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# Environmental Assessment

(Final)

## Kisatchie National Forest Travel Management Project

**Claiborne, Grant, Natchitoches, Rapides, Vernon, Webster, and  
Winn Parishes in Louisiana**

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# CHAPTER 1 . PURPOSE AND NEED FOR ACTION

## 1.1 Introduction

In the past, Kisatchie National Forest has been open to motor vehicles. Following the policy of “open unless posted closed”, most logging roads have remained open to motorized public use. Motorized recreation trails have been designated for trail riding, but there were no restrictions or prohibitions for off-road or off-trail motorized use except in developed recreation areas, military use areas, wilderness areas, special interest areas, and other areas posted “closed”.

This proposal/Forest Plan Amendment is intended to eliminate motorized cross-country travel forestwide to comply with the 2005 National Travel Management Rule<sup>1</sup>.

The proposal includes changes to the designations of authorized system routes and areas under Kisatchie National Forest jurisdiction. Routes and areas under other jurisdictions would not be affected. The proposed action (Alternative 3) also includes the addition of designated camping corridors on the Caney District and the elimination of night-riding forestwide (See Chapter 2 for a description of all alternatives.)

With the exception of two trail spurs proposed in Modified Alternative 5, this project would not add new roads or trails or unauthorized, user-created routes to the system but does not preclude future site-

specific changes or additions to Kisatchie’s travel management system.

Special event rides, i.e. motorcycle, horseback riding, and bicycling, would continue to be considered under individual written authorizations proposed to and obtained from the appropriate District office.

Temporary trail closures would continue to occur during wet conditions or administratively for prescribed burning, timber harvest, maintenance, etc.

For reading purposes of this document, the term ATV is used when referring to trail vehicles ≤ 50 inches wide, usually a 4-wheeler or dirt bike. The term OHV is all-inclusive, referring to any motor vehicle capable of traveling off-road or off-trail, including trucks, jeeps, dune buggies, or trail vehicles.

## 1.2 Forest Plan Amendment

This project would amend the *Revised Land and Resource Management Plan, Kisatchie National Forest* (1999). The Forest Plan standards and guidelines would be amended to prohibit motorized use off the designated routes and areas on the entire Kisatchie National Forest and to reflect the changes consistent with the National Travel Management Rule. The proposed changes to the Plan are disclosed in Appendix A1 Proposed Changes to Revised Plan.

## 1.3 Project Implementation

The decision would be implemented when the motor vehicle use map (MVUM) is published and made available to the public. The MVUM will show each designated route for type of vehicle and dates of use. The expected publication date is March 2008. Copies of the MVUM would be available on Kisatchie’s website, <http://www.kisatchie.us>, at each Ranger

<sup>1</sup> In November 2005, the National Travel Management Rule was published requiring each national forest and grassland to designate those roads, trails, and areas open to motor vehicle use; and motorized travel off the designated routes and areas will be prohibited. The National Rule allows four years for implementation to be completed. (<http://www.fs.fed.us/recreation/programs/ohv/>)

District office, and at the Supervisor's Office in Pineville, Louisiana.

The designated roads for motorized travel will be indicated on the ground with a route marker that will match the road number on the MVUM. Seasonal roads will be signed identifying the type of vehicle and season of use dates. Each forest visitor will be responsible for obtaining and complying with the MVUM.

Should the closure of roads or obliteration of the decommissioned roads require ground-disturbing or resource-impacting activities, i.e. berming, seeding, recontouring, or discing, additional site-specific proposals would be initiated.

## 1.4 Purpose and Need

The purpose of the project is to implement the National Travel Management Rule, prohibiting cross-country motorized travel forestwide and designating motorized routes. The proposed actions are necessary to address unacceptable resource damage created by increased recreational riding with increasingly more-powerful vehicles. The Forest is also taking this opportunity to address the needed changes to road designations identified in the Travel Analysis discussed in §1.7 and other motorized-related management concerns on the forest.

Cross-country motorized travel on the forest has created random unauthorized trails, often following firelines and skid trails that were never intended for permanent use. All-terrain vehicles repetitively riding through streams in select popular areas cause erosion and sedimentation in the watersheds, leading to non-point source pollutions in our streams. Popular meeting places and riding areas have become void of vegetation. Wildlife disturbance and habitat damage occur from random cross-country motorized use. Users who enjoy the peace and quiet of

the forest's natural environment complain of the noise pollution occurring at all hours from recreational motor vehicle riders. Many of these problems – wildlife disturbance, noise, erosion, sedimentation – also occur from use on the Forest's designated travel system. §1.7 Travel Analysis explains the process used for determining needs for road designation changes.

Examples of damage and unauthorized routes are shown in the pictures below.

**Figure 1-1. Erosion and sedimentation resulting from off-trail OHV use.**



**Figure 1-2. Rutting and vegetation damage from OHV traveling off road.**

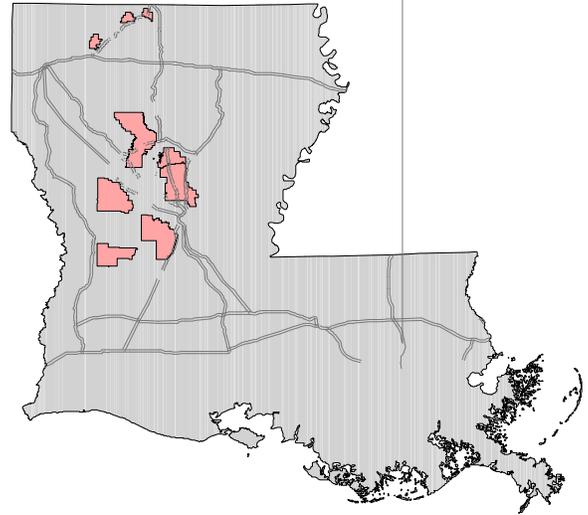
## 1.5 Related and Referenced Documents

The proposal includes amending the *Revised Land and Resource Management Plan*,

*Kisatchie National Forest* (1999) to close the Forest to cross-country travel by motor vehicles. This project responds to the goals, objectives, and desired future conditions as described in the Forest Plan and summarized in Appendix A2. Goals, Objectives, and Desired Future Conditions.

This environmental assessment tiers to the analysis of the *Final Environmental Impact Statement (FEIS)* for the Forest Plan.

Recent related projects considered in this travel management proposal include: the Calcasieu Ranger District decision (November 2004), *Providing Off-Road Vehicle Management*, and the Kisatchie Ranger District decision (November 2004), *Sandstone Multiple Use Trail Management Plan*, which prohibit the use of motorized vehicles off designated routes on approximately 216,000 acres of Kisatchie National Forest. These two decisions resulted in Amendments 3 and 4 to the Forest Plan. Also, the Catahoula Ranger District decision (April 2006), *Breezy Hill Trail Project*, added approximately 66 miles of single-track motorized trails to the Kisatchie National Forest travel management system, resulting in Amendment 6 to the Forest Plan.



## 1.6 Location

The Kisatchie National Forest is in the north, central, and western portions of the state of Louisiana. District offices are located in Bentley, Boyce, Homer, Provencal, and Winnfield; the Forest headquarters is located at the Alexandria Forestry Center (the Supervisor's Office) in Pineville, Louisiana. A vicinity map of the Forest follows:

for different management areas and recreation opportunity spectrums.

- Consider road design and construction – Logging roads in poor condition would not be suitable for public use.
- Consider condition – Roads rutted and washed-out would not be desirable or suitable for public use.
- Consider access – If sufficient access is provided by maintained higher-level roads, access on logging roads would not be needed.
- Minimize conflicting use – Roads to be used as trails would require the roads to be closed to highway-legal vehicles. Louisiana statutes prohibit OHVs that are not highway-legal from traveling on roads open to highway-legal vehicles.

The assumption was made that all the higher level (passenger car), maintained roads would remain open year-round to highway-legal vehicles. These are the infrastructure of the forest road system and are maintained to a level suitable for passenger car travel. These roads account for approximately 22 percent of the road mileage on the Forest.

The logging roads are mostly native-surface, dead-end roads primarily built for timber hauling purposes and not maintained on a regular basis. These logging roads comprise approximately 65 percent of the road mileage on Kisatchie's travel management system and make up most of the designation changes in the proposal.

The travel analysis resulted in the travel management proposal initialized during scoping in February 2006 and included in Alternative 3 (Modified Proposed Action) in this environmental assessment. Database updates were also made as a result of the travel analysis process.

## 1.8 Decision to be Made

The Forest Supervisor is the deciding official for this proposal. The Forest Supervisor may decide to implement the proposal, select an alternative action, modify one of the proposed alternatives, or require development of an environmental impact statement based on the information provided in this EA.

Questions that the deciding official may answer when making the decision include:

- Is there reasonable access for developed and dispersed recreation?
- Are the accessibility needs of the public being met?
- Is the disturbance to the natural resources, particularly wildlife, acceptable at this level of motorized access?
- Can we responsibly manage and maintain this level of public motorized access?
- Are these actions enforceable?
- Will the effects of the decision have significant environmental impact?

## 1.9 Public Involvement

The proposal was listed in the *Schedule of Proposed Actions* on the Forest's website beginning February 2006. The scoping proposal letter was mailed to approximately 2,000 public contacts and the notice was placed in the newspapers of record in February 2006. Flyers, brochures, and news releases followed requesting review and comment on the Forest's Travel Management proposal. Public meetings were held in June 2006 to clarify issues and explore alternatives. A *Travel Management Update* was mailed January 31, 2007 to present the preliminary alternatives, and additional comments were received.

The draft Travel Management Environmental Assessment was mailed to approximately 150 recipients on April 23, 2007 for 30-day comment. The public notice was published in the *Alexandria Town Talk* on April 26, 2007, and the 30-day notice and comment period officially ended May 29, 2007. Ranger District Open Houses were held May 7, 8, 9, and 10 to provide an opportunity for the public to discuss and ask questions about Kisatchie National Forest's travel management project. (See Appendix N. Response to 30-day Comments.)

Letters, public notices, mailing lists, list of meeting attendees, etc. are available in the project file. (More details on public involvement are disclosed in Appendix D. Public Involvement.)

Comments received during scoping and the 30-day comment period spanned the spectrum from "close the forest to OHV use" to "open everything - all roads, skid trails, and firelines to motorized use". Many comments recommended that those causing damage be held accountable and let the others continue to use the forest as they do now. Many comments suggested more enforcement, charge more fees to pay for maintenance, provide education to teach proper riding etiquette, and provide more and different types of trails. Dispersed recreationists, especially hunters, requested more access and the ability to retrieve game with an ATV. People with disabilities and the elderly who use ATVs to hunt and get around in the woods would like to continue riding in the woods. Those who enjoy the peace and quiet of the woods would like to see ATVs banned. Some commented about air and water pollution impacts, wildlife disturbance, conflict with hunters, disturbance and destruction of mussels and their habitat, and damage to archeological sites. Comments were used to develop significant issues and a range of alternatives

in this document. The summary of scoping comments is available in the project file.

## 1.10 Issues

### 1.10.1 Significant Issues -

Significant issues are points of disagreement or dispute with the proposed action that are used to generate alternatives, prescribe mitigation measures or management requirements, or analyze environmental effects.

Two of the six issues previously identified in the January 2007 Travel Management Update were determined to be similar to other issues and combined. The original Issue 2 is now addressed with Issue 1, and the original Issue 5 is now addressed with Issue 3, leaving a total of four significant issues.

#### Access and Recreation –

**Issue 1** Prohibiting off-route travel by motor vehicles will limit motorized access by dispersed recreationists, especially hunters, and reduce places to ride. Some hunters have become accustomed to using ATVs to scout, set-up their stand, and retrieve game. This is of special concern to elderly hunters or hunters with disabilities who have difficulty walking and use an ATV to access the woods. Changing from motorized cross-country on most of the Forest to restricted motorized routes will reduce recreation opportunities for those who enjoy riding cross-country.

*Indicator:* Acres available for cross-country motorized travel. Miles of roads with designated game retrieval corridors for game retrieval with an ATV. Road density. Miles of trails.

### **Maintenance –**

Issue 2 Concentrating motorized use on designated routes could increase maintenance needs. Budget and manpower resources do not meet maintenance needs now; how will these roads and trails be maintained in the future? Consider the maintenance and administrative needs to facilitate and sustain the travel designations as proposed and the availability of resources to do so.

*Indicator:* Road budget, miles of roads maintained, miles of roads and trails open seasonally.

### **Soil and Aquatic Habitat –**

Issue 3 Vehicle use on roads in the Louisiana pearlshell mussel watershed will cause damage to mussel habitat and potential direct kill.

*Indicator:* Miles of designated roads and trails in the Louisiana pearlshell mussel watersheds by soil suitability. Number of road or trail stream crossings. Number and location of bridges over LPM streams.

### **Socio-Economics –**

Issue 4 Reducing the ATV riding opportunities on the forest by prohibiting cross-country use will have the potential to discourage out-of-state riders and others from farther distances from visiting Kisatchie National Forest. In effect, this will reduce the spending in the local communities located around national forest land.

*Indicator:* Change in recreational opportunities.

### **1.10.2 Non-Significant Issues -**

Non-significant issues are those deemed to be outside of the proposed action, already decided by higher level law or the Forest Plan, irrelevant to the decision being made, conjectural and not supported by scientific evidence. The following non-significant issues were identified from public scoping. (More detailed information about scoping comments and issues is available in the project file.)

1. There were many suggestions to charge more and different kinds of fees to help pay for maintenance and enforcement. Some suggestions included: charge hunters an ATV riding fee; provide fee options to include 2-week, weekend, and annual passes; and cooperate with the Louisiana Department of Transportation and Development to charge an extra licensing/registration fee for ATVs.

*Reply:* Fees are handled administratively and regulated nationally. The Forest currently charges \$3/rider. The fee structure on the Forest continues to be evaluated.

There are certain amenities that must be provided before fees may be charged. Hunting fees do not meet the requirements and therefore cannot be instituted.

As OHV usage increases in the state, collaborative efforts with the Louisiana Department of Transportation and Development and Louisiana Department of Wildlife and Fisheries in developing regulation and fee requirements become more important.

2. There were many suggestions to improve Forest signage for visitors and to provide more signage.

*Reply:* Signage is handled administratively and regulated

nationally. Improving and replacing signage is an ongoing maintenance process. New visitor and trail maps have recently been distributed to all the Districts and placed on the bulletin boards in the Forest. New signs have recently been placed on roads and trails and work continues to improve signage on the Forest.

3. Many comments suggested that the rules be clearer, that we need to teach the public proper riding behavior (less abusive), and that we need to require a permit to ride on the Forest and require an education class.

*Reply:* The Forest is concerned and wants to make improvements too. There is a regional effort to educate and communicate better. The *Ride4 Keeps* poster is an example of some of this work. Recently, the Kisatchie National Forest Recreation Program Manager completed a Communication Plan to provide more direction to improve the Forest's communication with the public. Some things the Forest is doing include a website where rules and regulations are posted and an 800 number to call for OHV trail availability. At this time, there has been no consideration to require a permit to ride or use the forest. The State of Louisiana provides a riding education class free to anyone who purchases an ATV. One of the objectives of this project is to provide more consistency in route designations and regulations across the forest.

4. Some of the public commented that if the rules were enforced now, there would be no need for this proposal so keep things the same and enforce. If you cannot enforce the rules now, why make more rules that cannot be enforced. The public also commented that more law enforcement is needed to catch and fine

those who disrespect the forest, the laws, and the rights of residents. More education, effective signage, and communication are needed for effective enforcement.

*Reply:* The proposal to restrict motorized vehicles to designated roads and trails on the entire Forest would potentially make the rules clearer and enforcement easier. There would be consistency forestwide. As it is now, part of the Forest allows cross-country (314,000 acres) and part of the Forest restricts motorized travel to designated routes (290,000 acres), which confuses the public and the Forest employees.

Prohibiting off-route motorized travel forestwide would eliminate the confusion of and need for separate closure orders. The MVUM would show the designated routes, including when and where to ride. The improved consistency and map availability resulting from this project would enhance enforcement capabilities. Proposed changes to Closure Orders (36 CFR 261.50) are shown in Appendix E – Proposed Changes to Closure Orders.

5. There were a number of comments requesting that the Forest require personal protective equipment to ride ATVs and off-highway motorcycles.

*Reply:* The Forest complies with the State of Louisiana law for safety equipment requirements. The Forest does recommend that riders wear a helmet, eye protection, mouth protection, long sleeves, gloves, long pants, and boots. The Forest also recommends that all Forest visitors wear orange during hunting season. The Forest will support and enforce the requirements and laws of the State of Louisiana.

6. There is a concern that closing some roads year-round or seasonally would prevent adjacent landowners from accessing their property.

*Reply:* There is no intent to prevent adjacent landowners from accessing their property. During the roads designation process, valid existing rights to use National Forest System roads and trails under 36 CFR 212.6(b) were recognized. Should private land access be needed, there is a procedure for obtaining a special use permit or easement through National Forest land. Anyone with an authorized permit is exempted from road designation restrictions. Further information about special use permits or easements can be obtained from the Realty Specialist, 2500 Shreveport Highway, Pineville, LA 71360, phone 318-473-7144 or the applicable District Ranger's Office.

7. Since motorized cross-country travel may be reduced or eliminated, requests were received to allow ATVs and highway-legal vehicles (mixed use) to use woods roads at the same time.

*Reply:* Kisatchie National Forest complies with the Louisiana State Traffic code, which prohibits non-highway-legal vehicles from traveling on public roads open to highway-legal vehicles. The Forest has concerns about the liability of allowing non-highway-legal vehicles and highway-legal vehicles on the same route, especially when mixed use is not allowed by State law. There are special mixed-use situations being considered, but only on a very limited basis, particularly in campgrounds associated with motorized trails. Any mixed use designation must be advised by an engineering analysis conducted by a qualified engineer. The engineer is required to analyze

information on the road and frequency of road use, including crash probability and severity. The engineer must present the risks along with mitigation needs to the responsible official. The line officer assesses the degree of risk along with many other factors before approval.

8. Will game retrieval be allowed in the Fort Polk Wildlife Management Area (WMA)?

*Reply:* Big game retrieval with an ATV will remain prohibited in the Fort Polk Wildlife Management Area located on the Vernon Unit, Calcasieu Ranger District. Should circumstances change in the future, big game retrieval would be re-evaluated.

9. Comments were received requesting that ATVs be allowed to use the motorcycle trails.

*Reply:* Motorcycle trails are single track, narrower than ATV trails, with sharper turns that are not conducive to ATV travel. Different types of motorized use warrant different kinds of trails. Currently, ATVs can ride on approximately 156 miles of the 189 miles of motorized trails on the Forest.

10. Comments were received requesting that ATV trails be established beside every system road in order for the hunter to have access to the woods.

*Reply:* Creating trails alongside every road on the Forest would not meet the objectives of soil and water resource protection, and is not practical when a road already exists. Some roads are designated for ATV use during deer hunting season in Alternatives 4, 5, Modified 5, and 6.

11. Comments were received requesting that more non-motorized trails be established

on the Forest, i.e. mountain bikes, hiking, and horseback riding.

*Reply:* The scope of this travel management project covers motorized use only. Non-motorized use is outside the scope of this project, but future projects may potentially address more non-motorized trails.

12. Some comments requested that ATVs be banned from the Forest. In the past, the forest was a place to experience nature in peace and quiet. Now motorized use abounds and is rapidly growing, destroying the peace and quiet.

*Reply:* Motorized recreation is a legitimate use of the forest. Banning ATVs completely would not meet our objectives to provide reasonable motorized recreation/access to the public. Restricting motorized use to designated routes and prohibiting night-riding should address some of the noise disturbance from motorized travel. See Chapter 3 §3.2.2 Effects to Access and Recreation – Disturbance and User Conflict.

13. Some comments requested that the hunting season be the same time period everywhere on the Forest. The comments contend that the different time periods cause conflict problems because use is more concentrated.

*Reply:* The hunting season is regulated by the Louisiana Department of Wildlife and Fisheries (LDWF) in consultation with the Forest Service. This travel management project addresses motorized use on the Forest and designates specific routes for travel. Assessing the hunting periods on the Forest is outside the

ma to

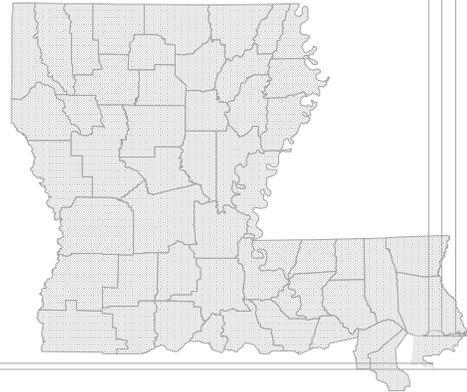
13. Comments ser2(de)4( r)3(e)ce-2(i)-2(ved2(n)-1du-6(r)3(i)-2(ng)10( s)a)4enning

36 CFR §261.4. These regulations are enforced on the Forest.

18. Do visual quality and air quality need impact analysis?

*Reply:* None of the actions described in this EA occur on a scale that warrants consideration of visual quality or air quality and, therefore, will not receive further consideration in Chapter 3.

# CHAPTER 2 . ALTERNATIVES, INCLUDING THE PROPOSED ACTION



## 2.1 Description of Alternatives

Below is a description of reasonable alternatives to the proposed action that were derived from the issues and meet the purpose, need, and objectives for this project.

### **Alternative 1 - No Action**

The proposed action would not occur. Motorized route and area designations would remain as they currently exist. There would be no changes to the travel management system. Compliance with the National Rule would not be met.

Alternative 1 motorized designations are shown in Table 2.1 Summary Comparison of Alternatives in §2.4 Comparison of Alternatives.

Alternative 1 road designations are mapped in Appendix B1, trail designations are mapped in Appendix C1, and dispersed camping corridors are mapped in Appendix G.

Figure 2-1 shows areas in the Forest currently prohibiting motorized travel off designated routes.

**Alternative 3 – Modified Proposed Action (See Appendix F for changes from the initial scoping proposal, February 2006)**

This alternative proposes changes to road designations resulting from the travel analysis described in §1.7. Alternative 3 proposes to:

- Prohibit motorized travel off the designated routes forestwide.
- Prohibit night-riding from 1 hour after sunset until 1 hour before sunrise.
- Add 6 miles of dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.
- Change existing road designations –

|   | Miles |
|---|-------|
| Decreased miles of roads open year-round to highway-legal vehicles (HLV)                              | 384   |
| Decreased miles of roads open seasonally to HLV   | 10    |
| Decreased miles of roads open year-round to trail vehicles ≤ 50 inches wide                           | 22    |
| Increased miles of roads open Oct-Jan to trail vehicles ≤ 50 inches wide                              | 2     |
| Total miles of roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 414   |

Alternative 3 motorized designations are shown in Table 2.1 Summary Comparison of Alternatives in §2.4 Comparison of Alternatives.

Alternative 3 road designations are mapped in Appendix B2, trail designations are mapped in Appendix C1, camping corridors are mapped in Appendix G, and roads planned for decommissioning are listed and mapped in Appendix B7.

**Alternative 4 – (Reduced motorized use in mussel watersheds)**

This alternative would reduce miles of roads open for motor vehicles within the Louisiana pearlshell mussel watersheds and address other road comments received during scoping (See Appendix F). Alternative 4 proposes to:

- Prohibit motorized travel off the designated routes forestwide.
- Prohibit night-riding from 1 hour after sunset until 1 hour before sunrise.
- Add 6 miles of dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.
- Close 43 miles of the Livingston (Catahoula District) multiple-use trail January - March.
- Change existing road designations –

|   | Miles |
|---|-------|
| Decreased miles of roads open year-round to highway-legal vehicles (HLV)                              | 407   |
| Decreased miles of roads open seasonally to HLV   | 50    |
| Decreased miles of roads open year-round to trail vehicles ≤ 50 inches wide                           | 22    |
| Increased miles of roads open Oct-Jan to trail vehicles ≤ 50 inches wide                              | 24    |
| Total miles of roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 455   |

Alternative 4 motorized designations are shown in Table 2.1 Summary Comparison of Alternatives in §2.4 Comparison of Alternatives.

Alternative 4 road designations are mapped in Appendix B3, trail designations are mapped in Appendix C2, camping corridors are mapped in Appendix G, and roads planned for decommissioning are listed and mapped in Appendix B7.

**Alternative 5 – (Designate big game retrieval corridors for ATVs in NWMPs and ATVs on logging roads closed to highway-legal vehicles)**

This alternative would open some closed roads for ATV use during deer hunting season, and provide corridors for big game retrieval with an ATV in the Catahoula and Red Dirt National Wildlife Management Preserves (NWMP). All trails would be open year-round except the Sandstone Trail would be closed January - April. Alternative 5 proposes to:

- Prohibit motorized travel off the designated routes forestwide.
- Prohibit night-riding from 1 hour after sunset until 1 hour before sunrise.
- Add 6 miles of dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.
- Add 47 miles of big game retrieval corridors for ATV use within 300 feet of centerline of the trail. These corridor designations are located in the National Wildlife Management Preserves; and big game retrieval could only occur on deer-gun hunting days, currently 9 days per year. (Mapped in Appendix I.)
- Open 66 miles Breezy Hill motorcycle trail year-round.
- Change existing road designations –

|   | Miles |
|---|-------|
| Decreased miles of roads open year-round to highway-legal vehicles (HLV)                              | 406   |
| Decreased miles of roads open seasonally to HLV   | 37    |
| Decreased miles of roads open year-round to trail vehicles ≤ 50 inches wide                           | 22    |
| Increased miles of roads open Oct-Jan to trail vehicles ≤ 50 inches wide                              | 275   |
| Total miles of roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 190   |

Big game retrieval would be allowed in the corridors with the aid of an ATV under the following conditions:

- a. No firearms or archery equipment in possession of the retrieval party or on the ATV.
- b. No more than one ATV and one helper in the retrieval party.
- c. No ATVs may be used to locate or search for wounded game or for any purpose other than retrieval of big game (deer and hogs) once they have been legally harvested and located.

Alternative 5 motorized designations are shown in Table 2.1 Summary Comparison of Alternatives in §2.4 Comparison of Alternatives.

Alternative 5 road designations are mapped in Appendix B4, trail designations are mapped in Appendix C3, camping corridors are mapped in Appendix G, and roads planned for decommissioning are listed and mapped in Appendix B7.

**Modified Alternative 5 (Preferred Alternative) – (Designate big game retrieval corridors for ATVs in NWMPs and ATVs on logging roads closed to highway-legal vehicles)**

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centerline of road, Caney District. (Mapped in Appendix G.)

- Add 47 miles of big game retrieval corridors for ATV use within 300 feet of centerline of the trail. These corridor designations are located in the National Wildlife Management Preserves; and big game retrieval could only occur on deer-gun hunting days, currently 9 days per year. (Mapped in Appendix I.)
- Open 66 miles Breezy Hill motorcycle trail year-round. (Mapped in Appendix C3).
- Add two existing trail spurs to the motorized trail system on the Calcasieu District (Mapped in Appendix C5.)
- Change existing road designations –

|   | Miles |
|---|-------|
| Decreased miles of roads open year-round to highway-legal vehicles (HLV)                              | 422   |
| Decreased miles of roads open seasonally to HLV   | 37    |
| Decreased miles of roads open year-round to trail vehicles ≤ 50 inches wide                           | 13    |
| Increased miles of roads open Oct-Jan to trail vehicles ≤ 50 inches wide                              | 248   |
| Increased miles of roads open Oct-Dec to trail vehicles ≤ 50 inches wide                              | 2     |
| Total miles of roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 222   |

Big game retrieval would be allowed in the corridors with the aid of an ATV under the following conditions:

- No firearms or archery equipment in possession of the retrieval party or on the ATV.
- No more than one ATV and one helper in the retrieval party.
- No ATVs may be used to locate or search for wounded game or for any purpose other than retrieval of big game (deer and hogs) once they have been legally harvested and located.

Modified Alternative 5 motorized designations are shown in Table 2.1

Summary Comparison of Alternatives in §2.4 Comparison of Alternatives.

Modified Alternative 5 road designations are mapped in Appendix B5, and roads planned for decommissioning are listed and mapped in Appendix B7.

**Alternative 6 – (Designate ATV use instead of highway-legal vehicle use on logging roads)**

This alternative would increase mileage of roads designated for seasonal ATV use and close all trails January – March. Alternative 6 proposes to:

- Prohibit motorized travel off the designated routes forestwide.
- Prohibit night-riding from 1 hour after sunset until 1 hour before sunrise.
- Add 6 miles of dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.
- Close 111 miles of designated trails January – March.
- Change existing road designations –

|   | Miles |
|---|-------|
| Decreased miles of roads open year-round to highway-legal vehicles (HLV)                              | 711   |
| Decreased miles of roads open seasonally to HLV   | 46    |
| Decreased miles of roads open year-round to trail vehicles ≤ 50 inches wide                           | 22    |
| Increased miles of roads open Oct-Jan to trail vehicles ≤ 50 inches wide                              | 591   |
| Total miles of roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 188   |

Alternative 6 motorized designations are shown in Table 2.1 Summary Comparison of Alternatives in §2.4 Comparison of Alternatives.

Alternative 6 road designations are mapped in Appendix B6, trail designations are mapped in Appendix C4, camping corridors are mapped in Appendix G, and roads

planned for decommissioning are listed and mapped in Appendix B7.

## Exemptions to Motorized Designations –

The following vehicles and uses would be exempted from the designated motorized uses proposed in this EA pursuant to 36 CFR §212.51. No other exemptions would be allowed.

- Aircraft;
- Watercraft;
- Over-snow vehicles.
- Administrative use by the Forest Service;
- Use of any fire, military, emergency, or law enforcement vehicle for emergency purposes;
- Authorized use of any combat or combat support vehicle for national defense purposes;
- Law enforcement response to violations of law, including pursuit;
- Motor vehicle use that is specifically authorized under a written authorization issued under Federal law or regulations;

## 2.2 Alternatives and Comments Eliminated from Detailed Study

1. Alternatives were considered for **establishing more and different types of trails** on the Forest. Comments from the public were received requesting more ATV trails on the Winn, Caney, and Kisatchie Ranger Districts. Trails for 4X4 (jeeps), dune buggies, and wider utility vehicles were also requested.

*Reason eliminated:* Motorized trail riding is a legitimate and appropriate use of National Forest land in suitable locations. This project proposes changes to existing system routes for type of use

and the addition of two existing trail spurs. Establishment of new trails is not part of this project. Future site-specific proposals may be considered for more and different types of trails in areas suitable for OHV trails. Site-specific documents would need to be prepared at the District level for the establishment of any new motorized trail.

Limited resources and the backlog of trail construction require the Forest to closely evaluate the development of more trails. Approximately 75 miles of motorized trails are currently in the process of being constructed that would add to the 189 miles of existing system trails.

2. An alternative was considered to offer **special use permits to allow people with disabilities and seniors to use their ATV to hunt and/or retrieve game on the Forest**. Many commented that the Kisatchie should allow big game retrieval for those possessing the Louisiana Department of Wildlife and Fisheries (LDWF) Physically Challenged Hunter permit.

*Reason eliminated:* The Forest Service does not issue special use permits for activities based on the characteristics of individuals. All the alternatives proposed offer all hunters many ways – whether on foot or by motorized vehicle – to access the National Forest.

3. An alternative was considered to **designate all woods roads and trails open May through December and closed the remainder of the year**. These designations would include all routes currently closed except for those in select administrative and special use areas, which would remain as currently designated. The maintained infrastructure roads would remain open year-round to highway-legal vehicles as

they are now. The objectives of this proposal would be to provide simplicity for the user and for enforcement and to address hunting access needs, while reducing potential soil and water resource damage during a usually wet time of year.

*Reason eliminated:* This alternative was not developed further because Plan management objectives could not be effectively achieved. The Plan management objectives in the National Wildlife Preserves and in the walk-in hunting areas include reduced open road density in order to lessen wildlife disturbance. There are also objectives in the Plan to minimize sedimentation in the Louisiana pearlshell mussel watersheds. Designating all woods roads open May through December would not consider resource issues to meet these objectives. Also, this alternative proposal would not address specific road concerns i.e. severe erosion, wetland impact, or other resource impacts.

4. Alternatives were considered that **included additional big game retrieval corridors areas** exceeding those proposed in Alternative 5. One alternative considered motorized big game retrieval areas in the National Wildlife Management Preserves totaling approximately 50,000 acres. Another alternative considered additional big game retrieval corridors outside of the National Wildlife Management Preserves that were designated along approximately 300 miles of roads.

*Reason eliminated:* These big game retrieval corridors and areas were determined to not be sufficiently limited to meet compliance with the National Rule (36 CFR 212.51(b)).

5. An alternative was suggested to change Alt 3 by: 1) **designating all open roads in the Preserves for ATV use October through December and closed the rest of the year to motorized use;** 2) **designating open roads outside of the Preserves to be open May through December;** 3) allowing game retrieval in the Preserves only; 4) allowing permits to hunt outside of the Preserves for those having State of Louisiana Physically Challenged Hunter permits; and 5) designating some roads outside of the Preserves for ATV use Oct thru Dec.

*Reason eliminated:* This is very similar to Alternative 5, except that most open roads are open year-round. It was determined that the range of proposed alternatives contains portions that are similar to this proposal; and therefore, another alternative would not be needed.

6. Consideration was given to **closing all system logging roads** because of lack of maintenance resources. This would leave the higher-level passenger car roads (711 miles) remaining open for public access plus the other public agency roads of 430 miles, totaling 1141 miles (or 1.4 mi/mi<sup>2</sup>) for public access roads.

*Reason eliminated:* This alternative was eliminated because it does not meet the objectives to provide reasonable access for dispersed recreation and opportunities to pursue a variety of dispersed recreation activities. Many hunters use these roads now and some of these roads are on suitable soils that can sustain use.

7. Some comments suggested that a **hotline** be implemented in order to enhance Forest Service enforcement capabilities.

*Reason eliminated:* The Forest believes that the following contacts and phone

numbers provide adequate means to report violations on the Forest. Violations may be reported to 318-473-7248, Patrol Captain. The Louisiana Department of Wildlife and Fisheries has an Operation Game Thief hotline (800-442-2411) where hunting violations may be reported. Each Parish has a Crime Stoppers hotline where law violations may be reported. The Woods Arson hotline is (318) 443-2558.

8. Comments were received requesting that the **right to ride cross-country be allowed in designated areas**. Provide an area that would be open to cross-country (riding off-trail). Use areas on a rotational basis to avoid severe biological impacts.

*Reason eliminated:* Providing an area that is open to riding off-trail does not meet the purpose and need and objectives of this project or the requirements of the National Rule.

9. Some comments requested that **all logging roads, including skid trails, firelines, and any other pathways in the forest be opened** 7 day a week, 24 hours a day.

*Reason eliminated:* Leaving all skid trails, firelines, unauthorized roads, and other pathways open would not meet the objectives of the project to protect the resources, particularly soil and water. Skid trails, firelines, and many other unauthorized pathways were not constructed nor designed for sustained use as required of a designated system travel route.

10. There was a suggestion to **add an ATV trail in T6N R8W S2** off of K07L to be open October through December for hunting.

*Reason eliminated:* Some of this area is in a floodplain and adding a trail in this

area would not meet our objectives for resource protection, particularly soil and water. See #1 above.

11. Actions were considered to **close all motorized loop trails on deer-gun hunting days (some suggested November through February)** or to **close the area around the motorized trails to deer-gun hunting** in response to the issues regarding safety and the conflict of motorized recreational riding with hunting.

*Reason eliminated:* These actions were not considered further because the evaluation of these actions resulted in no substantial reason to separate these two recreation activities. Hunting is a dispersed recreation that occurs throughout the forest, and walk-in hunting areas are available for hunters who prefer to hunt in areas with minimal motorized use. When the Kisatchie National Forest becomes closed to cross-country motorized travel as proposed in the action alternatives, there will be less motorized disturbance to the hunter. The increased popularity of motorized trail riding has evolved over the last 20+ year along with the existing hunting recreation. It is the responsibility of the hunter to know their surroundings, including where motorized trails exist, and to know their target before pulling the trigger. Hunters are responsible for hunting safely and to show consideration for non-hunters. The Code of Federal Regulations specifies the following:

36 CFR §261.10(d) states that hunting or discharging a firearm or any other implement capable of taking human or animal life, causing injury or damaging property is prohibited as follows:

- In or within 150 yards of a residence, building, campsite, developed recreation site, or occupied area;

- Across or on a National Forest System road or a body of water adjacent thereto, or in any manner or place whereby any person or property is exposed to injury or damage as a result in such discharge; or
- Into or within any cave.

Kisatchie National Forest also recommends that all visitors to the forest wear “hunter orange” during hunting season. Signs are posted on the bulletin boards disclosing the dates of hunting

season to inform and caution the visitors to the forest to be careful.

## **2.3 Mitigation**

The Forest Plan management requirements and standards and guidelines are incorporated into this travel management project as mitigation measures.

## 2.4 Comparison of Alternatives

The following table provides a comparison of motorized designations for the seven alternatives described in §2.1 above.

**Table 2-1. Summary Comparison of Alternatives.**

| Management   | Alt 1<br>No Action –<br>49% no<br>cross<br>country | Alt 2<br>Existing - No<br>cross country<br>forestwide | Alt 3<br>Modified<br>Proposal | Alt 4<br>Motorized<br>use<br>reduction | Alt 5<br>Game<br>retrieval,<br>designate<br>ATV roads | Modified<br>Alt 5<br>Big game<br>retrieval,<br>trail spurs,<br>ATVs on<br>roads | Alt 6<br>Change<br>HLV to<br>ATV |
|--|--|---|-------------------------------|--|---|---|----------------------------------|
| <b>Prohibit cross-country motorized travel (acres)</b>                   | 290,000  | 604,000   | 604,000                       | 604,000                                | 604,000   | 604,000   | 604,000                          |
| <b>Prohibit night-riding 1 hr after sunset until 1 hr before sunrise</b> | No   | Yes   | Yes                           | Yes                                    | Yes   | Yes   | Yes                              |
| <b>Dispersed camping corridors, 100 feet wide (miles)</b>                | 32   | 32  | 38                            | 38                                     | 38  | 38  | 38                               |
| <b>Add game retrieval corridors, 300 feet wide (miles)</b>               | 0  | 0   | 0                             | 0                                      | 47 miles  | 47 miles  | 0                                |
| <b>Designated open roads (miles)</b>                                     |  |   |                               |  |   |   |                                  |
| Highway-legal vehicles (HLV) open year-round (YL)                        | 2127   | 2127  | 1743                          | 1720                                   | 1721  | 1705  | 1417                             |
| HLV and trail vehicles ≤ 50" wide (mixed use), open YL                   | 1  | 1   | 1                             | 1                                      | 1   | 1   | 1                                |
| HLV, open Apr - Sept   | 3  | 3   | 3                             | 3                                      | 3   | 3   | 3                                |
| HLV, open Sept – Feb   | 38   | 38  | 71                            | 45                                     | 58  | 58  | 49                               |
| HLV, open Sept – Mar 15  | 8  | 8   | 8                             | 0                                      | 0   | 0   | 0                                |
| HLV, open May – Mar  | 6  | 6   | 6                             | 0                                      | 0   | 0   | 0                                |
| HLV open May – Sept; trail vehicles ≤ 50" wide open Oct – Dec            | 63   | 63  | 21                            | 21                                     | 21  | 21  | 21                               |
| Trail vehicles ≤ 50" wide, open year-round                               | 22   | 22  | 0                             | 0                                      | 0   | 9   | 0                                |
| Trail vehicles ≤ 50" wide, open Oct – Jan                                | 0  | 0   | 2                             | 24                                     | 275   | 248   | 591                              |
| Trail vehicles ≤ 50" wide, open Oct – Dec                                | 0  | 0   | 0                             | 0                                      | 0   | 2   | 0                                |
| <b>Total Designated Roads</b>  | <b>2269</b>  | <b>2269</b>   | <b>1855</b>                   | <b>1814</b>                            | <b>2079</b>   | <b>2047</b>   | <b>2081</b>                      |
| <b>Close roads (miles) –</b>   |  |   |                               |  |   |   |                                  |
| Closed to public motorized use year-round                                | 422  | 422   | 767                           | 808                                    | 543   | 575   | 541                              |
| Closed year-round, identified for decommissioning                        | -  | -   | 69                            | 69                                     | 69  | 69  | 69                               |
| <b>Non-Forest Service jurisdiction roads (miles)</b>                     |  |   |                               |  |   |   |                                  |
| Special use military area, roads controlled by military                  | 220  | 220   | 220                           | 220                                    | 220   | 220   | 220                              |
| Other public roads, state and parish                                     | 430  | 430   | 430                           | 430                                    | 430   | 430   | 430                              |
| <b>Total all roads (miles)</b>   | <b>3341</b>  | <b>3341</b>   | <b>3341</b>                   | <b>3341</b>                            | <b>3341</b>   | <b>3341</b>   | <b>3341</b>                      |

| <b>Management</b>   | <b>Alt 1<br/>No Action –<br/>49% no<br/>cross<br/>country</b> | <b>Alt 2<br/>Existing - No<br/>cross country<br/>forestwide</b> | <b>Alt 3<br/>Modified<br/>Proposal</b> | <b>Alt 4<br/>Motorized<br/>use<br/>reduction</b> | <b>Alt 5<br/>Game<br/>retrieval,<br/>designate<br/>ATV roads</b> | <b>Modified<br/>Alt 5<br/>Big game<br/>retrieval,<br/>trail spurs,<br/>ATVs on<br/>roads</b> | <b>Alt 6<br/>Change<br/>HLV to<br/>ATV</b> |
|---|---|---|--|--|--|--|--|
| <b>Designated motorized trails (miles) –</b>  |   |   |  |  |  |  |  |
| <sup>a</sup> Trail vehicles ≤ 50” wide, open year-round   | 111   | 111   | 111                                    | 68   | 111  | 111  | 0  |
| <sup>a</sup> Trail vehicles ≤ 50” wide, open Apr – Dec  | 0   | 0   | 0                                      | 43   | 0  | 0  | 111  |
| Trail vehicles ≤ 50” wide, open May - Dec   | 36  | 36  | 36                                     | 36   | 36   | 36   | 36   |
| <sup>b</sup> Motorcycle, open year-round  | 51  | 51  | 51                                     | 51   | 117  | 117  | 0  |
| <sup>b</sup> Motorcycle, open Apr – Dec   | 66  | 66  | 66                                     | 66   | 0  | 0  | 117  |
| Add two existing spurs to the motorized trail system  | None  | None  | None                                   | None   | None   | 0.14   | None                                       |
| <b>Total designated trails (miles)</b>  | 264   | 264   | 264                                    | 264  | 264  | 264.14   | 264  |
| <sup>a</sup> Approximately 9 miles remain to be constructed.  |   |   |  |  |  |  |  |
| <sup>b</sup> Approximately 18 miles are currently being used for multiple-use trail vehicles ≤ 50” wide that will be converted to motorcycle sometime in the future. Approximately 66 miles are under construction. |   |   |  |  |  |  |  |

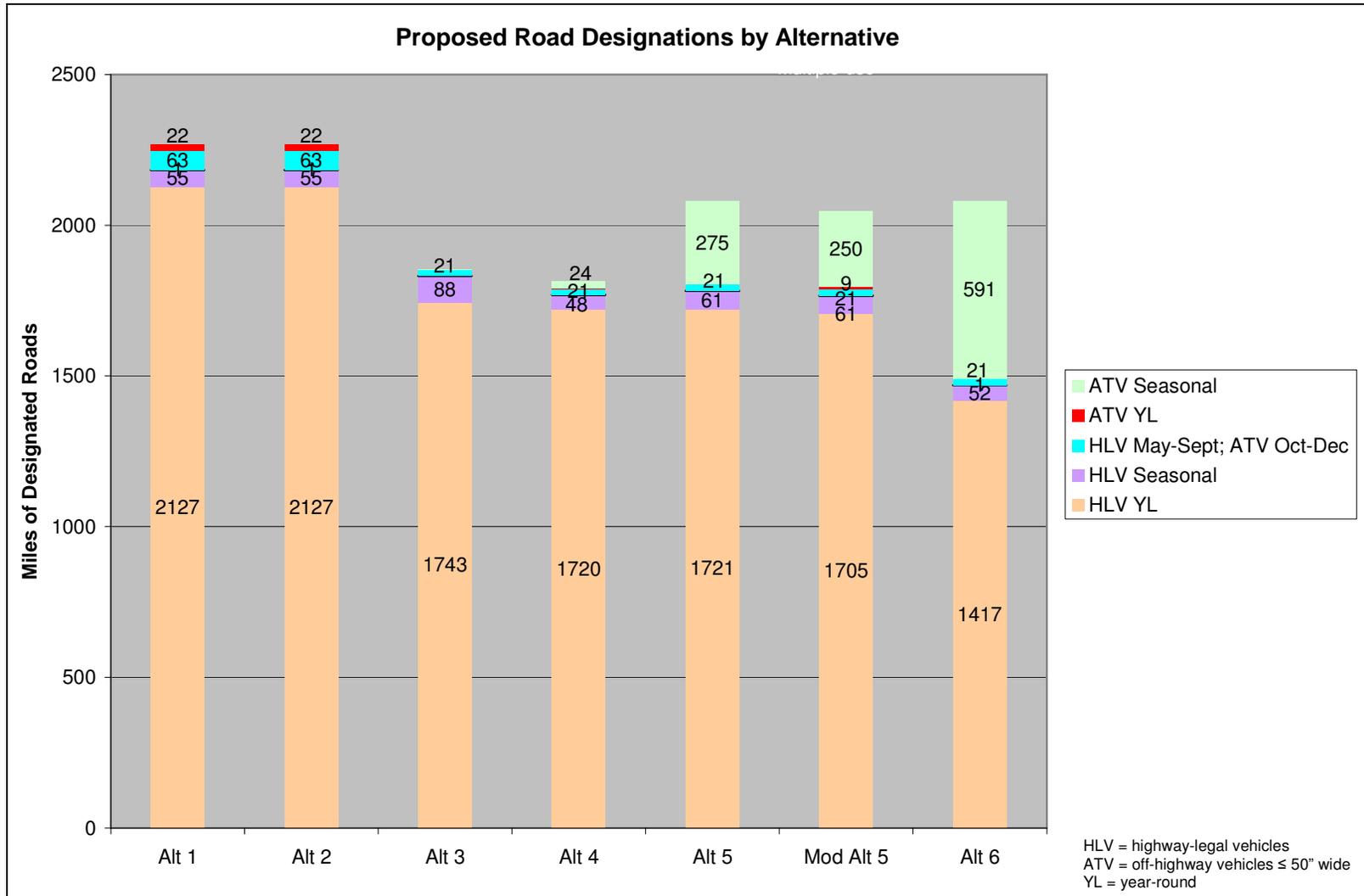


Figure 2-2. Proposed road designations by alternative.

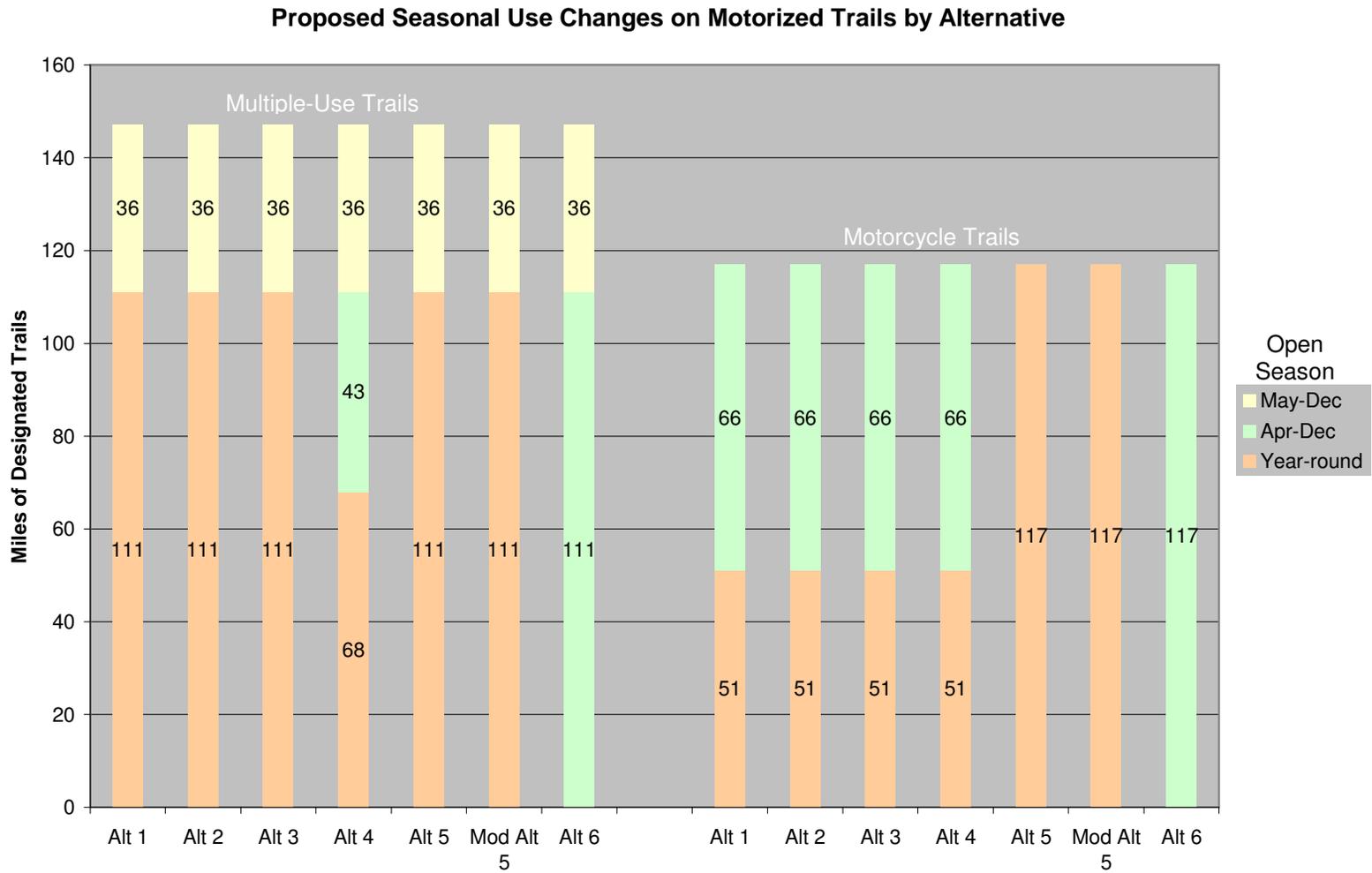


Figure 2-3. Trail designations by alternative, multiple-use (left) and motorcycle (right).

