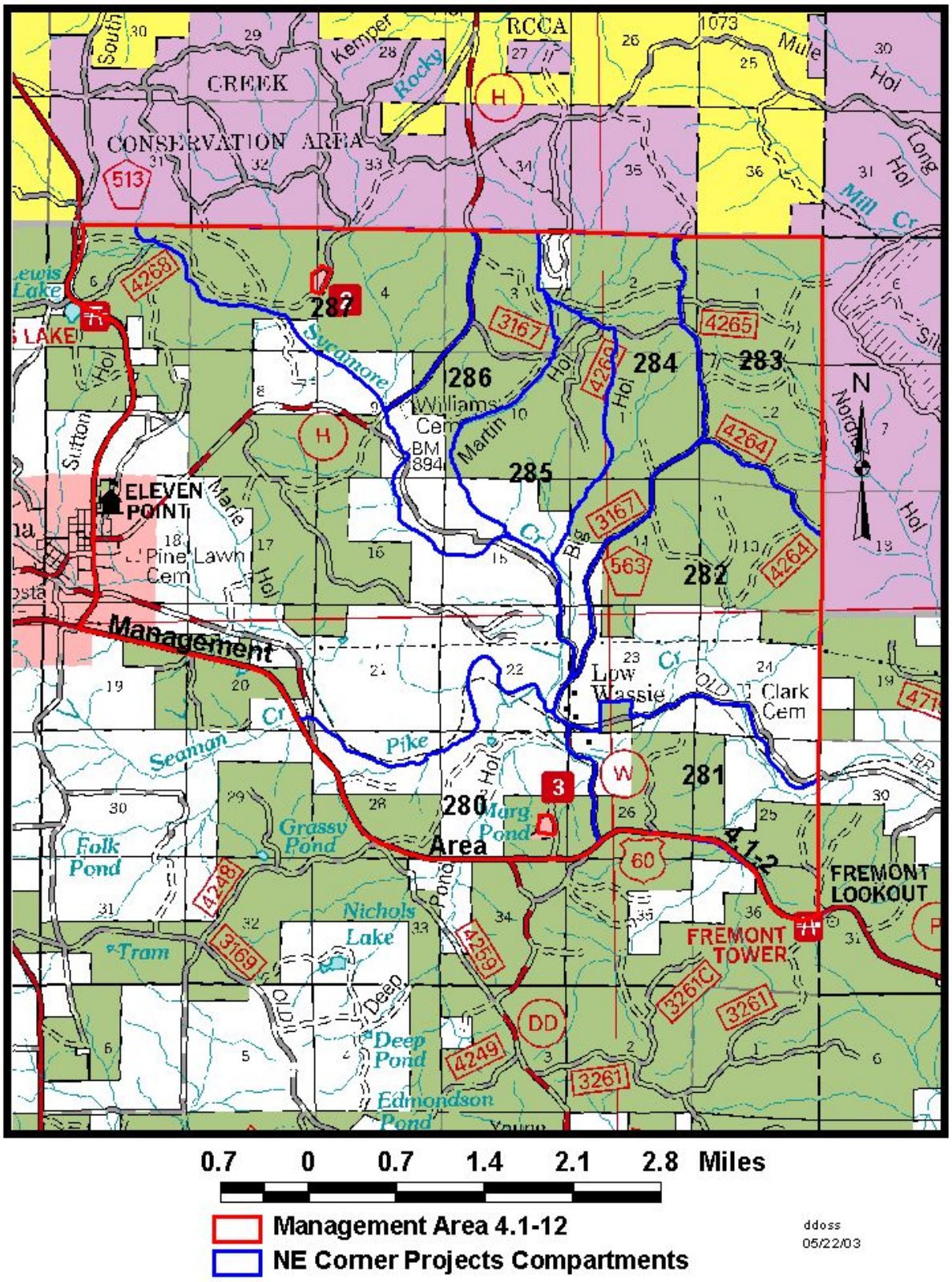
Location of Project Area

The NE Corner Project area is located in Management Area 4.1-12 containing Compartments 280, 281, 282, 283, 284, 285, 286, & 287. The legal description is: Township 27 North, Range 3 West Sections 1-28, and 30 in Shannon County, Missouri. The area considered for the Environmental Effects Analysis corresponds to the boundaries 4.1-12 Management Area, excluding Compartment 288 and 300.

Most project area compartments are east of Sycamore Creek, with Compartments 280 and 281 south of Pike Creek being the exceptions. The north boundary is adjacent to the Rocky Creek State Conservation Area, and the Peck Ranch State Conservation Area is immediately to the east of the project area. The analysis area contains 7414 acres of National Forest land and approximately 3281 acres of private land for a total of 10695 acres (See the Project Vicinity Maps on pages 2 & 3). Attached maps show treatment stands by compartment. Stand Information reports from the Combined Data Systems (CDS) database for the project compartments are available on request. The proposed project would take place only on National Forest land.


