

FY2008



Kisatchie National Forest

**Monitoring and Evaluation
Action Plan & Report**

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

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I. Introduction to Monitoring and Evaluation Report

The Kisatchie National Forest (KNF) annually monitors and evaluates programs and projects to determine whether they comply with management direction in the Revised Land and Resource Management Plan (Plan).

Monitoring and evaluation is an ongoing process, specifically designed to insure that Plan goals and objectives (Plan, pages 2-1 to 2-7) are being achieved; standards and guidelines (S&Gs) are being properly implemented; and environmental effects are occurring as predicted. It also indicates whether the application of management area prescriptions is responding to public issues as well as management concerns; and if the costs of implementing the Plan are on target. The evaluation of monitoring results allows the Forest Supervisor to initiate action to improve compliance with management direction where needed, improve cost effectiveness, and determine if any amendments to the Plan are needed to improve resource management.

Monitoring is conducted by field reviews of projects and by inventory and survey work conducted by Forest Service resource specialists, Forest Service research scientists, universities, State resource agencies, and other cooperators.

This Monitoring and Evaluation Report is structured to correspond to the monitoring items listed in Chapter 5, *Monitoring and Evaluation*, of the Forest Plan. These items were developed based on the revised Plan's desired future conditions, goals and objectives, and standards and guidelines. Each monitoring item considered in this report references the corresponding monitoring item from Table 5-1 of the Plan.

This report includes the implementation status of the previous fiscal year's monitoring recommendations in addition to the detailed results and action plan for this year's report. The next page contains a certification statement from the Forest Supervisor indicating that he has evaluated the findings and recommended actions, and directs that the action plans developed to respond to the recommendations be implemented.

Opportunity for comment:

If you have questions or comments regarding the accomplishments for fiscal year 2008, please call or write and let us know. Telephone: 318-473-7160. Address: USDA Forest Service, 2500 Shreveport Highway, Pineville, LA 71360.

Certification:

I have evaluated the monitoring results and recommended actions in this Report. I have directed that the action plans developed to respond to these recommendations be implemented according to the timeframes indicated, unless new information or changed resource conditions warrant otherwise. I have considered funding requirements in the budget necessary to implement these actions.

With these completed changes the Forest Plan is sufficient to guide the management of the Kisatchie National Forest for fiscal year 2009, unless ongoing monitoring and evaluation efforts identify further need for change.

Any amendments or revisions made to the current Forest Plan will be made using the appropriate National Environmental Policy Act procedures.

Sincerely,

[See scanned original signature below]

MICHAEL L. BALBONI
Forest Supervisor
Kisatchie National Forest

Date: 8-31-2009

Certification:

I have evaluated the monitoring results and recommended actions in this Report. I have directed that the action plans developed to respond to these recommendations be implemented according to the timeframes indicated, unless new information or changed resource conditions warrant otherwise. I have considered funding requirements in the budget necessary to implement these actions.

With these completed changes the Forest Plan is sufficient to guide the management of the Kisatchie National Forest for fiscal year 2009, unless ongoing monitoring and evaluation efforts identify further need for change.