## 2.5 Summary of Environmental Consequences of Each Alternative

This section provides a summary of the effects of implementing each alternative. Information in the table is focused on activities and effects where different levels of effects or outputs can be distinguished quantitatively or qualitatively among alternatives.

**Table 2-2. Summary of environmental consequences of each alternative.**

| Actions/Effects  | Alt 1<br>No Action –<br>49% no cross<br>country | Alt 2<br>Existing -<br>No cross<br>country<br>forestwide  | Alt 3<br>Modified<br>Proposal                       | Alt 4<br>Motorized<br>use<br>reduction              | Alt 5<br>Game<br>retrieval,<br>designate ATV<br>roads   | Mod Alt 5<br>Big game<br>retrieval, trail<br>spurs, ATV<br>roads  | Alt 6<br>Change HLV<br>to ATV   |
|--|---|---|---|---|---|---|---|
| <b>Hunting opportunities</b>   | Existing opportunities would remain             | Existing opportunities with no motorized off-route travel | No motorized cross-country and fewer interior roads | No motorized cross-country and fewer interior roads | No motorized cross-country and fewer interior roads. ATVs on some roads seasonally. Big game retrieval corridors. | No motorized cross-country and fewer interior roads. Seasonal ATV roads. Big game retrieval corridors. Trail spurs. | No motorized cross-country and fewer interior roads. ATVs seasonally on more roads. |
| <b>Access</b>  | Within ~900 feet walking distance of a road.    | Within ~900 feet walking distance of a road.              | Within ~1000 feet walking distance of a road.       | Within ~1100 feet walking distance of a road.       | Within ~900 feet walking distance of a road.  | Within ~900 feet walking distance of a road.  | Within ~900 feet walking distance of a road.  |
| <b>Dispersed recreation changes</b> <ul style="list-style-type: none"> <li>• Prohibit cross-country motorized travel (%of Forest)</li> <li>• Add camping corridors for HLV along roads (miles)</li> <li>• Add big game retrieval corridors along ATV routes (miles)</li> </ul> | 49<br>0<br>0                                    | 100<br>0<br>0   | 100<br>6<br>0                                       | 100<br>6<br>0                                       | 100<br>6<br>47  | 100<br>6<br>47  | 100<br>6<br>0   |

| Actions/Effects   | Alt 1<br>No Action –<br>49% no cross<br>country | Alt 2<br>Existing -<br>No cross<br>country<br>forestwide | Alt 3<br>Modified<br>Proposal | Alt 4<br>Motorized<br>use<br>reduction            | Alt 5<br>Game<br>retrieval,<br>designate ATV<br>roads  | Mod Alt 5<br>Big game<br>retrieval, trail<br>spurs, ATV<br>roads           | Alt 6<br>Change HLV<br>to ATV                                |
|---|---|--|-------------------------------|---|--|--|--|
| <b>Road access changes:</b>   |   |  |                               |   |  |  |  |
| • Close roads to public motorized use (miles)   | 0   | 0  | 414                           | 456   | 190  | 222  | 188  |
| • Change road designations from HLV year-round to ATV Oct – Jan (deer hunting season) (miles) | 0   | 0  | 0                             | 24  | 275  | 248  | 591  |
| • Open road density (mi/mi <sup>2</sup> ):  |   |  |                               |   |  |  |  |
| - Highway-legal vehicles  | 3.07  | 3.07   | 2.65                          | 2.60  | 2.62   | 2.60   | 2.27   |
| - ATVs  | .02   | .02  | 0.0                           | 0.02  | 0.32   | .31  | 0.67   |
| - Total   | 3.09  | 3.09   | 2.65                          | 2.62  | 2.94   | 2.91   | 2.94   |
| <b>Trail riding opportunities</b>   | Existing opportunities would remain             | Reduced daily riding hours                               | Reduced daily riding hours    | Fewer months and daily hours available for riding | More months and fewer daily hours available for riding | More months, fewer daily hours available for riding, and added trail spurs | Much fewer months and fewer daily hours available for riding |
| <b>Trail riding changes:</b>  |   |  |                               |   |  |  |  |
| • Change motorized trails from open year-round to open April – December (miles)               | 0   | 0  | 0                             | 43  | 0  | 0  | 162  |
| • Change motorcycle trails from open April – December to open year-round (miles)              | 0   | 0  | 0                             | 0   | 66   | 66   | 0  |
| • Prohibit night-riding (1 hr before and after sunrise and set)                               | no  | yes  | yes                           | yes   | yes  | yes  | yes  |
| <b>Maintenance –</b>  |   |  |                               |   |  |  |  |
| • Temporary trail closures during wet conditions  | Yes   | Yes  | Yes                           | Yes   | Yes  | Yes  | Yes  |
| • Trails closed seasonally (miles)  | 102   | 102  | 102                           | 145   | 36   | 36   | 264  |
| • Roads designated for ATVs seasonally (miles)  | 0   | 0  | 2                             | 24  | 275  | 250  | 591  |
| • Roads closed seasonally (miles)   | 118   | 118  | 111                           | 93  | 357  | 332  | 664  |
| • Roads closed year-round (miles)   | 422   | 422  | 836                           | 877   | 612  | 644  | 610  |

| Actions/Effects  | Alt 1<br>No Action –<br>49% no cross<br>country | Alt 2<br>Existing -<br>No cross<br>country<br>forestwide | Alt 3<br>Modified<br>Proposal     | Alt 4<br>Motorized<br>use<br>reduction | Alt 5<br>Game<br>retrieval,<br>designate ATV<br>roads | Mod Alt 5<br>Big game<br>retrieval, trail<br>spurs, ATV<br>roads | Alt 6<br>Change HLV<br>to ATV     |
|--|---|--|-----------------------------------|--|---|--|-----------------------------------|
| <b>Soils -</b>   |   |  |                                   |  |   |  |                                   |
| • Designated road use on unsuitable soils –<br>Open year-round | 798   | 798  | 588                               | 572                                    | 572   | 576  | 479                               |
| Open seasonally  | 62  | 62   | 54                                | 60                                     | 205   | 187  | 300                               |
| • Trails on unsuitable soils –<br>Open year-round              | 14  | 14   | 14                                | 13                                     | 16  | 16   | 0                                 |
| Open seasonally  | 26  | 26   | 26                                | 27                                     | 24  | 24   | 40                                |
| <b>Louisiana pearlshell mussel (LPM) watershed –</b>           |   |  |                                   |  |   |  |                                   |
| • LPM watershed open to off-route travel (acres)               | 38,200  | 0  | 0                                 | 0                                      | 0   | 0  | 0                                 |
| • Stream crossings by FS roads on POOR soils                   | 63  | 63   | 43                                | 34                                     | 34  | 34   | 34                                |
| • Steam crossings by FS roads on FAIR soils                    | 123   | 123  | 69                                | 59                                     | 59  | 59   | 59                                |
| • Miles of FS roads closed to public travel                    | 41  | 41   | 73                                | 88                                     | 86  | 86   | 86                                |
| <b>Endangered and Threatened species</b>                       | Could adversely affect                          | Not likely to adversely affect                           | Not likely to adversely affect    | Not likely to adversely affect         | Not likely to adversely affect                        | Not likely to adversely affect                                   | Not likely to adversely affect    |
| <b>Sensitive and Conservation species</b>                      | May impact                                      | Beneficial   | Beneficial                        | Beneficial                             | Beneficial  | Beneficial   | Beneficial                        |
| <b>MIS species</b>   | May impact                                      | Beneficial   | Beneficial                        | Beneficial                             | Beneficial  | Beneficial   | Beneficial                        |
| <b>Socio-economic</b>  | No change                                       | Impacts not likely                                       | Impacts not likely                | Impacts not likely                     | Impacts not likely                                    | Impacts not likely   | Impacts not likely                |
| <b>Unavoidable adverse effects</b>                             | No change                                       | Eliminate motorized cross-country                        | Eliminate motorized cross-country | Eliminate motorized cross-country      | Eliminate motorized cross-country                     | Eliminate motorized cross-country                                | Eliminate motorized cross-country |

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# CHAPTER 3 . AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

## 3.1 Access and Recreation

### 3.1.1 Affected Environment

Roads - Roads provide access for recreationists to enjoy the forest and also for public officials to administratively take care of and provide services within the Forest.

Currently, off-route motorized travel is prohibited on approximately 290,000 acres of the Forest, consisting of Kisatchie Hills Wilderness Area (8,700 acres), military use areas (47,800), the Calcasieu District (135,200), Red Dirt Wildlife Management Preserve (36,200); developed recreation

areas (6,200); Saline Bayou National Scenic River corridor (5,800); special interest areas, research natural areas, sensitive areas, etc. (See Figure 2.1)

There are approximately 2,691 miles of National Forest System roads and 650 miles of other agency roads (Federal, State, Parish, and Department of Defense) that exist on approximately 604,000 acres of National Forest land in Louisiana.

Figure 3-1 shows the **total road density** for the general forest area (3.6 mi/mi<sup>2</sup>), the Kisatchie Hills Wilderness Area (roadless), and the active military use area (2.9 mi/mi<sup>2</sup>). Figure 3-2 shows the **open road density** for these same areas. These figures are shown to give perspective on available motorized access and also to establish the general forest area as the area being impacted and analyzed. The Kisatchie Hills Wilderness Roadless Area and the Active Military Use Areas would remain the same.

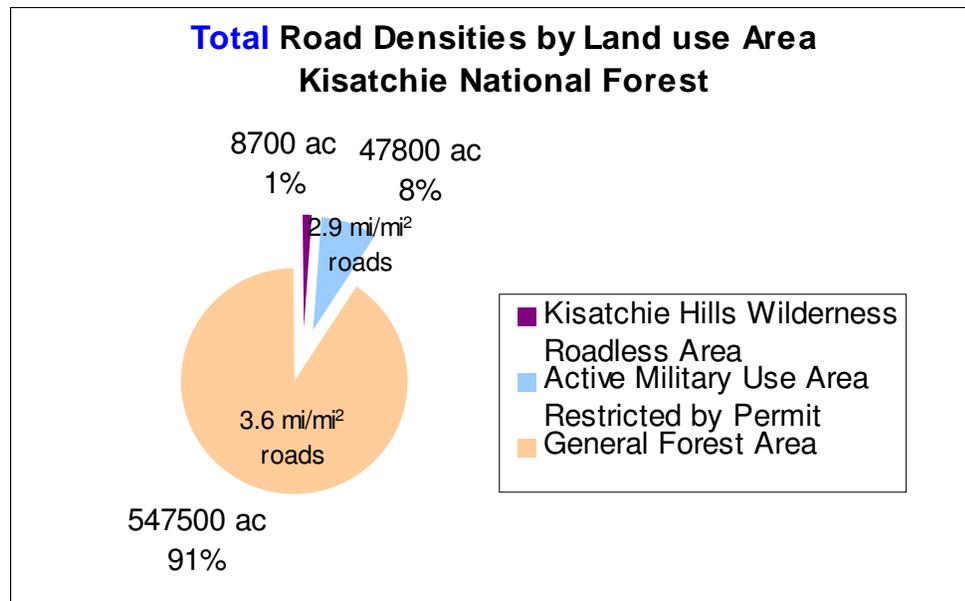


Figure 3-1. Total road densities within Kisatchie National Forest.

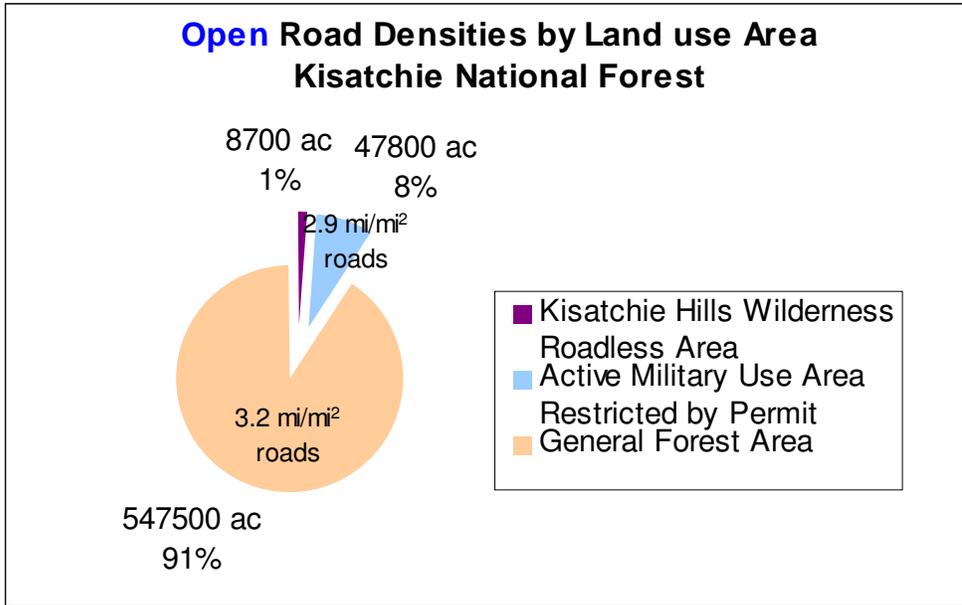


Figure 3-2. Open road densities within Kisatchie National Forest.

Roads within the general forest use area are generally maintained to two levels: Roads maintained for travel in a standard passenger car (high level); and roads with limited maintenance, designed for high clearance vehicle travel (logging roads), and used particularly for timber harvesting. The maintenance level (ML) designations for National Forest System roads are as follows:

- Level 5 Typically double lane, paved roads; designed and maintained for passenger cars
- Level 4 Typically double lane, aggregate-surfaced roads; designed and maintained for passenger cars

- Level 3 Typically low-speed, single lanes with turnouts and spot surfacing; designed and maintained for passenger cars
- Level 2 Typically native, some spot surfacing; designed for high clearance vehicles; little maintenance
- Level 1 Roads not being used and not expected to be used for at least a year and have been closed and allowed to restore to natural vegetation.

The chart below shows the mileage of roads at the different maintenance levels for each responsible jurisdiction.

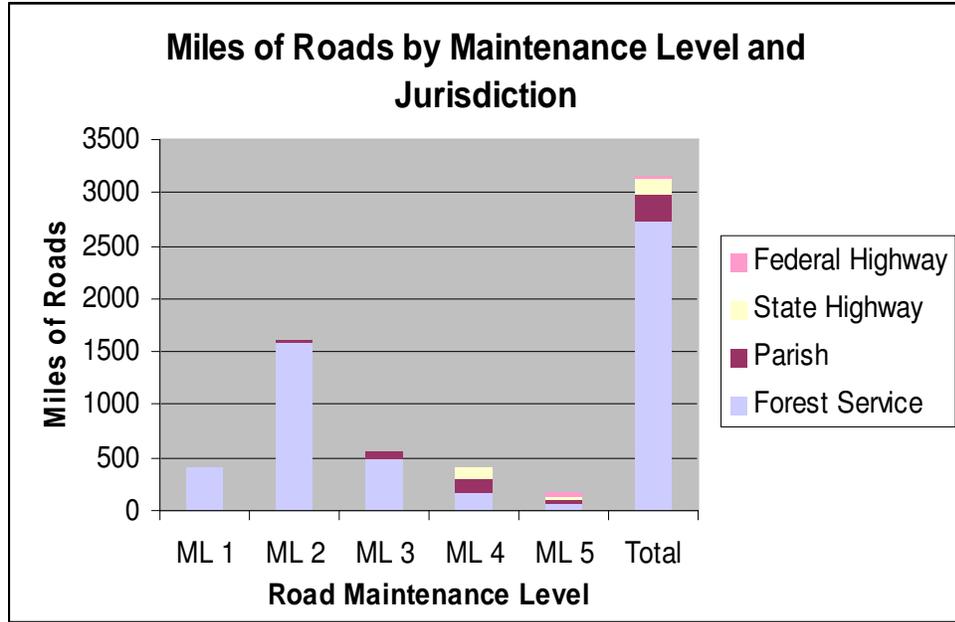


Figure 3-3. Miles of roads on National Forest land by maintenance level and jurisdiction.

There are 3,121 miles of roads on 547,500 acres of general use National Forest land, all but 422 miles are open for recreational use. The low level (logging) roads (ML1,2) consist of 1,980 miles. They are not regularly maintained and are primarily used by dispersed recreationists, particularly hunters. Most of the Travel Analysis explained in §1.7 consisted of these roads. The ML3 and ML4 roads are gravel roads and the ML 5 are paved roads. ML 3, ML 4 and ML 5 roads are classified as suitable for passenger car travel. They are maintained, the infrastructure of the travel system, and consist of 1,141 miles that would remain open for public access to recreate on and travel through the Forest.

Figure 3-4. Typical passenger car level road (top) and high-clearance vehicle level road (bottom).

Trails – Kisatchie National Forest has approximately 412 miles of designated trails on the Forest, 264 miles of motorized (75 miles to be constructed) and 148 miles of nonmotorized. The breakdown of system motorized trails is shown below:

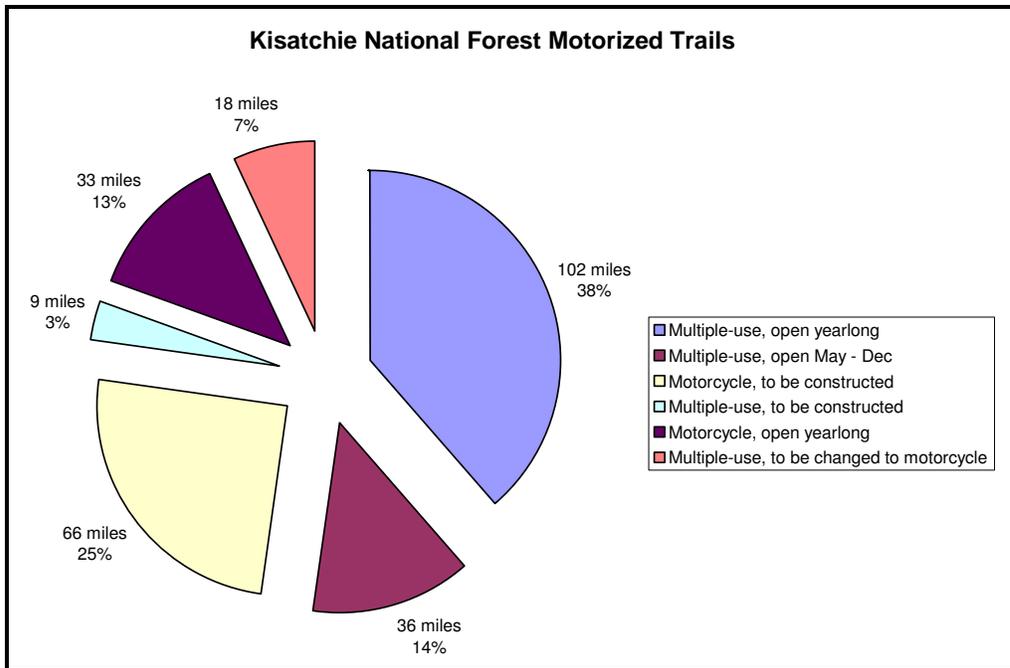


Figure 3-5. Chart of Kisatchie National Forest designated motorized trails.

Figure 3-6. Motorized multiple-use trail.

*Recreation* – The Forest provides developed and dispersed recreation opportunities. The developed sites are areas dedicated to and managed primarily for recreation. The general undeveloped areas of the Forest support dispersed recreation activities such as hunting, nature study, hiking and primitive camping – activities requiring no constructed facilities.

National Forest Visitor Use Monitoring (NVUM) surveys, beginning in year 2000, have been conducted to gather information about the quantity and quality of recreation visits to National Forests. The survey results for recreation activity participation and use of special facilities and areas on Kisatchie National Forest for fiscal year 2005 (USDA, 2006) show that the top five recreation activities were viewing natural features, viewing wildlife, relaxing, hiking/walking, and fishing. The top facilities used by Forest visitors are scenic byway, designated OHV area, developed swimming site, developed fishing site, and motorized single-track trails.

### 3.1.2 Direct, Indirect, Cumulative Effects Related to Access and Recreation -

*Issue 1:* Dispersed recreationists, particularly hunters, have expressed concerns that prohibiting off-route travel

will limit access to their favorite hunting areas on the Forest and would also limit their ability to retrieve their kill. This is of special concern to elderly hunters and hunters with disabilities who have difficulty walking and use an all-terrain vehicle (ATV) to access the woods.

Changing from motorized cross-country on most of the Forest to restricted motorized routes and areas will reduce the places to ride in the woods. This will reduce recreation opportunities for those who enjoy riding cross-country.

Some feel their rights to access public land are being violated and want all roads and trails open while other recreationists are disturbed by the sights and sounds of motorized recreation.

### ***ACCESS AND RECREATION***

*Alternative 1* – Access would not change. Hunters, riders, and other visitors to the Forest would see no change in the use of National Forest land or how they access the land. No direct, indirect, or cumulative effects would occur.

*Alternative 2* – The effects of this alternative would not eliminate recreation activities, such as driving for pleasure, hunting, fishing, or riding motorcycles or ATVs, but would influence some aspects of various recreation activities. For OHV users, this alternative would eliminate recreational experiences associated with cross-country driving and riding. Driving to a camping spot would not be allowed unless the area is designated for motorized vehicles. Riding an ATV into the woods would be prohibited to everyone, including persons with disabilities. Some people may view these changes as a loss of recreation opportunity.

Riders who enjoy riding randomly through the woods or adjacent landowners who like to travel through the forest by ATV to

get to their neighbors may not like being restricted to trails.

Under this alternative, the effect on hunters would vary depending on the experiences they seek. Hunters would have a change from their present unrestricted hunting experience with motorized vehicles, in parts of the Forest, to one that restricts them to roads and trails forestwide. Hunters who use ATVs to scout, stalk, retrieve, and travel would need to find other means to get around in the woods, i.e. by foot, horse, game cart, etc. Other hunters who do not use ATVs would not be impacted and may see benefit in the reduced noise.

Riders who enjoy riding at night would be required to change their riding to daylight hours. Some riders may view this as a loss of recreation opportunity.

Most of the National Forest would still be accessible under this alternative, as the existing road and trail network is generally dense enough that people do not have to walk more than ¼ mile (road density of 3.1 mi/mi<sup>2</sup>) to reach a road or trail. Putting motorized cross-country travelers on roads and trails would have little or no effect on visitors who only use roads and trails now.

Cumulatively, other riding, hunting, and recreational opportunities are available in Louisiana and the adjoining states that would add to the motorized recreational opportunities provided on the National Forest. Restricting motorized travel to roads and trails on National Forest land would be more consistent with state lands that have been restricted for years, except for provisions for big game retrieval. In addition, the U.S. Army Corp of Engineers and U.S. National Wildlife Refuges restrict motorized travel. No other agency in the state allows general cross-country travel by motorized vehicles. With

increased popularity of ATVs, more private hunting camps are finding the need to restrict motorized travel also.

The Louisiana Department of Wildlife and Fisheries reports a slight increase in numbers of big game hunters, the opposite trend in many other states. This project would not increase or decrease the hunting opportunities on national forest land, but would change the way hunters use motorized vehicles in the woods. There are many private hunting clubs in the state that would add to the hunting opportunities provided on national forest land.

The prohibition of motorized cross-country travel in this project would add to previous decisions (§1.5 Related and Referenced Documents) that have been made in the past few years that resulted in closing approximately 49 percent of the Forest to off-route motorized travel.

*Alternative 3* – Alternative 3 would have similar effects as Alternative 2 with the following additions. Dispersed campers who have been driving into the woods to camp would have an additional 6 miles of designated camping corridors where they would be able to drive 100 feet off the road, to park and camp. Campers would still be allowed to park within one vehicle length from the edge of the road surface when it is safe to do so and without causing damage to national forest resources and facilities, and walk into the woods and camp.

Closing 414 miles of logging roads could be viewed by some as a loss of recreation opportunity or access, but most of the Forest would still be accessible under this alternative, as the designated road and trail system is generally dense enough that people do not have to walk more than ¼ mile (road density of 2.7 mi/mi<sup>2</sup>) to reach a road or trail. Some who like to ride or

drive their vehicles down these dead-end roads may not like these roads being closed. Visitors who do not use the logging roads but access the Forest on the maintained passenger-car level roads would see no change.

Cumulative effects would be the same as Alternative 2 with the following addition. Camping corridors would add to the existing hunter camps, developed camping areas, and other corridors to provide safe camping accommodations for dispersed recreationists, especially hunters.

*Alternative 4* – Alternative 4 would have similar effects as Alternatives 2 and 3 with the following additions. Trail riders may view the closing of the Livingston Multiple-Use Trail January through March as a loss of recreation opportunity. Those who like to ride in the winter when it is cooler would not be able to ride this trail during this time of year and would be required to seek other riding opportunities on and off the Forest. There would be other trails on the Forest that would be open for trail riders, weather permitting.

Closing 455 miles of logging roads could be viewed by some as a loss of recreation opportunity or access, but most of the Forest would still be accessible under this alternative, as the designated road and trail system is generally dense enough that people do not have to walk more than ¼ mile (road density of 2.6 mi/mi<sup>2</sup>) to reach a road or trail. Visitors who do not use the logging roads, but access the Forest on the maintained passenger-car level roads would see no change.

Hunters who use ATVs, especially those with difficulty walking, may view the 24 miles of road designated for seasonal ATV use during deer hunting season as improved access for hunting. Other hunters who do not use ATVs may not like

the loss of using highway-legal vehicles on these roads.

Cumulative effects would be the same as Alternative 3.

*Alternative 5* – Alternative 5 would have similar effects as Alternatives 2 and 3 with the following additions. Hunters would be able to use 300-foot big game retrieval corridors on both sides of 47 miles of designated ATV roads for the single purpose of retrieving big game with an ATV, which may improve the hunting experience for some. Some hunters may not view these corridors as suitable for their needs because the locations and numbers of corridors would be too limited. Other hunters who do not use ATVs to hunt may view the noise as a detriment.

Opening the Breezy Hill Motorcycle Trail year-round would increase trail riding opportunities during the months of January through March, totaling 117 miles year-round motorcycle trails, weather permitting.

Hunters, especially those with difficulty walking, may view the 275 miles of roads designated for seasonal ATV use during deer hunting season as improved access for hunting. Hunters with disabilities may view ATV roads as a means to continue their recreational hunting experience. Other hunters who do not use ATVs may not like losing use of highway-legal vehicles on these roads.

Closing 190 miles of logging roads could be viewed by some as a loss of recreation opportunity or access, but most of the Forest would still be accessible under this alternative, as the designated road and trail system is generally dense enough that people do not have to walk more than ¼ mile (road density of 2.9 mi/mi<sup>2</sup>) to reach a road or trail. Visitors who do not use the logging roads, but access the Forest on the

maintained passenger-car level roads would not be impacted.

The cumulative effects would be the same as Alternatives 2 and 3.

*Modified Alternative 5* – Modified Alternative 5 would have similar effects as Alternative 5 with the following additions. The addition of two trail spurs on the Calcasieu District would provide trail access from a terminal facility that has been used in the past for parking and camping. Riders would still be required to pay a use fee at the designated trailheads prior to riding the trail.

Closing 222 miles of logging roads could be viewed by some as a loss of recreation opportunity or access, but most of the Forest would still be accessible under this alternative, as the designated road and trail system is generally dense enough that people do not have to walk more than ¼ mile (road density of 2.9 mi/mi<sup>2</sup>) to reach a road or trail. Visitors who do not use the logging roads, but access the Forest on the maintained passenger-car level roads would not be impacted.

Hunters, especially those with difficulty walking, may view the 250 miles of road designated for seasonal ATV use during deer hunting season as improved access for hunting. Hunters with disabilities may view ATV roads as a means to continue their recreational hunting experience. Those hunters who do not use ATVs may not like losing use of highway-legal vehicles on these roads.

Cumulative effects would be the same as Alternatives 2 and 3.

*Alternative 6* – Alternative 6 would have similar effects as Alternatives 2 and 3 with the following additions. Trail riders may view the closing of 111 miles of multiple-use and motorcycle trails January through March as a loss of recreation opportunity.

These riders would be required to seek other riding opportunities off the Forest during this time period when all designated system trails would be closed.

Closing 188 miles of logging roads could be viewed by some as a loss of recreation opportunity or access, but most of the Forest would still be accessible under this alternative, as the designated road and trail system is generally dense enough that people do not have to walk more than ¼ mile (road density of 2.9 mi/mi<sup>2</sup>) to reach a road or trail. Visitors who do not use the logging roads but access the Forest on the maintained passenger-car level roads would see no change.

Hunters, especially those with difficulty walking, may view the 591 miles of road designated for seasonal ATV use during deer hunting season as improved access for hunting. Hunters with disabilities may view ATV roads as a means to continue their recreational hunting experience. Those hunters who do not use ATVs may not like losing use of highway-legal vehicles on these roads.

Cumulative effects would be the same as Alternatives 2 and 3.

### ***DISTURBANCE AND USER CONFLICTS***

*Alternative 1* – Disturbance and user conflicts would continue to increase as more motorized recreation occurs on the part of the Forest that is open and unrestricted to motorized cross-country travel. The popularity of motorized recreation use is increasing and as this use increases, more people would travel cross-country in places where they are allowed.

Other recreationists would continue to have their recreation experiences reduced by the noise, exhaust fumes, and wheel

tracks left behind from motorized cross-country travel.

People affected during hunting seasons are those hunters whose methods of access, scouting, stalking, and retrieval are by foot, horse, or game cart. Their hunting experience would be reduced or spoiled by other hunters using motorized vehicles to travel cross-country to scout for game, access favorite hunting areas, drive or chase game for a better shot, and to retrieve game. Contributing to this diminished hunting experience is the noise created by motorized vehicles that disturbs and displaces game animals from the immediate area.

There are no known cumulative effects.

*Alternative 2* – User conflicts caused by motorized cross-country travel would be reduced substantially. Recreational experiences for some recreationists would improve. With a reduction in noise, the solitude that many recreationists are seeking should increase. Users who stay on the trails and ride with minimum impact would not have their recreation experiences reduced by impacts from motorized cross-country travelers.

Hunters, whose methods of access, scouting, stalking, and retrieval are by foot, horse, or game cart, would have their recreation experience improved by the elimination of noise from motorized cross-country travel, which disturbs and, potentially, displaces game animals from the immediate area.

The elimination of night-riding would reduce the noise and disturbance to those who live nearby, to campers in the Forest who are trying to sleep, and to other forest visitors trying to enjoy the solitude. Hunters using ATVs to access the woods early in the morning or returning from the woods in the evening may not like the

prohibition of night-riding; but by allowing an additional hour before and after sunrise and sunset, sufficient time would be likely for the hunter to get in and out of the woods.

The designation of motorized routes and producing a map depicting these routes would provide easier identification of motorized use locations and allow those who want less disturbance and noise to choose a different area of the Forest.

There are no known cumulative effects.

*Alternative 3* – Alternative 3 would have the same effects as Alternative 2 with the following additions. Additional camping corridors would not add to any known user conflicts or disturbances.

Closing 414 miles of logging roads could reduce motorized disturbance to other Forest users, such as hikers, birdwatchers, and hunters who want more peace and quiet in the woods.

There are no known cumulative effects.

*Alternative 4* – Alternative 4 would have similar effects as Alternatives 2 and 3 with the following additions. Closing the Livingston Multiple-Use Trail January through March could provide less noise and disturbance to those visiting the Forest during those months who desire more peace and quiet.

Closing 455 miles of logging roads could reduce motorized disturbance to other Forest users, such as hikers, birdwatchers, and hunters who want more peace and quiet in the woods.

The 24 miles of road designated for seasonal ATV use during deer hunting season could be viewed as disturbance to hunters and to the game being hunted.

There are no known cumulative effects.

*Alternative 5* – Alternative 5 would have similar effects as Alternatives 2 and 3 with the following additions. Big game retrieval corridors for ATV assisted big game retrieval could be disturbing to other hunters in the area that desire quiet solitude so that the game animals and hunting experience would not be disturbed. Hunters who desire less motorized noise would have the opportunity to seek hunting areas away from the ATV big game retrieval corridors to reduce their disturbance.

Opening more trails year-round (weather permitting) could increase the noise and disturbance to other users in the Forest. These users would have the option to go to areas where there are no motorized trails.

Closing 190 miles of logging roads to motorized use could reduce disturbance to other Forest users, such as hikers, birdwatchers, and hunters who want more peace and quiet in the woods.

The 275 miles of road designated for ATVs during deer hunting season could be viewed as disturbance to hunters and to the game being hunted.

There are no known cumulative effects.

**Modified Alternative 5** – Modified Alternative 5 would have similar effects as Alternative 5 with the following additions.

The additional trail spurs would not be expected to cause any additional disturbance or use conflicts. The spurs are short in length (total of 0.14 miles) and exist in an area where motorized trails are common.

Approximately 222 miles of logging roads would be closed and 250 miles of logging roads would be designated for seasonal ATV travel. These changes would have the same effects as Alternative 5.

There are no known cumulative effects.

**Alternative 6** – Alternative 6 would have similar effects as Alternatives 2 and 3 with the following additions. Closing 111 miles of multiple-use and motorcycle trails January through March could reduce

motorized disturbance to other Forest users, such as hikers, birdwatchers, and hunters who want more peace and quiet in the woods.

Closing 188 miles of roads to motorized use could reduce disturbance to other Forest users, such as hikers, birdwatchers, and hunters who want more peace and quiet in the woods.

The 591 miles of roads designated for seasonal ATV use during deer hunting season could be viewed as disturbance to hunters who do not like ATVs in the woods and to the game being hunted, reducing the hunting experience.

There are no known cumulative effects.

**Alternative comparison:** The following chart summarizes the motorized changes impacting access and recreation by alternatives.

**Table 3-1. Comparison of changes to access and recreation for each alternative.**

| IMPACTS   | Alt 1<br>No Action          | Alt 2                 | Alt 3<br>Proposal     | Alt 4                 | Alt 5                             | Mod Alt 5                         | Alt 6                 |
|---|-----------------------------|-----------------------|-----------------------|-----------------------|-----------------------------------|-----------------------------------|-----------------------|
| <b>Cross country riding</b>                               | Prohibited on 49% of Forest | Prohibited forestwide | Prohibited forestwide | Prohibited forestwide | Prohibited forestwide             | Prohibited forestwide             | Prohibited forestwide |
| <b>Night-riding</b>                                       | Allowed                     | Not allowed           | Not allowed           | Not allowed           | Not allowed                       | Not allowed                       | Not allowed           |
| <b>Trail riders (mi)</b>                                  |                             |                       |                       |                       |                                   |                                   |                       |
| • Close multiple-use trail Jan-Mar                        | No change                   | No change             | No change             | 43 miles              | No change                         | No change                         | 111 miles             |
| • Open motorcycle trail year-round                        | No change                   | No change             | No change             | No change             | 66 miles                          | 66 miles                          | No change             |
| • Close motorcycle trail Jan-Mar                          | No change                   | No change             | No change             | No change             | No change                         | No change                         | 51 miles              |
| • Two additional trail spurs                              | No change                   | No change             | No change             | No change             | No change                         | 0.14 miles                        | No change             |
| <b>Access</b>   |                             |                       |                       |                       |                                   |                                   |                       |
| • Road density (mi/mi <sup>2</sup> )                      | 3.2                         | 3.2                   | 2.7                   | 2.6                   | 2.9                               | 2.9                               | 2.9                   |
| <b>Hunting (miles)</b>                                    |                             |                       |                       |                       |                                   |                                   |                       |
| • Big game retrieval with an ATV in designated corridors  | None                        | None                  | None                  | None                  | 300 feet on each side of 47 miles | 300 feet on each side of 47 miles | None                  |
| • Roads designated for ATV use during deer hunting season | 0                           | 0                     | 0                     | 24                    | 275                               | 250                               | 591                   |
| • Additional camping corridors                            | 0                           | 0                     | 6                     | 6                     | 6                                 | 6                                 | 6                     |

*Management Area (MA) Access* – Some users of the Forest expressed concerns that too many roads are being closed and that every road and trail in the woods should be open for public use.

The designated management areas and the standards and guidelines within these areas (see Appendix A2 Goals, Objectives, and Desired Future Conditions) provide a framework within which to evaluate the

sufficiency of the proposed designated travel system.

The changes in route density for the alternatives are shown by management area in the table below. Overall, Alternatives 3 and 4 reduce route density; and Alternatives 5, Modified 5, and 6 would change the season and type of vehicle use; but route density would not materially change from Alternatives 1 and 2.

**Table 3-2. Density of designated motorized routes (roads and trails) by management area for each alternative.**

| Management Area (acres)                    | Total Motorized Route Density (mi/mi <sup>2</sup> ) |       |       |       |       |           |       |
|--|---|-------|-------|-------|-------|-----------|-------|
|  | Alt 1   | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Mod Alt 5 | Alt 6 |
| Amenity Values (16,000)                    | 2.6   | 2.6   | 2.3   | 2.3   | 2.6   | 2.6       | 2.6   |
| Forest Products (31,000)                   | 3.0   | 3.0   | 2.5   | 2.4   | 2.9   | 2.9       | 2.9   |
| Hardwoods (10,000)                         | 4.2   | 4.2   | 2.3   | 2.3   | 3.9   | 3.9       | 3.9   |
| National Wildlife Preserve (70,000)        | 3.2   | 3.2   | 2.7   | 2.6   | 2.7   | 2.7       | 2.7   |
| Native Community Restoration (142,000)     | 3.3   | 3.3   | 2.7   | 2.7   | 3.1   | 3.1       | 3.1   |
| Palustris Experimental Forest (7,200)      | 3.2   | 3.2   | 3.0   | 3.0   | 3.0   | 3.0       | 3.0   |
| RCW/Native Community Restoration (220,500) | 3.9   | 3.9   | 3.4   | 3.3   | 3.6   | 3.6       | 3.6   |
| RCW/Wildlife Habitats (45,000)             | 3.7   | 3.7   | 3.6   | 3.6   | 3.8   | 3.8       | 3.8   |
| Saline Bayou Wild and Scenic River (5,800) | 0.5   | 0.5   | 0.2   | 0.2   | 0.2   | 0.2       | 0.2   |

The **lowest** average route density, other than in Saline Bayou Wild and Scenic River MA and the Wilderness Area, would be 2.3 mi/mi<sup>2</sup> in the Amenity Value and Hardwoods MAs. This would provide visitor access a walking distance within approximately 1,200 feet (less than ¼ mile) of a designated motorized route. The **highest** average route density proposed in Alternatives 3, 4, 5, Modified 5, and 6 would be 3.9 mi/mi<sup>2</sup> in Hardwoods MA which means that visitors would be within approximately 700 feet walking distance of a designated motorized route.

The densities for all alternatives and management areas would comply with the guidelines and desired conditions as

described in the Forest Plan (Chapter 3) and indicate sufficient motorized access.

### 3.2 Maintenance

*Issue2:* Concentrating motorized use on designated routes could increase maintenance needs. Budget and manpower resources do not meet maintenance needs now; how will these roads and trails be maintained in the future?

#### 3.2.1 Affected Environment

The Forest is currently reallocating budgets and work priorities to address the increasing maintenance demands for roads and trails. Most of the damage to roads

and trails occurs during wet ground conditions, requiring consideration for closures during wet periods.

Road maintenance budgets have averaged \$663,000 over the last six years and have declined the last few years as shown in the figure below. Maintenance level 3, 4, and 5 roads are the passenger car level roads that are regularly maintained, comprising approximately 20 percent of the Forest system roads. Maintenance level 1 and 2 roads are the logging roads that are

maintained when needed, and typically maintenance is included in timber contracts to a level for high clearance vehicles. The **total deferred maintenance** needs currently identified for the transportation (road and bridge) system is approximately \$53 million. The estimated **annual road maintenance** funding needed to maintain the Forest transportation system to standard is \$7 million.

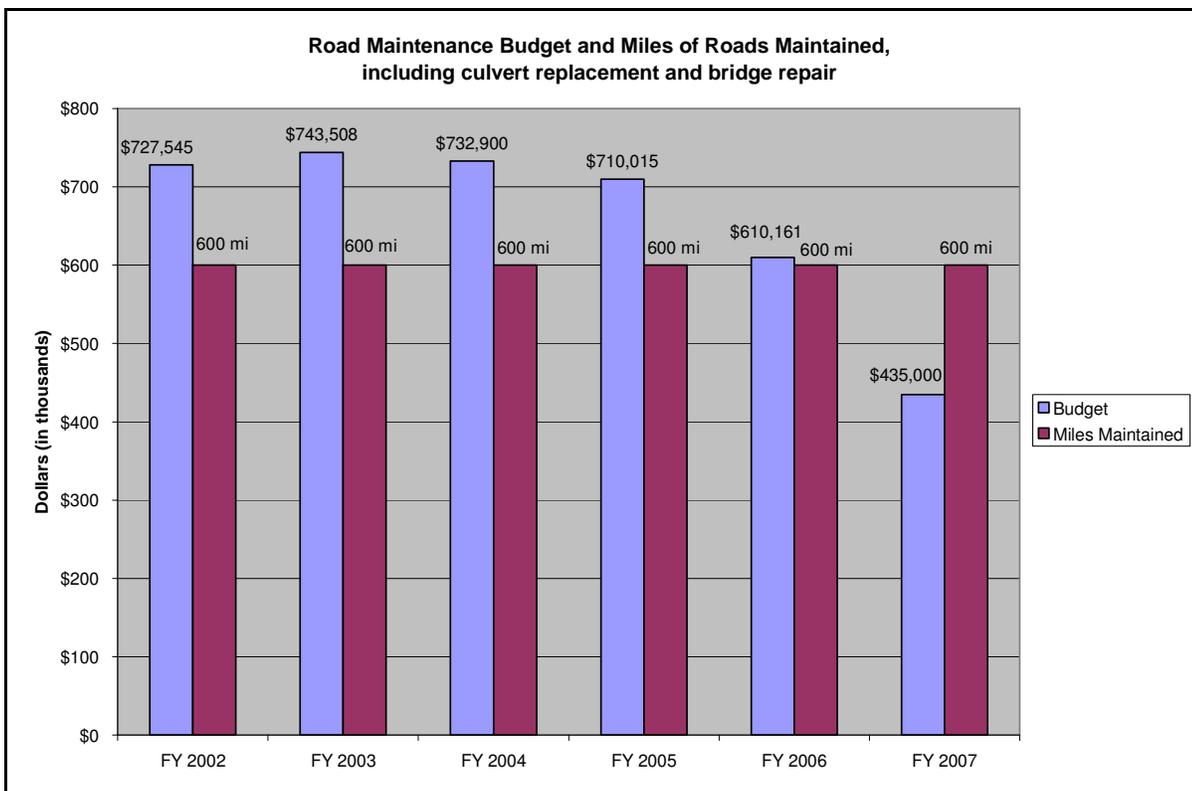


Figure 3-7. Kisatchie National Forest road maintenance budget and miles of roads maintained during the last six years.

The Forest Roads Analysis (USDA, 2002) identified the following recommendations and opportunities to address the budget issues.

- Develop and maintain a plan, with secured funding to repair and/or replace deficient unsafe bridges on a regular annual basis. Replace four bridges per year.
- Inventory and evaluate road signs and install signage that meets Forest Service or highway standards.
- Close unneeded forest jurisdiction roads per Revised Plan guidance.

- Seek other funding sources such as deferred maintenance, capital improvement, or road and trail deposit fund (10% funds).
- Obtain National Forest System funds to assist parishes in road maintenance and reconstruction.
- Assist Parishes to install proper drainage structures including ditches and ditch lead out structures.

Maintaining motorized trails to standard is an ongoing challenge for the Forest. Trail riding groups have volunteered time and trail grants have been used to supplement federal funding, contributing efforts to meeting the challenges of maintaining trails to a safe and enjoyable level. Funding for trail maintenance varies year to year. Volunteer help and grants are

expected to continue in the future, supplementing the federal budget.

### 3.2.2 Direct, Indirect, and Cumulative Effects to Maintenance -

*All Alternatives:* Less frequently traveled routes would require less maintenance as would reduced travel during wet conditions. The elimination of night-riding could potentially reduce damage and maintenance needs by reducing riding opportunities that occur at night. A summary comparison of seasonal and closed route designations that would impact maintenance needs is tabulated below by alternative.

**Table 3-3. Summary alternative comparison for road and trail designations related to maintenance impacts.**

| Maintenance  | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Mod Alt 5 | Alt 6 |
|--|-------|-------|-------|-------|-------|-----------|-------|
| Temporary trail closures during wet ground conditions      | Yes   | Yes   | Yes   | Yes   | Yes   | Yes       | Yes   |
| Trails closed seasonally (miles)                           | 102   | 102   | 102   | 145   | 36    | 36        | 264   |
| Roads designated for ATV use during Oct – Jan or Oct – Dec | 0     | 0     | 0     | 24    | 275   | 250       | 591   |
| Roads closed seasonally                                    | 118   | 118   | 111   | 93    | 357   | 332       | 664   |
| Roads closed year-round (miles)                            | 422   | 422   | 836   | 877   | 612   | 644       | 610   |

*Alternative 1* – Road and trail maintenance is ongoing and would continue into the future with or without the proposals as identified in the action alternatives. Areas needing the most attention would be identified and receive maintenance priority. Approximately 600 miles of roads are maintained on a regular basis – passenger-car level roads. The logging roads would receive minimal maintenance, typically during a timber sale or when route repair needs are brought to our attention.

*Alternative 2* – With the elimination of cross-country travel and the restriction of motorized use to designated trails and roads, the needs to rehabilitate damaged areas off the designated routes would be less. Therefore, more attention would be placed on maintaining the designated routes.

On the other hand, the elimination of motorized cross-country riding is expected to add more riders on the trails, resulting in more frequent trail maintenance needs. Work would continue to keep the trails in good condition and to provide a safe and

enjoyable riding experience. More methods could be sought to maintain the roads and trails.

The elimination of cross-country travel would not be expected to increase road use. People who currently use forest roads are expected to continue to travel these roads. Most of the recreational use and travel on the logging roads, which receive little maintenance, is primarily by hunters, and hunting popularity is not expected to change.

The elimination of night-riding could potentially reduce trail damage and maintenance needs due to reduced usage, but no significant change would be expected.

Cumulative effects would be the same as Alternative 1.

*Alternative 3* – Alternative 3 would have the same effects as Alternative 2 with the following additions. Closing 414 miles of roads year-round in Alternative 3 would likely reduce road maintenance needs. Adding 6 miles of dispersed camping corridors would not expect to change the road maintenance needs.

*Alternative 4* – Alternative 4 would have the same effects as Alternative 2 with the following additions. Closing 455 miles of roads year-round in Alternative 3 would likely reduce road maintenance needs. Adding 6 miles of dispersed camping corridors would not expect to change the road maintenance needs.

Closing 43 miles of the Livingston multiple-use trail (Catahoula District) January through March, a typically wet time of year would reduce trail maintenance needs. This seasonal closure would also allow the trail to rest and naturally recover for part of the year, which past experience has shown to reduce maintenance needs.

*Alternative 5* – Alternative 5 would have the same effects as Alternative 2 with the following additions. Closing 190 miles of roads year-round in Alternative 5 would likely reduce road maintenance needs.

Changing 275 miles of roads designated for highway-legal vehicles year-round to trail vehicles  $\leq 50$  inches wide during October through January would likely reduce maintenance needs. In the past, allowing roads to lay fallow for part of the year has shown that less maintenance requirements are needed to sustain desired road levels. The designation of low-psi ATVs on some of the roads during deer hunting season would help to alleviate some damage caused by 4-wheel drive trucks in wet conditions.

Adding 6 miles of dispersed camping corridors would not be expected to change the road maintenance needs.

The use of ATVs for big game retrieval in designated corridors in Alternative 5 would not likely create more maintenance needs. These are low-psi vehicles that would make limited passes for the sole purpose of big game retrieval. One to two passes over grassy groundcover do not generally cause damage requiring maintenance needs.

*Modified Alternative 5* – Modified Alternative 5 would have the same effects as Alternative 2 with the following additions. Closing 222 miles of roads year-round and changing 248 miles of roads to seasonal ATV use would likely reduce road maintenance needs. In the past, allowing roads to lay fallow for part of the year has reduced required maintenance to sustain desired road standards. Also, the designation of low-psi ATVs on some of the roads during deer hunting season would help to alleviate some damage caused by 4-wheel drive trucks in wet conditions. With less

damage, maintenance needs would be reduced.

Adding 6 miles of dispersed camping corridors and 0.14 miles of trail spurs would not be expected to change the road and trail maintenance needs.

The use of ATVs for big game retrieval in designated corridors would not likely create more maintenance needs. These are low-psi vehicles that would make limited passes for the sole purpose of big game retrieval. One to two passes over grassy groundcover do not generally cause damage requiring maintenance needs.

*Alternative 6* – Alternative 6 would have the same effects as Alternative 2 with the following additions. Closing 188 miles of roads year-round in Alternative 6 would likely reduce road maintenance needs.

Changing 591 miles of roads designated for highway-legal vehicles year-round to trail vehicles  $\leq 50$  inches wide during October through January would likely reduce maintenance needs. In the past, allowing roads to lay fallow for part of the year has reduced required maintenance to sustain desired road standards. Also, the designation of low-psi ATVs on some of the roads during deer hunting season would help to alleviate some damage caused by 4-wheel drive trucks in wet conditions. With less damage, maintenance needs would be reduced.

Seasonal trail closures in Alternative 6 would help reduce maintenance needs.

Ground conditions are generally wetter in the winter, and more damage occurs on the trails during wet conditions. Trail closures (111 miles) during January through March would help alleviate rutting and trail damage and allow the trail to rest for a period.

Adding 6 miles of dispersed camping corridors would not be expected to change the road maintenance needs.

*All alternatives* – The cumulative effects to maintenance includes the addition of more trails in the future and their impact to maintenance demands. The construction of the Breezy Hill trail and the 9 mile multiple-use trail in the Livingston Complex (all alternatives), would increase maintenance needs. The increased mileage of trails requiring maintenance with no change in resources to provide that maintenance could present difficulties in maintaining the trails to a desirable standard. The desired goals of minimizing resource damage and providing a satisfying recreational riding experience may not be met.

Cumulatively, there could be increased road use in the future from population growth in more rural areas as Louisiana is seeing a trend of people moving out of the urban areas in some parts of the state. With increasing population in the State of Louisiana, national forest recreational use could increase causing more use of forest roads in the future to access the national forest. These increased road uses could ultimately lead to more maintenance needs.