NE Corner Projects Area Within State of Missouri
Orientation Map
N
State of Missouri
St. Louis, MO
Springfield, MO
Cape Girardeau, MO
Poplar Bluff, MO
Doniphan/ Eleven Point Ranger District
Carter
Ripley
Oregon
Stanton
The NE Corner Project Area
NE Corner Projects Area
Map 1
Project Vicinity
Winona
Van Buren
The NE Corner Project Area
Alton
Doniphan
Doniphan/Eleven Point Ranger District and NE Corner Project Area Orientation Map
ddoss
05/22/03

NE Corner Project Area Map



Management Prescription 4.1-12 – Desired Future Condition states:

"Generally these management areas will be 2,500 acres or more in size. The management of shortleaf pine on suitable sites is emphasized on management areas assigned this prescription. Other plant communities occur in substantial quantities. Forest age and size class distribution will vary across the landscape. Theses areas will normally have substantial road access. Some roads may be closed periodically to meet management area objectives. Road network density will normally not exceed 2 miles per square mile of National Forest System land. All road classes, transmission line and pipeline corridors and other related facilities will be permitted. Facility design and density will be in harmony with a natural appearing environment. Mineral exploration and development may be permitted and coordinated with surface resources. Those wildlife species associated with shortleaf pine forest and early and mid-successional stages of vegetation will be favored. Man-induced controls may be readily evident to the forest user"

"Interaction between users will be low to high depending on the specific location. A variety of recreational opportunities will exist. The opportunity to experience solitude, independence and closeness to nature may be present. It is not guaranteed to the user due to intrusions of other activities. This management area can provide opportunities for forage outputs. Fire management cost can be high due to large pine management investments."

The Role of the Forest Plan

The Forest Plan, approved in 1986, provides a programmatic framework regarding allocation of land and the measures necessary to protect National Forest resources. It describes how different areas of the MTNF should be managed and what resources these lands should provide now and in the future. The Forest Plan Final Environmental Impact Statement (FEIS) displays the forest-wide effects of implementing programs such as timber harvest, wildlife habitat management, recreation management and visual resource management. The site-specific effects of those practices to this project are not part of the Forest Plan FEIS. An environmental assessment would be prepared to analyze site-specific effects of management activities proposed in the NE Corner Project Area.

The FLRMP provides management prescriptions designed to accomplish a Desired Future Condition (DFC). The FLRMP identifies the area in which this project is proposed as Management Area 4.1-12. The purposes of this prescription, as stated on IV-125 of the FLRMP are:

1. To emphasize the management of shortleaf pine in its natural range on sites where it is recognized as a dominant or characteristic member of the natural community *(Allocation of land, protection of resources, and sustained yield).*

The Forest Plan also provides direction for conserving plant and animal diversity on National Forest shortleaf pine lands (FLRMP, p. V-57-1, Amendment 5, 9/88), as well as hardwood lands. Vertical and horizontal diversity of plant and animal communities are maintained by managing for natural communities in varying stages of development (FLRMP, p. IV-128). These stages, or habitat conditions, help provide diverse habitats and ecosystems necessary to sustain healthy populations of plants and animals for the NE Corner/4.1-12 Management Area. This would also apply to 1. above and 5 below per 36 CFR 219.27(g) Diversity.

2. To provide for the economically efficient production of shortleaf pine timber products. *(Sustained yield of goods and services).*
3. To provide dispersed recreation opportunities featuring a roaded natural recreation environment *(Multiple-use management).*
4. To provide for production of other resources such as hardwood timber products, recreation, forage, fish and wildlife, and minerals *(Multiple-use management and sustained yield of goods and services).*
5. To satisfy the management requirements of 36 CFR 219.27 (Allocation of land, protection of resources, and sustained yield).

Existing Condition, Desired Future Condition, and Proposed Actions

The following proposed actions identified for the project area resulted from identifying current conditions which do not meet the DFC or which need to be maintained in order to meet the DFC.

Management of vegetation would produce the conditions (DFC) and goods and services described for Management Prescription 4.1-12. A *(1)* indicates the corresponding purpose(s) for the proposed actions.

Proposed Actions (See Attached Spreadsheet, Maps, and Enclosed Table)

Provide 0-9 Age Class Habitat:

1. Provide for temporary increase in forage in woodland habitat through creation of 0-9 year old forest vegetation. Current 0-9 year old woodland habitat for the project area is 0% (based on the planning period of 1998-2007; the management area being 1%) for which these projects are proposed with a Forest Plan objective of 8-15%. (1,4,5))

Action 1a: Regenerate approximately 33 acres using shelterwood seed cuts that would leave 20-30% of the overstory trees for a seed source.

Action 1b: Regenerate approximately 88 acres using seed tree cuts that leave 4-5 good quality seed trees per acre for a seed source.

Action 1c: Regenerate approximately 338 acres using clearcuts that leave scattered individual or, in small groups, selected reserve trees (snags and den trees).

A Certified Silviculturist has determined that stand conditions make proposed even-aged regeneration harvests appropriate to those stands and that clearcutting is the optimal method on acres proposed for this even-aged regeneration method.