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Sincerely,



8/31/09

MICHAEL L. BALBONI
Forest Supervisor
Kisatchie National Forest

II. Summary of M&E Results and Report Findings

A. Ecosystem Condition, Health, and Sustainability

- Two environmental documents were completed in FY2008 that focus on ecosystem landscape management for RCW habitat, unique and native plant and animal communities, healthy growing forests for plant and animal species, water quality, recreation, enjoyment by the public, and soil conservation.
- There were three first thinning environmental documents completed in FY2008 – Caney Ranger District, Kisatchie Ranger District, and Winn Ranger District – for a total of 7,920 acres.
- Stand examinations were accomplished on 14,916 acres (2.5 percent) of the Forest.
- 124 acres were planted with longleaf pine seedlings in areas that had been cleared by final harvests. 55 of the acres planted were replant areas due to poor survival from the FY2006 planting.
- Currently, Kisatchie has 336,974 acres in the mixed hardwood-loblolly pine plant community compared to the Revised Plan's long-term target of 27,800 acres.
- No MIS surveys for plants were conducted in FY2008.
- Current population levels of Northern Bobwhites, Prairie Warblers, Eastern Wood-Pewees, Summer Tanagers, Hooded Warblers, Acadian Flycatchers, and Northern Parulas seem to be below their 1998-1999 population levels. Other management indicator species population levels seem to be approximately equal to their 1998-1999 population levels.
- On a small scale some prairies and bogs were managed for the benefit of sensitive and conservation species by clearing of encroaching shrubs and trees – a result of fire suppression over decades. Additionally, treatment of non-native invasive species continues to improve habitat for TESC species.
- The old-growth successional classes of longleaf pine, loblolly pine, pine-hardwood, hardwood-pine, upland hardwood, and bottomland hardwood have increased the most since the baseline year of the Revised Plan.
- RCW populations are increasing on the Forest.
- Louisiana pearlshell mussel (LPM) populations appeared to be stable from recent surveys, increasing in some areas, decreasing in others.
- The FS and the FWS have collaborated in a joint project to potentially identify the LPM host fishes. We have recently identified the blackspotted topminnow as a host fish, but there may be others. Previously, the host was unknown.
- The Natchitoches Fish and Wildlife Service Fish Hatchery provided funding to Iowa State University to map the genetic library of the LPM and locate possible micro-satellite populations.
- Routine water quality sampling this past year discovered that beavers on private land had built a dam and cut off flow to one of our LPM streams. Networking through our partners, we were able to restore flow to the stream, but we did incur considerable losses to the LPM (approximately 200 mortalities).
- Over the last five years 120,000+ acres have been burned each year, and growing season burns have accounted for approximately 32 percent of those acres.

- All areas of the Kisatchie National Forest are in attainment of the National Ambient Air Quality Standards (NAAQS) including those for ozone.
- Harvests during FY2008 included 140 acres clearcut with residual desired species, 5,502 acres of commercial thinning, and 160 acres of final seed tree removals.
- There were no SPB spots reported during FY2008.
- Reducing competition in young longleaf plantation using hand tools and herbicide was accomplished on 1,186 acres.
- There has been no reported mortality from Annosus root disease.
- Monitoring for implementation of Timber Removal S&G's was conducted on the Catahoula and Calcasieu Ranger Districts on October 26, 2007 and February 27, 2008, respectively. Reviewers determined that all applicable S&G's were implemented.
- A new protocol for soil quality monitoring is being considered in R8, and soil loss is not part of that monitoring protocol. Consequently, there was no soil loss monitoring conducted in FY2008.
- Bi-weekly testing of fecal coliform levels at Stuart Lake, Kincaid Lake and Caney Lake swim beaches indicated that water quality standards for protection of public health and safety were met.
- Supplemental stockings of Florida strain largemouth bass occurred across the Forest to maintain and enhance recreational fishing success, including newly constructed Gum Springs Pond (1,117 fingerlings).
- Lower Caney Lake needs to undergo a drawdown to mitigate infestations of hydrilla. Corney Lake is due a drawdown to maintain a healthy fish population balance and to allow decomposition of the "muck" on the lake floor.
- To decrease the need for continual stocking in a put-and-take fishery, catfish spawning cavities were designed, constructed and placed in Forest lakes and ponds.

B. Sustainable Multiple Forest and Range Benefits

- Meaningful Measures (INFRA) inventories were completed and data was updated to the corporate INFRA database. Critical standards are being met. Full compliance with all Meaningful Measures standards is not possible at current funding level.
- During FY2005 through FY2008, 6.48 miles of local and collector roads were reconstructed or constructed. Of this total, 6.48 miles were reviewed. Of the roads reviewed, 100% of the road length was observed to be serviceable by the intended user and required no significant increase in the level or frequency of maintenance.
- The Forest is following the progress of the Collins Camp legislated sale, introduced in Congress as H.R. 940, February 10, 2009. No right-of-ways were identified as needed or acquired in FY2008. No private land was acquired.
- Harvest levels were 75,195 CCF (7.5 MMCF or 38.3 MMBF). Prices and markets continue to drive the demand for wood products. The future demand is uncertain, as global demand has weakened.
- 109,702 CCF (11.0 MMCF OR 55 MMBF) was actually sold. Compared with 2007 (9.4 MMCF or 47 MMBF), this was a 17% increase and is 13% more than the average annual allowable sale quantity. This brings the cumulative average up to 5.7 MCF or 59% of the ASQ. The sale program is expected to stabilize somewhere around 90,000 CCF.