Trails would continue to be temporarily closed in the future during periods of heavy rainfall when soil moisture content is high; thereby, reducing trail damage and maintenance needs.

The San Dimas Technology & Development Center (USDA, unpublished) studied the effects of ATVs on national forest land and identified riding behavior as the main factor contributing to trail and resource damage. Tires restricted to  $\leq 1$ -inch lug depths and the elimination of night-riding would help

reduce damage from aggressive riding behavior.

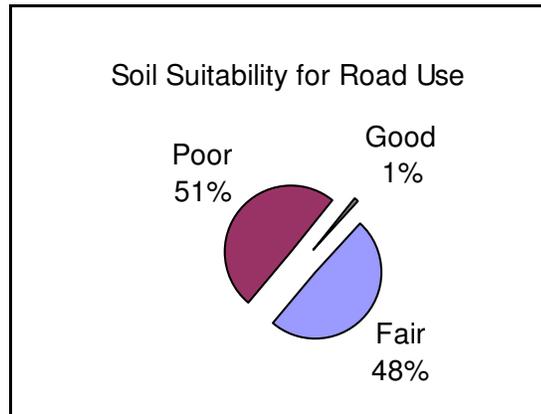
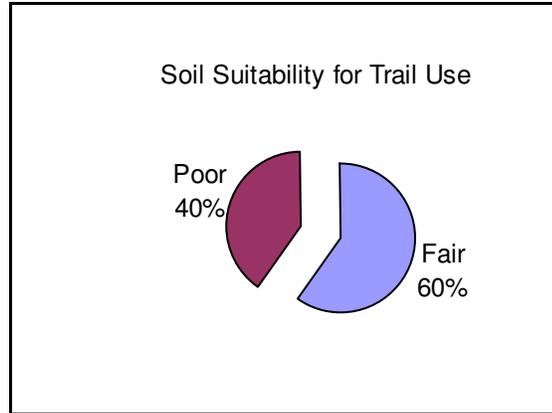
### 3.3 Soils

*Management concern:* Increased motorized use is causing soil erosion and resulting in sedimentation into the streams. Many cross-country riders travel in areas unsuitable and unintended for motorized use.

#### 3.3.1 Affected Environment -

Soil – Most soils in the Forest are highly weathered, acidic, and have low nutrient status. Generally, deep alluvial soils are in the drainages and prone to flooding and would be least suitable to road and trail use. Dry sandy upland soils with the least slope would be less susceptible to erosion and more suitable for road and trail use. Our road and trail system has been developed with soil suitability considerations. The suitability of the soils was one of the criteria evaluated in the Travel Analysis to determine road designation changes needed.

The Forest’s soils have been intensively classified and mapped according to the criteria for Order II soil surveys. These soil surveys identify soil properties which are used to determine soil suitability for a variety of management practices and to indicate necessary mitigation. The figure below shows the suitability of the Forest’s soils for trails and roads.



**Figure 3-8. Kisatchie National Forest soil suitability ratings for trail and road use shown in percentages.**

Standards and guidelines (Plan, Chapter 2) have been developed to reduce or mitigate the potential impacts of soil erosion or compaction from roads, trails, and recreational uses.

#### 3.3.2 Direct, Indirect, and Cumulative Effects to Soils-

##### *SUITABILITY*

All Alternatives – Generally, more usage and wetter ground conditions result in more rutting and rill erosion to the soil and road and trail surfaces. New system roads or trails proposed in this project are limited to the 0.14 miles of trail spurs in Modified Alternative 5. No other new

roads or trails are being proposed. Therefore, impacts would mostly be attributable to the proposal of eliminating motorized cross-country travel, closing roads, changing season of use, and

changing type of vehicle used. The seasonal use proposed in each alternative for the roads and trails on suitable and unsuitable soils is shown in the table below.

**Table 3-4. Designated road and trail use by alternative for suitable and unsuitable soils.**

| Measurements of Effects on Soils          | Alt 1   | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Modified Alt 5 | Alt 6 |
|---|---------|-------|-------|-------|-------|----------------|-------|
|   | (miles) |       |       |       |       |                |       |
| Trails on suitable soils –                |         |       |       |       |       |                |       |
| Open year-round                           | 148     | 148   | 148   | 106   | 211   | 211            | 0     |
| Open seasonally                           | 76      | 76    | 76    | 118   | 13    | 13             | 224   |
| Trails on unsuitable soils –              |         |       |       |       |       |                |       |
| Open year-round                           | 14      | 14    | 14    | 13    | 16    | 16             | 0     |
| Open seasonally                           | 26      | 26    | 26    | 27    | 24    | 24             | 40    |
| Designated road use on suitable soils –   |         |       |       |       |       |                |       |
| Open year-round                           | 1353    | 1353  | 1156  | 1150  | 1157  | 1125           | 951   |
| Open seasonally                           | 56      | 56    | 57    | 32    | 145   | 144            | 351   |
| Designated road use on unsuitable soils – |         |       |       |       |       |                |       |
| Open year-round                           | 798     | 798   | 588   | 572   | 572   | 576            | 479   |
| Open seasonally                           | 62      | 62    | 54    | 60    | 205   | 187            | 300   |

Reduced open roads in Alternatives 3 and 4 on unsuitable soils would reduce soil impacts. More seasonal roads on unsuitable soils in Alternatives 5, Modified 5, and 6 and seasonal trails in Alternative 6 would reduce soil impacts by allowing the route to rest and recover for part of the year. The comparison of designated routes by alternative for soil suitability ratings is shown below.



**Figure 3-9. The mileage of designated roads and trails located on soils rated poor, fair, or good suitability for each alternative for vehicle type and seasonal usage.**

The majority of the motorized routes are located on soils rated “fair” for motorized use. The increased mileage of designated seasonal ATV roads in Alternatives 5, Modified 5, and 6 would reduce soils impacts of rutting, compaction, and erosion.

The elimination of motorized cross-country travel in Alternatives 2, 3, 4, 5, Modified 5, and 6 would not be expected to increase road travel and, therefore, no indirect increased damage would occur to the road surfaces. Dispersed recreationists are the primary road travelers and do not travel off-road very much now and their

number of visits are not expected to materially increase in the future. On the other hand, trail travel would be expected to increase when the cross-country riders are restricted to the designated trail system in the future. The increased trail travel could result in more rutting and compaction, but trail placement and design should limit impacts to the vicinity of the trail as originally intended and where maintenance would occur.

The table below shows the mileage of each designated motorized trail by type of use and season as they relate to soil ratings for motorized route suitability.

**Table 3-5. Mileage of motorized trails located on suitable (rated fair) and unsuitable (rated poor) soils.**

| Trail  | District  | Suitable | Unsuitable | Total | Season of Use |         |                     |         |
|--|-----------|----------|------------|-------|---------------|---------|---------------------|---------|
|  |           | (miles)  |            |       | Alt 1, 2, 3   | Alt 4   | Alt 5 and Mod Alt 5 | Alt 6   |
| Sandstone Multiple-Use Trail                   | Kisatchie | 13       | 23         | 36    | May-Dec       | May-Dec | May-Dec             | May-Dec |
| Claiborne Complex, multiple-use and motorcycle | Calcasieu | 66       | 11         | 77    | Jan-Dec       | Jan-Dec | Jan-Dec             | Apr-Dec |
| Enduro Complex, multiple-use and motorcycle    | Calcasieu | 40       | 2          | 42    | Jan-Dec       | Jan-Dec | Jan-Dec             | Apr-Dec |
| Livingston Complex, multiple-use               | Catahoula | 42       | 1          | 43    | Jan-Dec       | Apr-Dec | Jan-Dec             | Apr-Dec |
| Breezy Hill Motorcycle Trail                   | Catahoula | 63       | 3          | 66    | Apr-Dec       | Apr-Dec | Jan-Dec             | Apr-Dec |
| TOTAL  |           | 224      | 40         | 264   |               |         |                     |         |

As shown in the table above, 65 percent of the Sandstone Trail is located on soils rated as poor for OHV trail use, which justifies seasonal closure during a wet time of year in all alternatives. January through April is a time of year when evapotranspiration rates are low and soil moisture is usually high. Approximately 11 percent of the Claiborne complex is located on poor soils, and some of these trails are being relocated under the November 2004 Calcasieu Ranger District decision. The other unsuitable trail locations are stream crossings where bridges or low-water crossings are constructed to mitigate the erosion and sedimentation effects to acceptable levels.

***EROSION***

Alternative 1 – Existing road and trail use would continue, and off-route travel would continue on 51 percent of the Forest. Sporadic maintenance would continue to address erosion and sedimentation concerns as they are identified. Trails would continue to be temporarily closed during wet ground conditions. Unacceptable damage to soil resources would continue as discussed in the purpose and need section of this document.

Alternatives 2, 3, 4, 5, Modified 5, and 6 – The elimination of cross-country travel would potentially lessen the erosion and

sedimentation problems caused by riders in the streams and along the stream embankments.

The elimination of night-riding could potentially lessen soil rutting and erosion. Material changes would not be likely since all riding would be restricted to designated routes.

Establishment of approximately 6 miles of 100-foot camping corridors on the Caney District in Alternatives 3, 4, 5, and 6 could potentially increase erosion and sedimentation as vegetation could be removed due to camping use. Because these corridors are on ridges and use is predominantly during hunting season, the camping corridors would be expected to naturally rehabilitate during the off-hunting season; thereby, minimizing impacts related to erosion. Should unacceptable impacts be observed in the future, this type of use could be reconsidered and mitigated.

*Alternative 3* – Alternative 3 would lessen the mileage of roads open to public use; and therefore, the potential erosion and sedimentation would likely be reduced.

*Alternative 4* – Reduced open roads would reduce the potential for soil erosion and sedimentation. This alternative closes the most roads and has the lowest road density.

The closure of approximately 43 miles of multiple-use trails on the Catahoula District January through March, a typically wet time of year, would reduce rutting and compaction, as well as potential sedimentation into the streams.

*Alternative 5 and Modified Alternative 5* – Game retrieval corridors along approximately 47 miles in the National Wildlife Management Preserves (NWMP) would allow cross-country travel with an ATV for big game retrieval within 300

feet of the designated ATV routes.

Impacts from motorized use for big game retrieval would be minimal because of the spatial and temporal limitations. Deer-hunting season is usually limited to 9 days in the NWMP. In addition, an ATV is a low-psi vehicle that would likely lessen the rutting and compaction on the routes and in the corridors. A review of the management objectives and resource concerns for this area has determined that this area is suitable for this type of use. Should damage occur from the use of ATVs for big game retrieval, the area could be closed for this type of motorized use.

This alternative would change the designation of some closed roads to open for ATV use during deer hunting season (October – January) in areas determined to be suitable based on management objectives and resource concerns. This type of use could increase the potential for erosion and/or sedimentation. Because the ATV is a low-psi vehicle and the use would be limited to deer hunting season, impacts would be expected to be negligible, if at all.

Opening approximately 66 miles of motorcycle trails on the Catahoula District for an additional three months (January – March) to provide year-round use could potentially increase rutting, compaction, and sedimentation into the streams. Trail design and maintenance would help mitigate soil and water concerns.

*Alternative 6* – Some roads that are currently open for highway-legal vehicles year-round would be designated for ATV use during deer season (October – January) and closed the remainder of the year. The change from year-round to seasonal use and the change from highway-legal vehicles to low-psi vehicles would likely reduce rutting and

compaction and indirectly erosion. Winter is typically a wetter time of year when the roads are more susceptible to damage. The low-psi vehicles would cause less soil and water impact than the heavier highway-legal vehicles during this time. In addition, closing roads the remainder of the year would lessen erosion and sedimentation. Should problems arise, designations could be changed in the future to mitigate any problems.

Closing 162 miles of motorized trails from January through March would reduce potential rutting and compaction and indirectly erosion and sedimentation into the streams.

*All alternatives* – The cumulative effects to soils includes the ongoing usage and maintenance of roads and trails that displace soils and have the potential to cause additional erosion and sedimentation. As the Breezy Hill trail and the 9-mile addition to the Livingston Complex are built in the future, there would be potential for more erosion and sedimentation, as well as increased compaction and rutting. Logging activities, prescribed burning, and fireline reconstruction are all ongoing activities that contribute to soil disturbance and the potential for soil impacts. Mitigation measures and practices would minimize or avoid soil impacts as much as possible.

## 3.4 Aquatic Habitat and Threatened, Endangered, Sensitive, and Conservation Species (TESC)

### 3.4.1 Affected Environment –

*Aquatic Habitat* – Roads contribute more sediment to streams than any other land management activity, but management and use of the land depend on roads. Trails have similar characteristics as the logging roads in that they are narrow and mostly native surfaces. The design, placement, and maintenance of these roads and trails reduce the sedimentation resulting from motorized use.

The Forest is characterized by numerous small intermittent streams (stream orders 1 through 3) with associated narrow level floodplains. Perennial streams (stream orders 4 and above) normally have well-sustained relatively constant flow during dry periods of the summer. The Forest has approximately 5,500 miles of stream channels – approximately 4,800 miles of stream order 1 through 3, and approximately 700 miles of stream orders 4 and above.

Forest Plan mitigation provides for road and trail drainage diversions that direct water flow to a stable forest floor that reduces erosion and disperses sediment before it reaches streams. Road and trail location and construction standards also contribute to reduced erosion and sediment production.

Water quality of nine streams on the Forest continues to be monitored quarterly in cooperation with the Louisiana Department of Environmental Quality. Almost all samples from these streams

have turbidity levels well below 25 NTU, which is the criterion for natural and scenic streams. (KNF M&E Report, 2006)

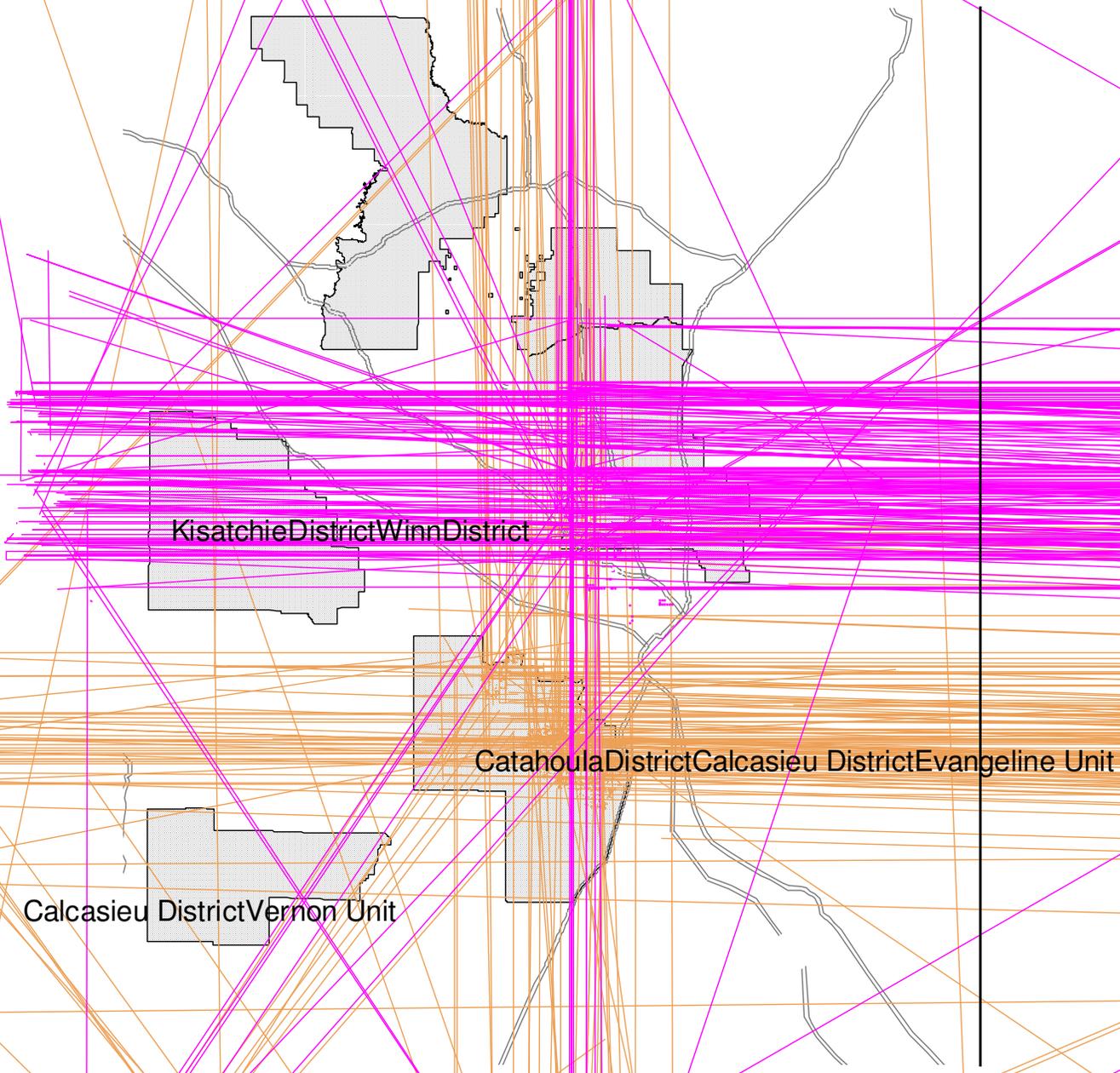
TESC - The Louisiana pearlshell mussel (LPM) (*Margaritifera hembeli*), a Federally-listed threatened species occurs in the Bayou Rigolette watershed on the Catahoula District and the Bayous Rapides and Boeuf watersheds on the Calcasieu District – Evangeline Unit. The streams and drainages where the threatened mussel exists include approximately 83,500 acres (14% of the total Forest) as shown on the map below.

The Calcasieu District is currently closed to off-route motorized travel (~45,300 acres of the LPM watershed) while the Catahoula District is mostly open to off-route motorized travel. There is a little over a mile of motorized trail within the Bayou Boeuf LPM watershed on the Calcasieu District; no other motorized trails, other than user-created, lie within the LPM watersheds.

There have been known direct kills of LPM caused from ATVs crossing streams in unauthorized locations. Sedimentation into the streams can be terminal to the LPM living in the locale of sedimentation.

U.S.D.I. Fish and Wildlife Service (Appendix O) concurs with the Biological Evaluation (Appendix H) determination that Alternatives 2, 3, 4, 5, Modified 5, and 6 would not likely adversely affect the Louisiana pearlshell mussel.

The LPM populations appear to be stable from recent surveys (KNF M&E Report, 2006).



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**Table 3-6. TESC aquatic species. (List derived from KNF EIS, 1999 and Regional Forester's Sensitive Species List dated August 7, 2001.)**

| AQUATIC WILDLIFE TESC  | TESC/Ranking <sup>(a)</sup> | HABITAT   | FOREST OCCURRENCE   | Considered and Analyzed in EA/BE |
|--|-----------------------------|---|---|----------------------------------|
| <b>Fish</b>  |                             |   |   |                                  |
| Western sand darter ( <i>Etheostoma clarum</i> )             | S/G3 S2                     | Large streams, slight-to moderate current over sandy bottom, also gravel or silt. May coexist with scaly sand darter, Ouachita darter, speckled chub or Sabine shiner | No Forest record. Known from Red River and Bayou Toro.  | No <sup>1</sup>                  |
| Blue sucker ( <i>Cycleptus elongatus</i> )                   | S/G3G4 S2S3                 | Large rivers and impoundments   | No Forest record. Known from Red River and Sabine River.  | No <sup>1</sup>                  |
| Bluehead shiner ( <i>Pteronotropis hubbsi</i> )              | S/G3 S2                     | Quiet backwater areas of small-to medium sluggish streams and oxbow lakes over mud or sand bottom   | No Forest record. Known record from Bayou Boeuf south of Evangeline Unit  | No <sup>1</sup>                  |
| Sabine shiner ( <i>Notropis sabiniae</i> )                   | S/G4 S4                     | Closely restricted to substrate of fine, silt-free sand in smaller streams and rivers with slight to moderate current   | Known from Kisatchie Bayou, Big Creek, Six Mile Creek and Whiskey Chitto drainages in the project area.             | Yes                              |
| Paddlefish ( <i>Polydon spathula</i> )                       | C/G4 S3                     | Large silty rivers, oxbow, and floodplain lakes   | No Forest Record. Known from Red River.   | No <sup>1</sup>                  |
| Bigscale logperch ( <i>Percina macrolepida</i> )             | C/G4 S1S2                   | Streams with moderate to swift current and with gravel raceways   | No Forest Record. Known from Sabine River.  | No <sup>1</sup>                  |
| <b>Mollusk</b>   |                             |   |   |                                  |
| Louisiana pearlshell mussel ( <i>Margaritifera hembeli</i> ) | Threatened                  | Small, clear, shallow streams with moderate current.  | Rigolette watershed, Bayous Boeuf and Rapides watersheds on the Forest  | Yes                              |
| Sandbank pocketbook ( <i>Lampsilis satura</i> )              | S/G2 S2                     | Usually sandy substrate in flowing water  | Rare in the Calcasieu drainage on the Vernon Unit   | Yes                              |
| Southern hickorynut ( <i>Obovaria jacksonian</i> )           | S/G1G2 S1S2                 | Large rivers with sand or gravel bottoms  | Known from Corney Bayou, Dugdemona River, Kisatchie Bayou, Calcasieu River, and numerous streams on the Vernon Unit | Yes                              |
| Louisiana pigtoe ( <i>Pleurobema riddellii</i> )             | S/G1G2 S1S2                 | Sand, sand and gravel, or sand and silt substrate in flowing water.   | Rare in the Calcasieu drainage on the Vernon Unit   | Yes                              |
| Texas heelsplitter ( <i>Potamilus amphichaenus</i> )         | S/G1 SH                     | Sand, sand and gravel, or sand and silt substrate in flowing water.   | No Forest record.   | No <sup>1</sup>                  |
| Southern creekmussel ( <i>Strophitus subvexus</i> )          | S/G3 S1                     | Predominantly sandy substrates in flowing water   | Uncommon in the Calcasieu drainage on the Vernon Unit.  | Yes                              |
| Texas pigtoe ( <i>Fusconaia askewi</i> )                     | S/G2 S3                     | Usually sandy substrate in flowing water.   | Known in the headwaters to the Sabine, Calcasieu, and Cane Rivers. Common   | Yes                              |
| Louisiana fatmucket ( <i>Lampsilis hydiana</i> )             | S/G3 S?                     | A variety of substrates in flowing water  | Common in creeks and streams in western Louisiana, possibly Grant Parish  | Yes                              |
| Squawfoot ( <i>Strophitus undulatus</i> )                    | C/G5 S2                     | Small-to-large streams with mud or gravel-mud bottoms in flowing water  | Known in Corney Bayou   | Yes                              |

**AQUATIC WILDLIFE TESC TESC/Ranking<sup>(a)</sup>**

**HABITAT**

**FOREST**

change to resource impacts from road traffic would be expected.

Closing some roads and designating some roads to be open seasonally would reduce motorized travel in the watersheds and lessen sedimentation into the streams.

Cumulative effects would be the same as Alternative 1.

### **LOUISIANA PEARLSHELL MUSSEL**

Alternatives 1 – Cross-country motorized travel would continue on 38,200 acres of the LPM watershed in the Catahoula District. Direct kill and sedimentation from off-route ATV riding would continue to occur. Indirectly, excess siltation into streams could suffocate and kill mussels.

Table 3-7 below indicates that a number of roads cross LPM streams. Bridges exist where roads cross Louisiana pearlshell mussel streams within close proximity of LPM beds, thereby mitigating potential sedimentation into the streams. These roads have existed for a long time and provide access through the Forest.

The widening of U.S. Hwy 167 in Grant Parish is currently ongoing and could potentially add sedimentation into some of the LPM streams. The potential sediment caused by the roadwork is currently being monitored, and efforts are being made to reduce sediment into streams.

An emergency closure order signed by the Forest Supervisor for the period April 12, 2006 through October 12, 2007 closed four separate areas in the LPM watershed in Grant Parish to off-road motorized travel. These areas were closed to reduce soil and water impacts caused by ATVs riding in streams and pipeline corridors. The prohibition of off-route travel in Alternatives 2, 3, 4, 5, Modified 5, and 6 would continue this closure.

Alternative 2 – The elimination of motorized cross-country travel across the entire Forest would reduce ATV riding through LPM mussel streams, thereby reducing streambank erosion and sedimentation and siltation into the streams.

The elimination of night-riding could potentially lessen soil rutting and erosion, but material changes would not be likely since this riding would be restricted to designated routes.

Restricting trail riding to designated routes would indirectly be expected to increase travel on the Forest's trail system. The increased travel would not be expected to impact the LPM because of the limited mileage (~1.1 miles) of motorized trails within the LPM watershed and the fact that these trails exist in the upper reaches of the drainages, approximately 1.4 miles from mussel bed locations. These trails are also located on soils characterized as suitable for motorized trails. (See map in Appendix L2.) (w)2(i)-2(t)-2(hi)-2(n t)-2(he)4( )-10(L)21(P)-4(M).8 TD (w)2(os)-1(i)-2(g)10(na)4(t)-12(e)4(d r)3(out)-2

*Alternative 3* – The effects would be the same as *Alternative 2* with the following addition. Closing more roads in the LPM watershed and reducing number of stream crossings (see Table 3-7 below) would reduce erosion and sedimentation from road use. Indirectly, the LPM habitat would be improved.

The proposed camping corridors are not in the LPM watershed and would have no impact.

Cumulative effects would be the same as *Alternative 1*

*Alternatives 4, 5, Modified 5, and 6* – The effects would be the same as *Alternative 3*. More roads would be closed in the LPM watershed in these alternatives (see Table 3-7 below), therefore, reducing erosion and sedimentation and indirectly improving the LPM habitat.

The number of designated roads crossing streams within the LPM watersheds would be the same in these alternatives (See Table 3-7 below). Bridges exist where roads cross Louisiana pearlshell mussel streams within close proximity of LPM beds, thereby mitigating potential sedimentation into the streams. These roads have existed for a long time and provide access through the Forest. See map in Appendix L1 and L2 for locations of road bridges and where roads cross LPM streams.

Whenever access is needed for timber harvesting, roads that provide access within close proximity to mussel beds would be avoided as well as any that would result in potential sedimentation. These determinations would be based on visual observations and past experience. Most of the roads that cross LPM streams

are in the upper reaches, a considerable distance from mussel beds, and any sedimentation is not expected to extend to the beds. Sedimentation into the LPM is monitored. If conditions change in the future, resolving problems of sedimentation would be addressed at that time.

Proposed changes to trails, additional trail spurs, camping corridors, big game retrieval corridors, and designated ATV roads would have no impact to the LPM because these motorized routes and corridors are not located in the LPM watersheds.

There are two recreation areas in the Bayou Rapides watershed on the Calcasieu District, Valentine Lake and Kincaid Lake. There are no mussel beds downstream from the Kincaid Lake Recreation Area; and therefore no cumulative effects to the LPM would be expected. The Valentine Lake Recreation Area is a little over a mile upstream from the closest mussel beds. The roads and parking lots have stabilized. Visual observations have indicated that no impacts from sedimentation are occurring. Therefore, no cumulative effects would be expected to extend to the LPM from the Valentine Recreation Area.

There could be some impacts occurring from private road use on lands adjacent to Forest Service land where LPM beds are located.

A summary of designated roads and stream crossings by soil suitability ratings within the LPM watershed for each alternative is displayed below and mapped for *Modified Alternative 5* in Appendix L1 and L2.

**Table 3-7. Route characteristics and soil ratings within the watersheds where Louisiana pearlshell mussels exist on the Kisatchie National Forest by alternative.**

| Route Characteristic                                      | Alt 1  | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Mod. Alt 5 | Alt 6 |
|---|--------|-------|-------|-------|-------|------------|-------|
| Acres of LPM watershed open to off-route motorized travel | 38,200 | 0     | 0     | 0     | 0     | 0          | 0     |
| Soils rated FAIR suitability for motorized use:           |        |       |       |       |       |            |       |
| Miles of FS roads designated open                         | 213    | 213   | 184   | 172   | 174   | 174        | 174   |
| Miles of Non-FS roads                                     | 90     | 90    | 90    | 90    | 90    | 90         | 90    |
| Stream crossings by FS roads designated open              | 123    | 123   | 69    | 59    | 59    | 59         | 59    |
| Stream crossings by Non-FS roads                          | 61     | 61    | 61    | 61    | 61    | 61         | 61    |
| Soils rated POOR suitability for motorized use:           |        |       |       |       |       |            |       |
| Miles of FS roads designated open                         | 16     | 16    | 13    | 10    | 10    | 10         | 10    |
| Miles of Non-FS roads                                     | 8      | 8     | 8     | 8     | 8     | 8          | 8     |
| Stream crossings by FS roads designated open              | 63     | 63    | 43    | 34    | 34    | 34         | 34    |
| Stream crossings by Non-FS roads                          | 31     | 31    | 31    | 31    | 31    | 31         | 31    |
| Number of FS bridges across LPM streams                   | 22     | 22    | 22    | 22    | 22    | 22         | 22    |
| Miles of FS roads closed to public travel                 | 41     | 41    | 73    | 88    | 86    | 86         | 86    |

<sup>a</sup> All mileages and numbers calculated from geographical information system.

***OTHER TESC – Mussels, Crawfish, Sabine shiner, and Schoolhouse Springs leuctran stonefly***

***Alternative 1*** – Direct effects to mussels and crawfish may occur at stream crossings where ATV riders ride off-route directly into the water to cross. Species, if present, would be driven over, crushed, and potentially killed. Indirectly, sediment and siltation could degrade the aquatic habitat for these species. Soil compaction and changes in forest floor hydrology may direct water down user-created trails washing more silt into streams. Compaction of soils at crossings may affect burrowing habitat.

Combined with other impacts such as timber harvesting, sedimentation, water pollution, and exotic species, cross-country motorized travel adds another threat to the existence and habitat of these species.

***Alternatives 2*** – Elimination of cross-country motorized use would reduce riding through streams and potential for direct kill, crushing, and generally habitat degradation. Indirectly, sedimentation

would be reduced and, thereby, improving habitat.

The elimination of night-riding could potentially lessen soil rutting and erosion, but material changes would not be likely since this riding would be restricted to designated routes.

Cumulative effects would be the same as Alternative 1.

***Alternative 3*** – Effects would be the same as Alternative 2 with the following addition. Reduced open road access would reduce disturbance, sedimentation, and potentially improve habitat. Additional camping corridors would have the potential to increase sedimentation.

***Alternative 4*** – Effects would be the same as Alternative 3 with the following addition. Closing the Livingston Trail January – March could reduce sedimentation.

***Alternative 5 and Modified Alternative 5*** – Effects would be the same as Alternative 3 with the following additions. ATV cross-country use in the big game retrieval corridors could increase sedimentation.

Since this use is usually limited to a 9-day season for the single use of big game retrieval, impacts would be minor. These corridors are located along ridges, out of streamside protection zones and riparian areas, which would also reduce potential sedimentation and likely impacts to the aquatic TESC species. Designating some roads for ATV use during deer season would not likely impact these species. The two designated trail spurs are limited in length and located on ridges; therefore, no soil or water impacts would be expected.

*Alternative 6* – Effects would be the same as Alternative 3 with the following additions. Closing 111 miles of designated trails January through March could help reduce sedimentation into the streams and, thereby, improving habitat.

## 3.5 Heritage Resources

### 3.5.1 Affected Environment –

Prehistoric and historic cultural resources are a nonrenewable resource protected by laws and regulations.

The National Historic Preservation Act of 1966 (NHPA) established the preservation of significant historic properties as a national policy and created a National Register of Historic Places (NRHP). Historic properties, including prehistoric and historic archeological sites, meeting criteria for listing in the NRHP may not be adversely affected by federal activities without consideration of mitigation alternatives. More specifically, Section 106 of the NHPA requires Federal agencies to take into account the effects of undertakings on properties included in or eligible for the NRHP. Any ground-disturbing activities can be defined as undertakings requiring the assessment of effects to sites eligible for or listed in the

NRHP (Anderson and Smith 2003).

Essential to compliance with this legislation is a heritage resource inventory to identify and evaluate properties within the area of a proposed undertaking or project. One designated trail spur proposed in Modified Alternative 5 completed Section 106 review. All other roads or trails designated in all alternatives are within existing road rights-of-ways and are excluded from Section 106 review.

### 3.5.2 Direct, Indirect, and Cumulative Effects to Heritage Resources –

*Alternative 1* – The popularity of ATV riding through the woods over the last 20 years has incrementally increased direct and indirect impacts to cultural resources. The continued development of unauthorized trails on parts of the Forest currently open to that use would increase the likelihood that more heritage sites could be damaged. Indirect impacts include the use of ATVs, or other cross-country riders, to access and then loot or destroy archaeological sites.

Cumulatively, “no action” could lessen the number and integrity of known and unknown sites and lead to potential site degradation.

*Alternative 2* – If motorized cross-country travel is restricted yearlong and night-riding is eliminated, and if these restrictions and prohibitions are successfully enforced, any new direct damage to heritage resources from motorized cross-country travel should be reduced and limited. There should be no increase in new user-created trails or roads that may damage sites.

Indirectly, prohibiting cross-country travel and night-riding could protect sites from vandalism where OHVs are used for

access. Diminished motorized access would reduce the likelihood of vandalism.

All past activities involving ground-disturbing activities have been surveyed prior to implementation and needed mitigation accomplished. Future activities involving ground-disturbing activities would be assessed and areas surveyed, determining mitigations needed prior to implementation. Therefore, no cumulative impacts to cultural resources would be expected.

*Alternative 3:* The direct and indirect effects of restricting motorized travel to roads and trails and prohibiting night-riding in this alternative would be the same as Alternative 2.

The 6 miles of camping corridors are in areas previously surveyed. All protected sites were excluded from the designated corridors; therefore, no impacts would be expected from the designated motorized use.

Reduced open road access could indirectly reduce vandalism and looting.

No cumulative effects would be expected, essentially the same as Alternative 2.

*Alternative 4* – The direct and indirect effects of restricting motorized travel to roads and trails and prohibiting night-riding in this alternative would be the same as Alternative 2.

The 6 miles of camping corridors are in areas previously surveyed. All protected sites were excluded from the designated corridors; therefore, no impacts would be expected from the designated motorized use.

Reduced open road access could indirectly reduce vandalism, looting, and direct site destruction.

No cumulative effects would be expected, essentially the same as Alternative 2.

*Alternative 5* – ATV travel for the single use of big game retrieval should not, in most cases, affect the cultural resources. No known sites exist in these corridors needing protection, and therefore, impacts would not be expected.

Restricting use seasonally would not provide any additional protection from direct or cumulative effects of motorized use on trails and roads based on previous surveys. Indirectly, reduced access would reduce looting and potential degradation.

Effects of restricted motorized use, prohibition of night-riding, camping corridors, and closed routes would essentially be the same as Alternative 3.

*Modified Alternative 5* – ATV travel for the single use of big game retrieval should not, in most cases, affect the cultural resources. No known sites exist in these corridors needing protection, and therefore, impacts would not be expected.

One of the trail spurs requires Section 106 review. The other trail spur is located on an existing roadbed not requiring Section 106 review.

Restricting use seasonally would not provide any additional protection from direct or cumulative effects of motorized use on trails and roads based on previous surveys. Indirectly, reduced access would reduce looting and potential degradation.

Effects of restricted motorized use, prohibition of night-riding, camping corridors, and closed routes would essentially be the same as Alternative 3.

*Alternative 6* – Changing use on roads from highway-legal vehicles to ATVs and closing trails seasonally would not provide any additional protection from direct, indirect, or cumulative effects to cultural resources. There may be more chance of

travelers illegally riding off-trail that could indirectly damage sites.

All other effects are the same as Alternative 4.

## **3.6 Terrestrial Wildlife and TESC Species**

### **3.6.1 Affected Environment –**

The Forest provides a variety of wildlife habitats typical of the West Gulf Coastal Plain. Landscape-scale forest communities include open, parklike longleaf pine forests on drier uplands, mixtures of pines and hardwoods on moist uplands and sideslopes, and riparian forests along many perennial and intermittent streams.

*TESC (Threatened, Endangered, Sensitive, and Conservation species)* – The native

ecosystems that exist on the Forest provide various habitat needs of rare wildlife species that are being monitored and managed on the Forest.

The terrestrial wildlife species listed as endangered, threatened, sensitive, or conservation on the Kisatchie National Forest are listed in Table 3-8. Habitat and occurrence are indicated on the list. Table 3-8 also shows species considered in the EA or Biological Evaluation (Appendix H) but not analyzed further because they do not occur on the Forest and/or their range lies outside national forest land.

U.S.D.I. Fish and Wildlife Service (Appendix O) concurs with the Biological Evaluation (Appendix H) determination that Alternatives 2, 3, 4, 5, Modified 5, and 6 would not likely adversely affect the Red-cockaded woodpecker.

**Table 3-8. TESC terrestrial wildlife species. (List derived from KNF EIS, 1999 and Regional Forester's Sensitive Species List dated August 2001.)**

| TERRESTRIAL WILDLIFE TESC                                      | TESC/Ranking <sup>(a)</sup>                             | HABITAT   | FOREST OCCURRENCE  | Considered and Analyzed in EA/BE |
|--|---|---|--|----------------------------------|
| <b>Birds</b>   |   |   |  |                                  |
| Bald Eagle ( <i>Haliaeetus leucocephalus</i> )                 | Sensitive (removed from threatened list August 8, 2007) | Near large bodies of water  | Nest on Evangeline and Corney Units; scattered sightings   | Yes                              |
| Red-cockaded Woodpecker ( <i>Picoides borealis</i> )           | Endangered  | Mature southern pine forests with old trees   | Active cluster sites on all Districts except the Caney   | Yes                              |
| Bachman's Sparrow ( <i>Aimophila aestivalis</i> )              | S/G3S3  | Open pine woods, old brush fields, cutover areas, especially open longleaf pine forests | More abundant on Calcasieu District – more open longleaf pine habitat  | Yes                              |
| Cooper's Hawk ( <i>Accipiter cooperii</i> )                    | C/G5 S2B S3N  | Mature open coniferous, mixed, or deciduous forest                                      | Rare permanent resident.   | Yes                              |
| Worm-eating Warbler ( <i>Helminthos vermivorus</i> )           | C/G5 S4B  | Wooded hillsides; damp, rich woods  | Rare summer resident.  | Yes                              |
| Louisiana Waterthrush ( <i>Seiurus motacilla</i> )             | C/G5 S3S4B  | Deciduous and mixed woods near flowing streams; favors rocky streams                    | Rare summer resident.  | Yes                              |
| White-breasted Nuthatch ( <i>Sitta carolinensis</i> )          | C/G5S2  | Open mature deciduous and mixed forests   | Rare permanent resident on the Caney   | Yes                              |
| Warbling Vireo ( <i>Vireo gilvus</i> )                         | C/G5 S1B  | Open mature hardwoods along rivers and large streams                                    | Rare summer resident.  | Yes                              |
| <b>Mammals</b>   |   |   |  |                                  |
| Louisiana black bear ( <i>Ursus americanus leteolus</i> )      | Threatened  | Forests and swamps  | Occasional sightings. No resident populations.   | Yes                              |
| Rafinesque's big-eared bat ( <i>Corynorhinus rafinesquii</i> ) | S/G3G4 S3S4   | Limestone caves, bridges, large hollow dying trees by streams                           | Known roost sights on the Vernon Unit; encountered other areas   | Yes                              |
| Southeastern myotis ( <i>Myotis austroriparius</i> )           | S/  | Caves or human habitations and structures   | Known roost sights on the Evangeline Unit  | Yes                              |
| Big brown bat ( <i>Eptesicus fuscus</i> )                      | C/G5 S3S4   | Varied; cities to wilderness  | One known roost site on the Evangeline Unit  | Yes                              |
| Long-tailed weasel ( <i>Mustela frenata</i> )                  | C/G5 S2S4   | Forested areas  | Rare, local resident   | Yes                              |
| Hispid pocket mouse ( <i>Chaetodipus hispidus</i> )            | C/G5 S2   | Grassy areas with sandy soil  | Rare, permanent resident   | Yes                              |
| <b>Reptiles</b>  |   |   |  |                                  |
| American alligator ( <i>Alligator mississippiensis</i> )       | Threatened  | Usually near water, ponds, swamps and rivers  | For law enforcement purposes, alligators are classified as "Threatened due to similarity of appearance," but are not biologically threatened. Louisiana law permits a regulated harvest. | No                               |
| Louisiana pinesnake ( <i>Pituophis melanoleucus ruthveni</i> ) | S/G3Q S2S3  | Dry, sandy pinewoods  | Rare permanent resident.   | Yes                              |

## **VEHICLE IMPACTS ON WILDLIFE**

***Birds*** - Rich et al. (1994) studied the influence of unpaved roads (26 ft wide), paved roads (52 ft wide), and powerlines (75 ft wide) on forest-nesting birds in New Jersey. Forest-interior species of neotropical migrants had significantly reduced relative abundances on edge transects along 52- and 75-foot corridors, compared with 26-foot corridors and with forest interior points. Corridor widths as narrow as 26 feet produce forest fragmentation effects in part by attracting cowbirds and nest predators to corridors and adjacent forest interiors. The study implies that narrow forest-dividing corridors may function as ecological traps for forest-interior neotropical migrants. The authors suggest that these widespread corridors may be inconspicuous but important contributors to declines of forest-interior nesting species in eastern North America.

Gates and Gysel (1978) suggest that passerines are attracted to the vegetative diversity of edge habitats but experience greater predator activity at the edge (ecological-trap).

Miller et al. (1998) studied the influence of recreational trails on breeding bird communities in forest and mixed-grass prairie ecosystems in Colorado. Trail width was 4 ft. Recreational activities included hiking, wildlife viewing, exercising pets, jogging, mountain biking, and horseback riding. Bird species composition was altered adjacent to trails in both ecosystems. Generalist species were more abundant near trails, whereas specialist species were less common. Within both ecosystems, nest predation was greater near trails. For the majority of species found in reduced numbers near trails, the zone of influence of trails

appears to be ~246 ft, however, Townsend's Solitaires appear even more sensitive to trails; they exhibited reduced numbers as far as 328 ft. Gutzwiller et al. (1994) reported that even a single pedestrian moving through a bird's territory was sufficient to reduce the occurrence and consistency of primary song. Hickman (1990) and Rich et al. (1994) found that avian nest predators were attracted to narrow, open corridors. Therefore, fewer nests near trails may be, in part, a result of greater rates of nest predation and human disturbance in these areas.

Bosakowski et al. (1992) studied nest sites and habitat selected by **Cooper's Hawks** (*Accipiter cooperii*) in New Jersey. Nest sites were not significantly further from roads than random sites. Five nests were located within 121-328 ft of paved roads suggesting that nesting Cooper's Hawks can be tolerant to car traffic and require only a very short buffer distance. However, most nests occurred in deeper forests indicated by the average distances that nest sites were located from paved roads and human habitation, 1,677 ft and 2,254 ft respectively.

***Mammals*** - Swihart and Slade (1984) studied road crossings of prairie voles (*Microtus ochrogaster*) and cotton rats (*Sigmodon hispidus*) of narrow dirt roads (10-13 ft wide). Traffic on the road was light (10-20 vehicles/day) and consisted primarily of research vehicles. The road functioned in an inhibitory manner as only 6 percent of the cotton rats crossed the road and 1 percent of the prairie voles.

***Reptiles*** - Rudolph et al. (1999) evaluated the impact of roads and associated vehicular traffic on snake populations in eastern Texas. Results suggest that populations of large snake species are reduced by 50% or more to a distance of

1,476 ft from roads with moderate use. The effect observed was due to direct mortality on larger snakes, rather than an indirect impact on the prey base of snake populations.

Species exhibiting low reproductive rates and low adult mortality are often identified as being particularly vulnerable to population consequences of road associated mortality. Road mortality of snakes has been identified as constituting a “sink” for local populations. In eastern Texas, road mortality has been suggested as the primary factor in the local extirpation of timber rattlesnake populations and a significant cause of mortality in the Louisiana pine snake (*Pituophis ruthveni*). (Rudolph et al. 1998)

The combined data for other vertebrate species suggests that roads and associated vehicular traffic are not having a significant impact on populations of these other species. However, these data are numerically dominated by rodents, anurans (frogs and toads) and lizards, species characterized by short generation time, rapid recruitment, and small home ranges compared to large snakes. (Rudolph et al. 1999)

***Amphibians*** – Fahrig et al. (1995) studied the effect of road traffic on amphibian density. Findings indicate that traffic mortality has a significant negative effect on the local density of anurans (frogs and toads).

### **3.6.2 Direct, Indirect, and Cumulative Effects to Terrestrial Wildlife and TESC Species –**

#### ***WILDLIFE***

***Alternative 1*** – The existing on- and off-route travel would continue to impact

wildlife at some level. The direct effect of disturbance, habitat destruction and loss, fragmentation, direct kill, and edge effects indirectly cause displacement, avoidance, predation, and abandonment. Human disturbance can cause physiological stress on an animal that can reduce an animal’s well-being. Off-route travel that is less patterned and less expected may be more relatively disruptive than road traffic that is expected. The section above, *Vehicles Effect on Wildlife*, discusses some scientific studies of these impacts.

Cumulatively, hunting and other recreational uses in the woods would add to the vehicular impacts to wildlife.

***Alternative 2*** – The prohibition of motorized cross-country travel would reduce disturbance, habitat loss, and fragmentation which would reduce impacts to wildlife. Direct effects of a vehicle running over an animal, resulting in crushing and killing would be reduced. User-created trails would be allowed to naturalize, reducing fragmentation.

Elimination of night-riding would reduce disturbance at night when many animals are foraging and moving around in the woods.

Cumulative effects would be the same as Alternative 1.

***Alternative 3*** – Effects to wildlife would be the same as Alternative 2 with the following addition. The closure of 414 miles of logging roads would reduce the disturbance and direct kill and indirectly reduce avoidance and displacement. The additional camping corridors would not materially affect wildlife since the habitat is already disrupted by the adjacent road.

***Alternative 4*** – The effects to wildlife would be the same as Alternative 3.

*Alternative 5 and Modified Alternative 5 –*

The effects to wildlife would be the same as Alternative 3 with the following additions. Allowing off-route ATV use in the big game retrieval corridors could increase disturbance, stress, and disrupt the animal's home range. Changing route designations to ATVs would not impact wildlife more or less – disturbance would occur regardless of the type of vehicle. Changing more roads to seasonal use during October through January from open year-round would result in less nesting and rearing disturbance during the summer months. The added trail spurs in Modified Alternative 5 would not likely change the impacts as the routes are short and are currently being traveled.

*Alternative 6* – The effects to wildlife would be the same as Alternative 3. Closing 188 miles of roads would reduce disturbance. Changed route designations to ATVs would not impact wildlife any differently than a highway-legal vehicle.

***TESC (see Appendix H. Biological Evaluation)***

**Birds - Red-cockaded Woodpecker (RCW), Bald Eagle, Bachman's Sparrow, Cooper's Hawk, Worm-eating Warbler, Louisiana Waterthrush, White-breasted Nuthatch, Warbling Vireo**

*Alternative 1* – The increasing popularity of recreational riding in addition to the growing size of vehicles would disturb and potentially displace TESC birds. Indirectly, damage to the habitat and foraging could result. On- and off-road motorized use could disturb birds during nesting season, causing reduced survival of young and possible impact to the population. User-created trails through RCW clusters, close to cavity trees, and through the woods not only disturb the species but degrade foraging habitat.

One **Bald Eagle** nest site on the Forest is within 100 ft of a hiking trail on the Calcasieu District-Evangeline Unit. The eagles have nested repeatedly through the years and continue to do so, indicating a tolerance of human activity. The road closest to the nest site (approximately ¼ mile away) is open seasonally from April thru September. The Bald Eagle nest on the Caney District is relatively isolated from roads and OHV use. Since existing conditions would not change with the actions proposed in the alternatives, no impacts would likely occur to the Bald Eagle population on the Forest.

The Forest sensitive **Bachman's sparrow** may be impacted from route use through the elimination of food, cover, and nesting habitat. The Wildlife Management Indicator Species (MIS) Population and Habitat Trends (Wagner et.al. 2005) indicates that abundance of the Bachman's sparrow seems to have stabilized within the past few years, inferring improved habitat through management activities of prescribed burning and midstory control and in the long-term longleaf pine restoration.

There are four other Forest conservation species, Worm-eating warbler, Louisiana waterthrush, White-breasted nuthatch, and Warbling vireo. Impacts would be similar as already mentioned; reduced motorized access would potentially benefit these bird species.

Other human disturbance occurring on the Forest, whether recreational or managerial, could add to the disturbance and loss of suitable habitat. Ongoing prescribed burning and timber harvest may disturb and displace wildlife for a short period of time that is compensated by long-term improved habitat.

Adjacent timber or military land along parts of the national forest boundary could

add some suitable habitat. Urban encroachment could reduce the habitat.

Alternative 2 – Elimination of cross-country motorized travel would reduce the disturbance to and potential displacement of the TESC bird species, thereby improving habitat conditions. Elimination of night-riding would reduce roosting disturbance.

Alternative 3 – The effects would be the same as Alternative 2 with the following additions. Additional camping corridors on the Caney District would not impact the RCW because there are no RCW on this District. Other bird species could be disturbed. Closing 414 miles of logging roads would reduce disturbance to and potential displacement of the TESC bird species, thereby improving habitat conditions.

Alternative 4 – The effects to TESC bird species would be the same as Alternative 3.

Alternative 5 – The effects to TESC bird species would be the same as Alternative 3 with the following additions. Off-route ATV use in the big game retrieval corridors could increase human disturbance to the RCW and other bird species.

Modified Alternative 5 – The effects to TESC bird species would be the same as Alternative 5. The added trail spurs would not likely impact the RCW or other bird species. The trail spurs are limited in length – one is about 70 feet in length and the other is located on an existing roadbed.

Alternative 6 – The effects to TESC birds would be the same as Alternative 3 with the following additions. Changed route designations to ATV use during deer season would cause disturbance in the same way as highway-legal vehicles. Trail closures January – March could reduce

disturbance to the TESC birds as they are beginning to nest.

### **Louisiana black bear**

All alternatives – The Louisiana black bear is not known to be impacted by roads and associated vehicular traffic other than potential disturbance or when run over by a vehicle. Since there are no known resident bears on the Forest, no impacts would be expected.

### **Rafinesque’s big-eared bat, Southeastern myotis, and Big brown bat**

Alternative 1 – The nocturnal activity patterns and aerial foraging methods indicates that OHV travel would not impact the bats very much. The night-riding could disturb their foraging. Riding close to roost site could be disturbing, especially during reproduction.