Action 1d: Regenerate approximately 42 acres using uneven-aged management at the stand scale (group selection). Selected groups would create openings 1/3 to 2 acres in size with all trees harvested

Action 1e: Following regeneration harvest, all non-commercial trees over 6 feet tall would be felled to encourage sprouting on 314 acres. This would not include den trees, snags, fruit-bearing wildlife trees and reserve trees. These actions are site preparation done to encourage natural regeneration. One hundred and eighty nine (189) acres would be planted (167 acres of clearcut and 22 acres of seed tree seed cut).

Action 1f: Remove individual oak and pine in a shelterwood prep cut on approximately 57 acres within the oak-pine forest type to create conditions favorable to the establishment of oak and pine regeneration to perpetuate the oak-pine forest type. The production of commercial forest products would be a byproduct of perpetuating this forest type.

Provide Forested Stands That Provide Old Growth Habitat Conditions Now or in the Future

2. The Forest Plan Standard for old growth habitat is 8-10% (4,5)

Action 2a: Designate approximately 157 acres (2.1%) of project area to add to the 552 acres (7.5%) of existing designated old growth for a total of 709 acres (9.6%) of project area woodland habitat to provide old growth habitat in the future.

Provide/Maintain Open and Semi-Open Habitat Conditions

3. The amount of open/semi-open land in the project area is below the Forest Plan standard of 4-10% (currently approximately 2.4%) for this habitat component. Existing open land communities need to be maintained, as well as shortleaf pine woodland communities developed to meet the standard for this type of habitat (1,4,5)

Action 3a: Prescribe burn 34 acres to maintain existing open land and an additional 658 acres to initiate development of pine woodland habitat.

Provide for Healthy, Resilient Forests

3. Trees within the red oak group are declining and dying in several stands throughout the project area (4,5)

Action 3a: Remove the dead, dying, and mature trees within the red oak group on approximately 114 acres to reduce this component on these acres. This would be done to improve the overall condition of the forest and remove weakened forest trees susceptible to forest pests and disease (such as the red oak borers currently impacting the Salem and Potosi Ranger Districts).

4. Several stands in the project area have or would have too many trees per acre, resulting in competition for water, nutrients, and sunlight that results in decreased vigor, decreased growth rates, and decreased resistance to stress (insects, disease, and drought) (2,3,5)

Action 4a: Thin 1660 acres of pine and mixed oak-pine to improve growing conditions for young oak and pine trees, increase growth rate and vigor of residual overstory trees, and increase overall stand's tolerance of environmental stresses. A byproduct of this thinning would be commercial forest products.

Action 4b: Thin 439 acres of young oak and pine saplings to maintain rapid growth. This thinning would not result in commercial forest products.

5. Several stands in the project area appear to be suitable for the application of uneven-age management based on existing species composition and structure. The Forest Plan direction (page IV-37) includes the identification of situations that permit application of the uneven-aged silvicultural system (4,5)

Action 5a: In addition to group selection cutting (Action 1d), further develop uneven-age structure and improve species composition through the commercial and non-commercial removal of individual trees (improvement cutting) on approximately 389 acres. A byproduct of the commercial thinning would be forest products

Providing A Safe Forest Transportation System
(at an appropriate level for management and reasonable public access)

6. A network of non-system roads exist in the project area that are not approved for use through the Forest Plan, as amended (3,4)

Action 6a: Approximately 13 miles of non-system roads that are not designated as part of the Mark Twain National Forest Transportation System by the Forest Plan or added to the system through Forest Plan amendment and that are determined not to be needed for resource management access and protection would be closed, obliterated, and returned to resource production (habitat, wood products, water, forage). Closure would be accomplished through placement of earthen mounds (berms), logs, rocks, or signs at the entrance of such roads that physically or legally prohibit use. Sections of these roads that are experiencing erosion or have a high potential for erosion (steep gradient, erodible surface material, exposed to weathering, or other similar factors) would be water-barred and seeded to an appropriate seed mix for erosion control.

Associated or Connected Actions

The following existing system roads (11 miles approximate) need reconstruction to provide access for proposed management activities and to maintain the standard of development approved in the Forest Plan. These Forest Road Numbers are: 3167B, 3167C, 4099, 4263, 4264, 4265A, 4268, 4273, 4274, 4296, 4713, 4713A, 4714, 4715, and 4716. Another 10 miles (approximately) would require maintenance. These Forest Road Numbers are: 3167, 4099, 4100, 4264, 4265, 4268, 4269, and 4298. Approximately 31 miles of skid trails would be estimated for designation in timber sale contract administration based on proposed actions in this NE Corner Project. This would be the estimated equivalent of 40 feet of designated skid trail per acre of proposed actions. Proposed actions involve an estiamted 4165 acres (GIS). Five miles of temporary road would be constructed for timber harvesting. Skid trails and temporary roads would be closed and revegetated (as needed) after harvesting is completed. All miles listed above may not receive management actions. These determinations would be made prior to decision , except in the case of skid trails, if specific roads or road segments are found NOT to be needed or reconstruction and/or maintenance will be too costly.