- No gas/oil wells were drilled in 2008. A 60,000 acre seismic project was completed on the Winn District and a 300 acre seismic project was completed on the Caney. Operating plans for these projects were reviewed for compliance with existing state and federal laws.
- All compliance reviews and consultations pursuant to Section 106 of the National Historic Preservation Act (NHPA) were completed prior to agency decisions. FY2008 saw an increase in request for surveys. A total of 6,045 acres were inventoried. All these acres were in support of timber sales. Fifty eight new sites were added to the KNF heritage database.
- The Forest did not evaluate any potentially significant heritage site for eligibility to the National Register of Historic Places. The number of backlogged sites has remained at 452.
- The Forest and the Calcasieu District are continuing to consider interpretation at the Fullerton Mill site. This site is also listed on the National Register of Historic Places.

C. Organizational Effectiveness

- The Forest received extensive damage caused by hurricane Gustav which hit on September 1. Even with the unforeseen costs, the Forest was able to stay within the funds allocated with few exceptions.
- The Forest Plan had its first amendment during FY2003. *Amendment #1* to the Plan came about as a result of the ROD for the Supplement to the Final Environmental Impact Statement, Vegetation Management in the Coastal Plain/Piedmont (SEIS)(October 2002). On February 22, 2008 the court ordered the Forest to revert to the original standard approved in the 1999 Plan Revision.
- In FY2008, Plan *Amendment #7* (Kisatchie National Forest Travel Management Project), was signed. It added prohibitions for motorized travel off designated areas/routes forestwide, as well as initiated the creation of Motor Vehicle Use Maps (MVUM) for each ranger district.
- SRS-4704 Utilization of Southern Forest Resources in cooperation with Kisatchie National Forest and Forest Health Protection is studying the use of biofuels to generate electricity. A BioMax 25 generator has been erected at the Winn Ranger District that uses carbon products such as wood and paper to generate combustible gases that are converted to electricity and used by the District office.
- The Forest currently has a Draft Programmatic Agreement with the SHPO and Tribes concerning Heritage Resource Management. The Forest should complete this PA in FY2009. The Forest also developed a Memorandum of Understanding with the Caddo Tribe of Oklahoma in 2008.

III. Detailed M&E Results and Report Findings

A. Ecosystem Condition, Health, and Sustainability

- BIODIVERSITY

Objective 2–1: Manage to restore or maintain the structure, composition, and processes of the four major landscape forest ecosystems known to occur on the Forest, and unique or under-represented inclusional communities embedded within them. Long-term objectives for each major forest community are as follows:

- **Longleaf pine forest: 263,000 acres.**
- **Shortleaf pine / oak-hickory forest: 62,000 acres.**
- **Mixed hardwood-loblolly pine forest: 27,800 acres.**
- **Riparian forest: 181,000 acres**

Are management practices designed to restore or maintain the structure, composition, and processes of the four major landscape forest ecosystems and the embedded plant communities within them being implemented? (I)

FY2008 Findings: Two environmental documents were completed in FY2008 that focus on ecosystem landscape management for RCW habitat, unique and native plant and animal communities, healthy growing forests for plant and animal species, water quality, recreation, enjoyment by the public, and soil conservation. The Kisatchie RD Simmons Creek Project included 2,398 acres of intermediate commercial thinning for forest health and RCW management, 1,087 acres of first commercial thinning, 38 acres of pre-commercial thinning, 61 acres of seed tree removal, pond rehabilitation, 180 acres of mechanical hazardous fuel reduction, clearcut with reserves on 128 acres – 85 acres to restore longleaf pine and 40 acres to restore shortleaf pine, and protection and restoration in five glades. The Catahoula RD Compartment 76 Project included 701 acres of intermediate commercial thinning, 55 acres of first commercial thinning, 22 acres of pre-commercial thinning, clearcut with reserves on 73 acres to restore longleaf pine, wildlife habitat improvement on 481 with mechanical midstory treatment and prescribed burn on 873 acres

There were three first thinning environmental documents completed in FY2008 – Caney Ranger District, Kisatchie Ranger District, and Winn Ranger District – for a total of 7,920 acres. Also included were clearcut with reserves on 116 acres for shortleaf pine/oak/hickory restoration.

Other environmental documents included plans for mechanical midstory removal for wildlife habitat improvement and fuel hazard reduction, prescribed burning maintenance, and non-native invasive plant control.

All these activities were designed to maintain the structure and composition of the major landscape forest ecosystems and the embedded plant communities within them. More emphasis over the last few years has been placed on commercial thinnings for forest health and RCW purposes. Since thinnings were emphasized, less time has been dedicated to ecosystem environmental projects where restoration is considered.