There are no known cumulative effects.

Alternatives 2, 3, 4, 5, Modified 5, and 6 – Elimination of motorized cross-country travel and night-riding would reduce human disturbance to these nocturnal creatures. Closing more roads, year-round or seasonally, would also reduce disturbance and improve habitat conditions. The limited length of the additional trail spurs would likely have very little impact.

There are no known cumulative effects.

### **Long-tailed weasel and Hispid pocket mouse**

Alternative 1 - The long-tailed weasel and Hispid pocket mouse response to vehicular traffic would probably be similar to other small mammals of displacement and disturbance and potential direct kill.

Alternatives 2, 3, 4, 5, Modified 5, and 6 – Elimination of cross-country travel and night-riding would reduce disturbance and direct kill. Reduced open roads and

seasonal closures would reduce human disturbance to these species. The limited length of the additional trail spurs would likely have very little impact.

### **Louisiana pine snake (LPS)**

*Alternative 1* – These snakes are not necessarily evasive in response to human activity; thereby making them more susceptible to disturbance and impact (phone conversation with Craig Rudolph).

The low reproductive rate of the LPS increases their potential for local extirpations because of their inability to quickly recover from events that could affect population size, such as vehicle mortality.

The Louisiana pine snake could be impacted from motorized use, both on- and off-route, primarily due to degradation of habitat for the associated pocket gopher and by direct kill of individual snakes.

There are 539 miles of Forest Service designated roads and 61 miles of system trails within the LPS habitat on the Forest. The trails are located on the Kisatchie District and the Vernon Unit of the Calcasieu District. LPS sightings have occurred within close proximity of the trails on the Kisatchie District. (See map in Appendix M.)

*Alternative 2* - The elimination of off-route travel would be beneficial to the desired gopher habitat and to the Louisiana pine snake itself. The potential gopher burrow damage from compaction resulting from cross-country vehicle travel would be eliminated, which is important since the LPS spends the majority of its time below-ground in pocket gopher burrow systems (Ealy 1998; Himes 1998; Rudolph et al. 1998).

The diurnal LPS could benefit from reduced nighttime travel resulting from the elimination of night riding.

*Alternatives 3 and 4* – The effects would be the same as Alternative 2 with the following additions. Closing an additional 100 miles (See table below) in Alternative 3 and 96 miles Alternative 4 of logging roads in the LPS habitat would reduce the disturbance to the LPS and the associated pocket gopher. The likelihood of direct-kill would be lessened from reduced road travel.

The additional dispersed camping corridors on the Caney District would not likely have any impact. There are no known sightings of the LPS on the Caney District and no LPS habitat has been identified within the District. There have been a number of LPS sightings in Bienville Parish, just to the south of the District; implying the possibility of LPS occurring on the Caney District.

*Alternatives 5, Modified 5, and 6* – The effects would be the same as Alternatives 2 and 3 with the following additions. Travel in big game retrieval corridors in Alternatives 5 and Modified 5 would occur in the winter when wildlife movements are less, especially the Louisiana pine snake. There is no LPS habitat identified in the designated big game retrieval corridors; therefore, no impact would be expected.

Closing an additional 46 miles of logging roads in the LPS habitat in Alternatives 5 and 6 and 55 miles in Modified Alternative 5 would reduce disturbance to habitat and reduce direct-kill as a result of reduced motorized travel.

One of the trail spurs added in Modified Alternative 5 lies within the LPS habitat on the Calcasieu District, Vernon Unit. This trail spur is located on an old

roadbed. No gopher mounds were observed in the area, and no impacts would be expected.

**Table 3-9. Miles of open motorized routes within the Louisiana pine snake habitat on Kisatchie National Forest by alternative.**

| Types of Routes                               | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Mod.<br>Alt 5 | Alt 6 |
|---|-------|-------|-------|-------|-------|---------------|-------|
| Forest Service jurisdiction (miles):          |       |       |       |       |       |               |       |
| Roads open year-round or seasonally           | 539   | 539   | 439   | 443   | 493   | 484           | 493   |
| Motorized trails                              | 61    | 61    | 61    | 61    | 61    | 61            | 61    |
| Non-Forest Service jurisdiction roads (miles) | 149   | 149   | 149   | 149   | 149   | 149           | 149   |

<sup>a</sup> All mileages calculated from geographical information system.

### Louisiana slimy salamander and Southern red-backed salamander

*Alternative 1* – The Forest sensitive Louisiana slimy salamander and Forest conservation southern red-backed salamander would be susceptible to road mortality and displacement.

*Alternatives 2, 3, 4, 5, Modified 5, and 6* – Elimination of motorized cross-country travel, reduced open roads, elimination of night-riding, and seasonal closures would be expected to reduce the susceptibility to road mortality and displacement. The limited length of the additional trail spurs would likely have very little impact.

### Demand species – White-tailed deer, Northern Bobwhite Quail, Gray squirrel, Wild Turkey, Eastern fox squirrel:

*Deer* - Rost and Bailey (1979) studied the distribution of mule deer and elk in relation to roads and found that deer and elk avoid roads, particularly areas within 656 ft of a road. Deer avoided even dirt roads that were used only by 4-wheeled drive vehicles, trail bikes, and hikers.

Studies of white-tailed deer (*O. virginianus*) to vehicles (Behrend and Lubeck 1968) suggested that un hunted populations are more apt to habituate to road related disturbances than are hunted populations.

Wisdom et al. (2004) studied effects of off-road recreation (ATV, mountain biking, hiking and horseback riding) on mule deer and elk in Oregon. This study suggests that mule deer respond by seeking dense cover, rather than running from the activity.

*Wild Turkey* – Wright and Speake (1975) studied the compatibility of the Eastern Wild Turkey with recreational activities. The study found that turkeys did not frequent a heavily used off-road vehicle area, and that foot trail traffic had an adverse effect on the use of area by turkeys. Turkeys were not found to inhabit any area closer than 1 km (0.6 mi) to campgrounds in the summer, and there was some loss of turkeys to poaching.

Bailey and Rinell (1968) concluded that in West Virginia thriving turkey populations did not exist where roads open to the public exceeded 6 km/1000 ha (1 mi/mi<sup>2</sup>).

*Northern Bobwhite Quail and Fox and Gray Squirrel* – Reduced open roads and the elimination of off-route travel would be beneficial to these species' habitat and to the species themselves.

*Alternative 1* – Continued unrestricted use on 51 percent of the Forest would allow cross-country OHV riders to disturb and disrupt the wildlife and fragment wildlife habitat while 49 percent of the Forest

would restrict motorized use to designated routes.

*Alternatives 2, 3, 4, 5, Modified 5, and 6* – The elimination of motorized cross-country travel and night-riding would reduce wildlife disturbance and potential direct kill. The limited length of the additional trail spurs would likely have very little impact.

*Alternatives 3 and 4* – The reduction in open road density would lessen wildlife disturbance, disruption of movement patterns, fragmentation, and potential direct kill. Reduced open roads could lower poaching on the Forest.

*Alternatives 3, 4, 5, and 6* – The designation of 100-foot camping corridors along approximately 6 miles of roads on the Caney District would not likely impact the wildlife disturbance patterns. These corridors are along existing roads where hunters and others have camped in the past. Designating these corridors would not likely increase the usage in the area, and therefore the wildlife disturbance would not change.

*Alternatives 5 and Modified 5* – Travel in big game retrieval corridors would occur in the winter when wildlife movement is less. One-time big game retrieval would be expected to have little impact to wildlife species because the use is limited both spatially and temporally.

*Alternatives 5, Modified 5, and 6* – Changing some road designations from highway-legal vehicles year-round to ATVs during October through January would provide more areas with less motorized disturbance during nesting season. Winter is the least active time of year, thereby designating motorized use during this time of year would reduce disturbance to wildlife.

## 3.7 Management Indicator Species (MIS) – Flora and Fauna

### 3.7.1 Affected Environment –

Generally, MIS are selected in part to help ensure that viable populations of plant and animal species are maintained in planning areas and because their population changes are believed to indicate the effects of management activities (Plan p. 5-5). The following table shows the wildlife (with trend data), plant, and aquatic MIS by community type.

**Table 3-10. Management indicator species for wildlife, plant, and aquatic species by community type.**

| Landscape Community                          | Wildlife MIS   | KNF Trend 1998-2003 <sup>(a)</sup> |                                | Plant MIS  | Aquatic MIS  |
|--|--|------------------------------------|--------------------------------|--|--|
|  |  | Mid-term                           | Short-term                     |  |  |
| Longleaf Pine (134,000 acres)                | Bachman’s Sparrow<br>Northern Bobwhite Quail<br>Prairie Warbler<br>Red-cockaded Woodpecker<br>Red-headed Woodpecker            | -<br>-<br>NA<br>-<br>=             | ==<br>==<br>-<br>-<br>==       | Longleaf pine<br>Noseburn<br>Pinehill bluestem<br>Pale purple coneflower   |  |
| Shortleaf Pine/oak-Hickory (18,000 acres)    | Prairie Warbler<br>Cooper’s Hawk<br>Eastern Wood-Pewee<br>Pileated Woodpecker<br>Red-cockaded Woodpecker<br>Summer Tanager     | NA<br>NA<br>==<br>==<br>-<br>==    | -<br>NA<br>-<br>+<br>-<br>==   | Black hickory<br>Flowering dogwood<br>Mockernut hickory<br>Partridge pea<br>Shortleaf pine<br>White oak<br>Wild bergamot                   |  |
| Mixed Hardwood-Loblolly Pine (376,000 acres) | White-eyed Vireo<br>Hooded Warbler<br>Pileated Woodpecker<br>Red-cockaded Woodpecker<br>Wood Thrush<br>Yellow-billed Cuckoo    | ==<br>==<br>==<br>-<br>-<br>+      | ==<br>==<br>+<br>-<br>==<br>== | Bigleaf snowbell<br>Black snake-root<br>Christmas fern<br>Loblolly pine<br>Partridge berry<br>Southern red oak<br>Virginia Dutchman’s pipe |  |
| Riparian – small stream (30,000 acres)       | Acadian Flycatcher<br>Louisiana Waterthrush<br>White-eyed Vireo<br>Yellow-billed Cuckoo  | ==<br>NA<br>==<br>+                | ==<br>NA<br>==<br>==           | American beech<br>Basswood<br>Cherrybark oak<br>Inland sea-oats<br>Ironwood<br>Mayapple<br>Wild azalea                                     | Slow-flowing:<br>Pirate perch<br>Blackspotted topminnow<br><br>Impoundments and ponds:<br>Largemouth bass<br>Sunfish |
| Riparian – large stream (40,000 acres)       | Kentucky Warbler<br>Northern Parula<br>Pileated Woodpecker<br>Warbling Vireo<br>White-breasted Nuthatch<br>Worm-eating Warbler | ==<br>==<br>==<br>NA<br>NA<br>NA   | +<br>==<br>+<br>NA<br>NA<br>== | Green hawthorn<br>Inland sea-oats<br>Lizard’s tail<br>Louisiana sedge<br>Southern magnolia<br>Swamp chestnut oak                           | Swift-flowing:<br>Brown madtom<br>Redfin darter<br>Louisiana pearlshell mussel                                       |

<sup>(a)</sup> *Wildlife Management Indicator Species Population and Habitat Trend*, Wagner et al. 2005. “+” indicates a statistically significant increasing trend, “-” a statistically significant decreasing trend, “==” a statistically significant trend was not detected; “=” a statistically significant trend was not detected and the species was observed on <5% of points; and “NA” indicates data insufficient to calculate trend estimate (statistical significance set at alpha <0.10). Statewide trends and Upper Coastal Plain trends can be found in Wagner’s MIS Report pp. 74.

### 3.7.2 Direct, Indirect, and Cumulative Effects to Management Indicator Species – Flora and Fauna –

*Alternative 1* – Cross-country vehicle travel would continue on 51 percent of the national forest. Travel on roads and trails would not change. The current level of

impact from motorized cross-country travel would continue with this alternative. The direct and indirect effects to MIS species include direct crushing of individuals, habitat modification through vegetation and soil disturbance, abandonment of disturbed areas in favor of undisturbed sites, behavioral alterations affecting mating, feeding and predator avoidance, and nest abandonment.

Effects to MIS, wildlife, vegetation and aquatic species, would not change in this alternative, but the current motorized cross-country travel does have adverse impacts on all MIS species.

*Alternatives 2, 3, 4, 5, and 6* – The elimination of off route travel forestwide in these alternatives would be beneficial to all MIS species. The potential disturbance, displacement, and/or direct kill to wildlife, plant, and aquatic MIS species from vehicular use would be reduced. Designating trails and roads for type and dates of use would improve the management and monitoring capabilities of resource impacts and eliminate the effects of cross-country motorized travel. Stream crossings by free-riding ATVs would be prohibited, thereby reducing impacts to aquatic species.

*Alternatives 3 and 4* – The reduction in open road density in these alternatives would benefit wildlife, plant, and aquatic MIS by lessening disturbance, disruption of movement patterns, fragmentation, and potential direct kill.

*Alternatives 3, 4, 5, Modified 5, and 6* – The designation of 100-foot camping corridors along approximately 6 miles of roads on the Caney District could remove and/or change the behavior of the wildlife and plant MIS in that particular location, but adverse impacts to the population would not be likely. These areas are used now by hunters and fishermen; designating the areas for camping would not significantly change the current impacts. Compliance with Forest Plan streamside protection zone standards and guidelines would mitigate the aquatic species from any adverse impacts.

*Alternatives 5 and Modified 5* – The big game retrieval corridors in this alternative would be subject to damage caused from cross-country ATV use to retrieve big

game. The limited use with a low-psi vehicle in areas suitable for game retrieval with an ATV would only occur when big game would be killed. Deer hunting is currently limited to 9 days in the NWMP. Because of these limitations, no impacts would likely adversely affect the MIS species on the Forest.

The limited length of the additional trail spurs in Modified Alternative 5 would not likely adversely affect the MIS species.

Changing 66 miles of motorcycle trails from closed January through March to open year-round could add to the disturbance of MIS species during the winter. Change in disturbance would be expected to be slight since this would be an established trail.

*Alternatives 5, Modified 5, and 6* – Changing motorized use from highway-legal vehicles year-round to ATVs during October through January on some roads in the Forest would lessen the disturbance to wildlife MIS during nesting and rearing season. The lighter footprint of the ATV would lessen impacts to plant MIS. Potentially less soil disturbance resulting from a low-psi vehicle could be beneficial to aquatic MIS.

*Alternative 6* – Changing 162 miles of motorized trails from open year-round to closed January through March could lessen the disturbance of MIS species during the winter. Since the trail would be used the rest of the year, avoidance and loss of habitat in the trail footprint would continue.

More information is available about the Louisiana pearlshell mussel and aquatic habitat in §3.4 Aquatic Habitat and TESC Species.

*All alternatives* - Other actions on the Forest that could add to the cumulative effect of the project alternatives are the

ongoing timber harvesting and prescribed burning. Though both of these activities can temporarily disrupt the plant community and wildlife habitat, both of the activities improve the health and vigor of the natural environment and are very beneficial in the long-run. The 4-laning of U.S. Highways 165 and 167 will remove some vegetation, but adverse effects would not be likely; and in addition, there have been plant rescue efforts in the expansion corridors that alleviate some loss. There are no known activities when added to the project actions that would cumulatively increase the impact to the plant and animal MIS communities on the Forest.

### 3.8 Vegetation and TESC Species

#### 3.8.1 Affected Environment –

The four major landscape communities comprising the Kisatchie National Forest include longleaf pine, shortleaf pine/oak-hickory, mixed hardwood-loblolly pine, and riparian. Embedded within these four major landscape communities are small-scale, inclusional plant communities that include hillside bogs, cypress swamps, sandy woodlands, or calcareous prairies. Also within these four major community types, old-growth communities have been tentatively identified based on their existing forest cover type.

*TESC (Threatened, Endangered, Sensitive, and Conservation species)* – No Federally-listed endangered plant occurs on the Forest. One threatened plant, 23 sensitive plants, and 61 conservation plants occur and are tracked on the Forest (See Appendix K for complete list). Sensitive species are rare range wide, while conservation species are rare in Louisiana but may be common in other states.

Threatened, sensitive and conservation plant species occur in a variety of Forest habitats. A generalized habitat breakdown follows:

- Sandy woodlands – 16 species
- Mesic slopes and bottomland forests – 16 species
- Hillside bogs, longleaf pine flatwood savannahs, bayhead swamps and baygalls – 15 species
- Calcareous prairies – 11 species
- Upland longleaf pine forests – 8 species
- Limestone outcrops (historic site) – 4 species
- Sandstone glades and barrens – 4 species
- Calcareous forest streamsides – 2 species
- Other habitats – 10 species

The Botanical Evaluation of the threatened and sensitive species prepared by the Forest Botanist is attached in Appendix J.

#### 3.8.2 Direct, Indirect, and Cumulative Effects to Vegetation and TESC Species –

*Management Concerns:* Motorized use has the potential to impact threatened and sensitive species, impact natural communities, and spread invasive species.

*All Alternatives* – Outside of the two designated trail spurs, there are no additional system roads or trails proposed in the project alternatives; therefore, impacts would be limited to changes in vehicle designations, changes in seasons of use, and the addition of big game retrieval and dispersed camping corridors.

*Alternative 1* – In this no action alternative, motorized travel would not change. Cross-country travel would continue on approximately 51 percent of the Forest. Popular areas would continue to be denuded by recreational riders. Indirectly, these denuded areas also contribute to loss of wildlife habitat and increased erosion.

*Alternatives 2, 3, 4, 5, Modified 5, and 6* – Prohibiting cross-country motorized travel would benefit all plant communities on the Forest. The elimination of motorized off-route travel in these alternatives would allow riding areas that have become denuded to naturally restore themselves. The restriction of motor vehicles to designated routes would greatly reduce or eliminate direct crushing, trampling, or destruction of plant species, including TESC plants.

The elimination of night-riding could potentially lessen soil displacement and disturbance and indirectly reduce damage to the plant community, but material changes would not be likely since this riding would be restricted to designated routes.

*Alternatives 3 and 4* – More roads would be closed in these alternatives, reducing the designated routes for motorized travel. Approximately 69 miles of roads have been identified for decommissioning. When decommissioning occurs, these roads would permanently re-establish with native vegetation. Reduced use on closed roads would allow the routes to re-establish with native vegetation, including TESC species. Vegetation establishment may be ephemeral because these roads could be used for administrative purposes and other exemptions as identified in §2.1 Description of Alternatives.

The closure of some roads and the prohibition of off-route traffic would lessen the potential for movement of exotic invasive plants species onto the Forest.

*Alternatives 3, 4, 5, Modified 5, and 6* – The designation of 100-foot camping corridors along approximately 6 miles of roads on the Caney District could remove and/or change the plant species in that particular location, but adverse impacts to

the population would not be likely. These areas can be used now by hunters and fishermen; designating the areas for camping would have little impact.

*Alternatives 5 and Modified 5* – The big game retrieval ATV use in corridors in the National Wildlife Management Preserves may crush some plants, but mortality would not likely occur because of infrequent passes with a low-psi vehicle. There could be a chance for the trampling of individual plants that may be classified as sensitive or conservation, but there would not likely be adverse effects to the population because travel would be limited to when big game are killed, and deer hunting is currently for only 9 days in the NWMP. There could be exotic invasive species brought into the woods by ATVs, but that potential currently exists. Designating specific corridors would reduce the potential for spreading invasive species because ATV use would be limited to the corridor.

The added trail spurs in Modified Alternative 5 could be a chance for increased plant trampling and damage of individual plants, but impacts would be slight since one spur is located on a roadbed and the other is only 70 feet long.

*All alternatives* – Cumulative effects would include the added impacts of future maintenance and relocation of the travelways that would likely continue to occur in site-specific projects. Forest Plan mitigation measures have been established and would be followed, reducing the likelihood of adverse effects to the vegetation and TESC species. Over time, the restriction to designated route travel would allow the existing user-created unauthorized routes to re-establish themselves with the native plant ground cover in response to management activities on the Forest that promote the desired

future condition, primarily prescribed burning.

Adjacent land developments by people moving from urban environments to more rural locations cause more of the adjoining natural forested areas to disappear. This will only increase with time, increasing the potential for loss of special plant communities as well as threatened, sensitive, and conservation species.

### 3.9 Socio-economics

#### 3.9.1 Affected Environment –

The social and economic environment impacted by this proposal includes the seven parishes in which the Forest lies (Claiborne, Grant Natchitoches, Rapides, Vernon, Webster, and Winn Parishes) and the surrounding parishes. These parish

economies are typically rural and slow-growing, dominated by small businesses. The small businesses benefit from the visitors and recreationists that are attracted to the national forest. Forest visitors purchase food, gas, and lodging that help the local economies. Roads provide national forest visitors access to enjoy the scenery, watch birds, photograph pictures, hunt, and other recreational activities. Recreationists in the form of trail riders, hunters, hikers, swimmers, and campers come to the forest to enjoy its amenities. Motorized trails in Kisatchie National Forest attract many trail riders (motorcyclist and ATV riders) throughout the year. These visitors boost the local economies. The estimated spending for Kisatchie National Forest visitors for calendar year 2005 is \$6.2 million as shown in the table below.

**Table 3-11. Estimated Visitor spending for Kisatchie National Forest using the national visitor use monitoring (NVUM) results for calendar year 2005 (USDA, 2006)**

|   | Day Use<br>Developed<br>Site | Overnight<br>Use<br>Developed<br>Site on NF | Overnight<br>Use within<br>50 miles of<br>Forest | Undeveloped<br>Areas | Wilderness | Total   |
|---|------------------------------|---|--|----------------------|------------|---------|
| Kisatchie National Forest visits                                |                              |   |  |                      |            | 235,700 |
| Segment Shares  | 42%                          | 6%  | 6%   | 45%                  | 1%         | 100%    |
| Visits by segment   | 98,994                       | 14,142                                      | 14,142   | 106,065              | 2,357      | 235,700 |
| Party size  | 2.5                          | 2.5   | 2.5  | 2.5                  | 2.5        |         |
| Party visits  | 39,598                       | 5,657                                       | 5,657  | 42,426               | 943        | 94,281  |
| Spending (\$/party/trip) (Stynes et al., 2004 updated by email) | \$54                         | \$174                                       | \$216  | \$42                 | \$42       |         |
| Spending totals (\$ 000's)                                      | \$2,138                      | \$984                                       | \$1,222  | \$1,782              | \$40       | \$6,166 |

### 3.9.2 Direct, Indirect, and Cumulative Effects to Socio-Economics –

*Issue 4:* Reducing the ATV riding opportunities on the Forest by prohibiting cross-country use will have the potential to discourage out-of-state riders and others from farther distances from visiting Kisatchie National Forest. In effect, this would reduce the spending in the local communities located around the forest.

Alternative 1 – No changes to motorized use would occur. Approximately 51 percent of the Forest would remain open to motorized cross-country travel. Ecotourism and related income to the local economies would not be affected.

Alternatives 2, 3, 4, 5, Modified 5, and 6 – Prohibiting off-route motorized travel may deter some visitors who ride cross-country. Over time, these cross-country riders would be expected to use the designated trails on the Forest. Restricting motorized use to designated routes would change where visitors drive and ride, but the recreation opportunities would remain and no change in the numbers of visitors would be expected. Therefore, visitor spending in the local communities would be expected to change very little. Many roads and trails would remain available for public motorized use. The restricted use would eliminate cross-country riding but could expand opportunities for other recreational visitors seeking a nonmotorized experience. Visitors to the forest would not likely change significantly; and therefore impacts to the local economy would not change significantly as a result of the restrictions on motorized use on the Forest.

Alternatives 3 and 4 – Reduced number of open logging roads could reduce motorized access to some areas that may

be a deterrent to some visitors but attractive to others. Overall, visitors to the Forest would not be expected to decline and ecotourism dollars to the local communities would not be impacted.

Alternatives 3, 4, 5, Modified 5, and 6 – The addition of camping corridors along approximately 6 miles on the Caney District could be attractive to hunters and fishermen, who would be the most likely users. No change would be expected to the number of visitors to the Forest or to the local economy and ecotourism would not likely be impacted.

Alternatives 5 and Modified 5 – Big game retrieval corridors for ATV use in the National Wildlife Management Preserves would enhance the hunters' recreation experience and would not likely change the number of visitors to the Forest or impact the local economy.

Adding a couple of trail spurs could be advantageous to some trailriders, but impacts to the local economy through increased visitors would be slight if at all.

Changing 66 miles of motorcycle trails from closed January through March to open year-round could add more visitors to the Forest during this period of time that could in effect add dollars to the local economy.

Alternatives 5, Modified 5, and 6 – Changing the designation of some logging roads from highway-legal vehicles open year-round to ATV use during October through January could be inviting to those hunters who use ATVs to access the woods, while those hunters without ATVs may be at a disadvantage. Designating different types of vehicles for different types of roads provides for multiple uses on the Forest. Overall, hunting on the Forest would not likely decline because a variety of opportunities are spread across

the Forest and ecotourism dollars to the local economy would not likely be impacted.

*Alternative 6* – The seasonal closure of the trails from January – March could reduce visitor spending in the local communities during this period. A big change in local spending would not be expected because temporary trail closures frequently occur now during this time of year due to rainy weather and wet ground conditions.

*All alternatives* – Cumulatively, the expected increase in population and related increase in both motorized and nonmotorized recreation activities in the state would, in general, be expected to result in more spending in the local communities when added to the Forest recreation activities. Other recreation opportunities in the local communities would also attract visitors and therefore add to the local economy budgets.

There could be an opportunity for concessionaires to manage some of the Forest’s motorized trails, which could add jobs in the local communities.

## 3.10 Human Health and Safety

### 3.10.1 Affected Environment –

Driving or riding motor vehicles is an inherently dangerous sport, especially riding ATVs. The Consumer Products Safety Commission (CPSC) reported 136,100 ATV-related emergency room visits in 2004, more than double the 1994 reported injuries of 50,800. In 2004 CPSC reported 470 ATV-related deaths, cumulative since 1982 of 6,494. In Louisiana, there have been 114 ATV-related deaths from 1982 – 2001.

Children younger than 16 years old account for roughly one third of all ATV-related deaths and injuries.

The Forest recommends that riders wear a helmet, eye protection, mouth protection, long sleeves, gloves, long pants, and boots. The Forest also recommends that all Forest visitors wear orange during hunting season. The Forest supports and enforces the requirements and laws of the State of Louisiana, including the state statute prohibiting ATVs on public roads.

### 3.10.2 Direct, Indirect, and Cumulative Effects to Human Health and Safety –

*Alternative 1* – Conditions would remain the same; riders would be allowed to travel off-route on 51 percent of the Forest. Riders traveling off the system trails would be more susceptible to natural hazards of the forest, like stumps, holes, limbs, and drop-offs. These types of unexpected hazards could lead to accidents.

*Alternatives 2, 3, 4, 5, Modified 5, and 6* – Eliminating off-route motorized travel would reduce the chances of the rider encountering unexpected hazards in the forest that could lead to an accident.

Designating roads and trails for public travel and providing a map depicting these routes would provide more clarity and help eliminate unexpected encounters with off-route travelers that could potentially lead to an accident.

Eliminating night riding would reduce the chances of an accident during the time of day when visibility is poor and when accidents are more likely to occur.

### 3.11 Unavoidable Adverse Effects

This section summarizes the unavoidable adverse impacts. Only those resources with adverse impacts are discussed.

*Recreation and Access* – Alternatives 2, 3, 4, 5, Modified 5, and 6 eliminate motorized cross-country travel and would have the most detrimental effect to recreationists who enjoy riding cross-country and to hunters who get around in the woods with an ATV. Some may feel that they are losing their recreation opportunity.

Alternative 6 closes the trails January through March and would have the most detrimental effect to trail riders who want to ride year-round. Some may feel that they are losing their riding opportunities.

The prohibition of night-riding in Alternatives 2, 3, 4, 5, Modified 5, and 6 could be a detriment to some trail riders who like to ride at night. Trail riders who enjoy riding at night would need to change their riding experiences to daylight hours.

### 3.12 Relationship of Short-Term Use and Long-Term Productivity

This section identifies the trade-offs between short-term use and long-term productivity of the resources involved in the alternatives. Only those resources affected are discussed.

*Recreation and Access* – Under the No Action Alternative 1, cross-country travel would continue on 51 percent of the Forest leading to more user-created trails removing parts of the forest from productivity, potentially long-term. Unregulated cross-country motor vehicle

use would no longer be permitted in Alternatives 2, 3, 4, 5, Modified 5, and 6; and unauthorized routes that are not designated would be closed to motor vehicle use, adding some national forest land back into productivity for the long-term. Cross-country travel fragments the native communities, thereby disturbing and disrupting the natural ecosystem. The 69 miles of roads identified for decommissioning in Alternatives 3, 4, 5, Modified 5, and 6 would put road bases back into productivity. The elimination of motorized cross-country forestwide in Alternatives 2, 3, 4, 5, Modified 5, and 6 would restore some national forest land back to its native community structure.

### 3.13 Irreversible and Irrecoverable Commitment of Resources

This section identifies the extent to which the alternatives would irreversibly limit potential uses of the land and resources or irretrievably use, consume, destroy or degrade those resources.

Unauthorized motorized travel allowed in Alternative 1 could potentially result in the irretrievable loss of individual Louisiana pearlshell mussels and mussel beds, and degradation of mussel habitat. Alternative 1 could also result in an irretrievable loss or damage to heritage sites from motorized cross-country travel.

There are no irreversible or irretrievable commitment of resources resulting from Alternative 2, 3, 4, 5, Modified 5, and 6 actions that include eliminating cross-country motorized use and night-riding, reducing mileage of open roads, or closing some roads and trails seasonally.

### 3.14 Civil Rights and Environmental Justice

Civil rights is integrated throughout the Forest Service workforce, programs, and activities. Our civil rights mission is to ensure fair and equitable opportunities for Forest Service customers and employees to facilitate effective delivery of agency programs and activities.

The demographics of the visitors to Kisatchie National Forest (USDA, 2006) indicate the majority are white (97%) male (74%) in the 30 to 60 age range (58%), and 44% of visitors incomes range from \$25,000 to \$49,000. Many locals and adjacent landowners, mostly mid- to lower-income users, enjoy the amenities of the national forest. The actions proposed in Alternatives 1, 2, 3, 4, 5, Modified 5, and 6 would not create any changes that would disproportionately impact low-income communities. Community riders would be required to stay on designated roads and trails in Alternatives 2, 3, 4, 5, Modified 5, and 6. This requirement is not disproportionate and applies to everyone.

The 2005 Kisatchie National Forest NVUM survey (USDA, 2006) results indicated the ethnicity of Forest visitors to be: 1.8% Hispanic/Latino, 1% American Indian, and 2.2% Black/African American. The proposed actions in Alternatives 1, 2, 3, 4, 5, Modified 5, and 6 would not disproportionately affect any minority group.

Reasonable restrictions on motor vehicle use proposed in all alternatives are applied consistently to everyone and are not discriminatory.

### 3.15 Agencies and Others Consulted

The Forest Service consulted and/or coordinated with the following individuals, Federal, State, and local agencies, tribes and non-Forest Service persons during the development of this environmental assessment:

#### **ID TEAM MEMBERS AND/OR PREPARERS:**

|                   |  |
|-------------------|--|
| Jackie Duncan     | Team Leader  |
| Cindy Dancak      | Forest Planning Staff Officer                            |
| Jim Caldwell      | Forest Public Affairs/ Recreation/Heritage Staff Officer |
| Shanna Ellis      | Forest Recreation Manager                                |
| Calvin Baker      | Forest Ecosystem Conservation Staff Officer              |
| Jim Pace          | Forest Professional Engineer                             |
| Lisa Lewis        | Calcasieu District Ranger                                |
| Mike Dawson       | Kisatchie District Ranger                                |
| Rodney Stone      | Catahoula District Ranger                                |
| Frank Yerby       | Winn District Ranger                                     |
| Alvin Womack      | Caney District Ranger                                    |
| Ken Dancak        | Forest Wildlife Biologist                                |
| Velicia Bergstrom | Forest Archeologist                                      |
| David Byrd        | Forest Fisheries Biologist                               |
| Peter Nilles      | Forest Botanist  |
| Charlie Crothers  | Forest Land Specialist                                   |
| Carl Brevelle     | Forest Planner   |

#### **FEDERAL, STATE, AND LOCAL AGENCIES:**

U.S.D.I. Fish and Wildlife Service  
LA Department of Wildlife and Fisheries

State Historic Preservation Officer,  
Louisiana Department of Culture,  
Recreation, and Tourism  
Louisiana Department of Transportation  
and Development  
Louisiana Natural Heritage Program

***TRIBES:***

Tunica Biloxi Tribe  
Alabama Coushatta  
Caddo Tribe of Oklahoma  
Coushatta Tribe  
Choctaw Nation of Oklahoma  
Chitimacha Tribe of Louisiana

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## CHAPTER 4 . GLOSSARY OF TERMS, COMMONLY USED ACRONYMS, AND ABBREVIATIONS

*ATV* – All-terrain vehicle. Another name is 4-wheeler. This is a type of OHV.

*DN* – Decision Notice

*EA* – Environmental Assessment

*FONSI* – Finding of no significant impact

*Forest Road or Trail* – A road or trail wholly or partly within, or adjacent to, and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources. (36 CFR 212.1)

*Forest Transportation Atlas* – A display of the system of roads, trails, and airfields of an administrative unit. (36 CFR 212.1)

*Forest Transportation Facility* – A forest road or trail or an airfield that is displayed in a forest transportation atlas, including bridges, culverts, parking lots, marine access facilities, safety devices, and other improvements appurtenant to the forest transportation system (36 CFR 212.1).

*Forest Transportation System* – The system of National Forest System roads, National Forest System trails, and airfields on National Forest System lands. (36 CFR 212.1)

*LDOTD* – Louisiana Department of Transportation and Development

*LDWF* – Louisiana Department of Wildlife and Fisheries

*LEOs* – Law Enforcement Officers

*MIS* – Management indicator species.

*Motor vehicle* – any vehicle which is self-propelled, other than: 1) a vehicle operated on rails and 2) any wheelchair or mobility device, including one that is battery-powered, that is designed solely for use by a mobility-impaired person for locomotion, and that is suitable for use in an indoor pedestrian area.

*Motor vehicle use map (MVUM)* – a map reflecting designated roads, trails, and areas on an administrative unit or a Ranger District of the National Forest System.

*National Forest System Road* – A forest road other than a road which has been authorized by a legally documented right-of-way held by a state, county, or other local public road authority. (36 CFR 212.1)

*National Forest System Trail* – A forest trail other than a trail which has been authorized by a legally documented right-of-way held by a state, county, or other local public road authority.

*NVUM* – National Forest Visitor Use Monitoring is a national survey to estimate the number of recreation visits to national forests.

*NWMP* – National Wildlife Management Preserve

*Off-highway vehicle (OHV)* – Any motor vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain. (36 CFR 212.1)

*Off-road vehicle (ORV)* – Same as off-highway vehicle (OHV).

*ROS, Recreation Opportunity Spectrum* – The Recreation Opportunity Spectrum was used to delineate, define and integrate outdoor recreation opportunities in the forest planning process in accordance with the *ROS Users Guide* and the *Forest Service Manual*.

*Road* – A motor vehicle route over 50 inches wide, unless identified and managed as a trail. (36 CFR 212.1)

*Road Decommissioning* – Activities that result in the stabilization and restoration of unneeded roads to a more natural state (36 CFR 212.1). (FSM 7705)

*Roads subject to the Highway Safety Act* – National Forest System roads that are open to use by the public for standard passenger cars. This includes roads with access restricted on a seasonal basis and roads closed during extreme weather conditions or for emergencies, but which are otherwise open for general public use. (FSM 7705)

*SHPO* – State Historic Preservation Officer

*Suitable areas for ATV* – Areas that are outside of unsuitable areas for ATVs. Using the Plan standards and guidelines for resource protection, the following criteria were used for defining areas unsuitable for an ATV. All other areas were determined to be suitable for an ATV. A map showing the suitable areas for an ATV is located in the project file.

- Stream corridors to include 50 feet on either side of all stream orders 3 and greater. Riparian areas adjacent to these streams as defined in the Plan are also determined to be unsuitable (Plan, FW-513, 525, 531).
- All areas of special interest – research natural areas, prairies, bogs, special interest areas, Saline Bayou National Scenic River Corridor (Plan, FW-344, 383).
- Developed recreation areas and administrative sites, like Stuart Seed Orchard (Plan, FW-344).
- Breezy Hill no-entry areas (Plan, FW-344).
- Walk-in hunting areas (Plan, FW-344).
- Military use areas (Plan, FW-344)
- Louisiana pearlshell mussel watersheds (Plan, FW-344).
- Kisatchie Hills Wilderness area (Plan, FW-344).
- Palustris Experimental Forest (Plan, MA-12-16).

*Suitable areas for OHV trails* – Areas that are outside of unsuitable areas for trail construction. Trail riding impacts are repetitive and occur continually in perpetuity. The base criteria are the same as those for “suitable areas for an ATV”. Additional criteria restricting establishment of OHV trails include the following. A map showing the suitable areas for OHV trails is located in the project file.

- Unsuitable soils based on texture, structure, and topography (Soil database, rated poor for OHV trails).

- Areas within 200 feet of a Red-cockaded Woodpecker cavity tree (Plan, FW-762, 719).

*Supervisor's Office* – Alexandria Forestry Center, Kisatchie National Forest, 2500 Shreveport Highway, Pineville, LA 71360.

*TESC* – Threatened, endangered, sensitive, and conservation species.

*Trail* – A route  $\leq$  50 inches wide or a route over 50 inches wide that is identified and managed as a trail used for purposes of travel by foot, stock, or trail vehicles. (36 CFR 212.1) (FSM 2353).

*USFWS* – U.S.D.I. Fish and Wildlife Service

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## CHAPTER 5 . REFERENCES

- Bailey, R.W. and K.T. Rinell. 1968. *History and management of the wild turkey in West Virginia*. W. Va. Dept. Nat. Resource., Div of Game and Fish Bull. 6. 49 pp.
- Behrend, D.F. and R.A. Lubeck. 1968. *Summer flight behavior of white-tailed deer in two Adirondack forest*. J. Wildl. Manage. 32:615-618.
- Bosakowski, Thomas, Dwight G. Smith, and Robert Speiser. 1992. *Nest Sites and habitat selected by Cooper's hawks, Accipiter cooperii, in northern New Jersey and southeastern New York*. The Canadian Field-Naturalist, Vol 106, pp.474-479.
- Dickson, James G. 2001. *Wildlife of Southern Forests: Habitat & Management*. Hancock House Publishers, Blaine, WA. 480 pp.
- Ealy, M.J. 1998. *Activity patterns of the Louisiana pine snake in eastern Texas*. Master's thesis, Stephen F. Austin State University, Nacogdoches, TX. 74 pp.
- Fahrig, Lenore, John H. Pedlar, Shealagh E. Pope, Philip D. Taylor and John F. Wegner. 1995. *Effect of road traffic on amphibian density*. Biological Conservation 73:177-182.
- Gates, J.E. and L.W. Gysel. 1978. *Avian nest dispersion and fledging success in field forest ecotones*. Ecology 49:871-883.
- Gutzwiller, K.J., R.T. Wiedenmann, K.L. Clements and S.H. Anderson. 1994. *Effects of human intrusion on song occurrence and singing consistency in subalpine birds*. Auk, 111:28—37.
- Hickman, S. 1990. *Evidence of edge species' attraction to nature trails within deciduous forest*. Natural Areas Journal, 10:3-5.
- Himes, J.G., L.M. Hardy, D.C. Rudolph, and S.J. Burgdorf. 2002. *Growth rates and mortality of the Louisiana pine snake (Pituophis ruthveni)*. Journal of Herpetology 36(4):683-687.
- Miller, Scott G., Richard L. Knight, and Clinton K. Miller. 1998. *Influence of recreational trails on breeding bird communities*. Ecological applications, 8(1):162-169.
- Rich, Adam C., David S. Dobkin, and Lawrence J. Niles. 1994. *Defining forest fragmentation by corridor width: the influence of narrow forest-dividing corridors on forest-nesting birds in southern New Jersey*. Conservation Biology, Vol 8, No 4, 1109-1121.
- Rost, Gregory R. and James A. Bailey. 1979. *Distribution of Mule Deer and Elk in Relation to Roads*. J. Wildl. Manage. 43(3):634-641.
- Rudolph, D.C., S.J. Burgdorf, R.N. Conner, and J.G. Dickson. 1998. *The impact of roads on the timber rattlesnake, (Crotalus horridus), in eastern Texas*. Proc. Of the Inter conference on Wildlife Ecology and Trans., Tallahassee, FL, 236-240.
- Rudolph, D.C., S.J. Burgdorf, R.N. Conner, and R.R. Schaefer. 1999. *Preliminary evaluation of the impact of roads and associated vehicular traffic on snake*

- populations in eastern Texas*. Proc. Of the third Int. Conf. on Wildlife Ecology and Transportation, Missoula, Montana, Sept 1999, 129-136.
- Stynes, Daniel J. and Eric M. White. 2004. *Spending Profiles of National Forest visitors, 2002 Update*, Based upon the National Forest visitor use Monitoring (NVUM) Survey data for the first three years. Joint venture (#01-JV-11130149-203) between USDA Forest Service Inventory and Monitoring Institute and Michigan State University.
- Swihart, Robert K. and Norman A. Slade. 1984. *Road crossing in Sigmodon hispidus and Microtus ochrogaster*. J Mamm, 65(2)357-360.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>, 20 March 2007), National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- USDA Forest Service. Unpublished 2007. *Effects of all terrain vehicles (ATV) on national forest lands and grasslands*. San Dimas Technology & Development Center. [http://fswb.sdtc.wo.fs.fed.us/cgi-bin/pubs/SDTDC\\_pubs\\_search.pl](http://fswb.sdtc.wo.fs.fed.us/cgi-bin/pubs/SDTDC_pubs_search.pl)
- USDA Forest Service. 2006. *National Visitor Use Monitoring Results for Kisatchie National Forest*. USDA Forest Service Region 8. September 2006, Data collected FY 2005. 43 pages.
- USDA Forest Service. 2006. *Kisatchie National Forest FY 2005 Monitoring and Evaluation Action Plan & Report*. 66 pages.
- USDA Forest Service. 2002. *Kisatchie National Forest Scale Roads Analysis*. November 2002. 87 pages.
- USDA Forest Service. 1999. *Revised Land and Resource Management Plan, Kisatchie National Forest*. Southern Region, Pineville, LA.
- USDA Forest Service. 1999. *Final Environmental Impact Statement, Revised land and Resource Management Plan, Kisatchie National Forest*. Southern Region, Pineville, LA.
- Wagner, Robert O. and Dwayne Hightower. 2005. *Wildlife Management Indicator Species Population and Habitat Trends, Kisatchie National Forest*. Prepared for and in Cooperation with Kisatchie National Forest 265 pp.
- Wisdom, M.J., H.K. Preisler, N.J. Cimon, and B.K. Johnson. 2004. *Effects of off-road recreation on mule deer and elk*. Transactions of the N. American Wildlife and Nat. Resource Conf. 69:in press.
- Wright, G.A. and D.W. Speake. 1975. *Compatibility of eastern wild turkey with recreational activities at Land Between the Lakes, Kentucky*. Proc. Southeast. Assoc. Game and Fish. Comm. 29:578-584.

## **APPENDIX A1. Proposed Changes to Revised Plan**

### **1.0 Proposed Changes to the *Revised Forest Land and Resources Management Plan for the Kisatchie National Forest (Revised Plan)***

#### **1.1 Alternatives 2, 3, 4, 5, Modified 5, and 6**

**Current Forest Plan Direction**

**Change to Forest Plan Direction**

| Current Forest Plan Direction  | Change to Forest Plan Direction Alternatives 2-6   |
|--|--|
|  | other than a road which has been authorized by a legally documented right-of-way held by a State, county, or other local public road authority. (36 CFR 212.1)   |
| N/A  | <b>National Forest System trail</b> . A forest trail other than a trail which has been authorized by a legally documented right-of-way held by a State, county, or other local public road authority. (36 CFR 212.1)   |
| N/A  | <b>Area</b> . A discrete, specifically delineated space that is smaller, and in most cases much smaller, than a Ranger District. (36 CFR 212.1)  |
| N/A  | <b>Travel management atlas</b> . An atlas that consists of a forest transportation atlas and a motor vehicle use map or maps. (36 CFR 212.1)   |
| N/A  | <b>Forest transportation atlas</b> . A display of the system of roads, trails, and airfields of an administrative unit. (36 CFR 212.1)   |
| <b>Forest Plan Response to Recreation Issues</b>   |  |
| A variety of <i>recreation opportunity spectrum</i> (ROS) classes will be available; with greatest emphasis on roaded natural and semiprimitive motorized opportunities. Fifty-one percent of the Forest will be open to ORVs; while 49 percent will be closed year-round, seasonally, or due to military use, or restricted to designated trails only. [Plan, p. 1-12]  | A variety of <i>recreation opportunity spectrum</i> (ROS) classes will be available; with greatest emphasis on roaded natural and semiprimitive motorized opportunities. <i>Off-highway vehicle (OHV) use is restricted to designated roads, trails, and areas forestwide.</i>   |
| <b>CHAPTER 2 Forestwide Standards and Guidelines – Recreation Management</b>   |  |
| FW-327: Manage dispersed recreation activities equitably with other activities and uses of Forest resources. Give recreation consideration comparable to other activities and Forest uses during site specific environmental analysis. Actively manage ORV, equestrian, hunting, and other dispersed activities. Promote a diversity of recreation uses. Minimize barriers to dispersed use such as range fences and closed roads, unless appropriate in assigned ROS class. (Guideline) [Plan, p. 2-32] | FW-327: Manage dispersed recreation activities equitably with other activities and uses of Forest resources. Give recreation consideration comparable to other activities and Forest uses during site specific environmental analysis. Actively manage <i>OHV</i> , equestrian, hunting, and other dispersed activities. Promote a diversity of recreation uses. Minimize barriers to dispersed use such as range fences and closed roads, unless appropriate in assigned ROS class. (Guideline) |
| FW-342: Provide off-road vehicle (ORV) recreation opportunities that are compatible with the environmental setting, minimize off-road vehicle effects on the land and resources, promote public safety, and minimize conflicts with other uses of the Forest. (Guideline) [Plan,   | FW-342: Provide <i>off-highway vehicle (OHV)</i> recreation opportunities that are compatible with the environmental setting, minimize <i>OHV</i> effects on the land and resources, promote public safety, and minimize conflicts with other uses of the Forest. (Guideline)  |

| <b>Current Forest Plan Direction</b>   | <b>Change to Forest Plan Direction Alternatives 2-6</b>   |
|--|---|
| p. 2-33]   |   |
| <p>FW-343: Designate Kisatchie National Forest lands as open, restricted, or closed to ORV use as follows: (Standard)</p> <ul style="list-style-type: none"> <li>• Open – Areas on which all types of motorized vehicles may be operated off roads without restrictions</li> <li>• Restricted – Areas on which motorized vehicle use is restricted by times or season of use, types of vehicles, vehicle equipment, or types of activity specified in orders issued under the authority of 36CFR261.</li> <li>• Closed – Areas on which all motorized vehicle use is prohibited, except by permit, under authority of 36CFR261. [Plan, p. 2-33]</li> </ul>   | <p>FW-343: Designate motor vehicle use on National Forest System roads, on National Forest System trails, and in areas on National Forest System lands by vehicle class and, if appropriate, by time of year pursuant to 36 CFR 212.51(a) (See FW-347). Vehicles and uses as specified in FW-344 are exempted from designations. Limited designations for motor vehicle use within a specified distance of certain designated routes may be included for the sole purposes of dispersed camping or retrieval of a downed big game animal by an individual who has legally taken that animal 36 CFR 212.51(b). (Standard)</p>  |
| <p>FW-344: Allow the use of ORVs off of roads and trails except where specifically restricted or prohibited by law, regulation, Forest Plan, or Forest Supervisor order. Use of ORVs is restricted or prohibited in developed recreation sites; research natural areas; special interest areas, Saline Bayou National Scenic River corridor; Kisatchie Hills Wilderness; designated walk-in hunting areas; Stuart Seed Orchard; Breezy Hill no-entry artillery range; Fort Polk intensive Use Area; Peason Ridge Intensive Use Area; U.S. Air Force Reserve Claiborne Bombing &amp; Gunnery Range and safety fan; segments of special use utility rights-of-way on the Evangeline Unit and Kisatchie District; Louisiana pearlshell mussel habitat; RCW cluster sites and certain sensitive plant communities. In addition, use of motorized vehicles off designated routes is prohibited within the National Red Dirt Wildlife Management Preserve Area of the Kisatchie Ranger District and on the Calcasieu Ranger district. (KNF) (Standard) [Plan, p. 2-33]</p> | <p>FW-344: Prohibit OHVs off the designated National Forest System roads, National Forest System trails, and areas on National Forest system lands, as identified on a motor vehicle use map (MVUM) under authority 36 CFR 261.13. The following vehicles and uses are exempted from this prohibition: (Standard)</p> <ol style="list-style-type: none"> <li>1. Aircraft;</li> <li>2. Watercraft;</li> <li>3. Over-snow vehicles;</li> <li>4. Limited administrative use by the Forest Service;</li> <li>5. Use of any fire, military, emergency, or law enforcement vehicle for emergency purposes;</li> <li>6. Authorized use of any combat or combat support vehicle for national defense purposes;</li> <li>7. Law enforcement, response to violations of law, including pursuit;</li> <li>8. Motor vehicle use that is specifically authorized under a written authorization issued under Federal law or regulations; and</li> <li>9. Use of a road or trail that is authorized by a legally documented right-of-way held by a State, county, or other local public road authority.</li> </ol> |
| <p>FW-345: Prohibit or restrict the use of ORVs in accordance with 36CFR295 on additional areas when unacceptable effects from ORV use occurs to other resources or Forest visitors.</p>   | Delete  |

| <b>Current Forest Plan Direction</b>  | <b>Change to Forest Plan Direction Alternatives 2-6</b>   |
|---|---|
| Examples of additional areas where ORV use may be prohibited or restricted include but are not limited to: recently rehabilitated areas and utility rights-of-way subject to unacceptable soil and water impacts. (Guideline) [Plan, p. 2-33]   |   |
| FW-346: As stated in 36 CFR 295, provide the public an opportunity to participate in the process of allowing, restricting, or prohibiting use of areas and trails to one or more specific vehicle types off of Forest development roads. Provide 60 days advance notice to allow for public review of proposed or revised designations. In emergency situations, temporary designations up to 1 year in length may be made or revised without public participation if needed to protect the resources and/or to provide for public safety. (Standard) [Plan, p. 2-33] | FW-346: The public shall be allowed to participate in the designation of National Forest System roads, National Forest System trails, and areas on national Forest System lands and revising those designations pursuant to 36 CFR 212.52. Advance notice shall be given to allow for public comment, consistent with agency procedures under the National Environmental Policy Act, on proposed designations and revisions. In emergency situations, temporary designations up to 1 year in length may be made or revised without public participation if needed to protect the resources and/or to provide for public safety. (Standard)                    |
| FW-347: Develop and distribute maps illustrating the permitted ORV use designations (see FW-343) – open, restricted, or closed. Use signing to identify on-the-ground areas where ORV use is prohibited or restricted. Post signs and maps in locations that are obvious and convenient to Forest visitors. Distribute maps at all Forest Service offices, developed recreation sites, and at areas of concentrated ORV use. (Guideline) [Plan, p. 2-33]  | FW-347: Develop a motor vehicle use map (MVUM) that identifies all designated roads, trails, and areas that are open for public motorized use (36 CFR 212.56). The maps shall be made available to the public at the Ranger District offices, at the Supervisor’s Office, and on the Kisatchie National Forest website ( <a href="http://www.kisatchie.us">http://www.kisatchie.us</a> ). (see FW-343) The motor vehicle use maps shall specify the classes of vehicles and, if appropriate, the times of year for which use is designated. Designated routes must be signed with a route marker that corresponds to the route number on the MVUM. (Standard) |
| FW-359: Promote partnerships with user groups to aid in such activities as trail maintenance, construction and providing visitor information. (Guideline) [Plan, p. 2-34]   | FW-359: Promote partnerships with user groups and State, Parish, and other local governmental entities to aid in such activities as trail maintenance, construction and providing visitor information. (Guideline)  |
| <b>CHAPTER 2 Forestwide Standards and Guidelines – Transportation System</b>  |   |
| N/A   | ADD: Develop and maintain a travel management atlas, which is to be available to the public at the Supervisor’s Office. Update the forest transportation atlas to reflect new information on the existence and condition of roads, trails, and airfields of the administrative unit. (36 CFR 212.2(a)(b)) [Standard]  |

| <b>Current Forest Plan Direction</b>   | <b>Change to Forest Plan Direction Alternatives 2-6</b>   |
|--|---|
| FW-565: Develop, maintain, and manage the Forest road system as needed to respond to resource management objectives. (Guideline) [Plan, p. 2-47]   | FW-565: Develop a program of work for the forest transportation system each fiscal year in accordance with procedures prescribed by the Chief (36 CFR 212.2(c)). [Standard]   |
| FW-567: Prepare a site-specific analysis for proposed travelway closures or restrictions based upon the criteria in FW-569. If the analysis indicates closure or restriction would be appropriate, the district ranger should submit recommendations and draft a road closure order for the Forest Supervisor's approval. Only after Forest supervisor's closure order is signed can access to travelways be restricted by physical barriers or signing. (Guideline) [Plan, p. 2-47] | <p>FW-567: Consider the following criteria for designation of National Forest System roads, National Forest System trails, and areas on National Forest System lands. (36 CFR 212.55) [Guideline]</p> <ul style="list-style-type: none"> <li>• Effects on National Forest System natural and cultural resources, public safety, provision of recreational opportunities, access needs, conflicts among uses of National Forest system lands, the need for maintenance and administration of roads, trails, and areas that would arise if the uses under consideration are designated; and the availability of resources for that maintenance and administration;</li> </ul> <p>Specific to trails -</p> <ul style="list-style-type: none"> <li>• Minimize damage to soil, watershed, vegetation, and other forest resources;</li> <li>• Minimize harassment of wildlife and significant disruption of wildlife habitats;</li> <li>• Minimize conflicts between motor vehicle use and existing or proposed recreational uses of National Forest System lands or neighboring Federal lands;</li> <li>• Minimize conflicts among different classes of motor vehicle uses of National Forest system lands or neighboring Federal lands;</li> <li>• Consider compatibility of motor vehicle use with existing conditions in populated areas, taking into account sound, emissions, and other factors;</li> </ul> <p>Specific to roads –</p> <ul style="list-style-type: none"> <li>• Consider speed, volume, composition, and distribution of traffic on roads;</li> <li>• Consider compatibility of vehicle class with road geometry and road surfacing.</li> </ul> |
| FW-570: In the Forest transportation system, provide developed and dispersed recreation access to people with disabilities. The  | FW-570: In the Forest transportation system, provide developed and dispersed recreation access to people with disabilities. The   |

| <p><b>Current Forest Plan Direction</b></p>  | <p><b>Change to Forest Plan Direction Alternatives 2-6</b></p>  |
|--|---|
| <p>Rehabilitation Act of 1973 (section 504) and the Americans with Disabilities Act of 1990 require that programs and facilities must, to the highest degree feasible, be readily accessible to and usable by all with mobility impairment. Provide equal access to all for Forest dispersed recreation opportunities. Persons with mobility impairment may be authorized to use closed roads. Coordinate requests on a case-by-case basis through the Forest accessibility coordinator. (Guideline) [Plan, p. 2-48]</p> | <p>Rehabilitation Act of 1973 (section 504) and the Americans with Disabilities Act of 1990 require that programs and facilities must, to the highest degree feasible, be readily accessible to and usable by all with mobility impairment. Provide equal access to all for Forest dispersed recreation opportunities.</p>  |
| <p>FW-572: Reduce cost of road maintenance by:</p> <ul style="list-style-type: none"> <li>• Applying appropriate traffic control regulations to ensure compatibility with type of facility offered;</li> <li>• Controlling and scheduling resource management activities to seasons or conditions that favor perpetuation of road serviceability; and</li> <li>• Applying road use restrictions and prohibitions where warranted. (Guideline) [Plan, p. 2-48]</li> </ul>   | <p>FW-572: Reduce cost of road maintenance by:</p> <ul style="list-style-type: none"> <li>• Applying appropriate traffic control regulations to ensure compatibility with type of facility offered;</li> <li>• Controlling and scheduling resource management activities to seasons or conditions that favor perpetuation of road serviceability; and</li> <li>• Applying road use restrictions and prohibitions where warranted.</li> <li>• <a href="#">Reclassifying some low-trafficked roads to a lower maintenance and service level, i.e. reclassify traffic service level C to traffic service level D where more appropriate to its use.</a></li> </ul> |

## APPENDIX A2. Goals, Objectives, and Desired Future Conditions

This Environmental Assessment incorporates the goals, objectives, and desired future conditions directed by the Forest Plan and/or identified by the interdisciplinary teams as follows:

### Goals (Plan, p. 2-1)

- Goal 1 – manage with a high standard of stewardship;
- Goal 2 - provide and maintain a biologically diverse ecosystem;
- Goal 3 – provide a transportation system to meet multiple-use goals; and
- Goal 4 – provide access to a wide variety of recreational opportunities and facilities, consistent with the assigned recreation opportunity spectrum (ROS).