Some actions require other actions in order to be accomplished. These actions would be considered in the environmental analysis of this project. All action acre totals and road miles are estimates based on current Geographical Information System (GIS) and Combined Data System (CDS) acres/miles. Some adjustments to estimated acres are expected as appropriate to protect resources, reconcile GIS and CDS acreage and mileage differences, add, subtract, or adjust actions to address public issues, and provide for the application of sound professional judgment in placing treatment unit boundaries and prescriptions on the ground.

Decision To Be Made

The Forest Service line officer (District Ranger) is responsible for deciding whether to:

- Not implement any proposed action alternative by selecting Alternative I (the No Action Alternative).
- Select management actions described in this document or as a result of comments to this proposed action.
- Require the development of an environmental impact statement.

The scope of the decision to be made is confined to a reasonable range of alternatives aimed at implementing the Forest Plan on the area of National Forest System Land (NFSL) described as the NE Corner Projects area (Compartments 280-287) within the 4.1-12 MA of the Doniphan-Eleven Point Ranger District, Mark Twain National Forest, Shannon County, Missouri. The decision is not one of land allocation, nor is the analysis intended to look at every possible combination of activities.

The scope is further constrained by Forest Plan Standards and Guides for the 4.1 Management Area and the associated prescription, which places the emphasis on the management of shortleaf pine. Alternatives which violate the Forest Plan would not be developed.

Preliminary Issues

In accordance with laws and regulations, factors such as vegetation, wildlife, threatened and endangered species, water and air quality and cultural resources would be addressed in the analysis. The proposed action would likely develop unresolved conflicts or concerns that reflect opposing views concerning these and other factors. These concerns, or issues, would be used to develop a reasonable range of alternatives so the deciding official can make an informed decision. Other concerns or issues may develop as a result of public comment. Several preliminary issues have been identified by the interdisciplinary team for consideration in the analysis of the NE Corner Project. This includes, but is not limited to the following:

- Forest health and vigor
- Protection of cultural resources
- Threatened, Endangered, or Sensitive Species habitat may be present and need to be protected.
- The proposed activities may conflict with hunting and may need seasonal restrictions

Cumulative effects of management actions in the NE Corner Project Area and those of the adjacent Peck Ranch and Rocky Creek State Conservation Areas would also be considered.

Issues Identified During Scoping and Public Involvement

A Scoping Report and cover letter were mailed to interested parties, as well as neighbors within or adjacent to the project area on January 31, 2003. Scoping letters asked for any issues relevant to the site-specific locations of the proposed projects. Previous to the Scoping Report mailing, the NE Corner Project had been on the Forest's Schedule of Proposed Actions (SOPA) since July 2002 (4th Quarter FY2002). The public was also notified of the project in a legal notice published February 5, 2003 in the Current Wave Newspaper of Eminence MO. On April 28, 2003, the ID team met for the second time to discuss comments received from scoping, identify issues in those comments and develop alternatives to the proposed action from the issues. Tallying issues contained within all comments from scoping resulted in the following:

1) Old growth should be designated in blocks versus dispersed stands and treatment stands should maintain large trees characteristic of old growth.
2) Sediment, both fine and coarse sediment, produced by proposed actions (particularly roads), may enter losing streams in spring recharge areas (NE Corner Project area is within the Big Spring recharge area).
3) The desire to prescribe burn 660 acres to create pine woodland will, over time, reduce the ability of these acres to produce timber products in a Management Area (MA) that emphasizes economically efficient pine timber products production.

Preliminary Alternatives

Alternatives to the proposed action must address at least one of the significant issues described above and must meet the purpose and need as stated. A No Action alternative must be included as one of the alternatives.

Alternative Development:Developed Alternatives

The ID Team felt that one other action alternative to the proposed action should be analyzed: This additional action alternative would implement vegetation management activities similar to but with some changes from the Proposed Action and without the 658 acres of prescribed burning. The ID Team feels that these alternatives, along with the No Action alternative, represent the initial range of concerns of the Forest Service and those that responded to the January 31, 2003 scoping, pending the substantive comments received during this 30-Day comment period. The preliminary alternatives identified for analysis by the ID team are:

Alternative 1 (No Action):

In response to Issues 1, 3

Alternative 2:

In response to Issues 1, 2

Alternative 3:

In response to Issues 1, 2, 3

Preliminary Alternative Descriptions

Alternative 1 (No Action).

In the No Action alternative, the Forest Service would not implement any proposed action or alternative in the NE Corner proposal. The option for future management in this area would not be foreclosed. It also provides a baseline for comparison between the action alternatives.

This alternative responds to those that request more old growth allocation by allowing the project area to move towards an old growth condition due to the lack of vegetative management. It does not respond to those that would like to see fewer acres designated as old growth in the project area.

This alternative responds to issues about amount and distribution of even-aged regeneration harvest, particularly clearcutting. The stands designated for clearcutting, shelterwood seed cutting, and seed tree seed cutting in the proposed action would not be harvested. Vegetative management would not take place.