Stand examinations were accomplished on 14,916 acres (2.5 percent) of the Forest in FY2008.

FY2009 Recommended Actions: Strive to accomplish stand exams on 10 percent of the Forest every year and continue preparing environmental documents addressing management practices on as many of these acres as possible. Emphasize longleaf and shortleaf restoration where possible. Forest Silviculturist should continue to field-check samples of implemented project decisions.

Are the management practices successfully restoring or maintaining quality forest ecosystems; and, the structure, composition, and processes of the four major landscape forest ecosystems?

(E)

FY2008 Findings: 124 acres were planted with longleaf pine seedlings in FY2008 in areas that had been cleared by final harvests. 55 of the acres planted in FY 2008 were replant areas due to poor survival from the FY2006 planting. The Revised Plan projected that 1,456 acres would receive final harvest annually for longleaf restoration. There is no indication that this target will be met in the future. Currently, Kisatchie has 125,481 acres in the longleaf pine plant community, compared to the Revised Plan's target of 263,000.

There were no areas planted with shortleaf pine seedlings in FY2008. Currently, Kisatchie has 62,988 acres in the shortleaf pine/oak-hickory plant community, compared to the Revised Plan's target of 62,000 acres.

12 acres were planted with loblolly seedlings in FY 2008 in an area damaged by wildfire. Currently, Kisatchie has 336,974 acres in the mixed hardwood-loblolly pine plant community compared to the Revised Plan's long-term target of 27,800 acres.

There were no areas planted with mixed hardwoods in FY 2008. Riparian plant communities continue to be maintained in concert with management practices. Typically riparian zones are excluded from silvicultural improvement activities, harvesting, thinning, and mid-story removal activities.

FY2009 Recommended Actions: Strive to increase the number of acres restored to longleaf pine. Continue to monitor sites for additional treatment needs. Thinning prescriptions within RCW HMAs should emphasize the needed longleaf stand composition. Post implementation field checks should be done on thinnings to ensure sufficient longleaf emphasis and evaluate species composition changes and update the FS Veg database for these changes.

Continue restoration treatments on shortleaf/hardwood sites where there is high priority for regeneration such as stands damaged by disease, insect or storms as well as those stands showing signs of decline.

Mixed hardwood-loblolly forest types exceed long-term desired future conditions by 309,174 acres. Prescribe regeneration cuts on off-site stands where there is a high priority for regeneration such as stands damaged by disease, insect or storms as well as those stands showing signs of decline.

Continue to monitor management practices being implemented within streamside and riparian area protection zones for compliance with the Forest Plan, through timber sale contract administration and field checks. Continue to consider selective thinning and hardwood planting treatments within riparian areas to encourage hardwood component.

Objective 2-2: Provide for healthy populations of all existing native and desirable nonnative wildlife, fish, and plants by managing major forest ecosystems at the scale and distribution appropriate to maintain species viability. In the next 10 years, management indicator habitat objectives are as follows:

- ***Longleaf pine, all stages: 121,000 acres.***
- ***Shortleaf pine / oak-hickory, early stages: 0 acres.***
- ***Shortleaf pine / oak-hickory, mid-late stages: 16,000 acres.***
- ***Mixed hardwood-loblolly pine, early stages: 42,000 acres.***
- ***Mixed hardwood-loblolly pine, mid-late stages: 252,000 acres.***
- ***Riparian, small streams: 85,000 acres***
- ***Riparian, large streams: 92,000 acres***

Are management practices successfully expanding quality habitats for management indicators?

(E)

FY2008 Findings: No MIS surveys for plants were conducted in FY2008.

Based on inventoried forest-type acreages, Kisatchie NF meets or exceeds the Revised Plan's goal (first 10 years) of acreage provided in each landscape community except the mixed hardwood-loblolly pine early stages, which are insufficient.