### Desired Future Conditions (Plan, p. 2-3)

- Provide a broad spectrum of facility types and service levels to all users and visitors.
- Provide convenient access to developed recreation sites, trailheads, scenic areas, wilderness, lakes and streams, and wildlife management areas.
- Provide basic access requirements for management and protection.

### Objectives

- Provide off-highway vehicle recreation opportunities that are compatible with the environmental setting, minimize off-road vehicle effects on the land and resources, promote public safety, and minimize conflicts with other uses of the Forest. (Plan, FW-342)
- Provide visitors quality sustainable recreation opportunities to pursue a wide variety of developed and dispersed recreation activities, with a minimum amount of regulation, consistent with the assigned recreation opportunity spectrum (ROS) class. (Plan, Obj 4-2). See Table C-2 below for classifications.
- Minimize damage to soil, watershed, vegetation, or other natural, cultural, and historical resources of the public lands (Plan, Obj 1-1, 1-2, 2-1, and 5-1).
- Establish clarity and consistency in the Forest's travel management system of roads and trails and improve consistency with state law. (Interdisciplinary Team)
- Be consistent with the established management objectives for the areas under consideration (Plan, Ch. 3). (See below)

### Management Area Directions (Plan, Ch. 3)

**Table A2-1. Summary of Forest Plan guidelines and/or desired future conditions for access and recreation use for each designated management area within Kisatchie National Forest.**

| Management Area       | Acres  | Guidelines and/or Desired Future Conditions  |
|-----------------------|--------|--|
| MA1 – Forest Products | 31,000 | Plan and develop the transportation system to provide access to within ¼ miles of all products. Typically, access within the compartment will be by dead-end local (maintenance level 1 and 2) roads. Provide some designated hiking trails. |
| MA2 – Amenity Values  | 16,000 | Provide the highest amount and variety of developed and dispersed recreation facilities, opportunities and experiences to meet the needs of local demand.  |

| Management Area                               | Acres   | Guidelines and/or Desired Future Conditions  |
|---|---------|--|
| MA3 – Native Community Restoration            | 142,000 | Provide the highest amount and variety of dispersed and developed recreation facilities, opportunities and experiences to meet the needs of local demand.  |
| MA5 – RCW and Native Community Restoration    | 220,500 | Provide the highest amount and variety of dispersed and developed recreation facilities, opportunities and experiences to meet the needs of local demand.  |
| MA6 – RCW and Wildlife Habitats               | 45,000  | Provide some designated hiking trails and dispersed recreation facilities.   |
| MA7 – Hardwoods                               | 10,000  | Provide some designated hiking trails and dispersed recreation facilities.   |
| MA10 – Saline Bayou National Scenic River     | 5,800   | Close to vehicular traffic all maintenance level 1 and 2 roads north of road 513, except for 508, W003F and W003 L which access private property. Do not permit cross-country travel.  |
| MA11 – National Wildlife Management Preserves | 70,000  | Provide some designated trails and dispersed recreation facilities. Manage road use to provide for the needs of management indicators and game species. Close local and collector roads that are not essential. Manage the majority of local dead-end roads as either closed yearlong to all vehicle use, closed on a seasonal basis, or open yearlong to low-psi vehicles only. Jointly decide road closures with the Louisiana Department of Wildlife and Fisheries. |
| MA12 – Palustris Experimental Forest          | 7,200   | Provide minimal dispersed recreational facilities.   |

### Recreation Opportunity Spectrums (KNF EIS, Appendix G)

Table A2-2. Recreation Opportunity Spectrums (KNF EIS, Appendix G)

| <b>ROS</b>  | <b>Acres</b> | <b>Assigned Areas</b>  | <b>Desired Conditions</b>                       | <b>Road Standards</b> | <b>Evidence of Humans</b>   |
|---|--------------|--|---|-----------------------|---|
| Roaded natural (RN)   | 146,600      | MA 1, 2, 3, 5, 6, 11; uneven aged management areas, state scenic rivers, riparian area protection zone | Within ½ mile from better than primitive roads. | All roads levels      | Roads and trails are present. Motorized use permitted on roads and trails. Motorized off-road and trail use may be restricted.  |
| Rural (R)   | 14,000       | MA12 (Experimental Forest), developed recreation areas, administrative sites                           |   | All road levels       | Designated roads and highways. Motorized use permitted on roads and trails. Motorized off-road and trail use may be restricted. |
| Active Military Use Area and Breezy Hill No-Entry area (non classified) | 49,050       | MA9 and no-entry areas   |   |                       | Recreation excluded or severely restricted.   |

Acres calculated from geographical information system.

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## APPENDIX B7. List of Roads or Portions of Roads Planned for Decommissioning

The following table lists the roads and estimated mileages that are proposed to be decommissioned that correspond to the map in Appendix B7 Roads Planned for Decommissioning.

| <b>District</b> | <b>Road #</b> | <b>Mileage</b> |
|-----------------|---------------|----------------|
| CAN             | CN12S         | 0.1627         |
| CAT             | 104           | 0.2712         |
| CAT             | 150-A         | 0.3254         |
| CAT             | 154           | 0.1637         |
| CAT             | 185           | 0.2198         |
| CAT             | C001B         | 0.3208         |
| CAT             | C004F         | 0.1775         |
| CAT             | C004J         | 0.5872         |
| CAT             | C004K         | 0.3149         |
| CAT             | C004L         | 0.1996         |
| CAT             | C005I         | 0.0202         |
| CAT             | C009B         | 0.2587         |
| CAT             | C009D         | 0.1652         |
| CAT             | C009F         | 0.1943         |
| CAT             | C010C         | 0.1703         |
| CAT             | C010G         | 0.1531         |
| CAT             | C010H         | 0.5887         |
| CAT             | C010J         | 0.2402         |
| CAT             | C010O         | 0.0361         |
| CAT             | C015B         | 0.4005         |
| CAT             | C015G         | 0.1261         |
| CAT             | C016D         | 0.747          |
| CAT             | C018F         | 0.1424         |
| CAT             | C020D         | 0.3476         |
| CAT             | C022E         | 0.0991         |
| CAT             | C022G         | 0.0445         |
| CAT             | C022K         | 0.0844         |
| CAT             | C023D         | 0.2244         |
| CAT             |               |                |

List of Roads or Portions of Roads Planned for Decommissioning

| District | Road # | Mileage |
|----------|--------|---------|
| CAT      | L006   | 0.1621  |
| CAT      | L008   | 0.1641  |
| CAT      | L009   | 0.1625  |
| CAT      | L010   | 0.339   |
| CAT      | L011   | 0.1624  |
| CAT      | L013   | 0.2596  |
| CAT      | L014   | 0.1631  |
| CAT      | L016   | 0.076   |
| CAT      | L017   | 0.0773  |
| CAT      | L023   | 0.1658  |
| CAT      | L024   | 0.0813  |
| CAT      | L025   | 0.1622  |
| CAT      | L026   | 0.0792  |
| CAT      | L027   | 0.139   |
| CAT      | L028   | 0.0722  |
| CAT      | L029   | 0.207   |
| CAT      | L030   | 0.1628  |
| CAT      | L031   | 0.3335  |
| CAT      | L032   | 0.0941  |
| CAT      | L033   | 0.167   |
| CAT      | L035   | 0.1734  |
| CAT      | L036   | 0.1759  |
| CAT      | L037   | 0.1783  |
| CAT      | L038   | 0.1654  |
| CAT      | L039   | 0.2598  |
| CAT      | L040   | 0.1631  |
| CAT      | L041   | 0.163   |
| CAT      | L042   | 0.3311  |
| CAT      | L043   | 0.1647  |
| CAT      | L044   | 0.1635  |
| CAT      | L045   | 0.2418  |
| CAT      | L046   | 0.1625  |
| CAT      | L047   | 0.1594  |
| CAT      | L048   | 0.337   |
| CAT      | L049   | 0.1613  |
| CAT      | L050   | 0.1607  |
| CAT      | L051   | 0.1753  |
| CAT      | L052   | 0.1522  |
| CAT      | L053   | 0.2297  |
| CAT      | L054   | 0.2622  |
| CAT      | L055   | 0.1732  |
| CAT      | L056   | 0.3228  |
| CAT      | L057   | 0.1582  |
| CAT      | L058   | 0.1727  |
| CAT      | L060   | 0.1883  |
| CAT      | L061   | 0.1227  |
| CAT      | L062   | 0.0334  |

| District | Road # | Mileage |
|----------|--------|---------|
| EVA      | 202    | 0.3136  |
| EVA      | 259-A  | 0.816   |
| EVA      | 2642   | 0.1594  |
| EVA      | 2643   | 0.1603  |
| EVA      | 2644   | 0.1618  |
| EVA      | E003I  | 0.0869  |
| EVA      | E009E  | 0.2866  |
| EVA      | E009F  | 0.3082  |
| EVA      | E009H  | 0.428   |
| EVA      | E009I  | 0.3471  |
| EVA      | E009L  | 0.2332  |
| EVA      | E009M  | 0.2365  |
| EVA      | E011E  | 0.4893  |
| EVA      | E011H  | 0.0738  |
| EVA      | E013C  | 0.2592  |
| EVA      | E016E  | 0.2384  |
| EVA      | E020D  | 0.2225  |
| EVA      | E024D  | 0.1851  |
| EVA      | E024J  | 0.2618  |
| EVA      | E035O  | 0.026   |
| EVA      | E040H  | 0.4634  |
| EVA      | E046C  | 0.1514  |
| EVA      | E046D  | 0.208   |
| EVA      | E047C  | 0.4536  |
| EVA      | E047I  | 0.4462  |
| EVA      | E047K  | 0.2847  |
| EVA      | E047L  | 0.5529  |
| EVA      | E048A  | 1.2083  |
| EVA      | E048C  | 0.1793  |
| EVA      | E048D  | 0.651   |
| EVA      | E048G  | 0.9645  |
| EVA      | E048M  | 0.053   |
| EVA      | E049L  | 0.7239  |
| EVA      | E050N  | 0.1725  |
| EVA      | E051I  | 0.1605  |
| EVA      | E053F  | 0.1797  |
| EVA      | E055J  | 0.1116  |
| EVA      | E361D  | 0.2303  |
| EVA      | E361G  | 0.173   |
| EVA      | E361H  | 0.0361  |
| EVA      | E361K  | 0.1988  |
| EVA      | E366G  | 0.0919  |
| EVA      | E366O  | 1.7298  |
| EVA      | E367D  | 0.2444  |
| EVA      | E370A  | 0.5635  |
| EVA      | E372D  | 0.305   |
| EVA      | E372J  | 0.4005  |

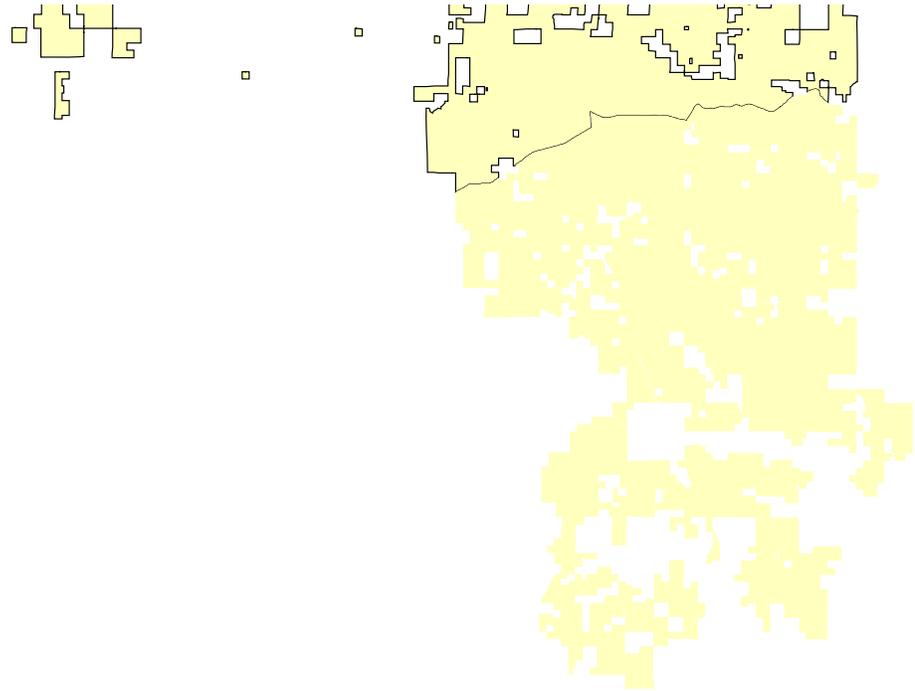
| District | Road # | Mileage |
|----------|--------|---------|
| EVA      | J05    | 0.4684  |
| EVA      | L15    | 0.6301  |
| EVA      | L16    | 0.2016  |
| KIS      | 380    | 0.1883  |
| KIS      | K01G   | 0.2855  |
| KIS      | K02F   | 0.2804  |
| KIS      | K02J   | 0.12    |
| KIS      | K04A   | 0.3581  |
| KIS      | K04F   | 0.1226  |
| KIS      | K04G   | 0.3044  |
| KIS      | K04L   | 0.2752  |
| KIS      | K04M   | 0.0509  |
| KIS      | K04N   | 0.1277  |
| KIS      | K05B   | 0.098   |
| KIS      | K05C   | 0.1455  |
| KIS      | K05G   | 0.2486  |
| KIS      | K08G   | 0.1445  |
| KIS      | K09P   | 0.2387  |
| KIS      | K10A   | 0.3142  |
| KIS      | K10G   | 0.1071  |
| KIS      | K10I   | 0.1226  |
| KIS      | K10K   | 0.1343  |
| KIS      | K10L   | 0.1932  |
| KIS      | K10M   | 0.0853  |
| KIS      | K11E   | 0.2618  |
| KIS      | K11G   | 0.109   |
| KIS      | K11I   | 0.1724  |
| KIS      | K11J   | 0.5031  |
| KIS      | K11N   | 0.1596  |
| KIS      | K13F   | 0.6769  |
| KIS      | K15A   | 0.1562  |
| KIS      | K15E   | 0.1564  |
| KIS      | K15F   | 0.1247  |
| KIS      | K15H   | 0.3004  |
| KIS      | K16E   | 0.1382  |
| KIS      | K17H   | 0.2703  |
| KIS      | K18A   | 0.1219  |
| KIS      | K18B   | 0.0902  |
| KIS      | K18C   | 0.07    |
| KIS      | K18N   | 0.1034  |
| KIS      | K18P   | 0.0887  |
| KIS      | K18Q   | 0.16    |
| KIS      | K18S   | 0.1337  |
| KIS      | K23D   | 0.2036  |
| KIS      | K26J   | 0.2158  |
| KIS      | K26K   | 0.1867  |
| KIS      | K27B   | 0.2319  |

| District | Road # | Mileage |
|----------|--------|---------|
| KIS      | K27F   | 0.2474  |
| KIS      | K27H   | 0.1152  |
| KIS      | K27L   | 0.1446  |
| KIS      | K27R   | 0.2221  |
| KIS      | K27S   | 0.3025  |
| KIS      | K27T   | 0.15    |
| KIS      | K29H   | 0.0634  |
| KIS      | K32A   | 0.2059  |
| KIS      | K33J   | 0.1669  |
| KIS      | K35A   | 0.5166  |
| KIS      | K36M   | 0.1895  |
| KIS      | K36O   | 0.1953  |
| KIS      | K38J   | 0.0834  |
| KIS      | K39F   | 0.1873  |
| KIS      | K39M   | 0.1709  |
| KIS      | K41D   | 0.1335  |
| KIS      | K41E   | 0.1279  |
| KIS      | K44B   | 0.2399  |
| KIS      | K44F   | 0.067   |
| KIS      | K52C   | 0.1665  |
| KIS      | K52M   | 0.1498  |
| KIS      | K52N   | 0.1547  |
| KIS      | K52P   | 0.1321  |
| KIS      | K54C   | 0.1128  |
| KIS      | K57E   | 0.0655  |
| KIS      | K60G   | 0.161   |
| KIS      | K60J   | 0.1557  |
| KIS      | K61H   | 0.0742  |
| KIS      | K61J   | 0.1159  |
| KIS      | K62D   | 0.1677  |
| KIS      | K62F   | 0.1934  |
| KIS      | K62I   | 0.2421  |
| KIS      | K64A   | 0.2321  |
| KIS      | K64D   | 0.3343  |
| KIS      | K64E   | 0.2136  |
| KIS      | K64F   | 0.3769  |
| KIS      | K65D   | 0.0801  |
| KIS      | K65F   | 0.1603  |
| KIS      | K65H   | 0.21    |
| KIS      | K65I   | 0.0287  |
| KIS      | K65J   | 0.3191  |
| KIS      | K69C   | 0.1066  |
| KIS      | K69H   | 0.0346  |
| KIS      | K70E   | 0.1865  |
| KIS      | K70G   | 0.1069  |
| KIS      | K71K   | 0.2047  |
| VER      | V102E  | 0.1091  |

List of Roads or Portions of Roads Planned for Decommissioning

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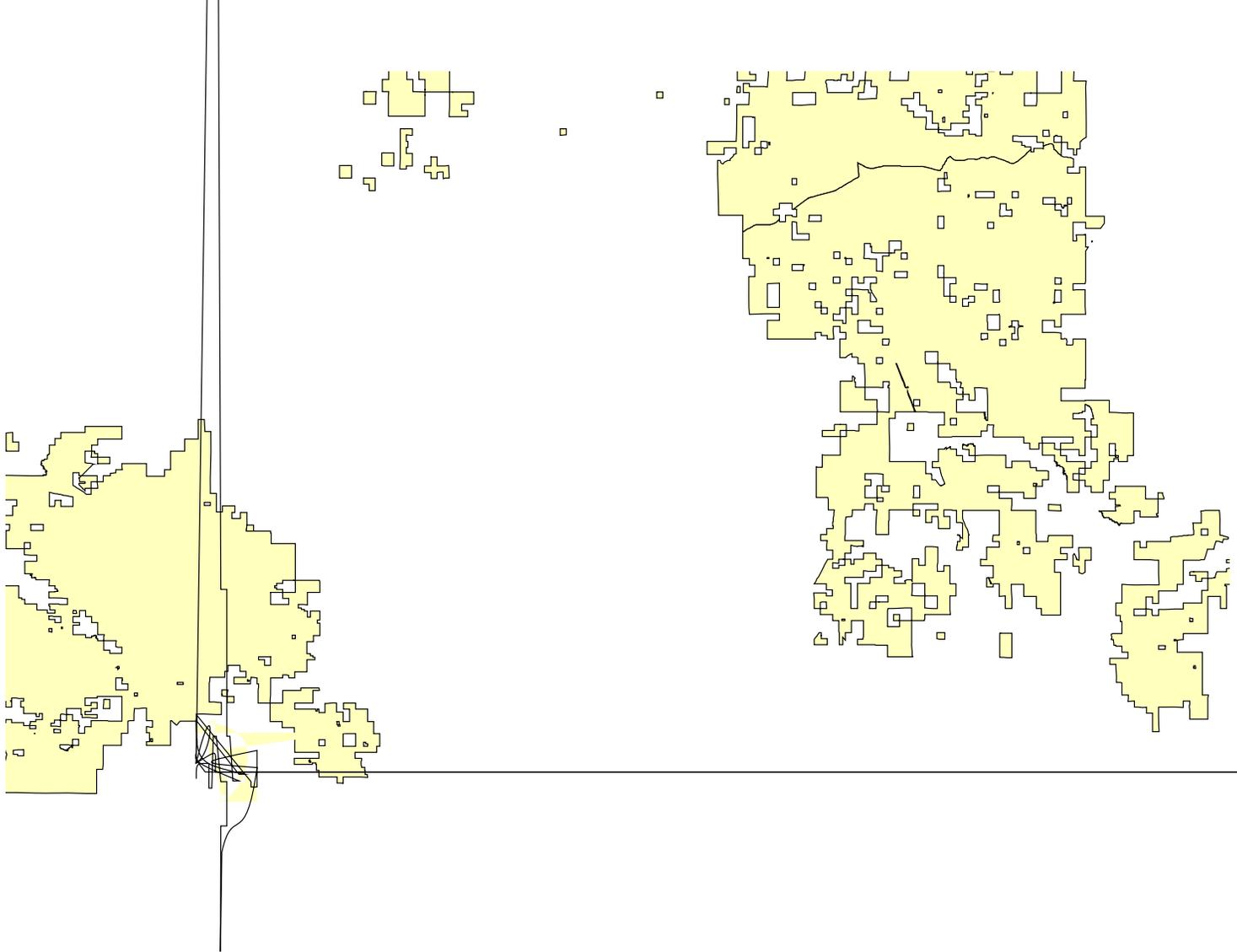
| <b>District</b> | <b>Road #</b> | <b>Mileage</b> |
|-----------------|---------------|----------------|
| VER             | V102K         | 0.231          |
| VER             | V118B         | 1.1995         |
| WINN            | W026X         | 0.0621         |
| WINN            | W033A         | 0.2712         |
| WINN            | W033B         | 0.1682         |
| WINN            | W045Q         | 0.05           |
| WINN            | W045R         | 0.0881         |
| WINN            | W045U         | 0.6113         |
| WINN            | W045V         | 0.1151         |
| WINN            | W046P         | 0.3664         |
| WINN            | W047L         | 0.1348         |
| WINN            | W050B         | 0.2171         |
| WINN            | W050C         | 0.1882         |
| WINN            | W050H         | 0.28           |
| WINN            | W050P         | 0.2386         |
| WINN            | W050R         | 0.1701         |
| WINN            | W055C         | 0.2856         |
| WINN            | W061W         | 0.1288         |
| WINN            | W070O         | 0.1205         |
| WINN            | W076P         | 0.5307         |
| WINN            | W076Q         | 0.9886         |
| WINN            | W081A         | 0.0868         |
| WINN            | W085Z         | 0.1436         |
| WINN            | W086E         | 0.1306         |
| WINN            | W094O         | 0.8177         |
| WINN            | W112L         | 0.4776         |
| WINN            | W115A         | 0.5608         |
| WINN            | W116C         | 0.6637         |



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**APPENDIX C1 – Alternatives 1, 2, and 3, Designated Trails**  
**Kisatchie National Forest**  
Travel Management Project

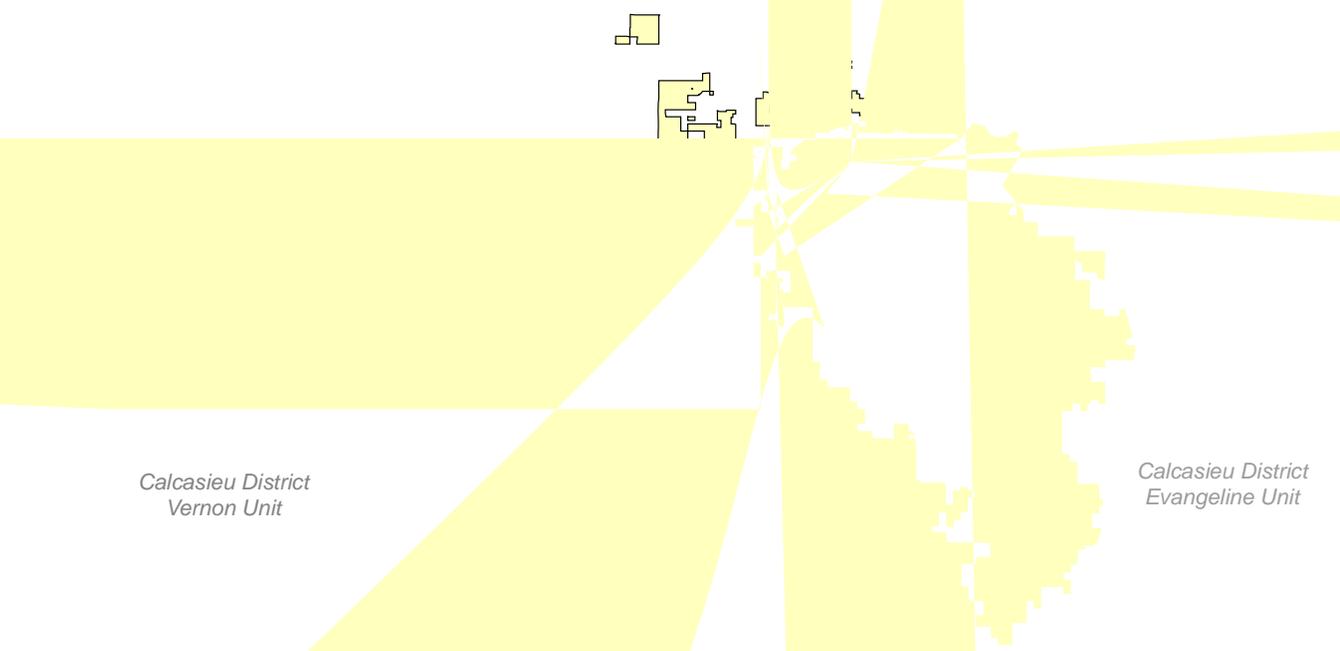
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**APPENDIX C2 – Alternative 4, Designated Trails**  
**Kisatchie National Forest**  
Travel Management Project

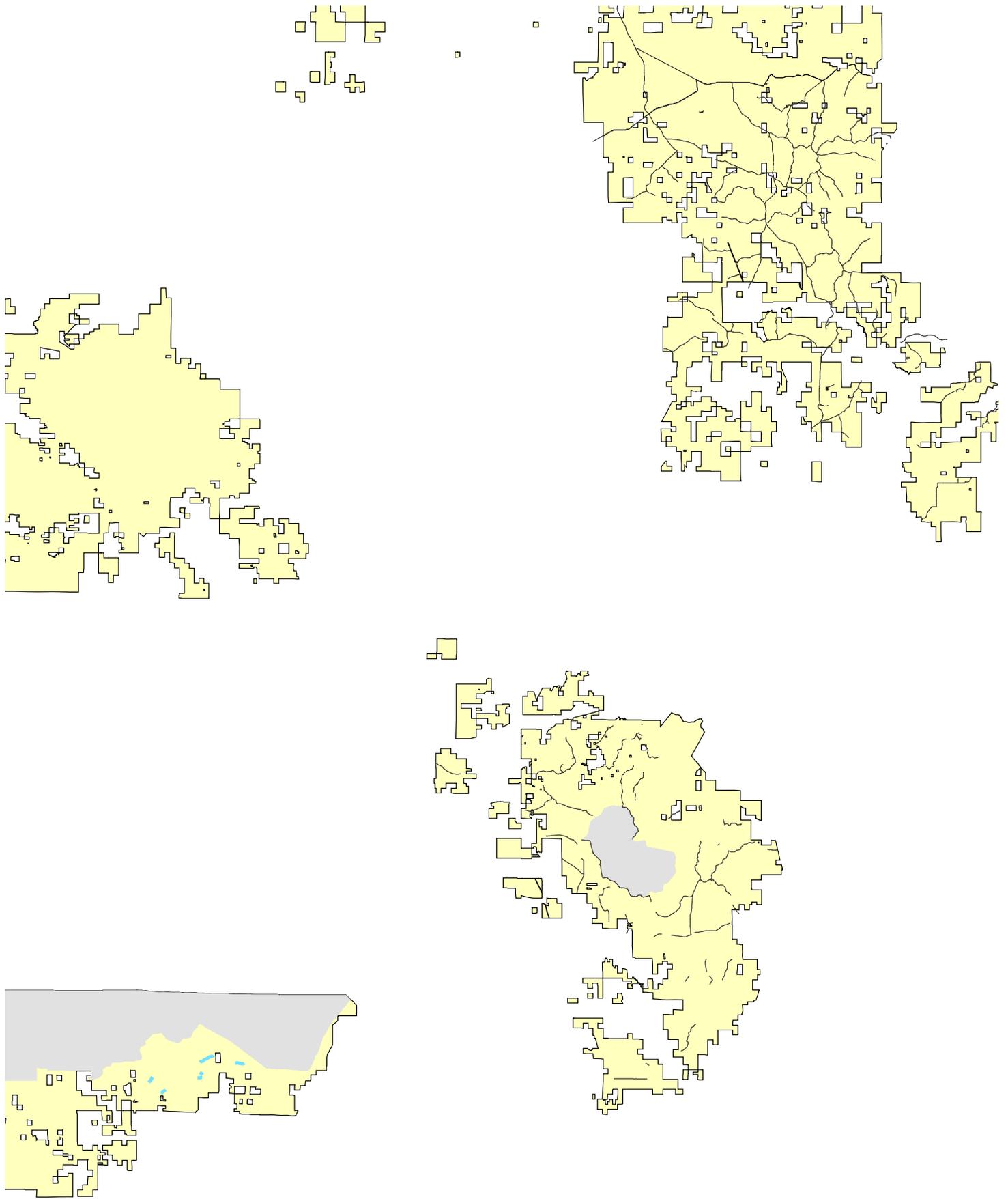
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**ive 5 and Modifie  
Kisatchie Nationa  
Travel Managemen**

**5, Designated Trails**

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**APPENDIX C4 – Alternative 6, Designated Trails**  
**Kisatchie National Forest**  
Travel Management Project

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## APPENDIX D. Public Involvement

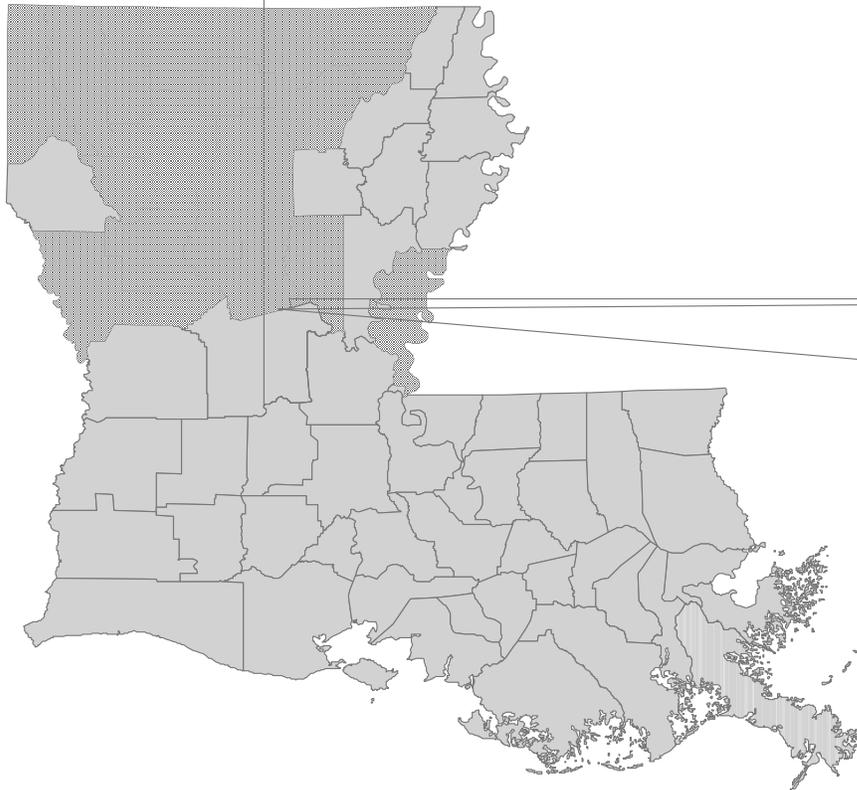
### D.1 Scoping

The initial scoping letter for Kisatchie's travel management proposal was mailed to approximately 2,000 recipients on February 8, 2006. The proposal was developed from the travel analysis mentioned in §1.7. Scoping notices were published in the following newspapers of record:

|                            |                  |                   |
|----------------------------|------------------|-------------------|
| The Town Talk              | Alexandria, LA   | February 8, 2006  |
| Press-Herald               | Minden, LA       | February 9, 2006  |
| The Natchitoches Times     | Natchitoches, LA | February 10, 2006 |
| The Leesville Daily Leader | Leesville, LA    | February 9, 2006  |
| Enterprise-News-American   | Winnfield, LA    | March 8, 2006     |
| The Guardian Journal       | Homer, LA        | February 9, 2006  |

In addition, news releases were distributed throughout the state to radio stations and newspapers. Personal contacts were made to various individuals, groups, and the congressional delegation. Brochures and flyers were distributed to area dealers and local stores. The scoping proposal and maps were also posted on the Forest's website.

Over 300 comments were received in response to this scoping effort from 42 of the 64 parishes in Louisiana (See map below). An additional 12 comments were received from Texas, two from Arkansas, one from Maryland, one from Mississippi, and one from Oklahoma.



After the comments were compiled and summarized, public meetings were held for the purpose of clarifying issues and working together to explore solutions. These meetings were attended by approximately 138 people from 23 of the total 64 parishes in Louisiana, as shown below.

**Table D-1. Meetings held in June 2006 to clarify issues.**

| Date          | Location        | Town           | Attendees    |
|---------------|-----------------|----------------|--------------|
| June 27, 2006 | Holiday Inn     | Lafayette, LA  | 37 attendees |
| June 28, 2006 | Best Western    | Alexandria, LA | 73 attendees |
| June 29, 2006 | Community House | Minden, LA     | 28 attendees |

The Travel Management Update (newsletter) was mailed January 31, 2007 to anyone who commented, attended meetings, or requested to be on the mailing list, approximately 600 mailings. The Update discussed the preliminary alternatives, significant issues, alternatives eliminated from further consideration, and projected timeline. Comments were requested, as well as the preferred media for receiving the Environmental Assessment for 30-day comment. Approximately 112 comment were received.

## D.2 30-Day Notice and Comment Period

The draft Travel Management Environmental Assessment was mailed to approximately 150 recipients on April 23, 2007 for 30-day comment. The public notice was published in the newspaper of record, *Alexandria Town Talk*, on April 26, 2007; and the 30-day notice and comment period officially ended May 29, 2007. Open houses for each Ranger District were held the week of May 7, 2007 between the hours of 6 pm and 8 pm as shown below. Forest Service personnel were available to answer questions about the Travel Management proposal and Environmental Assessment.

| DATE         | PLACE   |
|--------------|---|
| May 7, 2007  | Kisatchie Ranger District Work Center<br>229 Dogwood Park Rd.<br>Provençal, LA<br>(at the intersection of Hwy 117 and the Longleaf Trail Scenic Byway)        |
| May 8, 2007  | Winn Ranger District Work Center<br>12319 Hwy 84 West<br>Winnfield, LA  |
| May 9, 2007  | Best Western Inn & Suites<br>(Catahoula and Calcasieu Ranger Districts)<br>2720 West MacArthur Drive<br>Alexandria, LA  |
| May 10, 2007 | Minden Community House (Caney Ranger District)<br>Intersection of Bridwell and Gladney Streets,<br>2 blocks behind Brookshires on Homer Highway<br>Minden, LA |

Thirty-eight comments were received during the 30-day comment period. Responses to comments are included in Appendix N.

## APPENDIX E. Proposed Changes to Closure Orders (36 CFR 261.50)

36 CFR 261.50 gives authority to the Forest Supervisor to issue orders which close or restrict the use within areas over which the Supervisor has jurisdiction by applying any or all the prohibitions authorized in Subpart B – Prohibitions in Areas Designated by Order. The following are the orders subject to change upon the completion and implementation of the motorized use designations in this Environmental Assessment pursuant to 36 CFR 212.51. Also disclosed are the orders that will become effective with implementation of the National Rule.

| Current Closure Order   | Change to Closure Order   |
|---|---|
| Operating or possessing a motorized vehicle on forest transportation system roads that are closed to traffic by means of a gate, sign, or otherwise blocked by a mound of dirt or other physical means.         | Delete. Replace with 36 CFR 216.13.<br>Operating or possessing a motor vehicle on a National Forest system road, National Forest system trail, or area on National Forest System lands that is not in accordance with the designation as identified on the motor vehicle use map. The following vehicles and uses are exempted from this prohibition: a) aircraft; b) watercraft; c) over-snow vehicle; d) limited administrative use by the Forest Service; e) use of any fire, military, emergency, or law enforcement vehicle for emergency purposes; f) authorized use of any combat or combat support vehicle for national defense purposes; g) law enforcement response to violations of law, including pursuit; h) motor vehicle use that is specifically authorized under a written authorization issues under Federal law or regulations; and i) use of a road or trail that is authorized by a legally documented right-of-way held by a State, county, or other local public road authority. |
| Operating an off-highway vehicle off of designated routes in areas that have been closed to cross-country motorized travel (i.e. Calcasieu Ranger District and National Red Dirt Wildlife Management Preserve). | Delete. Replace with 36 CFR 216.13.<br>Same as above.   |
| Operating any motor vehicle on a forest transportation system road in violation of Louisiana State Traffic Code.  | No change.  |
| Possessing or operating any motorized vehicle in excess of fifty (50) inches in width on any designated off-highway vehicle (OHV) trail.  | No change.  |

|  |                   |
|--|-------------------|
| <p>§261.55(d) Prohibit the possession or operation of any motorized vehicle with a tire lug depth &gt; 1 inch on designated trails.</p>  | <p>No change.</p> |
| <p>§261.52(j) Prohibit the use of any internal or external combustion engine on national forest lands without a spark arresting device properly installed, maintained and in effective working order meeting either (1) Department of Agriculture, Forest Service standard 5100-ia or (2) appropriate Society of Automotive Engineers (SAE) recommended practice J335(b) and J35(a).</p> | <p>No change.</p> |
| <p>§261.53(e) Prohibit the use or operation of a motor vehicle that emits a noise in excess of ninety-nine (99) decibels at twenty (20) inches from the exhaust outlet in accordance with SAE J1287, June 1990.</p>  | <p>No change.</p> |

## APPENDIX F. Development of Alternatives

**Alternative 3 (Modified Proposed Action)** – Some changes have been made to the initial proposed designated travel system as presented in the February 8, 2006 scoping letter. Further examination during the scoping process uncovered more motorized travel needs to be included in the proposed action. These changes include 1) the addition of 6 miles of dispersed camping corridors on the Caney District to address dispersed camping that occurs now, 2) the elimination of night-riding that addresses current ATV noise and disturbance that forest users complain about ATV riding after dark, and 3) the correction of specific road designations that have been determined to be in error since the initial proposal. These road designation corrections are displayed below.

| Road  | Change  |  | Reason   |
|---|---|--|--|
|   | From  | To   |  |
| Calcasieu<br>E011A & E11R<br>E046I<br>E007D<br>E006I<br>E020B,C<br>V121D,H; V122B,F,G<br>205C<br>E016H<br>E024H,I; E042D,E;<br>E368D; E059M;<br>E075A<br>E028H<br>E034F, H, I; E366M;<br>E075B, E, G<br>E034J; E046B<br>E361J<br><br>E373E, G, H; E051E;<br>E053E<br>E047I, K, L<br>J05 | Open yearlong<br>Close yearlong<br>Open yearlong<br>Open yearlong<br>Open yearlong<br>Open yearlong<br>Close yearlong<br>-<br>Open yearlong<br><br>Open yearlong<br>Open yearlong<br>Close yearlong<br>Open yearlong<br>Open yearlong<br><br>Close yearlong<br>Close yearlong<br>Close yearlong | Close yearlong<br>Open yearlong<br>Close yearlong<br>Close yearlong<br>Deleted from system<br>Open yearlong<br>Added to system, C<br>Close yearlong<br><br>Close yearlong<br>Close yearlong<br><br>Open yearlong<br>Close yearlong<br>Close yearlong<br><br>Decommission<br><br>Open yearlong<br>Open yearlong | Error<br>Error<br>Error<br>Error<br>Does not exist on the ground<br>Error<br>Error<br>Error, not travelable<br><br>Error, gated<br>Error, bermed<br><br>Error<br>Error, bermed<br>Used as part of the multiple-use trail<br>No longer needed<br><br>Error<br>Error |
| Caney<br>CN18G, H, I, J   | -   | Open YL HLV  | Added to system  |
| Catahoula<br>L018<br>L019<br>L020<br>L021<br>L022   | Open yearlong<br>Open yearlong<br>Open yearlong<br>Open yearlong<br>Open yearlong   | -<br>-<br>-<br>-<br>-  | Decommissioned<br>Decommissioned<br>Decommissioned<br>Decommissioned<br>Decommissioned   |
| Kisatchie<br>397<br>K10F  | Close yearlong<br>Close yearlong  | Open yearlong<br>Open yearlong   | Error<br>Error   |
| K49D  | Open May – Sept   | Open HLV yearlong  | Improve consistency  |

| Road  | Change  |  | Reason   |
|---|---|--|--|
|   | From  | To   |  |
| K17C  | Open May – Sept   | Open HLV 5-9; ATV 10-12  | Improve consistency  |
| Winn<br>W099J<br>W100K<br>W097N<br>W096AA<br>W024A1<br>W024A2                                 | -<br>-<br>-<br>-<br>-<br>-  | Open yearlong<br>Open yearlong<br>Open yearlong<br>Open yearlong<br>Open yearlong<br>Open yearlong   | Existing, added to system<br>Existing, added to system |
| Vernon Unit<br>V234G<br>437<br>447 north portion<br>V116C<br>V122L<br>V123I<br>V127E<br>V128B | -<br>-<br>Open yearlong<br>Open yearlong<br>Close yearlong<br>Open yearlong<br>West portion, Close YL<br>Open, yearlong | Open, regulated by the military<br>Add to system, Open Highway-legal, Sept-Feb<br>Close yearlong<br>Open yearlong<br>Close yearlong<br>Open yearlong<br>Delete south portion | Existing, added to system<br>Extension constructed<br>Reassessed<br>Error, not travelable<br>Error<br>Error, not travelable<br>Error<br>Does not exist                     |

#### **Alternative 4 (reduced motorized use in mussel watersheds and in walk-in hunting areas)**

This alternative considers comments received during scoping pertaining to motorized travel in the Louisiana pearlshell mussel watersheds, in the walk-in hunting/turkey emphasis areas, and consistency in designations across the Forest.

The specific road scoping comments that resulted in changed route designations in Alternative 4 include:

- Close more roads in the Louisiana pearlshell mussel (LPM) watershed to protect the resources. Individual roads (or parts of roads) in the LPM watershed on the Catahoula District were identified to be closed year-round to all motor vehicles where site visits identified erosion and sedimentation into drainages. The problem roads in the LPM watershed on the Evangeline Unit (the other LPM watershed on the Forest) had already been identified and closed either in previous decisions or proposed closed in Alternative 3.
- Reduce motorized use in the walk-in hunting areas and be consistent across the Forest. Access in these areas would meet the objectives for turkey management of reduced disturbance to wildlife and the hunter, enhancing the hunting experience. There are currently designated walk-in hunting areas on the Calcasieu, Kisatchie, and Winn Districts. Most logging roads in these areas on the Winn and Kisatchie Districts are currently closed yearlong. This proposal would close the logging roads in the walk-in area on the Evangeline Unit of the Calcasieu District and in the Turkey Emphasis Area on the Catahoula District in Alternatives 4, 5, and 6.