There would be no open/semi-open habitat created or maintained with this alternative, but mast-producing acres would increase slightly through time as oak and oak-pine stands matured. Also as stands matured, they would eventually become old growth (>90 years for oak, >80 years for pine and oak-pine). In the next 20 years 2,181 acres (29%) of the project area would reach or exceed 90 years of age.

Alternative 2 (See Attached Maps)

This alternative includes:

Creation of early successional habitat through regeneration of oak/pine stands, involving:

Clearcutting on aproximately338 acres (**planting** of 167 acres to regenerate), **Seed Tree Seed Cut** on approximately 88 acres (**planting** of 22 acres to regenerate),, and **Shelterwood Seed Cut** on approximately 33 acres. These cuts would be followed up with reforestation work (**release** of pine on planted sites, and **site preparation** for natural regeneration on the remaining areas as noted below).

Providing suitable conditions for regeneration of forest stands, involving:

Shelterwood preparatory cutting on approximately 57 acres to begin preparing the site for seedlings and **Site preparation cutting for natural regeneration** on approximately 314 acres of even-aged and uneven-aged regeneration harvests.

Contribute to the improvement in the overall health of forest stands and landscapes, involving:

Salvage cutting on approximately 114 acres to improve the growth of the residual stand through removal of dead and dying (still sound wood) trees with allowance for some contribution to the dead (rotted and decayed) wood component for wildlife and nutrient cycling, **Commercial thinning** on approximately 1660 acres to improve growth and health of remaining trees, **Pre-commercial thinning** on approximately 439 acres to improve growth and vigor of leave trees

Using alternative methods to achieve goals and objectives on suitable acres, involving

Uneven-aged management group selection (group openings) on approximately 42 acres **with improvement cutting (commercial thinning between groups)** on approximately 389 acres**,** with follow-up **non-commercial timber stand improvement/reforestation cutting between groups** on approximately 389 acres, and **site preparation for natural regeneration** approximately 42 acres of group openings.

Providing a diversity of habitat and forest conditions, involving:

Old Growth designation of approximately 157 acres to add to 552 existing acres (709 total acres), **Prescribed burning** to maintain 34 acres of open land and to further develop approximately 658 acres of pine woodland habitat.

Providing a safe forest transportation system at an appropriate level for management and reasonable public access:

Reconstruct approximately 12 miles of system roads and maintain another estimated 10 miles of system roads to provide a safe and maintained running surface; **Close approximately 13 miles** of non-system roads; **Construct approximately 5 miles of temporary roads and use 9 miles of unclassified road** needed for management access and **Close the same 14 miles immediately** after the temporary/unclassified road has served its purpose; and **Estimate** a**pproval of an estimated 31 miles of skid trail locations** to provide consideration of this impact to the environmental analysis.

District and Forest specialists and resource managers, in their analysis of the direct, indirect, and cumulative effects of this project provide project-specific and site-specific mitigation measures beyond the Forest Plan standards and guide. It is after the effects have been determined, can meaningful mitigations be identified. The need for special mitigation beyond the Forest Plan, as amended, may be found not to exist. Appropriate and necessary mitigations measures beyond those identified in the Forest Plan Standards and Guides will be identified in the environmental analysis and recorded in the environmental documentation (EA/EIS).

Alternative 3 (See Attached Maps)

ALTERNATIVE 3. This alternative was developed in response to public issues regarding stand-specific changes to the proposed action. Creating blocks of old growth uninterrupted by harvest stands and eliminating or mitigating some harvest proposals is the basis of this alternative. This alternative also responds to a concern over the amount of burning in the Proposed Action. Alternative 3 is essentially the same as Alternative 2 with the following issue-driven changes:

Compartment 282/Stand 59
Proposed for commercial thinning in Alternative 2 would be changed to an old growth designated stand to complete a block of old growth.

Compartment 282/Stand 52
All prescribed burning would be dropped in Alternative 3, except for Stand 52.

Compartment 284
All prescribed burning in this compartment would be dropped in Alternative 3. Some stands in the Big Hollow Prescribed Burn area prescribed for commercial thinning would be dropped while others would be changed to other silvicultural prescriptions, as follows: Stand 26 Old growth (20 acres); Stand 27 Dropped; Stand 28 Shelterwood (40 acres); Stands 29-33 Group Selection (11 acres of openings/96 acres of commercial thinning/96 acres of non-commercial thinning); Stand 34-35 Dropped; Stand 36 commercial thinning (18 acres); Stands 37-38 Salvage (14 and 21 acres); Stand 39-40 Dropped; Stand 41 and 42 commercial thinning (13 and 8 acres); Stands 43-44 Dropped; Stand 45 Group Selection (2 acres of opening/17 acres commercial thinning/17 acres non-commercial thinning; Stand 46-47 Dropped; Stand 49 Shelterwood Prep. (15 acres); Stand 50 Dropped.