The following table compares planned and actual inventoried acreage by landscape community type:

Landscape Community	Forest Plan 10-year goal (acres)	FY2002 acres	FY2003 acres	FY2004 acres	FY2005 acres	FY2007 acres	FY2008 acres
Longleaf pine, all stages	121,000	120,483	122,503	119,245	125,661	125,415	125,481
Shortleaf pine / oak-hickory, early stages (<10 yrs)	0	2,897	626	1,149	1,182	999	1,042
Shortleaf pine / oak-hickory, mid-late stages	16,000	34,912	45,610	36,396	45,450	56,909	57,790
Mixed hardwood-loblolly pine, early stages (<10 yrs)	42,000	15,519	6,811	9,720	3,053	1,141	1,129
Mixed hardwood-loblolly pine, mid-late stages	252,000	247,710	259,284	253,922	267,186	241,372	249,343
Riparian, small streams	85,000 (no annual change)	85,000	85,000	85,000	85,000	85,000 ¹	85,000
Riparian, large streams	92,000 (no annual change)	92,000	92,000	92,000	92,000	92,000 ²	92,000

Considering Kisatchie NF habitat types and the Forest Plan goals:

Successional Habitat (all Forest Types)	Forest Plan goal (acres)	FY2002 acres	FY2003 acres	FY2004 acres	FY2005 acres	FY2007 acres	FY2008 acres
Early (0-10 yrs)	>= 20,000	24,921	13,189	14,339	14,859	6,216	5,947
Middle (31-50 yrs)	>= 50,000	55,265	82,780	66,452	78,445	86,969	89,401
Late (71+ yrs)	>= 75,000	151,111	179,201	175,024	189,636	238,019	257,017

¹ The actual inventoried acreage was 29,115 acres, based on existing small stream forest types.

² The actual inventoried acreage was 43,861 acres, based on existing large stream forest types.

Kisatchie NF has a surplus of mid-late successional stages of shortleaf pine/oak-hickory and mixed hardwood-loblolly pine habitats. Kisatchie NF has a deficiency of mixed hardwood-loblolly pine (early stages). Other habitat types/successional stages are reasonably within Forest Plan standards. Kisatchie NF generally has a deficiency of early successional habitat; acreages of mid and late successional habitat meet Revised KNF Forest Plan guidance.

FY2009 Recommended Actions: The plant management indicator species list should be modified by considering the following criteria:

1. Species occurs in a habitat that we are likely to affect through our management, or in an area that drives our management direction.
2. Species is closely associated with the habitat of interest, and population levels respond to changes in that habitat (ecological indicator species).
3. Basic biology or ecology (habitat requirements, threats, demography, etc.) is known for species or habitat.
4. Species is not so rare or obscure that its populations can't be monitored with a reasonable amount of effort.
5. Species, or habitat, occurs at a scale that allows us to monitor population in replicate treatments and control units.
6. Species populations or habitats respond (positively or negatively) to management quickly enough to allow before and after monitoring within a reasonable timeframe.

Additionally, the MIS plant survey protocol needs to be modified. It is recommended that the Kisatchie National Forest emulate the process developed by the Mark Twain National Forest during their recent Forest Plan revision.

Adhere to Revised KNF Forest Plan guidance.

Are the habitat objectives for selected management indicators providing for healthy populations of all existing native and desirable nonnative wildlife, fish, and plants? **(V)**

FY2008 Findings: It is likely that these objectives are being met mainly as a result of the effective Forest prescribed burning program; however, current baseline data and survey methods have not proven effective for analyzing trends in some specific plant indicator species. There is no statistical evidence showing that management objectives have been met.

Abundance trends of Kisatchie NF Terrestrial Management Indicator Species (total number of birds observed / total number of visits):

Management Indicator (terrestrial)	KNF 2007 Number ³	KNF 2006 Number ⁴	KNF 1998-1999 Average ¹	KNF 2003-2005 Average ⁵	KNF 2004-2006 Average ²	Found in Habitat Types ⁶
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³ (Cumulative number of individuals observed per District / number of points surveyed per year per District) / 5 Districts.

⁴ (Cumulative number of individuals observed per District / number of points surveyed per year per District) / 5 Districts.

⁵ (Cumulative number of individuals observed per District / number of points surveyed per year per District) / 5 Districts) / the number of years in the range; ^a possible decreases from baseline years; ^b possible increases from baseline years; ^c this diminution is refuted by actual population counts which indicate an increasing population.

⁶ 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); D = hardwood – loblolly habitats (early successional stage); E = hardwood – loblolly habitats (mid & late successional stages); F = riparian habitats (small streams); and G = riparian habitats (large streams).