- Other minor changes to specific road designations from Alternative 3 include:

|   |  |
|---|--|
| 1. CN04K, L, O, R, S  | Open these roads to highway-legal vehicles yearlong. They are in a designated dispersed recreation area along the north shore of Corney Lake and should remain open.   |
| 2. W096AA   | Close segment from LA 472 west to creek. Bridge at creek is out and is a safety hazard.  |
| 3. E366F  | Open to highway legal vehicles September through February only to ridgetop, maintain protected zone of at least 300 feet from LPM stream.  |
| E024A; E076E  | Open to highway legal vehicles September - February. Revisited and determined to be suitable for seasonal use.   |
| 4. K027J  | District ground checked. Road goes to private land and propose to leave open yearlong for highway-legal vehicles.  |
| 5. C015A, N, P, R; part of 152; 152A; C018A, D, H; C019A, C, G, H | Open October through January to ATVs only. These roads are in the Catahoula National Wildlife Preserve, which is managed for wildlife. Designating some of the roads for ATVs during hunting season would lessen wildlife disturbance and reduce rutting on the roads during a wet time of year, while at the same time providing access for deer hunting. |
| 6. C036J  | Close yearlong because of erosion concerns in a riparian area. This road goes to a swimming hole in a tributary of Fish Creek. This road needs maintenance and designation could be reconsidered following repair.   |
| 7. E028A  | Change to open to ATVs October thru January. Revisited and determined to be suitable for seasonal use.   |
| 8. E003D  | Change to closed yearlong. Revisited and identified concerns related to mussel watershed.  |
| 9. E009A  | Change to open to highway legal vehicle September - February. Revisited. Needs clearing and public have agreed to clean-up the road.   |

**Alternative 5** provides more hunting access and game retrieval with an ATV.

In response to hunting access needs, some roads proposed closed that were identified in “suitable areas for ATVs” would be designated for ATV use during deer hunting season. Deer hunting season would be determined by Louisiana Department of Wildlife and Fisheries, typically October through January.

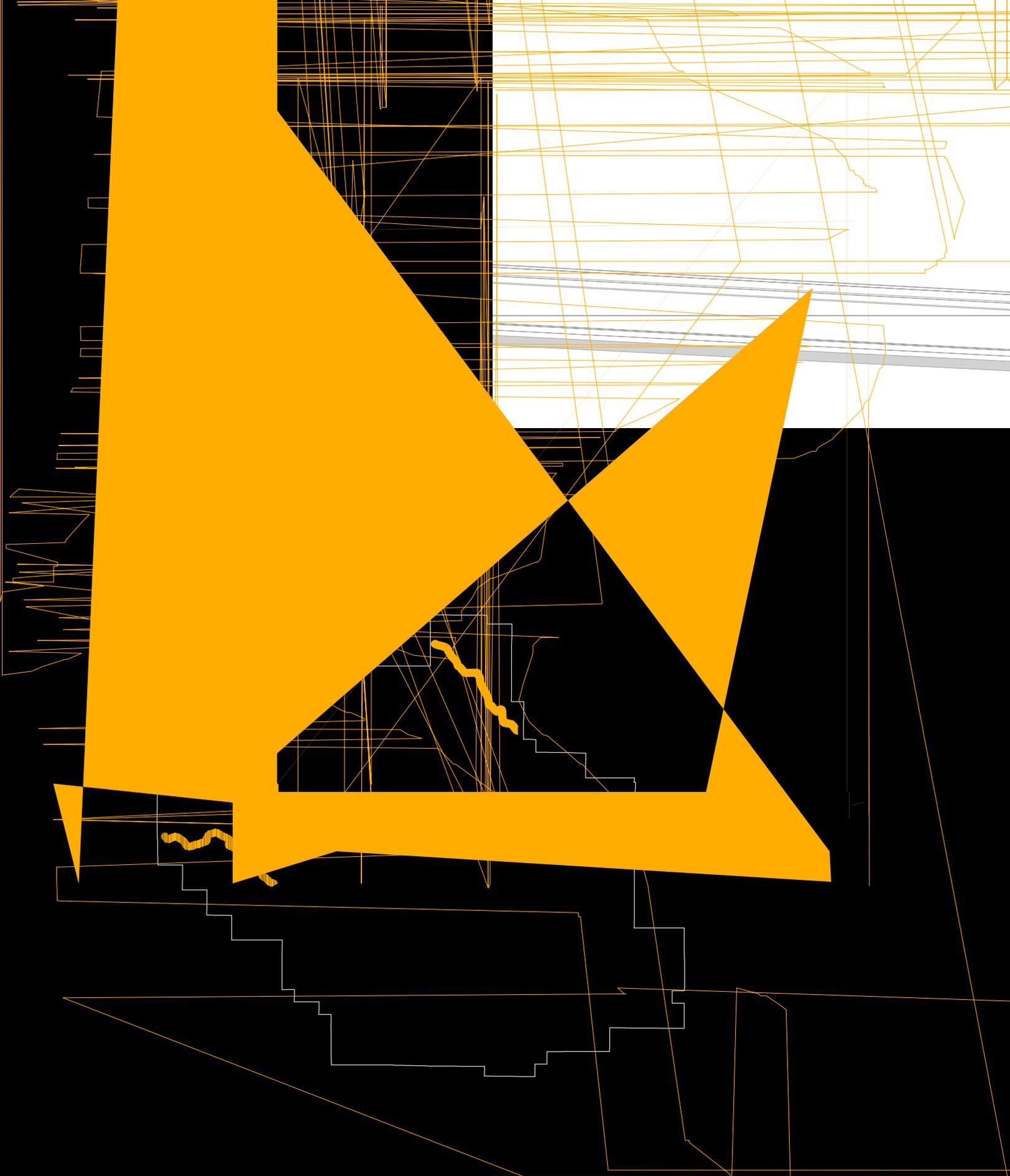
Corridors 300-feet wide on either side of approximately 47 miles of roads would be designated for big game retrieval with an ATV. These big game retrieval corridors are exclusive to the National Wildlife Management Preserves. Use of an ATV within these corridors would be allowed for the sole purpose of retrieval of a downed big game animal by an individual who has legally taken that animal on deer-gun hunting days (approximately 9 days). Big game retrieval rules would be the same as the state Wildlife Management Areas: 1) no firearms or archery equipment can be in possession of the retrieval party or on the ATV, 2) The retrieval party may consist of no more than one ATV and one helper, 3) ATVs may not be used to locate or search for wounded game or for any other purpose than retrieval of deer and hogs once they have been legally harvested and located.

**Modified Alternative 5** is the same as Alternative 5 but modified to include changes that respond to 30-day comments, internal review, and to errors found during road sign installation. Specific changes in response to 30-day comments and internal review include:

|   |  |
|---|--|
| Add two trail spurs on the Calcasieu District   | The spur at Hare Scramble Corner on the Evangeline Unit would be open year-round to motorcycles. The spur at the end of Iron Bridge Road on the Vernon Unit would be open year-round to all trail vehicles ≤ 50 inches wide. |
| C024A   | Open year-round to highway-legal vehicles (HLV). There is a culvert at the stream crossings and no known mussel beds are located downstream.   |
| E024K   | Close year-round. Grown-up and not navigable.  |
| C067C and C067D   | Close year-round. Upstream from Louisiana pearlshell mussel beds.  |
| W106C and W039C   | Open year-round to HLV. Accesses private land.   |
| K14G, K16F, K26E, K26D  | Change from open to ATVs Oct – Jan to open to ATVs Oct – Dec to coincide with hunting season and be consistent with the other seasonal roads within the National Red Dirt Wildlife Management Preserve.                      |
| K08E,F; K48E; K49D,E,J,K,N;<br>K70A,C,H,S; K69G; K71I,M   | Change from open to ATVs Oct – Jan to open to ATVs year-round.   |
| K06B; K07H; K09Q; K33K;<br>K35F; K35H; K36A; K37D;<br>K57F; K60H; K62A,B;<br>K63C,D,E; K69D; K70F,G; K71J | Close to all motor vehicles year-round.  |
| W021E; W025K; W58A,E,G,I,J,<br>K; W059J; W064G,N,H,I  | Close to all motor vehicles year-round.  |

**Alternative 6** would help reduce road damage and maintenance needs by designating ATV use on some logging roads during deer hunting season, typically a wetter time of year; the remainder of the year these roads would be closed. The surfacing on the road was used to make this determination. This alternative addresses hunters' comments about access during deer season. It also addresses comments by the elderly and persons with disabilities as to how they are going to hunt after cross-country travel is prohibited. It addresses the comments that highway-legal vehicles are tearing up the roads during hunting season, and that the roads are not drivable with a truck. It also addresses the maintenance concerns and the lack of funding to maintain these roads.

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APPENDIX C Designated Camping Corridors  
KISATCHIE NATIONAL FOREST  
Travel Management Project

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APPENDIX H. BIOLOGICAL EVALUATION  
for  
Kisatchie National Forest  
Travel Management Project

1.0 Introduction.

1.1 Purpose of this Biological Evaluation, project purpose and need, and basis for the proposed action.

The USDA Forest Service is undertaking an initiative to diminish unmanaged off-road travel on National Forests nationwide. Each National Forest is tasked with developing various alternatives to diminish unmanaged off-road travel. A review of the Kisatchie National Forest Travel Management Project proposed action is needed to determine the effects on endangered, threatened, proposed, and sensitive faunal species. Flora will be addressed in Appendix J. Botanical Evaluation.

1.2 Legal direction reference.

The Kisatchie National Forest Travel Management Project has been implemented under the authority of USDA Forest Service's Travel Management -- Final Rule for Designated Routes and Areas for Motor Vehicle Use (Federal Register, Volume 70, Number 216, Wednesday – November 9, 2005, pages 68264 – 68291). The summary of this Final Rule is as follows: "The Department of Agriculture is revising regulations regarding travel management on National Forest System lands to clarify policy related to motor vehicle use, including the use of off-highway vehicles. This final rule requires designation of those roads, trails, and areas that are open to motor vehicle use. Designations would be made by class of vehicle and, if appropriate, by time of year. The final rule prohibits the use of motor vehicles off the designated system, as well as use of motor vehicles on routes and in areas that is not consistent with the designations. The clear identification of roads, trails, and areas for motor vehicle use on each National Forest would enhance management of National Forest System lands; sustain natural resource values through more effective management of motor vehicle use; enhance opportunities for motorized recreation experiences on National Forest System lands; address needs for access to National Forest System lands; and preserve areas of opportunity on each National Forest for non-motorized travel and experiences. The final rule is consistent with provisions of Executive Order 11644 and Executive Order 11989 regarding off-road use of motor vehicles on Federal lands. This rule is effective December 9, 2005."

1.3 Objectives of this Biological Evaluation.

The objectives of this Biological Evaluation are: 1) to ensure that Forest Service actions do not contribute to the Federal listing of any animal species; 2) to comply with the requirements of the Endangered Species Act that actions of Federal agencies not jeopardize or adversely modify critical habitat of Federally-listed species; and 3) to provide a process and standard by which to ensure that endangered, threatened, proposed, and sensitive species receive full consideration in the decision-making process.

1.4 Area description, general location & management context of the project area.

The proposed project area covers the entire Kisatchie National Forest which is in central and northern Louisiana: Caney Ranger District (in Claiborne and Webster Parishes, LA; 32,354 acres), Catahoula Ranger District (in Grant, Rapides, and Winn Parishes, LA; 121,633 acres), Calcasieu Ranger District (in Rapides and Vernon Parishes, LA; 183,035 acres), Kisatchie Ranger District (in Natchitoches Parish, LA; 102,625 acres), and Winn Ranger District (in Grant, Natchitoches, and Winn Parishes, LA; 164,614 acres).

2.0 Consultation History.

The KNF Forest Wildlife Biologist requested an updated listing of Threatened, Endangered and Proposed species from the U.S. Fish and Wildlife Service, Lafayette Field Office, but otherwise did not consult with external agencies for this project. The KNF Forest Fisheries Biologist consulted with the Louisiana Natural Heritage Program personnel.

3.0 Proposed Management Actions.

3.1 Specific Actions.

The project proposal prohibits motorized cross-country travel forestwide by designating existing forest routes and areas for certain types of motorized use and prohibiting all motorized travel off the designated system. The proposal would change the prohibition of off-route travel on the Forest from 49 percent to 100 percent. Night-riding would be prohibited in all alternatives. Trail riding would be allowed 1 hour before sunrise until 1 hour after sunset. Currently, night-riding is allowed.

Alternative 1 – No Action.

The proposed action would not occur. Motorized route and area designations would remain as they currently exist. No changes to the travel management system would occur.

Alternative 2 – Motorized off-route travel prohibited forestwide.

This alternative has the least amount of changes and complies with the National Rule. Designated motorized routes and areas would not change. Alternative 2 proposed changes to the travel management system include: Motorized travel off the designated routes forestwide would be prohibited. Night-riding from 1 hour after sunset until 1 hour before sunrise would be prohibited.

Alternative 3 – Proposed Action

This alternative proposes changes to road designations resulting from the travel analysis described in §1.7 of the Environmental Assessment. Alternative 3 proposed changes to the travel management system include:

Prohibit motorized travel off the designated routes forestwide.

Prohibit night-riding from 1 hour after sunset until 1 hour before sunrise.

Add 6 miles dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.

Changed road designations –

|  |        |
|--|--------|
| Decrease roads open year-round to highway-legal vehicles (HLV)                               | 384 mi |
| Decrease roads open seasonally to HLV  | 10 mi  |
| Decrease roads open year-round to trail vehicles ≤ 50 inches wide                            | 22 mi  |
| Increase roads open Oct-Jan to trail vehicles ≤ 50 inches wide                               | 2 mi   |
| Total roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 414 mi |

Alternative 4 – Reduced motorized use in mussel watersheds and walk-in hunting areas.

This alternative would reduce miles of roads open for motor vehicles within the Louisiana pearlshell mussel watersheds. Alternative 4 proposed changes to the travel management system include:

Prohibit motorized travel off the designated routes forestwide.

Prohibit night-riding from 1 hour after sunset until 1 hour before sunrise.

Add 6 miles dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.

Close 43 miles Livingston (Catahoula District) multiple-use trail Jan-Mar –

Change road designations –

|  |        |
|--|--------|
| Decrease roads open year-round to highway-legal vehicles (HLV)                               | 407 mi |
| Decrease roads open seasonally to HLV  | 50 mi  |
| Decrease roads open year-round to trail vehicles ≤ 50 inches wide                            | 22 mi  |
| Increase roads open Oct-Jan to trail vehicles ≤ 50 inches wide                               | 24 mi  |
| Total roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 455 mi |

Alternative 5 – Designate big game retrieval corridors for ATVs in NWMP and ATVs on logging roads closed to highway-legal vehicles.

This alternative would open some closed roads for ATV use during deer hunting season, provide corridors for big game retrieval with an ATV, and open all trails year-round except the Sandstone Trail that would not change.

Alternative 5 proposed changes to the travel management system include:

Prohibit motorized travel off the designated routes forestwide.

Prohibit night-riding from 1 hour after sunset until 1 hour before sunrise.

Add 6 miles dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.

Add 47 miles big game retrieval corridors for ATV use within 300 feet of trail.

Open 66 miles Breezy Hill motorcycle trail year-round.

Change road designations –

|  |        |
|--|--------|
| Decrease roads open year-round to highway-legal vehicles (HLV)                               | 406 mi |
| Decrease roads open seasonally to HLV  | 37 mi  |
| Decrease roads open year-round to trail vehicles ≤ 50 inches wide                            | 22 mi  |
| Increase roads open Oct-Jan to trail vehicles ≤ 50 inches wide                               | 272 mi |
| Total roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 193 mi |

Modified Alternative 5 (Preferred Alternative) – (*Designate big game retrieval corridors for ATVs in NWMPs and ATVs on logging roads closed to highway-legal vehicles*)

This is the preferred alternative and is the same as Alternative 5 with minor changes to road designations plus the designation of two trail spurs on the Calcasieu District. Modified Alternative 5 proposed changes to the travel management system include:

- Prohibit motorized travel off the designated routes forestwide.
- Prohibit night-riding from 1 hour after sunset until 1 hour before sunrise.
- Add 6 miles of dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road, Caney District.
- Add 47 miles of big game retrieval corridors for ATV use within 300 feet of centerline of the trail. These corridor designations are located in the National Wildlife Management Preserves; and big game retrieval could only occur on deer-gun hunting days, currently 9 days per year.
- Open 66 miles Breezy Hill motorcycle trail year-round..
- Add two trail spurs to the motorized trail system on the Calcasieu District.
- Changes to road designations –

|   | Miles |
|---|-------|
| Decreased miles of roads open year-round to highway-legal vehicles (HLV)                              | 422   |
| Decreased miles of roads open seasonally to HLV   | 37    |
| Decreased miles of roads open year-round to trail vehicles ≤ 50 inches wide                           | 13    |
| Increased miles of roads open Oct-Jan to trail vehicles ≤ 50 inches wide                              | 248   |
| Increased miles of roads open Oct-Dec to trail vehicles ≤ 50 inches wide                              | 2     |
| Total miles of roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 222   |

Big game retrieval would be allowed in the corridors with the aid of an ATV under the following conditions:

- a. No firearms or archery equipment in possession of the retrieval party or on the ATV.
- b. No more than one ATV and one helper in the retrieval party.
- c. No ATVs may be used to locate or search for wounded game or for any purpose other than retrieval of big game (deer and hogs) once they have been legally harvested and located.

Alternative 6 – Designate ATV use instead of highway-legal vehicle use on logging roads.

This alternative would increase mileage of roads designated for seasonal ATV use and close all trails January – March, reducing maintenance needs. Alternative 6 proposed changes to the travel management system include: Prohibit motorized travel off the designated routes forestwide.

Prohibit night-riding from 1 hour after sunset until 1 hour before sunrise.

Add 6 miles dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.

Close 111 miles of designated trails Jan – Mar.

Change road designations –

|  |        |
|--|--------|
| Decrease roads open year-round to highway-legal vehicles (HLV)                               | 711 mi |
| Decrease roads open seasonally to HLV  | 46 mi  |
| Decrease roads open year-round to trail vehicles ≤ 50 inches wide                            | 22 mi  |
| Increase roads open Oct-Jan to trail vehicles ≤ 50 inches wide                               | 591 mi |
| Total roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 188 mi |

### 3.2 Expected Landscape Conditions and Proposed Future Actions (Monitoring) and Mitigation (Conservation Actions) Included In The Proposed Action.

The expected landscape conditions from the varying alternatives will provide varying levels of a clear identification of roads, trails, and areas for motor vehicle use on each National Forest which would enhance management of National Forest System lands, sustain natural resource values through more effective management of motor vehicle use, enhance opportunities for motorized recreation experiences on National Forest System lands, address needs for access to National Forest System lands, and preserve areas of opportunity on each National Forest for non-motorized travel and experiences. Monitoring the effectiveness of this proposed action would be conducted daily by District personnel. Mitigation: If evidence of impacts to any resource becomes known, an evaluation process would be initiated for needed changes and/or mitigation. If public usage increases to a level where unacceptable impacts occur, analysis and evaluations would be needed to address those impacts.

### 4.0 Species Considered and Species Evaluated.

#### 4.1 All Threatened, Endangered, And Proposed Species On Kisatchie National Forest.

U.S. Fish and Wildlife Service (USFWS) (letter to Kisatchie National Forest dated March 15, 2007) included the following species:

Endangered Species: Red-Cockaded Woodpecker (*Picoides borealis*).

Threatened Species: Louisiana Pearlshell Mussel (*Margaritifera hembeli*), Bald Eagle (*Haliaeetus leucocephalus*)<sup>a</sup>, and earth fruit (*Geocarpon minimum* – see botanical evaluation).

Although not listed in the USFWS letter, the Louisiana black bear (*Ursus americanus luteolus*), is discussed. The American alligator is briefly addressed.

Proposed species: none.

#### 4.2 Regional Forester Sensitive Species (With Date of List Revision).

USDA Forest Service Region 8 Sensitive Species listing dated August 7, 2001:

Mollusks: Sandbank pocketbook (*Lampsilis satura*), Southern hickorynut (*Obovaria jacksoniana*), Louisiana pigtoe (*Pleurobema riddellii*), Texas heelsplitter (*Potamilus amphichaenus*), and Southern creekmussel (*Strophitus subvexus*).

Crustaceans: Sabine fencing crayfish (*Faxonella beyeri*), Ouachita fencing crayfish (*Faxonella creaseri*), Calcasieu painted crayfish (*Orconectes blacki*), Teche painted crayfish (*Orconectes hathawayi*), and Kisatchie painted crayfish (*Orconectes maletae*).

Insect: Schoolhouse Springs leuctran stonefly (*Leuctra szczytkoi*).

Fishes: Western sand darter (*Ammocrypta clara*), Blue sucker (*Cycleptus elongatus*), Bluehead shiner (*Notropis hubbsi*), and Sabine shiner (*Notropis sabinae*).

Amphibian: Louisiana slimy salamander (*Plethodon kisatchie*).

Reptile: Louisiana pine snake (*Pituophis melanoleucus ruthveni*).

Bird: Bachman's Sparrow (*Aimophila aestivalis*).

Mammal: Rafinesque's big-eared bat (*Corynorhinus rafinesquii*), Southeastern myotis (*Myotis austroriparius*)

#### 4.3 The Following Species Were Identified As Being In The Action Area, Or Potentially Affected By The Action, And Are Considered In This Review.

Endangered Species: Red-Cockaded Woodpecker.

Threatened Species: Bald Eagle, Louisiana black bear, and Louisiana pearlshell mussel.

Sensitive Species: Louisiana slimy salamander, Louisiana pinesnake, Bachman's Sparrow, Rafinesque's big-eared bat, Southeastern myotis, Louisiana pearlshell mussel, Sandbank pocketbook, Southern hickorynut, Louisiana pigtoe, Southern creekmussel, Texas pigtoe, Louisiana fatmucket, Free State crawfish, Teche painted crawfish, Ouachita fencing crayfish, Kisatchie painted crayfish, Schoolhouse Springs leuctran stonefly, and Sabine shiner.

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<sup>a</sup> The Bald Eagle (*Haliaeetus leucocephalus*) has officially been removed from the threatened species list as of August 8, 2007. The evaluation in this document was prepared for the Bald Eagle as a threatened species although it is currently listed as a sensitive species.

#### 4.4 Species That Were Considered In The Review But Eliminated From Further Analysis.

American alligator: In 1967, the alligator was listed as “endangered” (under a federal law that preceded the Endangered Species Act of 1973). The Endangered Species Act prohibited alligator hunting, allowing the species to rebound in numbers in many areas where it had been depleted. As the alligator began to make a comeback, States established alligator population monitoring programs and used this information to ensure alligator populations continued to increase. In 1987, the US Fish & Wildlife Service pronounced the American alligator fully recovered and consequently removed it from the endangered species list. Nevertheless, the American alligator is listed as “Threatened Due to Similarity of Appearance” with the American crocodile. The US Fish & Wildlife Service excluded the American alligator from its Biological Opinion of the Final Environmental Impact Statement of the Kisatchie National Forest Revised Land and Resource Management Plan (August 1999) and from its most current listing (March 15, 2007) of Threatened, Endangered, and Proposed Species on the Kisatchie National Forest. Consequently, the American alligator is not addressed in the Environmental Assessment or Biological Evaluation.

Species were eliminated from further consideration if the species’ ranges were not within national forest land in Louisiana or no records of occurrence are known to exist on the Forest.

Mollusks (Texas heelsplitter).

Crustaceans (Sabine fencing crayfish and Calcasieu painted crayfish).

Fishes (Western sand darter, Blue sucker, Bluehead shiner, Paddlefish, and Bigscale logperch).

#### 5.0 Evaluated Species Survey Information.

##### 5.1 Documented or Previous Survey Data.

###### Endangered Species:

Red-Cockaded Woodpecker (RCW): The last annual population surveys were conducted by Kisatchie National Forest Wildlife Biologists in Spring/Summer 2006; results of the surveys are as follows: Winn Ranger District – 31 active RCW clusters, Catahoula Ranger District – 44 active RCW clusters, Kisatchie Ranger District – 36 active RCW clusters, Evangeline Unit of Calcasieu Ranger District – 112 active RCW clusters, and Vernon Unit of Calcasieu Ranger District – 162 active RCW clusters. The Kisatchie National Forest RCW population has exhibited a slightly increasing population trend over the past several years.

###### Threatened Species:

Bald Eagle: The last population surveys were conducted in 2006; Kisatchie National Forest has 2 active Bald Eagle nests (1 on Evangeline Unit, Calcasieu Ranger District – monitored by Steve Shively, Evangeline Unit Wildlife Biologist, 2006) (1 on Corney Unit, Caney Ranger District – monitored by Jason Nolde, Caney District Wildlife Biologist, 2006). No inactive Bald Eagle nests are known to exist.

Louisiana black bear in Louisiana: As of March 2005, 150 different bears have been captured and identified in the Tensas basin. In addition to the Tensas population, bears still occur in the Atchafalaya Basin, Tunica Hills, and Pearl River Basin. Since 1992, Louisiana State University and Louisiana Department of Wildlife and Fisheries personnel have captured and identified over 100 different bears in the Atchafalaya region of coastal Louisiana. A hair snare survey currently is being conducted in the coastal population and results of that research should be available by 2008. The Black Bear Conservation Committee and other agencies have been translocating bears to help close the gap between the Tensas and Atchafalayabasin bear populations. Between 2001 and 2005, 23 adult females and 55 cubs have been moved, and most of these bears have remained in and around the target area. (Black Bear Management Handbook, Black Bear Conservation Committee, 2005, pgs 5-6.)

Mississippi: Based on data provided by the Mississippi Department of Wildlife, Fisheries, and Parks, it is estimated that 25 – 50 bears are scattered statewide in the Mississippi, Pearl, and Pascagoula River drainages. (Black Bear Management Handbook, Black Bear Conservation Committee, 2005, pg 7)

Louisiana pearlshell mussel: The Louisiana pearlshell mussels are known to occur within the Bayou Rapides and Bayou Boeuf watersheds on the Calcasieu Ranger District, Rapides Parish; and Bayou Rigolette on the Catahoula Ranger District, Kisatchie National Forest in Grant Parish. Population counts for the pearlshell mussel are generally conducted every three years, and the most recent surveys conducted on the FS were in 2006 in Grant Parish, and 2004 in Rapides parish (Shively, 2006, 2004).

**Sensitive species:**

**Louisiana slimy salamander:** Louisiana slimy salamanders are known from the hill parishes of north-central Louisiana. Historical versus current abundance -- not common, but well established in central Louisiana; historical abundance is unknown. Little is known of the life history of Louisiana slimy salamanders. Documented occurrences in central and north Louisiana include locations Ouachita, Jackson, Catahoula, Natchitoches, and rapides Parishes; possibly occurs on or around all Ranger Districts of Kisatchie National Forest. ([Amphibian Declines: The Conservation Status of United States Species](#), edited by Michael Lannoo (©2005 by the Regents of the University of California)) (Louisiana Natural Heritage Program. April 1999. database review)

**Louisiana pine snake:** Louisiana records since 1993 document the presence of Louisiana pine snakes in at least 4 parishes: Bienville, Vernon, Sabine, and Natchitoches. The majority (12) of these records have been from Bienville Parish on forestland formerly owned by International Paper (Rudolph et al. 1999). Federal lands in Vernon Parish, managed by Kisatchie National Forest and used by the U. S. Army for military training, also provide habitat. Seven pine snakes have been found in south Vernon Parish on Fort Polk and Kisatchie's Vernon Unit. Fort Polk is currently funding a study to determine pine snake distribution and habitat on its lands. Three more snakes, and possible evidence of a third population area, have been found near the juncture of Vernon, Sabine and Natchitoches parishes on Peason Ridge and the Kisatchie Ranger District. (Candidate Conservation Agreement for the Louisiana Pine Snake, September 2003)

Trap results for Louisiana Pine Snakes in Louisiana and Texas (1993–2001) (Rudolph et al. 2006)

| Location                         | County/parish          | # traps | # trap days | Mean              |                |
|----------------------------------|------------------------|---------|-------------|-------------------|----------------|
|                                  |                        |         |             | # snakes captured | # days/capture |
| Kepler Lake area                 | Bienville Parish       | 3–10    | 3900        | 11 (10)           | 355            |
| Kisatchie NF, Winn District      | Nachitoches /Winn Par. | 18      | 5664        | 3                 | 1888           |
| Kisatchie NF, Kisatchie District | Nachitoches Parish     | 7       | 8575        | 0                 | -              |
| Kisatchie NF, Vernon District    | Vernon Parish          | 3       | 260         | 0                 | -              |
| Cravens                          | Vernon Parish          | 5       | 2550        | 0                 | -              |
| Dido                             | Vernon Parish          | 5       | 735         | 0                 | -              |
| Anacoco                          | Vernon Parish          | 5       | 2252        | 0                 | -              |

**Bachman's Sparrow:** Population data from the most recent Kisatchie National Forest point-count monitoring surveys in comparison to other Kisatchie NF Management Indicator Species.

| Management Indicator (terrestrial) | KNF 2005            | KNF 1998-1999 | KNF 2002-2004     | KNF 2003-2005     | Found in Habitat Types |
|------------------------------------|---------------------|---------------|-------------------|-------------------|------------------------|
|                                    | Number <sub>d</sub> | Average       | Average           | Average           |                        |
| Bachman's Sparrow                  | 0.13                | 0.12          | 0.11              | 0.12              | A                      |
| Northern Bobwhite                  | 0.05                | 0.15          | 0.08              | 0.10 <sub>a</sub> | A                      |
| Prairie Warbler                    | 0.15                | 0.30          | 0.17 <sub>a</sub> | 0.14 <sub>a</sub> | A,B                    |
| Red-Cockaded Woodpecker            | 0.00                | 0.10          | 0.03 <sub>a</sub> | 0.02 <sub>c</sub> | A,C,E                  |
| Red-Headed Woodpecker              | 0.08                | 0.11          | 0.10              | 0.07              | A                      |

<sub>a</sub> = possible decreases from baseline years

<sub>c</sub> = this diminution is refuted by actual population counts which indicate an increasing population

<sub>d</sub> = total number of birds observed / total number of survey visits

A = longleaf pine habitat (early, mid, & late successional stages)

B = shortleaf / oak-hickory habitat (early successional stage)

C = shortleaf / oak-hickory habitat (mid & late successional stages)

E = hardwood – loblolly habitats (mid & late successional stages)

**Southeastern Myotis:** Population data from the most recent population surveys (principal surveyor = Steve Shively, Wildlife Biologist, Calcasieu Ranger District) on Camp Claiborne, Evangeline Unit, Calcasieu Ranger District:

August 2005

August 2006

| Roosting Site               | # Southeastern Myotis counted | # Southeastern Myotis counted |
|-----------------------------|-------------------------------|-------------------------------|
| Camp Claiborne structure #1 | 19,820                        | 9,810                         |
| Camp Claiborne structure #2 | 2,600                         | 3,250                         |
| Camp Claiborne structure #3 | 17,527                        | 15,000                        |

Bat surveys on the Winn Ranger District (principal researcher = Dr Paul LeBerg, Univ. of Louisiana at Lafayette) have not revealed any populations of Southeastern Myotis.

Rafinesque's big-eared bat: Bat surveys by Dr Paul LeBerg, Univ. of Louisiana at Lafayette, have revealed Rafinesque's big-eared bats on the Vernon Unit, Calcasieu Ranger District (in the mid-1990's) and on the Winn Ranger District (in 2003). Roosting sites for these bats were under road bridges. Bat abundance on the Vernon Unit was not quantified; maternity colonies of 80 to 100 bats were discovered on the Winn Ranger District.

Sandbank pocketbook: This species is rare in the Calcasieu drainages on the Vernon Unit, Calcasieu Ranger District. This species is ranked as G2/S2, which indicates that it is imperiled globally and within the state because of its rarity. This species is very vulnerable to extinction or extirpation throughout its range if measures are not taken to protect known populations.

Southern hickorynut: Individuals of this species have been reported from Corney Bayou and Bayou D'Arbonne in north Louisiana, as well as the Sabine River, upper Red, Whisky Chitto, and Calcasieu River drainages. There have also been occurrences reported within the Dugdemona River and in streams on the Vernon Unit of the Calcasieu Ranger District and the Kisatchie Ranger District. The Southern hickorynut has a ranking of G1/S1, which indicates that it is critically imperiled globally and within the state. This species is especially vulnerable to extinction or extirpation if measures are not taken to protect known populations.

Louisiana pigtoe: There have been occurrences recorded on the Vernon Unit of the Calcasieu Ranger district of the Kisatchie National Forest. This species is ranked as G1G2/S1S2, which indicates that it is critically imperiled globally and within the state because of extreme rarity. This species is especially vulnerable to extinction or extirpation throughout its range if measures are not taken to protect known populations.

Southern creekmussel: Individuals of this species have been reported from Corney Bayou and Bayou D'Arbonne in north Louisiana, as well as the Sabine River, Upper Red, Whisky Chitto, and Calcasieu River drainages. There have also been occurrences reported in streams on the Vernon Unit of the Calcasieu Ranger District. The southern creekmussel has a ranking of G2/S1, which indicates 6-20 occurrences globally, with less than six occurrences within the state. This species is very susceptible to becoming extinct or extirpated if measures are not taken to protect known populations.

Texas pigtoe: This species is common on the Vernon Unit of the Calcasieu Ranger District. This species is known from the western gulf drainages of Texas and Louisiana. Most of the Texas records are from the Neches and Sabine Rivers; possibly occurs in the southern portion of the Mississippi Interior Basin drainage. The status of the Louisiana populations is unclear but likely declining like those in Texas (NatureServe, 2001).

Louisiana fatmucket: This species is one of the most common and widespread mussels in Louisiana. It is present on the Vernon Unit of the Calcasieu Ranger District and Kisatchie Ranger District. Suitable habitat is also common on the Winn, Catahoula, and Caney Ranger Districts.

Free State crawfish (*Procambarus kensleyi*): This species is common in western Louisiana and occurs on the Calcasieu and Kisatchie Ranger Districts.

Teche painted crawfish: Historical records show this species occurs in the Red River and upper part of the Bayou Teche system. Individuals have been located on the Evangeline Unit, Calcasieu Ranger District.

Kisatchie painted crawfish: There are occurrences of this species on the Kisatchie Ranger District of the Kisatchie National Forest.

Ouachita fencing crawfish: This species is known to occur on the Caney District.

Schoolhouse springs leuctran stonefly: This species has been collected from Loving Creek on the Evangeline Unit; Swafford Creek, Beaver Creek, and Jordon Creek on the Catahoula District. This species is ranked as G1/S1,

which indicates there are less than six occurrences, and it is especially vulnerable to extinction both globally and within Louisiana.

Sabine shiner: This species occurs on the Kisatchie National Forest on the Vernon Unit of the Calcasieu Ranger District, Big Creek drainage on or near the Catahoula Ranger District, and Kisatchie Ranger District. Status and trend data of the sabine shiner is included in the Aquatic MIS Population Trends Report (Byrd, 2005).

## 5.2 New Surveys Or Inventories That Were Conducted For This Project.

Existing surveys/inventories were utilized for this project; no new surveys or inventories were conducted.

## 6.0 Environmental Baseline For The Species Evaluated In This Biological Evaluation.

6.1 The existing environment, amount and type of habitat, and characteristics of the area to be affected by the proposed action for species evaluated.

### Endangered Species:

Red-Cockaded Woodpecker: Requires open mature and old-growth pine forests. In Kisatchie National Forest's Revised Land and Resource Management Plan (1999), Red-Cockaded Woodpecker Habitat Management Areas were established on Catahoula (73,000 pine and pine-hardwood acres), Calcasieu (Evangeline Unit (46,400 pine and pine-hardwood acres) and Vernon Unit (63,800 pine and pine-hardwood acres)), Kisatchie (60,200 pine and pine-hardwood acres), and Winn (59,400 pine and pine-hardwood acres) Ranger Districts. These areas would be affected directly by this proposed action.

### Threatened Species:

Bald Eagle: Bald Eagles primarily utilize riparian habitat. Certain general elements seem to be consistent among nest site selection; these include: 1) the proximity of water (usually within 0.5 miles) and a clear flight path to the water, 2) the largest living tree in a stand, and 3) an open view of the surrounding area. The proximity of good perching trees also may be a factor in nest site selection. An otherwise suitable site may not be used if excessive human activity occurs in the area (USDI, 1987). Bald Eagle habitat potentially exists on or near Corney Lake (Caney Ranger District), Kincaid Lake (Calcasieu Ranger District), Saline Lake (Winn Ranger District), Saline Bayou (Winn Ranger District), and Iatt Lake (Catahoula Ranger District); the large stream riparian habitat of approximately 92,000 acres suitable for alligator also is suitable for Bald Eagles. These areas would be affected directly by this proposed action.

Louisiana black bear: Louisiana black bears are habitat generalists and omnivores; they exist primarily in large contiguous areas of bottomland hardwood forests. No sufficiently large contiguous areas of bottomland hardwood with low densities of road networks exist on Kisatchie National Forest; therefore, no Kisatchie National Forest District provides optimum black bear habitat. The best available habitat areas for bear on the Forest are the Kisatchie Hills Wilderness (8,679 acres, located on Kisatchie Ranger District), Saline Bayou National Scenic River corridor (5,150 acres, located on Winn Ranger District), and Cunningham Brake (1,646 acres, located on Kisatchie Ranger District); however, these areas are marginal due to their relatively small size. These areas would be affected indirectly by this proposed action.

Louisiana pearlshell mussel: Louisiana pearlshell mussels occur in small, clear perennial streams and are found in sand and gravel substrate; and among cypress knees, tupelo roots and logs. There are approximately 37.46 kilometers of occupied LPM habitat on the USFS, with 21.59 km occurring on the Calcasieu RD, and 15.87 km on the Catahoula RD.

### Sensitive Species:

Louisiana slimy salamander: Documented occurrences in central and north Louisiana (and southern Arkansas) include locations in Ouachita, Jackson, Catahoula, Natchitoches, and Rapides Parishes. Found in areas where hardwoods are common, under hardwood logs, in rock crevices, caves, under moist humus and leaf litter. Possibly occurs on or around all Ranger Districts of the Kisatchie National Forest. Currently, the Kisatchie National Forest has 35,015 acres of hardwood-pine habitat, 34,256 acres of upland hardwood habitat, and 49,337 acres of bottomland habitat which are especially suitable for the Louisiana slimy salamander. These areas would be affected directly by this proposed action.

Louisiana pine snake: Requires longleaf pine areas with sandy soils with pocket gopher burrows. Documented occurrences in central and north Louisiana include locations in Bienville, Natchitoches, Sabine, Vernon, Rapides, and Beauregard Parishes. Possibly occurs on or around the Vernon and Evangeline Units, Calcasieu Ranger District, and Kisatchie and Winn Ranger Districts. The Red-Cockaded Woodpecker Habitat Management Areas discussed in the Red-Cockaded Woodpecker section immediately above provide suitable habitat for this species. These areas would be affected directly by this proposed action.

Bachman's Sparrow: Requires open pineywoods with a dense understory of grass. Occurs on or around Vernon and Evangeline Units, Calcasieu Ranger District and the Kisatchie, Catahoula, and Winn Ranger Districts. The Red-Cockaded Woodpecker Habitat Management Areas discussed in the Red-Cockaded Woodpecker section immediately above provide suitable habitat for this species. These areas would be affected directly by this proposed action.

Southeastern Myotis: Predominantly a cave bat in that part of its range where suitable caves occur. But in Texas, and in most of Louisiana, it seeks out roosts in human habitations and structures. Outside of caves, it has been found in crevices between bridge timbers; in culverts and drain pipes; in boat houses, barns, and the attics of houses; and in hollow trees. The bats are usually closely associated with water and when they leave their diurnal roosts late in the evening (usually about dark), they fly to nearby ponds and streams over which they forage and from which they drink. (Mammals of Texas – Online Edition) The entire Kisatchie National Forest (604,000 acres) can be considered as suitable habitat for the Southeastern Myotis because of this species' capacity to utilize wide-ranging roosting sites which occur in all Kisatchie habitat types.

Rafinesque's big-eared bat: Roosts in cave entrances, hollow trees, abandoned buildings and under bridges in the forests of southeastern United States (Texas Parks and Wildlife – online). The entire Kisatchie National Forest (604,000 acres) can be considered as suitable habitat for the Rafinesque's big-eared bat because of this species' capacity to utilize wide-ranging roosting sites which occur in all Kisatchie habitat types.

Sandbank pocketbook: The sandbank pocketbook mussel occurs within flowing streams with sandy substrates.

Southern hickorynut: This species of mussel prefers clear, flowing water with stable sand or gravel substrate.

Louisiana pigtoe: The Louisiana pigtoe mussel occurs within flowing streams with sandy substrates.

Southern creekmussel: This species of mussel prefers clear, flowing water with stable sand or gravel substrate.

Texas pigtoe: The Texas pigtoe mussel occurs within flowing streams with sandy substrates.

Louisiana fatmucket: This mussel species occurs in a variety of substrates in flowing water.

Free State crawfish: This crawfish species can be found in both lentic (still water) and lotic (running water) habitats, and burrows in creeks.

Teche painted crawfish: This crawfish species inhabits streams and drainages and prefers flowing water with some structure on the substrate, such as logs or rocks.

Kisatchie painted crawfish: This species occupies streams of various sizes and bottoms almost completely covered with leaf litter.

Ouachita fencing crawfish: This species inhabits shallow, temporary pools and roadside ditches.

Schoolhouse springs leuctran stonefly: The Schoolhouse Springs stonefly is found in natural streams with sandy substrates, shaded by overhanging hardwoods.

Sabine shiner: The Sabine shiner inhabits small to medium rivers with sand or gravel substrate and clear flowing waters.

6.2 Current Status Of The Species And Habitat Associations That Occur Within The Action Area And In The Nearby Vicinity (Habitat That Could Be Indirectly Affected By proposal, and used by the species).

**Endangered Species:**

**Red-Cockaded Woodpecker:** Red-Cockaded Woodpeckers have a slightly increasing population on Kisatchie National Forest. The habitat associated with the Red-Cockaded Woodpecker that occurs within the proposed action area and in the nearby vicinity that could be indirectly affected by alternative proposals is discussed in Section 6.1 above.

**Threatened Species:**

**Bald Eagle:** Bald Eagles have a slightly increasing population in Louisiana. The habitat associated with the Bald Eagles that occurs within the proposed action area and in the nearby vicinity that could be indirectly affected by alternative proposals is discussed in Section 6.1 above.

**Louisiana black bear:** Louisiana black bears have an increasing population in Louisiana. The habitat associated with the Louisiana black bear that occurs within the proposed action area and in the nearby vicinity that could be indirectly affected by the alternative proposals are discussed in Section 6.1 above.

**Louisiana pearlshell mussel:** The Louisiana Natural Heritage Program first surveyed the Rapides Parish range in 1985. Grant Parish pearlshell streams were surveyed during the early and mid-1990s (U.S. Fish and Wildlife Service, 1992; Johnson and Brown, 1994) and four Rapides Parish streams were surveyed in 1991 (Louisiana Natural Heritage Program, 1992). In 1998, the entire Rapides parish range was surveyed followed by the entire Grant Parish range in 1999 (Shively and Vermillion, 1999 and Shively, 2000). Selected Louisiana pearlshell beds on the Kisatchie National Forest in Rapides Parish were revisited in 2001 (Shively, 2001). In 2002, selected large concentrations of *Margaritifera* in five Grant Parish streams on the KNF were surveyed (Shively and Byrd, 2002) and almost all Rapides Parish beds on the KNF were revisited in 2004 (Shively, 2004). In the summer of 2006, all known beds in the Grant Parish streams were revisited. In the latest MIS report (Byrd, 2005), the LPM population as a whole was reported to be stable and perhaps even increasing slightly. The 2006 survey results counted 7,216 LPM in areas where 5,549 were counted in 1999. Survey results are available in the project file.

**Sensitive Species:**

**Louisiana slimy salamander:** The population status of the Louisiana slimy salamander on Kisatchie National Forest is unknown. The habitat associated with the Louisiana slimy salamander that occurs within the proposed action area and in the nearby vicinity that could be indirectly affected by the alternative proposals is discussed in Section 6.1 above.

**Louisiana pine snake:** The population status of the Louisiana pine snake on Kisatchie National Forest is unknown. The habitat associated with the Louisiana pine snake that occurs within the proposed action area and in the nearby vicinity that could be indirectly affected by the alternative proposals is discussed in Section 6.1 above.

**Bachman's Sparrow:** The population status of the Bachman's Sparrow on Kisatchie National Forest is unknown. The habitat associated with the Bachman's Sparrow that occurs within the proposed action area and in the nearby vicinity that could be indirectly affected by the alternative proposals is discussed in Section 6.1 above.

**Southeastern Myotis:** The population status of the Southeastern Myotis on most of the Kisatchie National Forest is unknown. The habitat associated with the Southeastern Myotis that occurs within the proposed action area and in the nearby vicinity that could be indirectly affected by the alternative proposals is discussed in Section 6.1 above.

**Rafinesque's big-eared bat:** Some isolated surveys have occurred on the Forest but the population status on the Forest as a whole is unknown. The favored habitat of concrete bridges and structures occur throughout the Forest.

**Six sensitive mussel species:** Several surveys taken by Malcolm Vidrine, beginning in 1988, on both the Vernon Unit and adjacent Department of Defense land, have provided baseline information for the six sensitive mussel species. Distribution of mussels were also taken from Dr. Vidrine's statewide surveys (Freshwater Mussels in Louisiana, Vidrine 1993).

**Four sensitive crawfish:** Forest-sponsored surveys for crawfish on the Evangeline Unit during 2003, the Catahoula RD during 2004, and the Kisatchie RD during 2005, provided additional information on the Teche painted, Free State, Kisatchie painted, and Ouachita fencing crawfish species being considered.

Schoolhouse springs leuctran stonefly: The Schoolhouse Springs leuctran stonefly has not been detected in the most recent forest-wide macroinvertebrate surveys (Alley, 2004). This stonefly is a very rare species that has proven difficult to collect.

Sabine shiner: Regular MIS monitoring efforts provide information on Forest locations for the sensitive Sabine shiner (Byrd, 2005). While on the FS Region's sensitive species list, this species is common in Louisiana and is not on the Natural Heritage sensitive list for Louisiana. It has been collected on the Vernon Unit of the Calcasieu RD, the Kisatchie RD, and Big Creek drainage of the Catahoula RD.

### 6.3 How Much Potential Habitat For Each Species Is In Or Adjacent To The Action Area Compared To The Total Habitat Distribution?

This proposed action encompasses the entire Kisatchie National Forest and suitable habitat for the following species are discussed in Section 6.1; potential habitat for the following species off the Forest is beyond the scope of this evaluation:

#### Endangered Species:

Red-Cockaded Woodpecker

#### Threatened Species:

Bald Eagle

Louisiana black bear

Louisiana pearlshell mussel

#### Sensitive Species:

Louisiana slimy salamander

Louisiana pine snake

Bachman's Sparrow

Southeastern Myotis:

Rafinesque's big-eared bat

Six sensitive mussel species

Four sensitive crawfish

Schoolhouse springs leuctran stonefly

Sabine shiner

### 6.4 Threats/Limiting Factors That Affect These Species. Factors In The Proposed Action That May Be Detrimental To Their Habitat.

#### Endangered Species:

Red-Cockaded Woodpecker: This species is adversely susceptible to a host of factors such as habitat degradation, predation, disease, and human disturbance. The proposed actions present no threats or limiting factors to this species.

#### Threatened Species:

Bald Eagle, Louisiana black bear, and Louisiana pearlshell mussel: These species are adversely susceptible to a host of factors such as habitat degradation, disease, and human disturbance. The proposed actions present no threats or limiting factors to these species.

#### Sensitive Species:

Louisiana slimy salamander, Louisiana pine snake, Bachman's Sparrow, Southeastern Myotis, six sensitive mussels, four sensitive crawfish, Schoolhouse springs leuctran stonefly, and Sabine shiner: These species are adversely susceptible to a host of factors such as habitat degradation, predation, disease, and human disturbance. The proposed actions present no threats or limiting factors to these species.

### 6.4 Incomplete Or Unavailable Information. Will The Lack Of These Data Influence The Analysis And Biological Evaluation Conclusions?

Detailed data is available for a number of the species evaluated. However, the population status of the Louisiana slimy salamander, Louisiana pine snake, Bachman's Sparrow, and Schoolhouse springs leuctran stonefly on

Kisatchie National Forest is uncertain. The population status of Southeastern Myotis, the six sensitive mussels, and two sensitive crawfish and are unknown on portions of the Kisatchie National Forest. The lack of data for the Louisiana slimy salamander, Louisiana pine snake, Bachman's Sparrow, Southeastern Myotis, Schoolhouse springs leuctran stonefly, six sensitive mussels, and four sensitive crawfish is not critical because these species would be expected to benefit by implementation of the proposed actions.

7.0 Effects Of The Proposed Management Action On Each Species Evaluated.

7.1 Direct beneficial and/or adverse effects and their significance (all alternatives).

Endangered Species:

Red-Cockaded Woodpecker: The proposed action (elimination of motorized cross-country travel off designated routes and prohibition of night-riding on trails) would reduce human disturbances to this species. No adverse direct effects would occur. Closing more logging roads in Alternatives 3 and 4 would also reduce human disturbance. Changing vehicle designations from highway-legal to ATV on some of the logging roads would not likely change the impacts because there would still be human disturbance. The designation of 6 miles of dispersed camping corridors in Alternatives 4, 5, and 6 would not likely change impacts because hunters and fisherman camp in these locations now. The changes in seasonal use proposed in Alternatives 4, 5, and 6 could reduce some disturbance for part of the year. No adverse impacts would be likely. Continued and especially increasing motorized cross-country travel in Alternative 1 could disturb the species during nesting season, causing reduced survival of young and an impact to the population.

Threatened Species:

Bald Eagle. The two bald eagle locations on the forest are both located in areas that do not receive much, if any, current OHV riding. Consequently, none of the alternatives, including no action, are likely to affect bald eagle habitat, or nesting success.

Louisiana black bear: The proposed action (elimination of motorized cross-country travel off designated routes and prohibition of night-riding on trails) would reduce human disturbances to this species. No adverse direct effects would occur. Closing more logging roads in Alternatives 3 and 4 would also reduce human disturbance. Changing vehicle designations from highway-legal to ATV on some of the logging roads not likely change the impacts because there would still be human disturbance. The designation of 6 miles of dispersed camping corridors in Alternatives 4, 5, and 6 would not likely change impacts because hunters and fisherman camp in these locations now. The changes in seasonal use proposed in Alternatives 4, 5, and 6 could reduce some disturbance for part of the year. No adverse impacts would be likely.

Continued and increasing motorized cross-country travel in Alternative 1 could disturb the species especially during hunting seasons, causing reduced survival of young and an impact to the population.

Louisiana pearlshell mussels (LPM): These mussels are currently threatened by motorized off-route traffic. ATVs have affected LPM directly by running over and destroying beds, and crushing and displacing individuals, sometimes into unsuitable habitat. Higher road densities also induce sediment loading into streams, and excess siltation suffocates and kills mussels. Under Alternative 1, this situation will continue and worsen. The prohibition of cross-country motorized travel in Alternatives 2, 3, 4, 5, Modified 5, and 6 would benefit the mussels.