Compartment 285

All prescribed burning in this compartment would be dropped in Alternative 3, except for C282/S52 (34 acres). Some stands in the Big Hollow Prescribed Burn area prescribed for commercial thinning would be dropped while others would be changed to other silvicultural prescriptions, as follows: Stands 7, 12, 14, 28, 23-25, 29, 32 are Group Selection w/improvement between groups (14 acres of openings/119 acres of commercial thinning/119 acres non-commercial thinning) and Stand 28 is 17 acres of Shelterwood Preparation.

District and Forest specialists and resource managers, in their analysis of the direct, indirect, and cumulative effects of this project provide project-specific and site-specific mitigation measures beyond the Forest Plan standards and guide. It is after the effects have been determined, can meaningful mitigations be identified. The need for special mitigation beyond the Forest Plan, as amended, may be found not to exist. Appropriate and necessary mitigations measures beyond those identified in the Forest Plan Standards and Guides will be identified in the environmental analysis and recorded in the environmental documentation (EA/EIS).

Summary of Project Actions By Preliminary Alternative (Total Project Area = 7414)
Management Actions (acres are approximate; other units of measure as indicated)

Clearcut Alternative 1 – No Action – 0 acres Alternative 2&3 – 338 acres	Salvage Alternative 1 – No Action – 0 acres Alternative 2 - 114 acres Alternative 3 – 149 acres
Seed Tree Cut Alternative 1 – No Action – 0 acres Alternative 2&3 – 88 acres	Commercial Thinning Alternative 1 – No Action – 0 acres Alternative 2 – 1660 acres Alternative 3 – 1262 acres
Shelterwood Seed Cut Alternative 1 – No Action – 0 acres Alternative 2 – 33 acres Alternative 3 – 73 acres	Improvement Cutting (thin between groups)[1)] Alternative 1 – No Action – 0 acres Alternative 2 – 389 acres Alternative 3 – 586 acres
Shelterwood Prep Cut Alternative 1 – No Action – 0 acres Alternative 2 – 57 acres Alternative 3 – 89 acres	Group Selection Cutting (creating openings) Alternative 1 – No Action – 0 acres Alternative 2 – 42 acres Alternative 3 – 66 acres
1) The creation of group openings results in approximately 10% of the total area designated for management under group selection in actual openings (canopy removal). Monitoring has indicated this percentage can be as low as 7% in specific stands for specific conditions.	

Site Prep & TSI Actions	**Other Habitat Conditions Provided**
Site Prep for Natural Rgeneration Alternative 1 – No Action – 0 acres Alternative 2 – 314 acres Alternative 3 – 372 acres	Maintain Savanna Conditions with Rx burning Alternative 1 – No Action – 0 acres Alternative 2 – 692 acres Alternative 3 – 34 acres
Planting and Release Alternative 1 – No Action – 0 acres Alternative 2&3 – 189 acres	Old Growth Designation Alternative 1 – No Action – 0 acres Alternative 2 – 157 acres of new designation Alternative 3 – 199 acres of new designation
Precommercial Thinning TSI Alternative 1 – No Action – 0 acres Alternative 2&3 – 439 acres	

Transportation System Management Actions (miles)

Road Reconstruction/Maintenance Alternative 1 – No Action – 0 miles Alternative 2 – 12 miles/10 miles Alternative 3 – 12 miles/10 miles	Temporary Roads (constructed and closed) Alternative 1 – No Action – 0 miles Alternative 2 – 5 miles Alternative 3 – 5 miles
Close Non-System Roads Alternative 1 – No Action – 0 miles Alternative 2 – 14 miles Alternative 3 – 14 miles	Skid Trails Alternative 1 – No Action – 0 miles Alternative 2 – 31 miles (40 feet/acre of action) Alternative 3 – 31 miles (40 feet/acre of action)

Preliminary Alternative Effects Comparison

SOIL/WATER

Alternative 1 - (No Action)
Disturbance of soil/water resources would occur only at natural rates. Non-system roads would continue to erode at an acclerated rate if use continues.

Alternatives 2-3
No timber stands present with soil loss potential greater than Plan standards. Mitigation measures to be applied to temporary roads, landings and skid trails in all harvest units. Water, soil and riparian resources would be maintained and protected if the listed mitigation measures are applied.

AIR QUALITY

Alternative 1 - No Action
No Effect

Alternatives 2
Burning of 692 acres proposed in this alternative would have a temporary effect on local air quality. No long-lasting effects.

Alternative 3

Burning of 34 acres proposed in this alternative would have a minimal effect on local air quality. No long-lasting effects.

WILDLIFE

Alternative 1 - (No Action)
No management related changes to MIS populations nor any short-term changes in species population. Temp. forage below Plan standard and % minimum viable. Open/semi-open habitat is not within Plan standard. Old growth within Plan Standard for Mnagement Area 4.1-12.

Special habitat: No adverse impact. Long-term: NO ACTION would increase forest interior species and decrease early successional species.

Alternative 2 only
Plan standards: Temporary forage is below Plan standard but above % needed to maintain minimum viable populations.