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Management Indicator (terrestrial)	KNF 2007 Number ³	KNF 2006 Number ⁴	KNF 1998-1999 Average ¹	KNF 2003-2005 Average ⁵	KNF 2004-2006 Average ²	Found in Habitat Types ⁶
Bachman's Sparrow	0.16	0.12	0.12	0.12	0.10	A
Northern Bobwhite	0.02	0.03	0.15	0.10 ^a	0.05 ^a	A
Prairie Warbler	0.08	0.06	0.30	0.14 ^a	0.12 ^a	A,B
Red-Cockaded Woodpecker	0.01	0.03	0.10	0.02 ^c	0.02 ^c	A,C,E
Red-Headed Woodpecker	0.12	0.09	0.11	0.07	0.07	A
Cooper's Hawk	0.00	0.00	0.00	0.00	0.00	C
Eastern Wood-Pewee	0.11	0.08	0.37	0.08 ^a	0.09 ^a	C
Pileated Woodpecker	0.25	0.24	0.25	0.35 ^b	0.28	C,E,G
Summer Tanager	0.34	0.47	0.67	0.52 ^a	0.48 ^a	C
Hooded Warbler	0.54	0.65	0.91	0.76 ^a	0.72 ^a	E
Wood Thrush	0.08	0.06	0.06	0.07	0.05	E
White-Eyed Vireo	0.34	0.45	0.42	0.47	0.47	D,F
Yellow-Billed Cuckoo	0.30	0.40	0.54	0.49	0.39 ^a	E,F
Acadian Flycatcher	0.08	0.16	0.51	0.39 ^a	0.29 ^a	F
Louisiana Waterthrush	0.00	0.00	0.03	0.03	0.02	F
Kentucky Warbler	0.27	0.20	0.20	0.32 ^b	0.29 ^b	G
Northern Parula	0.04	0.04	0.12	0.07	0.06 ^a	G
Warbling Vireo	0.00	0.00	0.00	0.00	0.00	G
White-Breasted Nuthatch	0.03	0.04	0.05	0.04	0.02 ^a	G
Worm-Eating Warbler	0.05	0.03	0.19	0.06 ^a	0.03 ^a	G

Current population levels of Northern Bobwhites, Prairie Warblers, Eastern Wood-Pewees, Summer Tanagers, Hooded Warblers, Acadian Flycatchers, and Northern Parulas seem to be below their 1998-1999 population levels. Other management indicator species population levels seem to be approximately equal to their 1998-1999 population levels.

FY2009 Recommended Actions: The MIS plant list should be modified as per the criteria set forth earlier in this document. Additionally, the survey protocol should be revised to follow the successful process implemented by the Mark Twain National Forest in Missouri.

Continue bird surveys on Kisatchie NF.

Objective 2–3: Manage to protect, improve, and maintain habitat conditions for all threatened, endangered, sensitive, and conservation species occurring on the Forest. Manage habitat conditions on 303,000 acres of pine and pine-hardwood within 5 established red-cockaded woodpecker (RCW) habitat management areas to achieve a long-term forest-wide RCW population of 1,405 active clusters.

Are management practices designed to protect, improve, and maintain threatened, endangered, sensitive, and conservation species being implemented? Are management strategies designed for red-cockaded woodpecker habitat management being implemented within designated habitat management areas? (I)

FY2008 Findings: No known occurrences of threatened or endangered plant species exist on the Kisatchie National Forest. The Forest's prescribed burning program is the most important practice used for restoration of pre-settlement habitats, which is proving to be very effective in protecting, improving and maintaining TESC species. On a small scale some prairies and bogs were managed for the benefit of sensitive and conservation species, by clearing of encroaching shrubs and trees – a result of fire suppression over decades. Additionally, treatment of non-native invasive species continues to improve habitat for TESC species.

KNF District personnel are required to design and implement management activities according to NEPA standards. KNF Ecosystem Conservation staff provides assistance as requested.

FY2009 Recommended Actions: Continue the current prescribed burning program of 80,000 to 105,000 acres per year. Increase the ratio of growing season burns to dormant season burns, since growing season burns are critical for successful gains in our restoration efforts. It is important to increase efforts to remove encroaching woody plants in the Winn district prairies and in pitcher plant bogs throughout the Forest, as these natural communities provide habitat for many of our TESC species.

Continue increased emphasis on RCW management across the Forest. Identify and prioritize thinning of foraging habitat, improvement and expansion of RCW clusters, and mid-story removal projects. Work with the USFWS to prioritize future projects and identify habitat needs. Identify all Louisiana pearlshell mussel beds on the Forest, and develop means of monitoring the number of mussels on a recurring basis.