There are approximately 1.1 miles of motorized trails within the LPM watershed but these trails exist in the upper reaches of the drainages approximately 1.4 miles from mussel bed locations. No impacts would be expected to extend to the LPM. These trails are also located on soils characterized as suitable for motorized trails. (See map in Appendix L2 in the EA.)

Alternatives 4, 5, Modified 5, and 6 have the least mileage of open roads and stream crossings (See Table 3-7 in the EA). Bridges exist where roads cross Louisiana pearlshell mussel streams within close proximity of LPM beds, thereby mitigating potential sedimentation into the streams. These roads have existed for a long time and provide access through the Forest. Whenever access is needed for timber harvesting, roads within close proximity to mussel beds would be avoided as well as any that would result in potential sedimentation. These determinations would be based on visual observations in the field and past experience. Most of the roads that cross LPM streams are in the upper reaches, a considerable distance from mussel beds, and sedimentation is not expected to extend to the beds. Sedimentation into the LPM streams is monitored; and if conditions change in the future, resolving problems of sedimentation would be addressed at that time.

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Additional camping corridors, big game retrieval corridors, and trail spurs proposed in one or more of the alternatives lie outside the LPM watersheds and no impact would be expected.

**Sensitive Species:**

Louisiana slimy salamander, Louisiana pine snake (LPS), Bachman's Sparrow, Southeastern Myotis, and Rafinesque's big-eared bat: The proposed action (elimination of motorized cross-country travel off designated routes and prohibition of night-riding on trails) would reduce human disturbances and/or direct mortality to these species. No adverse direct effects would occur. Closing more logging roads in Alternatives 3 and 4 would also reduce human disturbance. Changing vehicle designations from highway-legal to ATV on some of the logging roads would not likely change the impacts because there would still be human disturbance. The designation of 6 miles of dispersed camping corridors in Alternatives 3, 4, 5, and 6 would not likely change impacts because hunters and fisherman camp in these locations now. The changes in seasonal use proposed in Alternatives 4, 5, and 6 could reduce some disturbance for part of the year. No adverse impacts would be likely.

Continued and increasing motorized cross-country travel in Alternative 1 could crush more ground-dwellers like the Louisiana slimy salamander or Louisiana pine snake or disturb species during nesting season, causing reduced survival of young and a negative impact to the population.

One of the trail spurs added in Modified Alternative 5 lies within the LPS habitat (See map in Appendix M of the EA). This spur is located on an existing roadbed and no gopher mounds were observed in the area; therefore, no impacts would be expected to the LPS.

human disturbance. The designation of 6 miles of dispersed camping corridors in Alternatives 4, 5, and 6 would not likely impact this species because hunters and fisherman camp in these locations now. The changes in seasonal use proposed in Alternatives 4, 5, and 6 could reduce some disturbance for part of the year. No adverse impacts would be likely.

Continued motorized cross-country travel in Alternative 1 could disturb the species during nesting season, causing reduced survival of young and an impact to the population.

**Threatened Species:**

Bald Eagle, and Louisiana black bear: The proposed action (elimination of motorized cross-country travel off designated routes and prohibition of night-riding on trails) would reduce degradation of the forested habitat (reduce killing/damaging plants, bushes, and saplings, reduce erosion and sedimentation, and reduce the spread of invasive plant species) which would benefit these species. No adverse indirect effects would occur. Closing more logging roads in Alternatives 3 and 4 would also reduce human disturbance. Changing vehicle designations from highway-legal to ATV on some of the logging roads not likely change the impacts because there would still be human disturbance. The designation of 6 miles of dispersed camping corridors in Alternatives 3, 4, 5, and 6 would not likely change impacts because hunters and fisherman camp in these locations now. The changes in seasonal use proposed in Alternatives 4, 5, and 6 could reduce some disturbance for part of the year. No adverse impacts would be likely.

Substantially increased motorized cross-country travel in Alternative 1 would be needed before potentially disturbing bald eagles during the nesting season. Alternative 1 would result in increased contact between bears and people, potentially causing reduced survival of young and a possible impact to the population.

Louisiana pearlshell mussels: Indirectly, ATVs crossing streams destabilizes the substrate, rendering the habitat less suitable. User-constructed trails in the watershed also indirectly degrade the habitat and increase sediment transport to the streams. If sediment loads exceed the loading capacity of the streams, siltation will occur and could potentially bury beds in extreme, but realistic, cases. Under Alternative 1, this situation will continue and worsen. Under Alternatives 2, 3, 4, 5 and 6 motorized cross-country use would be prohibited and use would be mostly excluded from LPM watersheds and the situation should improve considerably.

Restricting highway-legal vehicles to designated roads would not be expected to increase the concentration of use on the Forest's roads in the LPM watersheds in the future. The maintained gravel roads in the Forest's system are used by persons traveling to places outside the Forest as well as by Forest recreationists. The interior dead-end, mostly native-surfaced roads (logging roads) are used by dispersed recreationists like hunters, berry-pickers, or bird-watchers. The frequency of recreation visits to the Forest is not expected to increase significantly in the future; and therefore, concentrated use on the roads would not be expected to change. Therefore, no indirect effects from restricting highway-legal vehicles to designated routes and increasing concentrated use would be expected to the LPM.

**Sensitive Species:**

Louisiana slimy salamander, Louisiana pine snake, Bachman's Sparrow, Southeastern Myotis, Rafinesque's big-eared bat, six sensitive mussel species, four crawfish species, Schoolhouse springs leucran stonefly, and Sabine shiner: The proposed action (elimination of motorized cross-country travel off designated routes and prohibition of night-riding on trails) would reduce degradation of the forested habitat (reduce killing/damaging plants, bushes, and saplings, reduce erosion and sedimentation, and reduce the spread of invasive plant species) which would benefit these species. No adverse indirect effects would occur. Closing more logging roads in Alternatives 3 and 4 would also reduce human disturbance. Changing vehicle designations from highway-legal to ATV on some of the logging roads would not likely change the impacts because there would still be human disturbance. The designation of 6 miles of dispersed camping corridors in Alternatives 4, 5, and 6 would not likely change impacts because hunters and fisherman camp in these locations now. The changes in seasonal use proposed in Alternatives 4, 5, and 6 could reduce some disturbance for part of the year. No adverse impacts would be likely.

Continued motorized cross-country travel in Alternative 1 could crush more ground-dwellers like the Louisiana slimy salamander or Louisiana pine snake and disturb species during nesting season, causing reduced survival of young and an impact to the population. ATVs crossing streams destabilizes the substrate, rendering the habitat less suitable for the sensitive mussels and crawfish. User-constructed trails in the watershed also degrade the habitat when erosion from the trails silts in the streams, impacting sensitive aquatic species. Under Alternative 1 (no action) Rafinesque's big-eared bats and Southeastern myotis might suffer from more disturbance at their roost sites.

### 7.3 Cumulative effects and their significance (all alternatives).

#### Endangered Species:

Red-Cockaded Woodpecker: By reducing motorized use and indirectly human disturbance factors and reducing degradation of the habitat, the proposed actions in Alternatives 2, 3, 4, 5, and 6 would enhance ecosystem integrity which benefits these species. No adverse cumulative effects would occur.

By taking no action (Alternative 1), the growing popularity of motorized recreation could increase use on the Forest to the point of disturbing and degrading species habitat and adversely impacting survival.

#### Threatened Species:

Bald Eagle. Increased OHV use (and consequently people/eagle interaction) might result in impacts to the bald eagles on the forest. This is unlikely given the location of the known bald eagle nest trees. In Louisiana, and elsewhere in the United States, the trend is towards increasing bald eagle populations.

Louisiana black bear: By reducing motorized use and indirectly human disturbance factors and reducing degradation of the habitat, the proposed actions in Alternatives 2, 3, 4, 5, and 6 would enhance ecosystem integrity which would benefit this species. No adverse cumulative effects would occur.

By taking no action (Alternative 1), the growing popularity of motorized recreation could increase use on the Forest to the point of disturbing migrating bears and degrading species habitat and potentially adversely impacting survival.

Louisiana pearlshell mussels: There are a number of concurrent environmental activities that could cumulatively impact pearlshell mussel habitat. These include past and ongoing highway construction, bridge replacement projects, activities on private land, and OHV impacts. By removing cross country OHV effects from the list, this will lessen the opportunity for adverse cumulative effects.

#### Sensitive Species:

Louisiana slimy salamander, Louisiana pine snake, Bachman's Sparrow, Southeastern Myotis, Rafinesque's big-eared bat, six sensitive mussel species, four crawfish species, Schoolhouse springs leuctran stonefly, and Sabine shiner : By reducing motorized access and indirectly human disturbance factors and reducing degradation of the habitat, the proposed actions in Alternatives 2, 3, 4, 5, and 6 would enhance ecosystem integrity which would benefit these species. No adverse cumulative effects would occur.

By taking no action (Alternative 1), the growing popularity of motorized recreation could increase use on the Forest to the point of disturbing and degrading species habitat and adversely impacting survival.

### 7.4 Possible Conflicts Between the Proposed Actions and the Objectives of Federal, Regional, State and Local Land-Use Plans, Policies and Controls in Place for the Project. Amount of Incidental Take is Included.

#### Endangered Species:

Red-Cockaded Woodpecker: The continued motorized use off designated trails in the existing condition (Alternative 1) would not comply with USDA Forest Service's Travel Management -- Final Rule for Designated Routes and Areas for Motor Vehicle Use (Federal Register, Volume 70, Number 216, Wednesday – November 9, 2005, pages 68264 – 68291). No conflicts would occur with Alternatives 2, 3, 4, 5, and 6 and the objectives of federal, regional, state, or local land-use plans, policies and controls in place for the project or action area. No incidental take of this species would occur with Alternatives 2, 3, 4, 5, and 6.

#### Threatened Species:

Bald Eagle, Louisiana black bear, and Louisiana pearlshell mussel: The continued motorized use off designated trails in the existing condition (Alternative 1) would not comply with USDA Forest Service's Travel Management -- Final Rule for Designated Routes and Areas for Motor Vehicle Use (Federal Register, Volume 70, Number 216, Wednesday – November 9, 2005, pages 68264 – 68291). No conflicts would occur with Alternatives 2, 3, 4, 5, and 6 and the objectives of federal, regional, state, or local land-use plans, policies and controls in place for the project or action area. No incidental take of these species would occur with Alternatives 2, 3, 4, 5, and 6.

#### Sensitive Species:

Louisiana slimy salamander, Louisiana pine snake, Bachman's Sparrow, Southeastern Myotis, Rafinesque's big-eared bat, six sensitive mussel species, four crawfish species, Schoolhouse springs leuctran stonefly, and Sabine shiner: The continued motorized use off designated trails in the existing condition (Alternative 1) would not comply with USDA Forest Service's Travel Management -- Final Rule for Designated Routes and Areas for Motor Vehicle

Use (Federal Register, Volume 70, Number 216, Wednesday – November 9, 2005, pages 68264 – 68291). No conflicts would occur with Alternatives 2, 3, 4, 5, and 6 and the objectives of federal, regional, state, or local land-use plans, policies and controls in place for the project or action area. No incidental take of these species would occur with Alternatives 2, 3, 4, 5, and 6.

## 8.0 Determinations of Effects and Rationale.

### 8.1 Determinations of Effect For Each Species.

#### Endangered Species:

**Red-Cockaded Woodpecker:** The continued motorized use off designated trails in the existing condition (Alternative 1) would be likely to adversely affect the Red-Cockaded Woodpecker based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 is not likely to adversely affect the Red-Cockaded Woodpecker based on the direct, indirect, and cumulative effects of the proposed actions on this species.

#### Threatened Species:

**Bald Eagle:** The continued motorized use off designated trails in the existing condition (Alternative 1) would be not likely to adversely affect the Bald Eagle based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 is not likely to adversely affect the Bald Eagle based on the direct, indirect, and cumulative effects of the proposed actions on this species.

**Louisiana black bear:** The continued motorized use off designated trails in the existing condition (Alternative 1) would be likely to adversely affect the Louisiana black bear based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 is not likely to adversely affect the Louisiana black bear based on the direct, indirect, and cumulative effects of the proposed actions on this species.

**Louisiana pearlshell mussel:** The continued motorized use off designated trails in the existing condition (Alternative 1) would be likely to adversely affect the Louisiana pearlshell mussel based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 is not likely to adversely affect the Louisiana pearlshell mussel based on the direct, indirect, and cumulative effects of the proposed actions on this species.

#### Sensitive Species:

**Louisiana slimy salamander:** The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Louisiana slimy salamander based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Louisiana slimy salamander based on the direct, indirect, and cumulative effects of the proposed actions on this species.

**Louisiana pine snake:** The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Louisiana pine snake based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Louisiana pine snake based on the direct, indirect, and cumulative effects of the proposed actions on this species.

**Bachman's Sparrow:** The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Backman's Sparrow based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Bachman's Sparrow based on the direct, indirect, and cumulative effects of the proposed actions on this species.

**Southeastern Myotis:** The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the southeastern myotis based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Southeastern Myotis based on the direct, indirect, and cumulative effects of the proposed actions on this species.

Rafinesque's big-eared bat: The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Rafinesque's big eared bat based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Rafinesque's big-eared bat based on the direct, indirect, and cumulative effects of the proposed actions on this species.

Sandbank pocketbook: The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Sandbank pocketbook mussel based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Sandbank pocketbook based on the direct, indirect, and cumulative effects of the proposed actions on this species.

Southern hickorynut: The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Southern hickorynut based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Southern hickorynut based on the direct, indirect, and cumulative effects of the proposed actions on this species.

Louisiana pigtoe: The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Louisiana pigtoe based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Louisiana pigtoe based on the direct, indirect, and cumulative effects of the proposed actions on this species.

Southern creekmussel: The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Southern creekmussel based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Southern creekmussel based on the direct, indirect, and cumulative effects of the proposed actions on this species.

Texas pigtoe: The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Texas pigtoe on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Texas pigtoe based on the direct, indirect, and cumulative effects of the proposed actions on this species.

Louisiana fatmucket: The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Louisiana fatmucket based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Louisiana fatmucket based on the direct, indirect, and cumulative effects of the proposed actions on this species.

Teche painted, Free state, Ouachita fencing, and Kisatchie painted crawfish species: The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to these four crawfish species based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on these four crawfish species based on the direct, indirect, and cumulative effects of the proposed actions on this species.

Schoolhouse springs leuctran stonefly: The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Schoolhouse Springs leuctran stonefly based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the stonefly based on the direct, indirect, and cumulative effects of the proposed actions on this species.

Sabine shiner: The continued motorized use off designated trails in the existing condition (Alternative 1) may impact individuals but is not likely to cause a trend to federal listing or a loss of viability to the Sabine shiner based on the direct, indirect, and cumulative effects in Section 7.0. The elimination of motorized cross-country travel

forestwide in Alternatives 2, 3, 4, 5, and 6 would have beneficial impacts on the Sabine shiner based on the direct, indirect, and cumulative effects of the proposed actions on this species.

### 8.2 Consultation implications.

Findings of “Not likely to adversely affect” and/or “Likely to adversely affect” for threatened or endangered species requires additional consultation with the Fish and Wildlife Service. The U.S.D.I. Fish and Wildlife Service concurs (Appendix O to the EA) with the “not likely to adversely affect” determination for Alternatives 2, 3, 4, 5, Modified 5, and 6 for the Red-Cockaded Woodpecker, Louisiana black bear and Louisiana pearlshell mussel.

### 9.0 Mitigation Measures.

If evidence of impacts to any resource becomes known, an evaluation process would be initiated for needed changes and/or mitigation. If public usage increases to a level where unacceptable impacts occur, analysis and evaluations would be needed to address those impacts.

### 10.0 Signature Of Preparers.

[signed original on file]

September 12, 2007

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Ken Dancak  
Kisatchie National Forest Wildlife Biologist

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Date

[signed original on file]

September 12, 2007

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David Byrd  
Kisatchie National Forest Fisheries Biologist

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Date

### 11.0 References and Data Sources.

Alley, 2004. Analysis of Benthic Macroinvertebrate Associations in Low Gradient Streams of the Kisatchie National Forest. Thesis. University of Louisiana, Monroe, LA.

[Amphibian Declines: The Conservation Status of United States Species](#), edited by Michael Lannoo; 2005. Regents of the University of California.

Byrd, 2005. Aquatic Management Indicator Species Population Trends Report. USDA Forest Service. Kisatchie National Forest.

Biological Assessment of Final Environmental Impact Statement of the Revised Land and Resource Management Plan of Kisatchie National Forest. August 1999. USDA Forest Service, Southern Region, Pineville, LA. Pgs 11-18. Black Bear Management Handbook, Black Bear Conservation Committee, 2005.

Candidate Conservation Agreement for the Louisiana Pine Snake, September 2003.

Dundee, H.A. and D.A. Rossman. 1989. The Amphibians and Reptiles of Louisiana. La. State Univ. Press, Baton Rouge. 300pp.

Federal Register, Volume 70, Number 216, Wednesday – November 9, 2005, pgs 68264 – 68291.

International Conference on Wildlife Ecology and Transportation (Missoula, MT). G.L. Evink, P. Garrett, and D. Zeigler (eds.). Florida Department of Transportation, Tallahassee, FL. FL-ER-73-99.

Louisiana Natural Heritage Program. April 1999. database review.

---

NatureServe. 2001. NatureServe Explorer: an Online Encyclopedia of Life. <http://www.natureserve.org/explorer/>

Revised Land and Resource Management Plan of Kisatchie National Forest. August 1999. USDA Forest Service, Southern Region, Pineville, LA. 229pp.

Rudolph, D.C., S.J. Burgdorf, R.N. Conner, and R.R. Schaefer. 1999. Preliminary evaluation of the impact of roads and associated vehicular traffic on snake populations in eastern Texas. Proceedings of the Third

Rudolph, D.C., S.J. Burgdorf, R.R. Schaefer, R.N. Conner, and R.W. Maxey. 2006. Status of *Pituophis ruthveni* (Louisiana Pine Snake). *Southeastern Naturalist* 5(3):463-472.

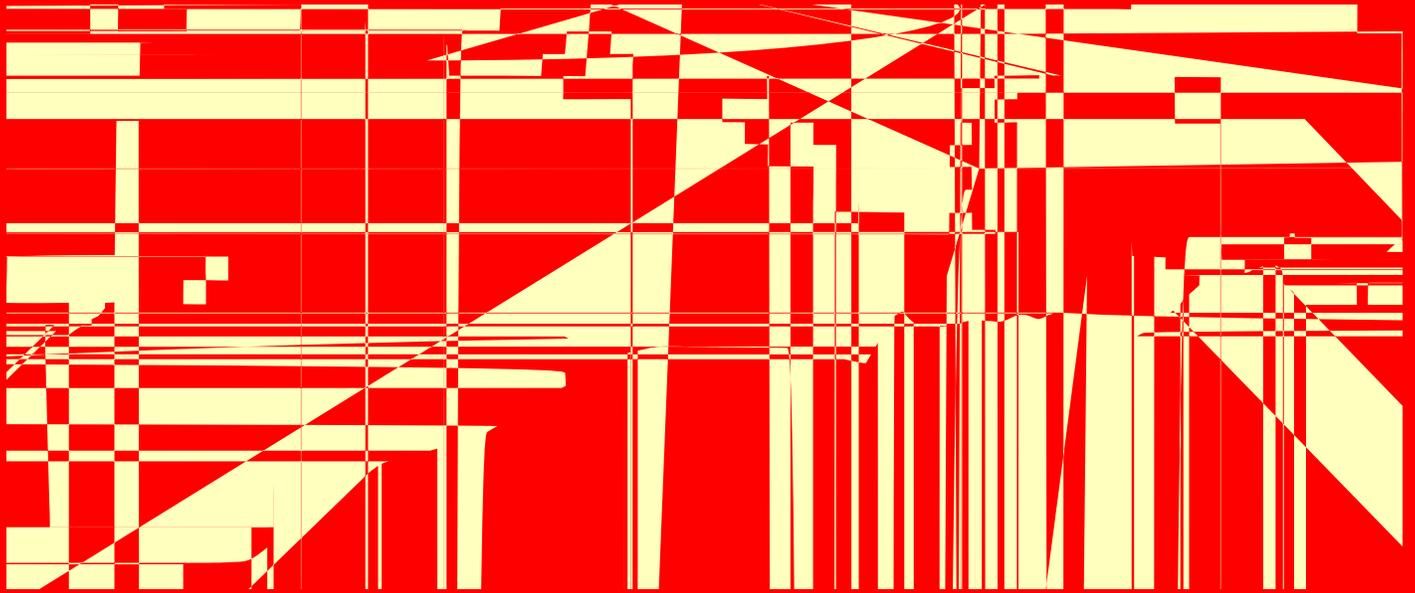
Shively, Stephen H. 2006. 2006 Survey for the Louisiana Pearlshell Mussel (*Margaritifera hembeli*) on the Catahoula Ranger District, Kisatchie National Forest, Grant Parish, LA. 8 pp.

Shively, Stephen H. 2004. 2004 Survey for the Louisiana Pearlshell Mussel (*Margaritifera hembeli*) on the Calcasieu Ranger District, Evangeline Unit, Kisatchie National Forest, Rapides Parish, LA

Texas Parks and Wildlife. [www.tpwd.state.tx.us/huntwild/species/rafinesque/](http://www.tpwd.state.tx.us/huntwild/species/rafinesque/)

U.S.D.A. Forest Service, Southern Region. 1995. Final Environmental Impact Statement for the Management of the Red-Cockaded Woodpecker and its Habitat on the Nati

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# APPENDIX J. BOTANICAL EVALUATION for Kisatchie National Forest Travel Management Project

## 1.0 INTRODUCTION

In the past Kisatchie National Forest (KNF) has been open to motor vehicles, following the policy of “open unless posted closed”. Logging roads have remained open to motorized public use unless there was a reason to close them. Motorized recreation trails were designated for use, but there were no restrictions or prohibitions for off-road or off-trail motorized use except in developed recreation areas, military use areas, wilderness areas, special interest areas, and other areas posted “closed”. This proposed action/Forest Plan Amendment is intended to eliminate motorized cross-country travel forestwide to comply with the 2005 National Travel Management Rule. The proposal includes changes to the designations of authorized system routes and areas under Kisatchie National Forest jurisdiction. Routes and areas under other jurisdictions will not be affected. The proposal also includes the addition of designated camping corridors on the Caney District. With the exception of a single 70’ trail spur added at Hare Scramble Corner (Evangeline Unit; Claiborne trails) in Modified Alternative 5, this project would not add new roads or trails or unauthorized, user-created routes to the system but does not preclude future site-specific changes or additions to KNF’s travel management system. Special event rides, i.e. motorcycle, horseback riding, and bicycling, would be allowed on designated routes.

### 3.0 PROPOSED MANAGEMENT ACTIONS

The project proposal prohibits motorized cross-country travel forestwide by designating existing forest routes and areas for certain types of motorized use and prohibiting all motorized travel off the designated system. The proposal would change the prohibition of off-route travel on the Forest from 49 percent to 100 percent.

Night riding would be prohibited in all alternatives. Trail riding would be allowed 1 hour before sunrise until 1 hour after sunset. Currently, night riding is allowed.

#### Alternative 1 - No Action

The proposed action would not occur. Motorized route and area designations would remain as they currently exist. There would be no changes to the travel management system. Compliance with the national rule would not be met.

The map below shows areas in the Forest currently prohibiting motorized travel off designated routes.

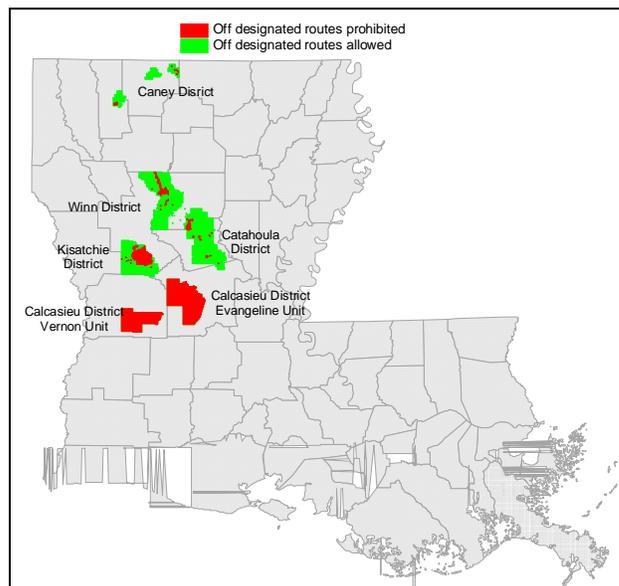


Figure 1. Existing locations where OHV travel is prohibited (red-49%) and allowed (green-51%) off designated routes on Kisatchie National Forest.

#### Alternative 2 – (Motorized off-route travel prohibited forestwide)

This alternative has the least amount of changes and complies with the National Rule. Designated motorized routes and areas would not change. Alternative 2 proposed changes to the travel management system include:

- Prohibit motorized travel off the designated routes forestwide.
- Prohibit night riding from 1 hour after sunset until 1 hour before sunrise.

### **Alternative 3 – Modified Proposed Action (See Appendix F for changes from the initial scoping proposal, February 2006)**

This alternative proposes changes to road designations resulting from the travel analysis described in §1.7. Alternative 3 proposed changes to the travel management system include:

- Prohibit motorized travel off the designated routes forestwide.
- Prohibit night riding from 1 hour after sunset until 1 hour before sunrise.
- Add 6 miles dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.
- Change road designations –

|  |        |
|--|--------|
| Decrease roads open year-round to highway-legal vehicles (HLV)                               | 384 mi |
| Decrease roads open seasonally to HLV  | 10 mi  |
| Decrease roads open year-round to trail vehicles ≤ 50 inches wide                            | 22 mi  |
| Increase roads open Oct-Jan to trail vehicles ≤ 50 inches wide                               | 2 mi   |
| Total roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 414 mi |

### **Alternative 4 – (Reduced motorized use in mussel watersheds)**

This alternative would reduce miles of roads open for motor vehicles within the Louisiana pearlshell mussel watersheds. Alternative 4 proposed changes to the travel management system include:

- Prohibit motorized travel off the designated routes forestwide.
- Prohibit night riding from 1 hour after sunset until 1 hour before sunrise.
- Add 6 miles dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.
- Close 43 miles Livingston (Catahoula District) multiple-use trail Jan-Mar.
- Change road designations –

|  |        |
|--|--------|
| Decrease roads open year-round to highway-legal vehicles (HLV)                               | 407 mi |
| Decrease roads open seasonally to HLV  | 50 mi  |
| Decrease roads open year-round to trail vehicles ≤ 50 inches wide                            | 22 mi  |
| Increase roads open Oct-Jan to trail vehicles ≤ 50 inches wide                               | 24 mi  |
| Total roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 455 mi |

### **Alternative 5 – (Designate big game retrieval corridors for ATVs in NWMPs and ATVs on logging roads closed to highway-legal vehicles)**

This alternative would open some closed roads for ATV use during deer hunting season, provide corridors for big game retrieval with an ATV in the Catahoula and Red Dirt National Wildlife Management Preserves (NWMP), and open all trails year-round except the Sandstone Trail be closed January - April. Alternative 5 proposed changes to the travel management system include:

- Prohibit motorized travel off the designated routes forestwide.
- Prohibit night riding from 1 hour after sunset until 1 hour before sunrise.
- Add 6 miles dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.
- Add 47 miles big game retrieval corridors for ATV use within 300 feet of trail.
- Open 66 miles Breezy Hill motorcycle trail year-round.

• Changes to road designations –

|  |        |
|--|--------|
| Decrease roads open year-round to highway-legal vehicles (HLV)                               | 406 mi |
| Decrease roads open seasonally to HLV  | 37 mi  |
| Decrease roads open year-round to trail vehicles ≤ 50 inches wide                            | 22 mi  |
| Increase roads open Oct-Jan to trail vehicles ≤ 50 inches wide                               | 272 mi |
| Total roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 193 mi |

**Modified Alternative 5 (Preferred Alternative) – (Designate big game retrieval corridors for ATVs in NWMPs and ATVs on logging roads closed to highway-legal vehicles)**

This is the preferred alternative and is the same as Alternative 5 with minor changes to road designations plus the designation of two trail spurs on the Calcasieu District. Modified Alternative 5 proposed changes to the travel management system include:

- Prohibit motorized travel off the designated routes forestwide.
- Prohibit night-riding from 1 hour after sunset until 1 hour before sunrise.
- Add 6 miles of dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road, Caney District.
- Add 47 miles of big game retrieval corridors for ATV use within 300 feet of centerline of the trail. These corridor designations are located in the National Wildlife Management Preserves; and big game retrieval could only occur on deer-gun hunting days, currently 9 days per year.
- Open 66 miles Breezy Hill motorcycle trail year-round.
- Add two trail spurs to the motorized trail system on the Calcasieu District (Mapped in Appendix C5.)
- Changes to road designations –

|   | Miles |
|---|-------|
| Decreased miles of roads open year-round to highway-legal vehicles (HLV)                              | 422   |
| Decreased miles of roads open seasonally to HLV   | 37    |
| Decreased miles of roads open year-round to trail vehicles ≤ 50 inches wide                           | 13    |
| Increased miles of roads open Oct-Jan to trail vehicles ≤ 50 inches wide                              | 248   |
| Increased miles of roads open Oct-Dec to trail vehicles ≤ 50 inches wide                              | 2     |
| Total miles of roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 222   |

Big game retrieval would be allowed in the corridors with the aid of an ATV under the following conditions:

- a. No firearms or archery equipment in possession of the retrieval party or on the ATV.
- b. No more than one ATV and one helper in the retrieval party.
- c. No ATVs may be used to locate or search for wounded game or for any purpose other than retrieval of big game (deer and hogs) once they have been legally harvested and located.

**Alternative 6 – (Designate ATV use instead of highway-legal vehicle use on logging roads)**

This alternative would increase mileage of roads designated for seasonal ATV use and close all trails January – March, reducing maintenance needs. Alternative 6 proposed changes to the travel management system include:

- Prohibit motorized travel off the designated routes forestwide.
- Prohibit night riding from 1 hour after sunset until 1 hour before sunrise.

- Add 6 miles dispersed camping corridors open year-round for highway-legal vehicles within 100 feet of centerline of road.
- Close 111 miles of designated trails Jan – Mar.
- Change road designations –

|  |        |
|--|--------|
| Decrease roads open year-round to highway-legal vehicles (HLV)                               | 711 mi |
| Decrease roads open seasonally to HLV  | 46 mi  |
| Decrease roads open year-round to trail vehicles ≤ 50 inches wide                            | 22 mi  |
| Increase roads open Oct-Jan to trail vehicles ≤ 50 inches wide                               | 591 mi |
| Total roads closed year-round to motor vehicle use (69 miles identified for decommissioning) | 188 mi |

### **3.7 Landscape conditions and proposed future actions (monitoring) and mitigation (conservation actions) included in proposed action.**

Monitoring the effectiveness of this proposed action will be conducted daily by District personnel. Mitigation: Revise Plan standards and guidelines.

## **4.0 SPECIES CONSIDERED AND SPECIES EVALUATED**

### **4.1 Threatened, endangered, and proposed species on Kisatchie National Forest**

Earthfruit (*Geocarpon minimum*) is listed by the USFWS as threatened (50 CFR 17.11 and 17.12; 2005), and was considered and evaluated in this analysis.

### **4.2 Regional Forester sensitive species**

The complete TES and current region 8 forester's designated sensitive plant species known to occur on the KNF (revised 8/7/2001) is located in Appendix 1.

### **4.3 The following species were identified as occurring in or having the potential to occur in the action area, or potentially affected by the action, and are considered in this review**

The following sensitive species had ranges that fell within the project area, occur in habitats likely to be affected by the project, and *were* consequently further reviewed in this document:

*Amsonia ludoviciana*

*Cyperus grayioides*

*Cypripedium kentuckiense*

### **4.4 Species that were considered in the review but eliminated from further analysis or analyzed in a separate document**

All 24 plant species on the region 8 forester's sensitive species list (that are known to occur on the KNF), and the threatened species earth fruit, were considered during the initial evaluation for this project. Species were eliminated from further consideration if their range did not include the project area, or if they did not occur in community types affected by this project.

The following sensitive plants are *not* likely to occur in the project area based on their range (UDSA, NRCS 2006):

|   |                               |
|---|-------------------------------|
| <i>Agrimonia incisa</i>   | <i>Rudbeckia scabrifolia</i>  |
| <i>Amorpha paniculata</i>                                       | <i>Schisandra glabra</i>      |
| <i>Carex decomposita</i>  | <i>Schoenolirion wrightii</i> |
| <i>Euphorbia discoidalis</i>                                    | <i>Silene subciliata</i>      |
| <i>Lachnocaulon digynum</i>                                     | <i>Spiranthes longilabris</i> |
| <i>Liatris tenuis</i>   | <i>Tridens carolinianus</i>   |
| <i>Marshallia trinervia</i>                                     | <i>Verbesina walteri</i>      |
| <i>Platanthera integra</i>                                      | <i>Xyris drummondii</i>       |
| <i>Prenanthes barbata</i>                                       | <i>Xyris louisianica</i>      |
| <i>Pteroglossaspis ecristata</i> (= <i>Eulophia ecristata</i> ) | <i>Xyris scabrifolia</i>      |
| <i>Rhynchospora macra</i>                                       |                               |

The following threatened plant is *not* likely to occur in the project area based on its associated habitat (USDI-USFW, 1993):

Earth fruit (*Geocarpon minimum*)

## 5.0 EVALUATED SPECIES SURVEY INFORMATION

### 5.1 Documented or previous survey data

The Kisatchie National Forest GIS corporate data themes (as of 15 March 2007) - FLORA (rare plant occurrences) and PLANTHAB (unique plant habitat communities) were reviewed, and no occurrences from either were found in the project area.

### 5.2 New surveys or inventories that were conducted for this project.

As proposed, the only aspects of the project that would increase usage and put flora at increased risk are a new camping corridor planned for the Corney Unit (Corney District) and a 70' trail spur added at Hare Scramble Corner (Evangeline Unit; Claiborne trails). The corridor would be a 100' wide swath of land adjacent to forest road (FR) 903. Establishment of approximately 6 miles of a 100-foot camping corridor – the equivalent of 72 acres (alternatives 4, 5, Mod 5 and 6) – could affect vegetation. The corridor falls within the range of several rare plant species; consequently, the KNF forest botanist surveyed the area for these plants, and for habitat with which they are associated. A specialist's report is included in the project file (Nilles, 2007). No rare plants were found in the corridor project area, and the clearings likely to be impacted by camping were not likely to be habitat for any of the species evaluated. The trail spur at Hare Scramble Corner (Evangeline Unit) falls within the range of several rare plant species, and was also surveyed by the KNF forest botanist. A specialist's report is included in the project file (Nilles, 2007); no rare plants were found in the corridor project area, and the clearings likely to be impacted by camping were not likely to be habitat for any of the species evaluated.

Another survey was conducted by the KNF botanist for Earth fruit in likely habitat on glades located on the west side of the Kisatchie District. This survey included a 100% walking survey of 11 sandstone glades on March, 2007 - the likely flowering and fruiting time for this diminutive annual. No Earth fruit was found during this survey.

### **Environmental Baseline for the Species Evaluated:**

In regards to botanical resources, the no action alternative would not change the effects of OHV use from what they are now. Alternative 2 would in all ways reduce OHV use, and the resulting detrimental effects on botanical resources. Alternatives 3, 4, 5, Modified 5, and 6 would in all ways reduce detrimental effects due to OHV use, but would create a camping corridor on the Caney District. In addition Modified Alternative 5 would add a trail spur at Hare Scramble Corner on the Evangeline Unit that could detrimentally affect plant resources. Consequently, in the following effects analysis and determination, Alternatives 1 and 2 will be examined separately, Alternatives 3-6 will be examined as a group for the effects due to the creation of the camping corridor, and Modified Alternative 5 will be examined for the additional trail spur.

## **6.0 *Louisiana bluestar (Amsonia ludoviciana)***

### **A and C. The existing environment, amount and type of habitat, and characteristics of the area to be affected by the proposed action for species evaluated. How much potential habitat for each species is in or adjacent to the action area compared to total habitat distribution?**

The only areas that could be adversely affected by the project is a proposed 100' corridor for the use of dispersed car camping located adjacent to the existing road 903 on the Caney District or the trail spur added at Hare Scramble Corner on the Evangeline Unit. The entire corridor is well wooded with mature overstory, and it is assumed that this species can occur anywhere along the corridor. Establishment of approximately 6 miles of 100-foot camping corridors – the equivalent of 72 acres - on the Caney District in Alternatives 3, 4, 5, Modified 5, and 6 could potentially increase erosion and sedimentation as vegetation could potentially be removed from camping use. This is also the case for the 70-foot road spur in Modified Alternative 5 at Hare Scramble Corner on the Evangeline Unit.

### **B. Current status of the species and habitat associations that occur within the action area and in the nearby vicinity (habitat that could be indirectly affected by proposal, and used by the species) – Viability summary**

**Habitat association:** Moist, open woodlands. On the Kisatchie National Forest, usually found along open roadsides in riparian or moist soil sites, although several sites occur along roadsides in xeric sandylands (BCD, LANHP). Range includes Arkansas, Louisiana and Mississippi (Small 1933).

**Population status:** Twenty-four occurrences on the Kisatchie National Forest; Forty-seven occurrences in Louisiana.

**Habitat status:** Most of the habitat for Louisiana bluestar on the Kisatchie National Forest is restricted to riparian areas, although roadsides ranging from moist to dry can host the plant.

**Relationship of population to habitat:** This species favors riparian areas, although several occurrence are found along roadsides in dry, sandy sites.

**Risk factors:** Roadside maintenance including herbicide spraying, grading and siltation, roadside camping.

**Additional Standards & Guidelines:** FW - 252 to 256, 257 to 283, 380 to 381, and 510 to 536.

**Viability finding:** *Continued viability of Louisiana bluestar is high* since at least 24 occurrences are known on the Kisatchie National Forest, and most of these fall within streamside protection zones.

**D. Threats/limiting factors that affect these species. Factors in the proposed action that may be detrimental to their habitat.**

Increased camping activity along roadsites could cause mechanical damage to individual plants.

## **6.1 *Amsonia ludoviciana* Effects**

**Alternative 1 (no-action)** would not change the effects of OHV use from what they are currently; however, current OHV use does adversely *directly, indirectly, and cumulative* affect this plant.

**Alternative 2** would result in beneficial *direct, indirect, and cumulative* effects on this plant. The major policy change due to this proposal will be the prohibition of off-route travel on 100% of KNF land (currently 49% prohibited). This will in all ways reduce the risk to plants from OHV use. It should also be noted that no known sites of *Amsonia ludoviciana* occur within the proposed camping corridor.

**Alternatives 3, 4, 5, Modified 5, and 6** would result in beneficial *direct, indirect, and cumulative* effects on this plant. The major policy change due to this proposal will be the prohibition of off-route travel on 100% of KNF land (currently 49% prohibited), and the closure of some logging roads. This will in all ways reduce the risk to plants from OHV use. The closures will benefit viability of this species and cumulatively offset any loss of individuals caused by the new dispersed camping corridors and trail spurs that are proposed. It should also be noted that no known sites of *Amsonia ludoviciana* occur within the proposed camping corridor or additional trail spur.

## **6.2 *Amsonia ludoviciana* Determination of Effects and Rationale**

Based on the above effects analysis, the proposed project **may impact individuals but is not likely to cause a trend to federal listing or a loss of viability.**

## **7.0 *Kentucky lady's slipper orchid (Cypripedium kentuckiense)***

**A and C. The existing environment, amount and type of habitat, and characteristics of the area to be affected by the proposed action for species evaluated. How much potential habitat for each species is in or adjacent to the action area compared to total habitat distribution?**

The only area that could be adversely affected by the project is a proposed 100' corridor for the use of dispersed car camping, located adjacent to the existing road 903 on the Caney District. The entire corridor is well wooded with mature overstory, and it is assumed that this species can occur anywhere along the corridor. Establishment of approximately 6 miles of 100-foot camping corridors – the equivalent of 72 acres - on the Caney District in Alternatives 3, 4, 5, Modified 5, and 6 could potentially increase erosion and sedimentation as vegetation could potentially be removed from camping use.

**B. Current status of the species and habitat associations that occur within the action area and in the nearby vicinity (habitat that could be indirectly affected by proposal, and used by the species) – Viability summary**

Habitat association and range: This species survives in mesic mixed forests near medium to larger streams.

Population status: The Kentucky lady's slipper sites on the KNF appear to not be producing seed (Nelwyn McInnis, pers. comm. and Philip Hyatt, pers. obs. 1998). One historic site has not been relocated in the 1990s despite searches by several people; commonly known as the Ben Martin site, this site was fenced, according to Ben Martin, and was probably a planted rather than a natural site (pers. commun., Mary May, 1999). The other two sites may be genetic clones, branched from a single plant at each site. That is, there may only be two genetic individuals on the Forest. The lack of genetic outcrossing may be resulting in the production of sterile seed. Non-sexual production is probably the only reproduction occurring on the KNF. In conclusion, these two populations may be only two genetic types that reproduce slowly and asexually only.

Habitat status: Habitat for Kentucky lady's slipper appears to be widespread and in good to excellent condition in riparian areas or the Forest.

Relationship of population to habitat: This species is to be expected only in its habitat, and generally does not tolerate disturbance well. Canopy removal reportedly causes sites to dry out and the species to disappear.

Risk factors: The primary risk to Kentucky lady's slipper is collection by orchid enthusiasts. The plants transplant poorly, but the large flowers make them desirable to amateur orchid growers (and other people). Secondary risks include habitat modification. Timber harvest causes sites to dry out, resulting in loss of the species.

Additional Standards & Guidelines: FW - 252 to 256, 257 to 283, 380 to 381, 507 to 509, and 510 to 536.

Viability finding: **Continued viability of Kentucky lady's slipper on the Kisatchie National Forest is low** since little reproduction is occurring, since reproduction is only asexual and since collectors present a severe risk to the few plants occurring on the Forest. Kentucky lady's slipper is widespread but rare and under similar risks in the eastern United States, its global range.

**D. Threats/limiting factors that affect these species. Factors in the proposed action that may be detrimental to their habitat.**

Increased camping activity along roadsites could cause mechanical damage to individual plants.

## **7.1 *Cypripedium kentuckiense* Effects**

**Alternative 1 (no-action)** would not change the effects of OHV use from what they are currently; however, current OHV does adversely *directly*, *indirectly*, and *cumulative* affect this plant.

**Alternative 2** would result in beneficial *direct*, *indirect*, and *cumulative* effects on this plant. The major policy change due to this proposal will be the prohibition of off-route travel on 100% of KNF land (currently 49% prohibited). This will in all ways reduce the risk to plants from OHV use.

**Alternatives 3, 4, 5, Modified 5, and 6** would result in beneficial *direct, indirect, and cumulative* effects on this plant. The major policy change due to this proposal will be the prohibition of off-route travel on 100% of KNF land (currently 49% prohibited), and the closure of some logging roads to OHV use. This will in all ways reduce the risk to plants from OHV use. The closures will benefit viability of this species and cumulatively offset any loss of individuals caused by the new dispersed camping corridors and trail spurs that are proposed. It should also be noted that no known sites of *Cypripedium kentuckiense* occur within the proposed camping corridor.

## **7.2 *Cypripedium kentuckiense* Determination of Effects and Rationale**

Based on the above effects analysis, the proposed project **may impact individuals but is not likely to cause a trend to federal listing or a loss of viability.**

## **8.0 *Mohlenbrock's umbrella sedge (Cyperus grayioides)***

**A and C. The existing environment, amount and type of habitat, and characteristics of the area to be affected by the proposed action for species evaluated. How much potential habitat for each species is in or adjacent to the action area compared to total habitat distribution?**

The only area that could be adversely affected by the project is a proposed 100' corridor for the use of dispersed car camping, located adjacent to the existing road 903 on the Caney District. The entire corridor is well wooded with mature overstory, and it is assumed that this species can occur anywhere along the corridor. Establishment of approximately 6 miles of 100-foot camping corridors – the equivalent of 72 acres - on the Caney District in Alternatives 3,4,5, and 6 could potentially increase erosion and sedimentation as vegetation could potentially be removed from camping use.

**B. Current status of the species and habitat associations that occur within the action area and in the nearby vicinity (habitat that could be indirectly affected by proposal, and used by the species) – Viability summary**

Habitat association and range: This species inhabits sandywoodlands of high quality, that is, areas with deep sandy soils. R. Dale Thomas (pers. commun. 1998) suggests it needs some level of soil disturbance. He found the "Sand Point" population in a small hole someone had excavated to get a load of sand from in an open area with *Selaginella arenicola*.

Population status: Most Kisatchie National Forest populations occur in small colonies at scattered locations. While not as abundant as *Carex tenax*, Mohlenbrock's Umbrella Sedge occurs at several sites in fairly low numbers. It is probably more widespread than records indicate, as new sites are often found when good habitat is surveyed for this species.

Habitat status: A scattering of excellent habitat exists. See additional comments under "risk factors" below.

Relationship of population to habitat: Unlike *Carex tenax* this species is restricted to higher quality sandy woodland sites. Such sites tend to have more oak than pine species in the overstory, especially bluejack and post oak. This species depends on its habitat for survival. Removal of the sandy soils results in loss of the species at a site. It occurs in no other habitats.

**Risk factors:** Loss of habitat for this species occurs when roads and various types of trails are constructed through its habitat. In particular, off road vehicle users tend to tear up sandy woodland sites as they spin their wheels in sandy areas. On the other hand, the species reported needs some level of disturbance; Dr. R. Dale Thomas noted in field survey reports at "Sand Point" on the Winn District, that he found this species only in an area that had been excavated for a small (pickup size) load of sand. Fire suppression in sandy woodlands can lead to woody species encroachment on its habitat. Like other sedges, it is probably very susceptible to broadleaf herbicides which may impact it on state highways.

**Additional Standards & Guidelines:** FW 380 to 381 and 697 to 700.

**Viability finding:** *Continued viability of Mohlenbrock's umbrella sedge on the Kisatchie National Forest is moderate* since, while several protected as well as newly discovered locations exist on Forest Service lands, reports indicate the species is failing to thrive on private lands as reflected in the G3 ranking.

**D. Threats/limiting factors that affect these species. Factors in the proposed action that may be detrimental to their habitat.**

Increased camping activity along roadsites could cause mechanical damage to individual plants.

### **8.1 *Cyperus grayioides* Effects**

**Alternative 1 (no-action)** would not change the effects of OHV use from what they are currently; however, current OHV does adversely *directly, indirectly, and cumulative* affect this plant.

**Alternative 2** would result in beneficial *direct, indirect, and cumulative* effects on this plant. The major policy change due to this proposal will be the prohibition of off-route travel on 100% of KNF land (currently 49% prohibited), and the closure to OHV use of approximately 412 miles of logging roads. This will in all ways reduce the risk to plants from OHV use.

**Alternatives 3, 4, 5, Modified 5, and 6** would result in beneficial *direct, indirect, and cumulative* effects on this plant. The major policy change due to this proposal will be the prohibition of off-route travel on 100% of KNF land (currently 49% prohibited), and the closure to OHV use of approximately 412 miles of logging roads. This will in all ways reduce the risk to plants from OHV use. The closures will benefit viability of this species and cumulatively offset any loss of individuals caused by the new dispersed camping corridors and trail spurs that are proposed. It should also be noted that no known sites of *Cyperus grayioides* occur within the proposed camping corridor, nor did a full walking survey of the corridor reveal any occurrences.

### **8.2 *Cyperus grayioides* Determination of Effects and Rationale**

Based on the above effects analysis, the proposed project **may impact individuals but is not likely to cause a trend to federal listing or a loss of viability.**

## **9.0 BIBLIOGRAPHY:**

ITIS: Retrieved [02/15/2005], from the Integrated Taxonomic Information System on-line database, <http://www.itis.usda.gov>.

Louisiana Natural Heritage Program (LNHP) Rare Plant Species of Louisiana (May 2004) found at  
<http://www.wlf.state.la.us/apps/netgear/clientFiles/lawlf/files/LA%20Rare%20Plant%20List%20-%202004.pdf>

Kisatchie National Forest Sensitive and Conservation Species List found in FEIS/Revised LRMP/KNF/3-23 to 3-25.

Nilles, Peter G. 2007. Specialist's Report: Primitive Camping Corridor Survey Caney District. – Corney Unit.

Region 8 Forester's Sensitive Species List found at:  
[http://fsweb.r8.fs.us/nr/fwr/PETS\\_FSWEB/ref/fs/080701\\_rfss.fsweb.xls](http://fsweb.r8.fs.us/nr/fwr/PETS_FSWEB/ref/fs/080701_rfss.fsweb.xls)

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>, 20 March 2007), National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

USDI-USFW. 1993. Recovery Plan: Geocarpon minimum. Arkansas Natural Heritage Commission for USFW Service SE Region, Jackson, Mississippi.