Alternative 2

Population changes are not likely to occur, however, short-term displacement of wildlife in active harvest areas is likely to impact individuals of a species. It is in Alternative 2 that open/semi-open is within Plan standard. Meets old growth Plan standard. Special habitat: No adverse impact. Long-term: Long-term population trends are not likely to change and there is not likely to be any affect on viability of any species local or regional population.

Alternative 3

Alternative 3 is below Plan Standard for temporary forage.

VEGETATION

Alternative 1 - (No Action)

Short-term: Decrease in oak species diversity due to decline/mortality in red oak species. Little change in structural diversity. Long-term: In absence of disturbance, some loss of oak on mesic sites and relatively slower change in structural diversity. Would forego the opportunity to improve habitat for some Regional Forester's Sensitive Species (RFSS).

Alternative 2-3

Short-term: Increase structural diversity and maintain species diversity with regeneration of oak/hickory pine components and burning to maintain/develop savannas. Long-term: Maintains presence of oak on more mesic sites and more structural diversity in oak/hickory/pine components. Provides more variety in habitat availability for Regional Forester's Sensitive Species than Alt. 1.

BIODIVERSITY

Alternative 1 - No Action

Big picture/ecosystem view: Natural forces would be primary change agents. Human-caused change would result from recreation use and changes from outside the area.

Protect communities and ecosystems: All communities would continue to exist, although amount of each might fluctuate over time. Eventually most of area in late successional habitat w/associated species.

Minimize fragmentation: Fragmentation and corresponding species and structural diversity a result of natural disturbance.

Maintain unique or sensitive environments: No effects on Irish Wilderness.

Protect genetic diversity: Genetic adaptations for early successional or savanna species relatively more difficult due to decreasing habitat.

Alternative 1-3

Big picture/ecosystem view: Highways and roads continue to exist. Natural disturbances continue to affect the project area. Fire protection would continue. Local economy would continue to rely on wood products. Outdoor recreational pursuits would continue.

Promote native species: No actions proposed in any alternative would introduce non-native species and there would be no management of native species on inappropriate sites.

Protect rare & ecologically important species: A Biological Evaluation shows no federal listed species are known to occur in the project area. The BE concluded that there would be no additional effects to federal species beyond those evaluated in the programmatic BA of 1998 and programmatic BO of 1999. There are known locations for Eastern Region Sensitive species. There are several ERSS and state endangered species for which potential habitat exists. The evaluation concluded that the projects proposed under any alternative would have no effect on ERSS species and that habitat would be maintained for state-endangered species.

Maintain unique or sensitive environments: Special communities are addressed under Protect Communities and Ecosystems.

Maintain or mimic natural ecosystem processes and naturally occuring structural diversity: Alt. 1 would come the closest to allowing natural processes to operate. Prescribed burning under Alts. 2 would mimic the fairly frequent low intensity fires which maintained savannas and open wood conditions. In Alts.2-3, clearcut, seedtree and shelterwood seedcuts would mimic larger stand replacement events such as high intensity fire or windstorms. Commercial thinning, salvage cutting and uneven-age harvest methods would create the smaller and more numerous openings typical of most natural disturbances.

Protect genetic diversity: There would be no attempt to physically move any plant or animal species from somewhere else into the project area in any alternative.

Restore ecosystems, communities, and species: Open woods and old growth communities have been altered or reduced within historic times in this area. Alt. 1 most favors restoration of the old growth community although Alts. 2-3 also designate potential old growth. Alts. 2 provides for restoration of shortleaf pine woodland communities.

Monitor for biodiversity impacts. Acknowledge uncertainty. Be flexible: Monitoring specific to the project area would include first and third year regeneration surveys in clearcut, seedtree and seedcut areas (Alts. 2-3), monitoring conducted as part of timber sale contract administration to mitigate impacts on soil, water quality, and residual vegetation (Alts. 2-3), and informal visits to the project area to compare the results of project implementation with expectations (Alts. 2-3).

Incorporate human needs: Recreational uses would still be possible under any alternative. Alts. 2-3 would provide commercial wood products. Personal use firewood would be available under all alternatives, although this commodity would be limited under Alt. 1 with no harvest activities that would create additional fuelwood opportunities.

VISUAL

Alternative 1 - (No Action)

Least noticeable change. Most changes occur slowly. Catastrophic natural events could change visuals abruptly.

Alternative 2-3

Vegetation management activities are visually evident, however, all harvest areas meet respective VQOs of partial retention and modification. Mitigation measures to "soften" effects along some roads and property lines are applied in these alternatives.

RECREATION

Alternative 1 - No Action

Short-term: Quality of recreation opportunity remains the same.

Long-term: Recreation opportunities associated w/forest interior environment increase; those associated with early successional environment decrease.

Alternative 1-3
Roaded natural recreation experience maintained in all alternatives.

Alternative 2-3
Short-term: Harvesting causes some reduction in the quality of the recreation experience. Visual impact are virtually the same with Clearcut acres and Seed Tree acres that are the same in Alternative 2-3. Shelterwood acres increase by 40 acres in Alternative 3 from Alternative 2.

Long-term: Recreation opportunities associated with early successional and savanna environments would increase; those associated with forest interior environment would decrease. Non-system road closures would be viewed positively by some and negatively by others. Removal of non-system roads from the transportation system also viewed positively/negatively.

ECONOMICS

Alternative 1 - No Action
No harvesting would shift demand to other National Forests or private land.

Alternative 2-3
Provides the raw material to local sawmills to create commercial forest products and maintain employment for local employees.

HERITAGE RESOURCES

Alternative 1 - No Action
No Impact

Alternative 2-3
Surveys would be conducted in all proposed harvest and burn areas prior to project implementation to determine the presence/absence of historic/prehistoric sites, and sites would be protected during project implementation.

TRANSPORTATION SYSTEM

Alternative 1 - No Action
No road closure or reconstruction would occur this plan period

Alternative 2
Reconstruct approximately 12 miles of system roads and maintain another estimated 10 miles of system roads to provide a safe and maintained running surface; Close approximately 13 miles of non-system roads; Construct approximately 5 miles of temporary roads and use 9 miles of unclassified road needed for management access and Close the same 14 miles immediately after the temporary/unclassified road has served its purpose; and Estimate approval of an estimated 31 miles of skid trail locations to provide consideration of this impact to the environmental analysis.

Alternative 3
Reconstruct approximately 12 miles of system roads and maintain another estimated 10 miles of system roads to provide a safe and maintained running surface; Close approximately 13 miles of non-system roads; Construct approximately 5 miles of temporary roads and use 9 miles of unclassified road needed for management access and Close the same 14 miles immediately after the temporary/unclassified road has served its purpose; and Estimate approval of an estimated 31 miles of skid trail locations to provide consideration of this impact to the environmental analysis.

Alternative 2-3
Close 14 miles of non-system road.

Alternative Response: Comparison With Forest Plan Standards and Guides
Need, Issue/Opportunity, Concerns
(PA = Project Area / MA = Management Area)

0-9 age class (acres / percent)

	PA Alt.1	MA	PA Alt.2	MA	PA Alt.3	MA
Existing	0 / 0	97 / 1	0 / 0	97 / 1	0 / 0	97 / 1
Proposed	0 / 0	0 / 0	501 / 6.8	501 / 5.3	565 / 7.6	565 / 5.9
Total	0 / 0	97 /1	501 / 6.8	598 / 6.3	565 / 7.6	662 / 6.9
Forest Plan S&G: 8-15%	0%	1%	6.8%	6.3%	7.6%	6.9%

Open/Semi-open (savanna and pond habitat)

	PA Alt.1	MA	PA Alt.2	MA	PA Alt.3	MA
Existing	175 / 2.4	210 / 2.2	175 / 2.3	210 / 2.2	175 / 2.4	210 / 2.2
Proposed	0 / 0	0 / 0	132 / 1.8	132 / 1.4	0 / 0	0 / 0
Total	175 /2.4	210 / 2.2	307 / 4.1	342 / 3.6	175 / 2.4	210 / 2.2
Forest Plan S&G: 4-10%	2.4%	2.2%	4.1%	3.6%	2.4%	2.2%

Old Growth (designated)

	PA Alt.1	MA	PA Alt.2	MA	PA Alt.3	MA
Existing	552 / 7.4	930 / 9.8	552 / 7.5	930 / 9.8	552 / 7.4	930 / 9.8
Proposed	0 / 0	0 / 0	157 / 2.1	157 / 1.6	199 / 2.7	199 / 2.1
Total	552 / 0	930 / 9.8	709 / 9.6	1087 / 11.4	751 / 10.1	1129 / 11.9
Forest Plan S&G: 8-10%	7.4%	9.8%	9.6%	11.4%	10.1%	11.9%

Alternative Response: Specific Needs, Public Issues, Management Concerns/Opportunities

Needs, Issues, Concerns, Opportunities	How Addressed in Alternatives		
	Alt.1	Alt.2	Alt.3
Sediment from roads	No road closure or reconst. this plan period	Apply mitigations on pp. 19-20.	Apply mitigations on pp. 19-20.
Roads crossing streams	No new streams crossings.	Apply mitigations on pp. 19-20.	Apply mitigations on pp. 19-20.
Maintain contiguous blocks of old growth	No old growth designation.	Old growth designated with some dispersed or in small blocks.	Change C282/S59 from Comm. Thin. To Old Growth
Maintain old growth characteristics in C283/S56,36	No old growth designation.	Apply mitigations on p.20	Apply mitigations on p. 20
Maintain old growth characteristics in C284/S28	No old growth designation.	Apply mitigations on p. 20	Apply mitigations on p. 20
Maintain aesthetics along FR3167	No proposed actions implemented	Apply mitigations on p. 20.	Apply mitigations on p. 20.
Choose less aggressive cut in C283/S66 not being regenerated	No cuts implemented	C283/S66 proposed for clearcut of west 2/3, east 1/3 for comm.thin.	C283/S66 proposed for clearcut of west 2/3, east 1/3 for comm.thin.