Endangered and Threatened Wildlife and Plants 50 CFR 17.11 and 17.12, November 2005

[signed original on file]

September 11, 2007

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Peter Nilles  
Forest Botanist  
Kisatchie National Forest

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Date

## APPENDIX 1

**TES\* and Current Region 8 Forester's  
Designated Sensitive Plants  
(last revision 8/7/2001)**

\*(no threatened or endangered species are known to exist on the KNF)

| Scientific Names                                       | Common Names                 | LNHP State and Global Ranks |
|--|------------------------------|-----------------------------|
| <i>Agrimonia incisa</i>                                | Incised agrimony             | S1,G3                       |
| <i>Amorpha paniculata</i>                              | Panicled false indigo        | none                        |
| <i>Amsonia ludoviciana</i>                             | Louisiana bluestar           | S3,G3                       |
| <i>Carex decomposita</i>                               | Cypressknee sedge            | S1,G3                       |
| <i>Cyperus grayioides</i>                              | Mohlenbrock's umbrella-sedge | S2,G3                       |
| <i>Cypripedium kentuckiense</i>                        | Northern lady's slipper      | S1,G3                       |
| <i>Euphorbia discoidalis</i>                           | Summer spurge                | none                        |
| <i>Geocarpon minimum</i>                               | Earthfruit                   | none                        |
| <i>Lachnocaulon digynum</i>                            | Pineland bogbutton           | S3,G3                       |
| <i>Liatris tenuis</i>                                  | Slender gay feather          | S1,G3                       |
| <i>Marshallia trinervia</i>                            | Broadleaf Barbara's buttons  | S1,G3                       |
| <i>Platanthera integra</i>                             | Yellow fringeless orchid     | S3,G3G4                     |
| <i>Prenanthes barbata</i>                              | Barbed rattlesnakeroot       | S2,G3                       |
| <i>Pteroglossaspis ecristata</i> (=Eulophia ecristata) | Giant Orchid                 | S2,G2                       |
| <i>Rhynchospora macra</i>                              | Large beakrush               | S2,G3                       |
| <i>Rudbeckia scabrifolia</i>                           | Sabine coneflower            | S3,G2G3                     |
| <i>Schisandra glabra</i>                               | Bay starvine                 | S3,G3                       |
| <i>Schoenolirion wrightii</i>                          | Texas sunnybell              | S2,G3                       |
| <i>Silene subciliata</i>                               | Louisiana catchfly           | S2,G3                       |
| <i>Spiranthes longilabris</i>                          | Giant spiral ladies'-tresses | None                        |
| <i>Tridens carolinianus</i>                            | Carolina fluffgrass          | S2,G3                       |
| <i>Verbesina walteri</i>                               | Carolina crownbeard          | none                        |
| <i>Xyris drummondii</i>                                | Drummond's yelloweyed grass  | S3,G3                       |
| <i>Xyris louisianica</i>                               | Louisiana yellow-eyed grass  | S2S3,G3                     |
| <i>Xyris scabrifolia</i>                               | Harper's yelloweyed grass    | S2,G3                       |

The *KNF sensitive species list* is made up of those plants on the *region 8 forester's sensitive species list* that occur on KNF lands. The sensitive species lists are changeable, as noted in the KNF FEIS (USDA 1999): "[sensitive] (s)pecies are listed and delisted as additional information becomes available, so periodic revisions to the list are necessary." The current region 8 forester's sensitive species list determines the sensitive species reviewed in USFS biological evaluations.

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**APPENDIX K – Kisatchie National Forest Threatened, Sensitive, and Conservation Plant List**  
 (no endangered species are known to exist on the Forest)  
 (Last Revised August 7, 2001)

| Common Name-Species  | Sensitive (S)<br>Conservation(C) | Ranking <sup>a</sup>   | Habitat  | Analyzed in<br>Detail <sup>b</sup> |
|--|----------------------------------|--|--|------------------------------------|
| <b>Ferns, mosses, and primitive plants:</b>                    |                                  |  |  |                                    |
| Alabama lip-fern ( <i>Cheilanthes alabamensis</i> )            | C                                | G5, SX   | Limestone outcrops   | No                                 |
| Black-stemmed spleenwort ( <i>Asplenium resiliens</i> )        | C                                | G5, SX   | Limestone outcrops   | No                                 |
| Hairy lip-fern ( <i>Cheilanthes lanosa</i> )                   | C                                | G5, S1   | Rock outcrops in upland woodlands                          | No                                 |
| Maidenhair spleenwort ( <i>Asplenium trichomanes</i> )         | C                                | G5,SX  | Limestone outcrops   | No                                 |
| Nodding clubmoss ( <i>Palhinhaea cernua</i> )                  | C                                | G5, S2   | Hillside bogs and longleaf pine flatwood savannahs         | No                                 |
| Purple cliff-brake fern ( <i>Pellaea atropurpurea</i> )        | C                                | G5, SX   | Limestone outcrops   | No                                 |
| Riddell's spikemoss ( <i>Selaginella arenicola riddelli</i> )  | C                                | G5T4, S2   | Sandy woodlands and sandstone glades and barrens           | No                                 |
| <b>Dicots — flowering plants:</b>                              |                                  |  |  |                                    |
| American pinesap ( <i>Monotropa hypopithys</i> )               | C                                | G5, S2   | Calcareous forests, mesic slopes, bottomland forests       | Yes                                |
| Awl-shaped scurf-pea ( <i>Psoralea subulata</i> )              | C                                | G5T4, S1   | Sandy woodlands  | No                                 |
| Barbed rattlesnake root ( <i>Prenanthes barbata</i> )          | S                                | S2, G3   | Mesic slopes and bottomland forests                        | No                                 |
| Bay starvine ( <i>Schisandra glabra</i> )                      | S                                | S3, G3   | Mesic slopes and bottomland forests                        | No                                 |
| Broad-leaved Barbara's buttons ( <i>Marshallia trinervia</i> ) | S                                | S1, G3   | Sandy banks of large streams                               | No                                 |
| Broomrape ( <i>Orobanche uniflora</i> )                        | C                                | G5, S1   | Upland longleaf pine forest                                | No                                 |
| Calyciphilic flame flower ( <i>Talinum calycinum</i> )         | C                                | G5   | Sandstone glades and barrens                               | No                                 |
| Carolina crownbeard ( <i>Verbesina walterii</i> )              | S                                | None   | Mesic slopes and terraces, minor stream bottoms            | No                                 |
| Clammy weed ( <i>Polanisia erosa</i> )                         | C                                | G5, S2   | Sandy woodlands  | No                                 |
| Cupleaf beardtongue ( <i>Penstemon murrayanus</i> )            | C                                | G4, S1   | Sandy woodlands  | No                                 |
| Drummond's nailwort ( <i>Paronychia drummondii</i> )           | C                                | G3G4, S1   | Sandy woodlands  | No                                 |
| Earth fruit ( <i>Geocarpon minimum</i> )                       | Threatened                       |  | Glades   | No                                 |
| Feverwort ( <i>Triosteum perfoliatum</i> )                     | C                                | G5, S1   | Deciduous or mixed woods and openings                      | No                                 |
| Grass-of-parnassus ( <i>Parnassia grandifolia</i> )            | C                                | G3, S1   | Pine-hardwood forest ravine seep                           | No                                 |
| Ground-plum ( <i>Astragalus crassicaarpus</i> )                | C                                | G5T5, S1   | Calcareous prairies  | No                                 |
| Incised agrimony ( <i>Agropyron omcosa</i> )                   | S                                | S1, G3   | Upland longleaf pine forest                                | Yes                                |
| Long-leaved wild buckwheat ( <i>Eriogonum longifolium</i> )    | C                                | G4, S2   | Sandy woodlands  | No                                 |
| Louisiana catchfly ( <i>Silene subciliata</i> )                | S                                | S2, G3   | Sandy woodlands  | No                                 |
| Louisiana bluestar ( <i>Amsonia ludoviciana</i> )              | S                                | S3, G3   | Mesic slopes and bottomland forests                        | Yes                                |
| Louisiana squarehead ( <i>Tetragonotheca ludoviciana</i> )     | C                                | G3G4, S2   | Sandy woodlands  | No                                 |
| Narrow-leaved milkweed ( <i>Asclepias stenophylla</i> )        | C                                | S1   | Calcareous prairies  | No                                 |
| October jointweed ( <i>Polygonella polygama</i> )              | C                                | G4, S1   | Sandy woodlands  | No                                 |
| Prairie redroot ( <i>Ceanothus herbaceus</i> )                 | C                                | G5, S1   | Bottomland forests   | No                                 |
| Purple bluet ( <i>Hedyotis purpurea calycosa</i> )             | C                                | G5, S1   | Calcareous prairies  | No                                 |
| Purple coneflower ( <i>Echinacea purpurea</i> )                | C                                | G4G5, S2   | Calcareous prairies  | No                                 |
| Robbin's phacelia ( <i>Phacelia strictiflora</i> )             | C                                | G5, S1   | Sandy woodlands  | No                                 |
| Sabine coneflower ( <i>Rudbeckia scabrifolia</i> )             | S                                | S3, G2G3   | Hillside bogs and bayhead swamps                           | No                                 |
| Shooting star ( <i>Dodecatheon meadia</i> )                    | C                                | G5, S2   | Mesic slopes, bottomland forests, and calcareous woodlands | No                                 |
| Slender gay-feather ( <i>Liatrix tenuis</i> )                  | S                                | S1, G3   | Upland longleaf pine forest                                | No                                 |
| Slender heliotrope ( <i>Lithospermum tenellum</i> )            | C                                | G5, S2   | Calcareous prairies  | No                                 |
| Small-flowered flame flower ( <i>Talinum parviflorum</i> )     | C                                | G5, S2   | Sandstone glades and barrens                               | No                                 |
| Southern jointweed ( <i>Polygonella americana</i> )            |                                  | 173 0 Td5 Tc tf362.28 180.84 0.48 10.36 Tm28.Tf9 0 0 9 23.4 161.16 Tm28.445 2 Td(C )TJETEMC /P A |  |                                    |

| Common Name-Species  | Sensitive (S)<br>Conservation(C) | Ranking <sup>a</sup> | Habitat  | Analyzed in<br>Detail <sup>b</sup> |
|--|----------------------------------|----------------------|--|------------------------------------|
| <b>Monocots — grasses, sedges, lilies, orchids, and related plants:</b>        |                                  |                      |  |                                    |
| Bearded grass-pink ( <i>Calopogon barbatus</i> )                               | C                                | G5, S1               | Hillside bogs  | No                                 |
| Black snakeroot ( <i>Zigadenus densus</i> )                                    | C                                | G5, S2               | Hillside bogs and bayhead swamps                     | No                                 |
| Bog moss ( <i>Mayaca aubletii</i> )  | C                                | G3G5, S2             | Bayhead swamps                                       | No                                 |
| Carolina flufftop ( <i>Tridens carolinianus</i> )                              | S                                | S2, G3               | Upland longleaf pine forests                         | No                                 |
| Comb's reedtop panic grass ( <i>Panicum rigidulum combsii</i> )                | C                                | G5T, S1              | Upland longleaf pine forests                         | No                                 |
| Crested coral-root ( <i>Hexalectris spicata</i> )                              | C                                | G4, S1S2             | Mesic slopes and bottomland forests                  | Yes                                |
| Cypress-knee sedge ( <i>Carex decomposita</i> )                                | S                                | S1, G3               | Cypress stumps in swamps and beaver ponds            | No                                 |
| Drummond's yellow-eyed grass ( <i>Xyris drummondii</i> )                       | S                                | S3, G3               | Hillside bogs and longleaf pine flatwood savannahs   | No                                 |
| False Solomon's seal ( <i>Smilacina racemosa</i> )                             | C                                | G5, S1               | Mesic slopes   | No                                 |
| Giant orchid ( <i>Pteroglossaspis ecristata</i> )                              | S                                | S2, G2               | Upland longleaf pine forests                         | No                                 |
| Giant spiral orchid ( <i>Spiranthes longilabris</i> )                          | S                                | none                 | Mesic slopes and terraces, minor stream bottoms      | No                                 |
| Great Plains ladies'-tresses ( <i>Spiranthes magnicamporum</i> )               | C                                | none                 | Calcareous prairies                                  | No                                 |
| Harper's yellow-eyed grass ( <i>Xyris scabriflora</i> )                        | S                                | S2, G3               | Hillside bogs and longleaf pine flatwood savannahs   | No                                 |
| June grass ( <i>Koeleria macrantha</i> )                                       | C                                | G5, S1               | Calcareous prairies                                  | No                                 |
| Large beakrush ( <i>Rhynchospora macra</i> )                                   | S                                | S2, G3               | Hillside bogs and longleaf pine flatwood savannahs   | No                                 |
| Louisiana yellow-eyed grass ( <i>Xyris louisianica</i> )                       | S                                | S2S3, G3             | Bogs   | No                                 |
| Mead's sedge ( <i>Carex meadii</i> )   | C                                | G4G5, S2             | Sandstone glades and barrens and calcareous prairies | No                                 |
| Millet beakrush ( <i>Rhynchospora miliacea</i> )                               | C                                | G5, S2               | Seeps  | No                                 |
| Mohlenbrock's umbrella sedge ( <i>Cyperus grayioides</i> )                     | S                                | S2, G3               | Sandy woodlands                                      | Yes                                |
| Mohr's bluestem ( <i>Andropogon liebmanii</i> )                                | C                                | G4                   | Hillside bogs  | No                                 |
| Nodding pogonia ( <i>Triphora trianthophora</i> )                              | C                                | G4, S1               | Mesic slopes and bottomland forests                  | No                                 |
| Northern burmannia ( <i>Burmannia biflora</i> )                                | C                                | G4G5, S2             | Baygalls and bayhead swamps                          | Yes                                |
| Northern lady's slipper ( <i>Cypripedium kentuckiense</i> )                    | S                                | S1, G3               | Mesic slopes and bottomland forests                  | Yes                                |
| Oklahoma grasspink ( <i>Calopogon oklahomensis</i> )                           | C                                | none                 | Sandy loamy uplands                                  | No                                 |
| Ozark dropseed ( <i>Sporobolus ozarkanus</i> )                                 | C                                | G5, S1               | Calcareous prairies                                  | No                                 |
| Pineland bog button ( <i>Lachnocaulon digynum</i> )                            | S                                | S3, G3               | Hillside bogs and longleaf pine flatwood savannahs   | No                                 |
| Pineland yellow-eyed grass ( <i>Xyris stricta</i> )                            | C                                | G3G4, S1             | Wet forests  | No                                 |
| Prairie cordgrass ( <i>Spartina pectinata</i> )                                | C                                | G5, S1               | Salt flats   | No                                 |
| Roughhair panic grass* ( <i>Panicum strigosum</i> var. <i>leucoblepharis</i> ) | C                                | G5, S1               | Upland longleaf pine forests                         | No                                 |
| Sessile-leaved bellwort ( <i>Uvularia sessilifolia</i> )                       | C                                | G5, S2               | Mesic slopes and bottomland forests                  | No                                 |
| Shortbeak baldsedge ( <i>Psilocarya scirpoides</i> )                           | C                                | G4, S1               | Lakebank and adjacent salt mines                     | No                                 |
| Small-toothed sedge ( <i>Carex microdonta</i> )                                | C                                | G4, S2               | Calcareous prairies                                  | No                                 |
| Summer spurge ( <i>Euphorbia discoidalis</i> )                                 | S                                | None                 | Sandhills, dry margins of sinks                      | No                                 |
| Texas sunnybell ( <i>Schoenolirion wrightii</i> )                              | S                                | S2, G3               | Sandstone glades and barrens                         | No                                 |
| Tussock sedge ( <i>Carex stricta</i> )   | C                                | none                 | Wetlands   | No                                 |
| White-fringed orchid ( <i>Platanthera blephartiglottis</i> )                   | C                                | G4G5T3T4             | Hillside bogs and longleaf pine flatwood savannahs   | No                                 |
| Wild hyacinth ( <i>Camassia scilloides</i> )                                   | C                                | G4G5, S2             | Calcareous forest streamsides                        | Yes                                |
| Wiry witch grass ( <i>Panicum flexile</i> )                                    | C                                | G3G5, S1             | Calcareous prairies                                  | No                                 |
| Yellow fringeless orchid ( <i>Platanthera integra</i> )                        | S                                | S3, G3G4             | Hillside bogs and longleaf pine flatwood savannahs   | No                                 |

<sup>a</sup> **Ranking:** Plant rankings by Louisiana Natural Heritage Program (LNHP) state (S), global (G), and subspecies (T) can be found at <http://www.wlf.state.la.us/apps/netgear/clientFiles/lawlf/files/LA%20Rare%20Plant%20List%20-%20202004.pdf>.

<sup>b</sup> **Analyzed in Detail in the BE:** Species were eliminated from further consideration if they are not likely to occur in the project area based on their range (USDA, NRCS 2006).

#### REFERENCE

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>, 20 March 2007). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

## APPENDIX N. Response to 30-day Comments

The following lists the summary of comments with responses that were received during the 30-day comment period. The original comments are available in the project file.

| Reference                              | Summary of Comment  | Response to Comment  |
|--|---|--|
| 1.1                                    | Alt 3. Agrees and appreciates our work.   | Comment noted.   |
| 12.1                                   | Alt 3. Seems to meet the National Rule and a good balance of the various needs and interests involved.  | Comment noted.   |
| 32.1                                   | Alt 3, plus change Breezy Hill Trail to open year-round. Oppose any trail closures and feel that more riding areas should be created.   | Comment noted. Breezy Hill Trail is open year-round in Alternatives 5 and Modified 5. More riding areas are addressed in the EA §2.2 Alternatives Eliminated from Detailed Study, #1.      |
| 2.1, 26.10, 30.1                       | Favor Alt 4.  | Comment noted.   |
| 11.1                                   | Favors alternatives that address the pearlshell mussel, Alt 4.  | Comment noted.   |
| 13.1                                   | Alt 4 or 5. Main interest is in the care of the Caney District.   | Comment noted.   |
| 3.1                                    | Favor Alt 5 or 6. Close motorcycle trails Oct – Feb. Open closed roads to ATV use.  | Comment noted.   |
| 4.1, 8.1, 10.1, 14.2, 21.1, 22.1, 24.1 | Alt 5. Opposed to any trail closures and favor opening the 66-mile Breezy Hill Trail year-round. Favor 2" rain rule instead of trail closures. If you close all the trails in the winter, there is no public land in the entire state of Louisiana open to recreational ATVs. | Comment noted.   |
| 7.1, 29.1                              | Alt 5. Open trails yearlong. Prohibiting cross-country riding is a great idea.  | Comment noted.   |
| 31.3                                   | Alt 5 at this point seems to be the best plan for disability people.  | Comment noted.   |
| 5.1, 14.2, 15.1                        | Favor Alt 2. Oppose seasonal trail closures and favor 2" rain rule at Breezy Hill. Don't close more roads and need trails open yearlong.  | Comment noted.   |
| 34.1                                   | Favor Alt 2. ATV uses rather than motorcycles have generated much more erosion.   | Comment noted.   |
| 37.1                                   | Favor Alt 2. Would like highway-legal vehicle access year-round to the public on road E024A. It is on a high ridge and does not go into a creek bottom.   | This road is in poor condition and there have been problems in the past from off-route travel through the creek. The road will be closed March through August in the selected alternative. |
| 16.1, 17.1, 19.1, 201.                 | Alt 1 is the only alternative that should be considered. Other alternatives will eliminate individual freedom. Eliminating night riding and restricting people to camping corridors also eliminate personal freedoms and are designed just to control the American people.    | Comment noted.   |
| 6.1                                    | <b>Take no action.</b> We come at least twice a month to ride.  | Comment noted.   |
| 9.14                                   | <b>Alt 6.</b> All motorized trails should be closed seasonally.   | Comment noted.   |
| 31.4                                   | <b>Consider the alternative with the most ATV trails if the forestry is not going to issue or honor disability permits.</b> As I understand it  | Comment noted.   |

| Reference | Summary of Comment   | Response to Comment   |
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|           | now, Alt 6 would be the best alternative for the Caney Lake area.  |   |
| 33.1      | <b>Leave things the way they are.</b> It should be my right to hunt, run dogs at night, camp without the roads being closed. You should have the money, manpower to keep the roads up. I am against the proposal you have of running dogs at night. There should not be any roads closed. Leave it alone. We enjoy the sport and would like to see my kids and grandkids do the same.  | Comment noted.  |
| 3.2, 31.1 | I'm 55, <b>disabled</b> , and would like game retrieval. Every business and government agency in the country has rules and laws to make available the use of the places by handicapped people, so why should the Forest be any different. I strongly disagree with your statement, "there is no equity among forest users if a separate system of permits is developed for certain individuals."   | See EA §2.2 Alternatives Eliminated from Detailed Study, #2. An alternative was considered to offer special use permits to allow people with disabilities and seniors to use their ATV to hunt and/or retrieve game on the Forest. The reason for not developing this alternative is explained in the EA §2.2.  |
| 28.1      | I am a <b>paraplegic</b> and oppose any alternative that will affect my ability to use public lands. To make it illegal for me to access places that I've used on public lands prior to my injury is wrong. An ATV in a case such as mine is purely used as "my legs." I use the ATV to turkey hunt and to recreate in the hunting off-season around Kisatchie Bayou. This is discrimination. I would like to emphasize that ATV use by persons such as myself have little if any adverse environmental impact. I am open to any dialogue and would appreciate your insight and help in this matter. | Comment noted. See response above.  |
| 25.1      | I think there should be an exception for <b>disabled deer hunters</b> . Perhaps KNF could issue permits to disabled hunters by having them provide proof of their disabilities. It is unfair to disabled people like myself who have always treated KNF with respect. I use my 4-wheeler for the sole purpose of riding to and from my stand and retrieving deer.  | We are concerned about the disabled hunters' access on the Forest. Much effort was made to provide a means for disabled hunters to continue to hunt after cross-country motorized travel is prohibited forestwide. We have designated some roads for 4-wheeler use in Alternatives 4, 5, Modified 5, and 6 and game retrieval corridors for ATV use in Alternative 5 and Modified Alternative 5. Cross-country motorized use on the Forest is prohibited to everyone, but these designations for ATV use may provide ways for disabled hunters to continue to hunt, but in a different way. Also, see response above. |
| 23.1      | I <b>disagree with ALL the alternatives</b> . I would like to see more freedom to utilize the lands owned by the general public. I feel that education (intensive education) and enforcement (more efficient enforcement) of existing commonsense rules for use of managed land is a more practical approach to the existing problems.   | Comment noted. See EA §1.11.2 Non-Significant Issues and Chapter 1 Purpose and Need.  |
| 31.2      | <b>Enforcement:</b> You say there is confusion and this would clear that up – the Wildlife and Fisheries has trails and rules concerning disability hunting and use of ATVs and they   | Comment noted.  |

| Reference | Summary of Comment   | Response to Comment  |
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|           | don't seem to have any confusion.  |  |
| 3.3       | People running dogs tear up more than ATVs.  | Outside the scope. See EA §1.11.2 Non-Significant Issues, #15.   |
| 7.2, 9.1  | Eliminating night riding is necessary.   | Comment noted.   |
| 11.2      | Support the restriction of motorized vehicles to designated roads and trails.                                    | Comment noted.   |
| 11.3      | Forest Service should implement a policy that places an "open" sign on all roads and trails open to OHV use.     | Kisatchie National Forest is currently working on installing signs on all open roads so that when the Motor Vehicle Use Map is published the road numbers on the signs will correspond to the road numbers on the map. |
| 35.1      | Roads at the south side of 488 at the east boundary of the Forest need to be open to ATVs during hunting season. | Some roads south of 488 on the eastern end of the Calcasieu District have been designated as open for ATV travel October through January in the selected alterenhe s5.28 a1488.32                                      |

| Reference | Summary of Comment  | Response to Comment   |
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|           |   | may impact the LPM.   |
| 9.6       | Road C024A on the Catahoula District has a culvert where it crosses the stream and is not causing sedimentation into the stream; there is no reason to close this road.   | Sight examination determined that road C024A was causing no sedimentation and road designation was changed to open yearlong to highway-legal vehicles in the preferred Modified Alternative 5.  |
| 9.7       | Although Alternative 4 was developed to close additional roads in the LPM watersheds, over 90% of the additional closures occur outside of the LPM watersheds. The majority of the additional roads closed in this alternative are in the walk-in hunting areas or on the Catahoula Ranger District, and appear to be an attempt to create a de facto walk-in area. These additional closures are a 2% increase in the miles of closed roads from the proposed action, and appear to be more than a 50% increase in the miles of roads closed to HLVs proposed on the Catahoula District alone. The public was not given a chance to comment on these additional closures, or whether or not they wanted to see more walk-in areas created, therefore selection of this Alternative with its additional road closures would violate NEPA policy for public comment. | The development of alternatives is explained in Appendix F in the EA. Alternative 4 was developed in response to comments received during scoping, which included reduction of motorized use in LPM watersheds. In addition, one of the objectives of the ID Team was to establish clarity and consistency in the Forest's travel management system of roads and trails (Appendix A2). The walk-in hunting area on the Evangeline Unit lies within the LPM watershed and to be consistent with walk-in hunting areas on other Districts, the logging roads were closed year-round in Alt 4, 5, Mod 5, and 6. Closing the logging roads within the Evangeline walk-in area would benefit the LPM and meet consistency within the Forest. The Catahoula District had previously established an area to be managed for turkey emphasis. Turkeys are the most sensitive wildlife species on the Forest to disturbance from motorized use. The logging roads in this area were also designated closed to vehicular travel. The walk-in hunting area on the Evangeline Unit |



| Reference  | Summary of Comment  | Response to Comment  |
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|            | without having to close so many roads.  | the trail. Roads are a source of erosion and sedimentation, and the roads in the LPM watershed are no exception. Consideration was given to existing sedimentation and potential sedimentation from motorized use on roads in the process of designating roads open for public use in the alternatives. Sight visits were made to roads in the LPM watershed to make the road designation determinations.  |
| 9.14       | The need for closing roads and trails to public use either permanently or temporarily due to damage to soil and water resources could easily be accomplished with a single seasonal closure for all low-standard, native surfaced roads and all motorized trails from January through April. This is historically the wettest time of year in Louisiana, ground conditions normally are very wet, the trees are not taking up the water after it rains and, consequently, most of the damage that causes erosion and sediment occurs during this time.  | See EA §2.2 Alternatives Eliminated from Detailed Study. Designating <u>ALL</u> woods roads closed January through April would ignore road problems warranting closure, wildlife management objectives, and declining maintenance budgets. It was determined that proposing all woods roads closed seasonally would not meet the Plan management objectives of providing recreational access to those users wanting different kinds of motorized access. |
| 14.1, 14.3 | Communication – Put an add in the newspaper every other month or so with information such as web address, phone numbers, new riding or biking trails, workdays, ongoing projects, etc. Include the Baton Rouge Advocates as there are a lot of riders in south Louisiana.<br>Give each district decision-making authority to open or close their trails. Give them access to update the WEB and the 800 number. Add more info to the WEB where trail closures are disclosed to include something like: “We had 3” of rainfall Tuesday, June 11 and decided to close the trail. You can call our office at #.”<br>Or “Breezy Hill re-opened Feb 1 for trail-riding. We are having a workday Saturday march 1. Contact # for more information.”   | Comment noted. The Forest is concerned and efforts are being made to improve our communications.   |
| 14.4, 22.2 | Recommended solution to the difficulties of implementing the 2” rain rule and thereby eliminating the need for seasonal trail closures: Issue permits, somewhat like the NWMP hunting permit. Each person operating an ATV on the national forest would be required to have a permit. The conditions of the permit would be outlines, such as, call 1-888-XXX-XXXX before riding, ride on designated trails, ride only during designated hours, etc. This puts the responsibility squarely on the user. The only thing the district would have to do is upgrade the voice message on the telephone. Law enforcement would love it. The clerk issuing the permit could update the database of permittees, and the LEO could keep a current copy. | It was determined that the elimination of motorized cross-country travel will make it easier for Kisatchie National Forest to administer the 2-inch rain rule because only three of the five districts will require closures due to wetness. It was also determined that the administration of permits would increase our administrative duties and with improved communication the permits would not be needed.   |
| 14.5       | Logging roads are a necessity for some people. By closing these roads, you are greatly reducing our access to the Forest.   | See EA §3.1 Access and Recreation for a discussion of impacts to access. The walking distance to an open road averages   |

| Reference | Summary of Comment   | Response to Comment  |
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|           | Logging roads are for some folks the best and only way for them to enjoy the Forest.   | approximately 900 feet in Alternatives 1, 2, 5, Modified 5, and 6 to 1000 feet in Alternative 3 and 1,100 feet in Alternative 4. Adequate access seems to be provided in all alternatives.   |
| 18.1      | Enforcement – Stop people from drinking and using dope in Kisatchie National Forest. Use surprise checkpoints. Put cameras in parking lots. Arrest and convict the thugs.  | See EA §1.11.2 Non-Significant Issues #4. Enforcement is a concern. We currently use surprise surveillance with law enforcement officers and cameras, and arrests are made.  |
| 18.2      | Mark trails with bathroom tags or arrows. Put trash cans where trails cross roads.   | Comment noted.   |
| 23.2      | I feel that it is imperative to have a designated ATV trail on the Winn District equivalent to the one on the Catahoula District since most ATV use on government land will be eliminated with the decision on this project.   | See EA §2.2 Alternatives Eliminated from Detailed Study. Any additional trails on the Forest will be handled in site-specific projects at the Ranger District. Establishment of new trails is not part of this project.  |
| 24.2      | Consider OHV access to designated trails from dispersed camping corridors. Tent camping with OHVs outside of the designated campgrounds should be allowed within close proximity to trails. Tent campers and motorhomes with generators do not mix well. At a minimum, consider enforcing a “no generator “quiet” time.                            | Recreation riders are encouraged to access trails from the designated trailheads. Allowing trail access from a lot of dispersed camping areas would create more trails in areas not necessarily managed for that use. However, additional evaluations have determined that some locations are considered suitable for establishing a short spur for trail access and two trail spurs on the Calcasieu District have been proposed to be added to the trail system in Modified Alternative 5.                         |
| 26.1      | ATV traffic in the upper Grays Creek watershed, a LPM watershed, must be stopped to comply with FW-344 (standard). Other streams on the Catahoula with ATV problems include Cress Creek on both sides of LA 8 and Black Creek downstream from PR 182.  | The elimination of motorized cross-country travel in Alternatives 2, 3, 4, 5, Modified 5, and 6 would in effect eliminate ATV traffic in upper Grays Creek watershed, along Cress Creek and Black Creek. There are no ATV trails within these watersheds so the only travel would be cross-country, which would be illegal in all alternative proposals. FW-344 would be amended in the decision to comply with the National Travel Management Rule (See Appendix A1).   |
| 26.2      | Roads into Long Branch along with unmarked roads or trails must be closed 365 days a year under FW-344 provision for Louisiana pearlshell mussel and walk-in areas. Specifically, roads E366C and E034E should be closed. E034E should be closed because there is a user-created trail that extends E034E across the creek that joins into FS 243. | The portion of road E366C outside of the military special use area is closed year-round in the preferred Modified Alternative 5. The portion that lies within the military special use area is under military jurisdiction. E034E is 0.4 mile from the closest mussel bed and no problems were identified on the ground justifying the need to close this road.  |
| 30.2      | These roads are too close to the LPM habitat. Most roads within 500’ of LPM streams should be closed. Close E018D, 207@E018E to the east to private (including (E018F), E024C and all roads connected to it, E024K and E024B south of 288; E025B west of 3-acre tract, E025C, and E025A.   | Road E018D is a little less than a mile from the closest mussel bed. A field check identified no sedimentation problems and the road will remain open. Road 207 goes to private land and will remain open. Road E018F is approximately 2/3 mile from the closest mussel bed and no resource problems were identified on the ground warranting closure. Road E024B is ¾ miles from the closest mussel bed and no problems on the ground were identified warranting closure. Road E024K is grownup and will be changed |

| Reference | Summary of Comment  | Response to Comment   |
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|           |   | to closed in Modified Alternative 5. Road E024C is 1.25 miles from the closest mussel bed and no problems on the ground were identified warranting closure. Road E025B is ¼ mile from the closest mussel bed and is not posing a concern to the LPM; the road will remain open. Roads E025A and E025C both go to private land and will remain open. |
| 26.3      | A better solution is needed to provide increased access and to regulate ATVs. The big game trails suggested in Alternative 5 are not adequate and the proposal continues to cater to those who are recreational riders while discriminating against those wishing to actually get to a destination. This injustice could be rectified if Louisiana law were changed to make 4-wheelers highway-legal and require them to be licensed. | Comment noted. At this time, Louisiana statutes are not expected to change with regard to ATV travel on public roads.   |
| 26.4      | Provisions of Alternative 4 to close the Evangeline Unit walk-in area and the Catahoula Turkey Emphasis area must be implemented to make this a legal proposal. No other proposal meets the criteria of the Endangered Species Act and Forest Plan under the LPM Recovery Plan, FW-344 and FW-854   | Comment noted.  |
| 26.5      | Louisiana black bears do not wander. As erratic as their travels may appear to us, it is purposeful. Nor are all the bears subadult males. Many of the recent sightings have been females with cubs (3-24)  | Comment noted. Changes made to the EA.  |
| 26.6      | Bears will be directly impacted by roads when runover (3-31)  | Comment noted. Changes made to the EA.  |
| 26.7      | An increase in the bear population from around 100 to over 500 is hardly slight (H-9)   | Comment noted. Changes made to Appendix H.  |
| 26.8      | <i>Strophitus undulates</i> , the squawfoot mussel, is known from Corney Baou and unless isolated as being strictly off the Forest should be included in the EA.  | Comment noted. Changes made to the EA.  |
| 26.9      | The Louisiana slimy salamander ( <i>Plethodon Kisatchie</i> ) in Rapides Parish is located on the Pineville side of the Red River and could occur in the small streams of the Camp Livingston area, which could be a good reason for restricting OHV traffic since some of the stream area is heavily traveled, making Alternative 4 an even more viable option.  | Comment noted.  |
| 27.1      | Page 2-2, Section 2.1 Description of Alternatives, Alternative 4 – The draft EA states that this alternative would reduce the miles of roads open for motor vehicles within the Louisiana pearlshell mussel watersheds. However, the draft EA does not specifically identify where those reductions would take place. We, therefore, recommend that the draft EA be revised accordingly.  | Added map in Appendix L Louisiana Pearlshell Mussel Watersheds that depicts the soil ratings overlaid with the designated roads and trails and stream crossings of Modified Alternative 5.  |
| 27.2      | Page 2-3, Section 2.1 Description of Alternatives, Alternative 5, Bullet 4 – This bullet indicates that the proposed 47 miles of  | Appendix “L” is a typographical error. The correct appendix is “I” and has been corrected in the EA.  |

| Reference | Summary of Comment  | Response to Comment   |
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|           | big game retrieval corridors for all-terrain vehicles (ATV) use is mapped in Appendix L. Appendix L, however, is not included within the draft EA.  |   |
| 27.3      | Page 2-9, Section 2.4 Comparison of Alternatives, Table 2-1 Summary Comparison of Alternatives – This table indicates that 32 miles (under Alternatives 1 and 2) and 38 miles (under Alternatives 3 through 6) of dispersed camping corridors would be available. The descriptions provided for each of the alternatives under Section 2.1, however, states that 6 miles of dispersed camping corridors would be available. The Service, therefore, recommends that this discrepancy be clarified in the final EA.  | Section 2.1 of the EA describes the proposed changes for each alternative. In Alternatives 3, 4, 5, Modified 5, and 6, an additional 6 miles of dispersed camping corridors would be added to the system. There are 32 miles of existing camping corridors. Since Table 2.1 Summary Comparison of Alternatives shows a comparison of <u>all</u> the designated motorized routes and corridors, the existing 32 miles is shown for Alternatives 1 and 2, and 38 miles (including the additional 6 miles proposed) is shown for Alternatives 3 through 6. |
| 27.4      | Page 3-1, Chapter 3 Affected Environment and Environmental Consequences – We recommend including a section describing the potential direct, indirect, and cumulative effects to water quality associated with concentrated OHV use on designated roads and trails, especially in areas with fair to poor suitability soils.   | Additional information and analysis was added to the EA §3.4.1 Affected Environment and §3.4.2 Direct, Indirect, and Cumulative Effects to Aquatic Habitat and Threatened, Endangered, Sensitive, and Conservation Species.   |
| 27.5      | Page 3-15, Table 3-4 Seasonal road and trail usage by alternative for suitable and unsuitable soils – The Service recommends defining the extent of designated trails and roads on both suitable and unsuitable soils occurring within the Louisiana pearlshell mussel watersheds.  | Changed Table 3.4 to add miles of roads and trails by soil rating within the LPM watersheds. Additional information and analysis was added to the EA §3.4.1 Affected Environment and §3.4.2 Direct, Indirect, and Cumulative Effects to Aquatic Habitat and Threatened, Endangered, Sensitive, and Conservation Species.  |
| 27.6      | Page 3-16, Figure 3-9 The mileage of designated roads and trails located on soils rated poor, fair or good suitability for each alternative for vehicle type and seasonal usage – As depicted, the miles of designated roads and trails within good, fair, and poor suitability soils appears evenly distributed. However, based on actual mileage, approximately 2 percent of designated roads and trails occur within fair and poor suitability soils. The Service, therefore, recommends that the motorized routes (miles) units be consistent between each graph to accurately reflect the proportion of designated roads and trails in each soil type. | Comment noted. Added Appendix L Louisiana Pearlshell Mussel Watersheds that depicts the soil ratings overlaid with the designated roads and trails and stream crossings of Modified Alternative 5.  |
| 27.7      | Page 3-17, Section 3.3.2 Direct, Indirect, and Cumulative Effects to Soils – Because the majority of the designated routes are located on soils rated “poor” to “fair” for motorized use, the Service recommends including a discussion of potential soil and water quality impacts associated with concentrated motor vehicle use on those soils.  | More information was added to EA §3.3.2 Direct, Indirect, and Cumulative Effects to Soils. More information and analysis about soil ratings and designated routes within the Louisiana pearlshell mussel was added to the EA §3.4.1 Affected Environment and §3.4.2 Direct, Indirect, and Cumulative Effects to Aquatic Habitat and Threatened, Endangered, Sensitive, and Conservation Species.  |
| 27.8      | Page 3-22, Section 3.4.2 Direct, Indirect, and Cumulative Effects to Aquatic Habitat and  | More information and analysis about soil ratings and designated routes within the   |

| Reference | Summary of Comment  | Response to Comment   |
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|           | TESC Species, Aquatic Habitat, Louisiana Pearlshell Mussel, Alternative 2 – The Service recommends identifying the distance of Louisiana pearlshell beds to designated roads and trails. We also recommend discussing the potential effects of concentrated OHV use on designated roads and trails (especially within soil types rated “poor” to “fair”) on that species.   | Louisiana pearlshell mussel was added to the EA §3.4.1 Affected Environment and §3.4.2 Direct, Indirect, and Cumulative Effects to Aquatic Habitat and Threatened, Endangered, Sensitive, and Conservation Species.   |
| 27.9      | Page 3-23, Table 3-7 Route characteristics within the watersheds where Louisiana pearlshell mussels exist on the KNF by alternative – This table indicates that 514 stream crossings occur within the Louisiana pearlshell mussel watershed. The Service recommends addressing how many of those crossings occur within unsuitable soil types for motorized use. The table also indicates that of the 514 crossings 375 to 479 are open stream. The Service, therefore, recommends more thoroughly supporting the determination that potential impacts from concentrated OHV use of those crossings (i.e., erosion, sedimentation, etc) are not likely to adversely impact the Louisiana pearlshell mussel. | More information and analysis about soil ratings and designated routes within the Louisiana pearlshell mussel was added to the EA §3.4.1 Affected Environment and §3.4.2 Direct, Indirect, and Cumulative Effects to Aquatic Habitat and Threatened, Endangered, Sensitive, and Conservation Species.   |
| 27.10     | Page 3-31, Section 3.6.2 Direct, Indirect, and Cumulative Effects to Terrestrial Wildlife and TESC Species, Louisiana pine snake – The Service recommends identifying the total length of designated roads and trails occurring within suitable pine snake habitat as well as discussing the occurrence of, and potential impacts to, pocket gophers and their burrows.   | Added more analysis and Table 3-9 in EA §3.6.2 Direct, Indirect, and Cumulative Effects to Terrestrial Wildlife and TESC Species, Louisiana pine snake. Added map in Appendix M Louisiana Pine Snake Habitat overlaid with the designated roads and trails of Modified Alternative 5.   |
| 27.12     | Appendix H-13, Section 7.2 Indirect, beneficial, and/or adverse effects and their significance (all alternatives), Louisiana pearlshell mussel – This section states that “under Alternatives 2, 3, 4, 5, and 6 motorized cross-country use would be prohibited and use would be mostly excluded from LPM watersheds and the situation should improve considerably.” The Service recommends identifying specific proposed locations of motorized travel within the pearlshell watersheds and how such activity, at those locations, is not likely to impact that species.   | Added map in Appendix L Louisiana Pearlshell Mussel Watersheds that depicts the soil ratings overlaid with the designated roads and trails of the selected alternative. More information and analysis about soil ratings and designated routes within the Louisiana pearlshell mussel was added to the EA §3.4.1 Affected Environment and §3.4.2 Direct, Indirect, and Cumulative Effects to Aquatic Habitat and Threatened, Endangered, Sensitive, and Conservation Species. |
| 36.1      | I was pleased to see that trail K27J is to be left open allowing access to my property. We would like to see the Forest free of garbage, cans, bottles, and other waste.  | Comment noted. K027J is open year-round in Alternatives 1, 2, 4, 5, Mod 5, and 6; and closed in Alternative 3. We would also like to see the Forest free of garbage.  |
| 38.1      | I would like W106C from gravel road 530 to be open to access the private land where my hunting lease is located.  | District re-evaluated and changed road W106C from “closed” to “open year-round to highway-legal vehicles” in Modified Alternative 5.  |

United States Department of the Interior

FISH AND WILDLIFE SERVICE
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August 21, 2007



Boley
Forest
Highway
71360

Ms. Margrett L. Boley
Forest Supervisor
Kisatchie National Forest
2500 Shreveport Highway
Pineville, Louisiana

Dear Ms. Boley:

On July 19, 2007, letter and attached Environmental Assessment (EA) and Biological Evaluation (BE) regarding the potential impacts of the proposed travel management plan on listed and candidate species. Those species include the endangered red-cockaded woodpecker (RCW, Picoides borealis), the threatened Louisiana black bear (Ursus...), the threatened Louisiana pearlshell mussel (Margaritifera hembeli), and the Louisiana pine snake (Pituophis melanoleucus ruthveni). The proposed project is located within the Kisatchie National Forest (KNF), in Calcasieu, Grant, Natchitoches, Webster, and Winn Parishes, Louisiana. The U.S. Fish and Wildlife Service reviewed the information provided, and offers the following comments in accordance with provisions of the Endangered Species Act of 1973 (87 Stat. 884, as amended, 16 U.S.C. 1531 et seq.).

Please reference your Biological Evaluation project on Federally listed species. The project on the candidate Louisiana black bear is located throughout Rapides, Vernon, and Winn Parishes. (Service) has reviewed your EA in accordance with provisions of the U.S.C. 1531 et seq.

The Forest Service (FS) has proposed to improve off-road vehicle (ORV) management within the Kisatchie National Forest (KNF) in order to provide recreational opportunities and public safety, while achieving ecosystem restoration goals by preventing resource damage. Within the project area, the FS has identified six action alternatives, in addition to the no action alternative. All of the action alternatives (i.e., Alternatives 2, 3, 4, 5, modified 5, and 6) prohibit motorized travel off designated routes forest-side and prohibit night-riding from 1 hour after sunset until 1 hour before sunrise. No new roads or trails are proposed. In addition, Alternative 3 proposes changes to road designations. Alternative 4 reduces miles of roads open for motor vehicles within Louisiana pearlshell mussel watersheds. Alternative 5 would open some closed roads for all-terrain vehicle (ATV) use during deer hunting season and would provide corridors for big game retrieval with an ATV in the Catahoula and Red Dirt National Wildlife Management Preserves. Modified Alternative 5 is similar to Alternative 5, but proposes minor changes to road designations and adds two trail spurs to the motorized trail system on the Calcasieu Ranger District. Alternative 6 proposes to increase the mileage of roads designated for seasonal ATV use and to close all trails January through March.

The Forest Service (FS) has reviewed your EA in accordance with provisions of the U.S.C. 1531 et seq. The Forest Service (FS) has reviewed your EA in accordance with provisions of the U.S.C. 1531 et seq.

There is no Louisiana black bear occupied habitat (i.e., presence of denning females) within the proposed project area. Thus, the Service concurs with your determination that the proposed

The Forest Service (FS) has reviewed your EA in accordance with provisions of the U.S.C. 1531 et seq.

Alternatives 2, 3, 4, 5, modified 5, and 6 are not likely to adversely affect that species.

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Two Federally listed species, the RCW and the Louisiana pearlshell mussel are known to occur within the proposed project area. RCWs inhabit open, park-like stands of mature (i.e., greater than 60 years of age) pine trees containing little hardwood understory or midstory. RCWs excavate roost and nest cavities in living pines (i.e., 10 inches or greater in diameter at breast height). The cavity trees and the foraging area within 200 feet of those trees are known as a percent or more of the total contiguous to and adjacent to the project area.

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The RCW recovery goals for KNF, as identified in the 2003 RCW Recovery Plan, are 342 active clusters on the Vernon Unit of the Calcasieu Recreation Area, 312 active clusters on the Evangeline Unit of the Calcasieu RD, 292 active clusters on the Kisatchie RD, and 263 active clusters on the Longleaf pine ecosystem restoration is essential in order for the FS to reach those goals. However, more open, park-like setting could promote increases in ORV cross-country travel. ORVs can reduce the quantity and quality of available RCW foraging understory habitat destruction. Because implementation of any of the six alternatives would eliminate cross-country travel, resource damage should decrease and RCW nesting and/or foraging habitat should, therefore, be beneficial. Accordingly, the Service concurs that implementation of Alternatives 2, 3, 4, 5, modified 5, or 6 are not likely to adversely affect RCWs.

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The Louisiana pearlshell mussel is known to occur within the Calcasieu and Catahoula RDs. It is associated with clear, moderately swift-flowing, perennial streams having stable mineral substrate, such as sandy bottoms with rocky outcroppings. Louisiana pearlshell mussels are currently impacted by ORV traffic. Although bridges have been built and stream crossings have been hardened, many ORV users continue to drive directly across stream channels, including those occupied by Louisiana pearlshell mussels. Subsequently, it is likely that many mussels are crushed or washed downstream into potentially unsuitable habitat. Furthermore, ORVs cross stream channels indirectly impact Louisiana pearlshell mussels by destabilizing the substrate and the degrading aquatic habitat quality. User-constructed trails within Louisiana pearlshell mussel watersheds also degrade water quality via increased erosion and sedimentation.

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Under the No Action alternative, most of KNF would continue to be open to cross-country travel. The magnitude of adverse impacts to soil and water quality would depend on the amount of travel; however, the number of registered ORVs is expected to double within the next 10 years. Additionally, user-constructed trails within Louisiana pearlshell mussel watersheds also degrade water quality via increased erosion and sedimentation. Accordingly, the Service concurs that implementation of Alternatives 2, 3, 4, 5, modified 5, or 6 are not likely to adversely affect Louisiana pearlshell mussel streams.) would increase.

Under the proposed action alternatives (i.e., Alternative 2, 3, 4, 5, modified 5, and 6) beneficial effects to Louisiana pearlshell mussels are anticipated. Limiting ORV traffic to designated trails is anticipated to minimize the amount of sedimentation and damage to streams in sensitive watersheds (i.e., Louisiana pearlshell mussel watersheds). The potential for additional user-constructed stream crossings and stream damage should also be eliminated. Because of the limited mileage (approximately 1.1 miles) of motorized trails within the Louisiana pearlshell watersheds and because those trails exist in the upper reaches of the drainages (approximately 1.4 miles from mussel bed locations) on soil characterized as suitable for motorized trails, significant direct and indirect adverse effects to that species are not anticipated. Restricting ORVs to designated routes would also allow for the restoration of existing ORV-damaged areas, including those within Louisiana pearlshell mussel watersheds, by preventing traffic from damaging restored segments of user-constructed trails. Accordingly, the Service concurs with your determination that implementation of Alternatives 2, 3, 4, 5, modified 5, and 6 are not likely to adversely affect the Louisiana pearlshell mussel.

The Louisiana pine snake inhabits areas of pine trees with sandy, well-drained soils, substantial herbaceous ground cover, and little midstory (e.g., longleaf pine savannah). The pine snake is highly associated with the pocket gopher (*Geomys breviceps*), a major food source, which is dependent on the same habitat type. Pine snakes are most frequently found near pocket gopher burrow systems and move from one burrow system to another. On the KNF there are 539 miles of Forest Service designated roads and 61 miles of system trails within suitable pine snake habitat. Threats to this species via both on road and off-road ORV use include degradation of suitable habitat, as well as vehicle-related mortality. Proliferating cross-country travel under the No Action alternative could degrade suitable pocket gopher habitat and thus reduce prey and refuge areas for the Louisiana pine snake. Because implementation of any of the six action alternatives (i.e., Alternatives 2, 3, 4, 5, modified 5, and 6) would prohibit cross-country riding and reduce the acreage of bare ground due to ORV trails, overall impacts of those action alternatives are expected to be beneficial to this species. Therefore, no further analysis or consultation is required regarding impacts on this species. Should it be determined as a result of future monitoring that this species is at risk of being endangered in the future, further consultation on possible project impacts to this species could then be required.

The bald eagle (*Haliaeetus leucocephalus*) has officially been removed from the threatened and endangered species list as of August 8, 2007. Bald eagles nest in Louisiana from October through mid-May. Eggs are typically laid in mature trees (e.g., bald cypresses, cypress swamps, cypress or fresh to intermediate marshes or open water in the southeastern Parishes. Areas with high numbers of nests include the Lake Verret Basin south to Houma, the marsh/ridge complex south of Houma to Bayou Vista, the north shore of Lake Pontchartrain, and the Lake Salvador area. Bald eagles also winter, and infrequently nest in mature pine trees near large lakes in central and northern Louisiana. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants (i.e., organochlorine pesticides and lead).

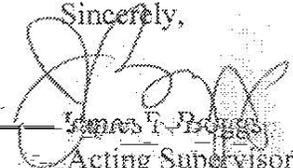
Although the bald eagle has been removed from the threatened and endangered species list, it continues to be protected under the MBTA and the BGEPA. The Service developed the National Wildlife Management (NWM) Guidelines to provide landowners, land managers, and others with

with information and recommendations regarding how to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. Those guidelines recommend maintaining: (1) a specified distance between the activity and the nest (buffer area); (2) natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. The buffer areas serve to minimize visual and auditory impacts associated with human activities near nest sites. Ideally, buffers would be large enough to protect existing nest trees and provide for alternative or replacement nest trees. A copy of the NBEM Guidelines is available at: <http://www.fws.gov/migratorybirds/ages/BaldEagle/NationalBaldEagleManagementGuidelines.pdf>. If after consulting those guidelines you need further assistance in determining the appropriate size and configuration of buffers or the timing of activities in the vicinity of a bald eagle nest, please contact this office.

Based on our review of the subject documents, the Service supports implementation of Alternative 4 as a means to maintain/restore suitable habitat for the Louisiana pearlshell mussel, RCW, and Louisiana pine snake, and to meet the objectives of the 1994 Revised Land and Resource Management Plan. The EA and NEA adequately evaluate the impacts of the proposed documents.

The Service commends the Forest Service for their continuing efforts to conserve listed and candidate species on the KNF. If you have any questions or need further information, please contact Karen Soileau (337/291-3132) of this office.

Sincerely,



James T. Boggs  
Acting Supervisor  
Louisiana Field Office

cc: Ralph Costa, USFWS, Clemson, SC  
LDWF, Natural Heritage Program, Baton Rouge, LA