Are habitat conditions for threatened, endangered, sensitive, and conservation species improving? (E)

FY2008 Findings: No known occurrences of threatened or endangered plant species exist on the Kisatchie National Forest. The Forest's prescribed burning program is the most important practice used for restoration of pre-settlement habitats, which is proving to be very effective in protecting, improving and maintaining TESC species. On a small scale some prairies and bogs were managed for the benefit of sensitive and conservation species, by clearing of encroaching shrubs and trees – a result of fire suppression over decades. Additionally, treatment of non-native invasive species continues to improve habitat for TESC species.

KNF Forest Habitat (Acres) by forest types, recent compared to 1999 (start of KNF Revised Land and Resource Management Plan implementation):

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Pine Forest Types	Successional Classes							
	0-10 years		11-30 years		31-80 years		81+ years	
Year:	2009	1999	2009	1999	2009	1999	2009	1999
Longleaf	3,776	13,614	15,627	10,179	81,547	95,690	24,208	4,162
Slash	44	618	1,886	7,392	35,508	31,273	62	11
Loblolly	968	38,880	80,555	81,214	163,675	147,014	29,299	15,382
Shortleaf	833	938	619	927	6,760	8,000	6,524	4,799
Sub-Total	5,621	54,050	98,687	99,712	287,490	281,977	60,093	24,354
Sub-Total %	1.2	11.7	21.8	21.7	63.6	61.3	13.3	5.3
Forestwide %	0.9	9.0	16.5	16.6	48.2	47.0	10.1	4.1

Mixed Forest Types	Successional Classes							
	0-10 years		11-30 years		31-80 years		81+ years	
Year:	2009	1999	2009	1999	2009	1999	2009	1999
Pine-Hwd	326	1,200	4,090	4,593	12,209	15,024	9,629	4,438
Hwd-Pine	117	371	1,113	2,958	15,973	25,071	18,015	8,229
Sub-Total	443	1,571	5,203	7,551	28,182	40,095	27,644	12,667
Sub-Total %	0.7	4.9	8.5	23.7	45.8	125.8	45.0	39.7
Forestwide %	0.1	0.3	0.9	1.3	4.7	6.7	4.6	2.1

Hardwood Forest Types	Successional Classes							
	0-10 years		11-30 years		31-80 years		81+ years	
Year:	2009	1999	2009	1999	2009	1999	2009	1999
Upland	0	522	2,597	2,752	17,497	24,809	14,875	5,480
Bottomland	0	311	1,507	2,664	18,336	29,917	28,807	12,045
Sub-Total	0	833	4,104	5,416	35,833	54,726	43,682	17,525
Sub-Total %	0.0	1.1	4.9	6.9	42.9	69.7	52.2	22.3
Forestwide %	0.0	0.1	0.7	0.9	6.0	9.1	7.3	2.9

Forestwide	Successional Classes							
	0-10 years		11-30 years		31-80 years		81+ years	
Year:	2009	1999	2009	1999	2009	1999	2009	1999
Total Acres	6,064	56,454	107,994	112,679	351,505	376,798	131,419	54,546
Forestwide %	1.0	9.4	18.1	18.8	58.9	62.7	22.0	9.1

Generally, the old-growth successional classes of longleaf pine, loblolly pine, pine-hardwood, hardwood-pine, upland hardwood, and bottomland hardwood have increased the most since the baseline year of the KNF Revised Land and Resource Management Plan.

FY2009 Recommended Actions: Continue the current prescribed burning program of 80,000 to 105,000 acres per year. Increase the ratio of growing season burns to dormant season burns, since growing season burns are critical for successful gains in our restoration efforts. It is

important to increase efforts to remove encroaching woody plants in the Winn district prairies and in pitcher plant bogs throughout the forest, as these natural communities provide habitat for many of our TESC species.

Adhere to the land management practices described in the KNF Revised Land and Resource Management Plan, which calls for relatively older timber stands.

Are red-cockaded woodpecker and Louisiana pearlshell mussel population trends responding positively to management strategies? (V)

FY2008 Findings: RCW Population Survey Results:

RCW Populations	Population Recovery Goal	Number of Active Pre-Breeding Groups					
		2008	2007	2006	2005	2004	2003
Catahoula	250	53	44	39	34	28	27
Evangeline	231	107	106	98	91	83	79
Kisatchie	292	42	37	31	27	23	25
Winn	263	32	31	30	28	23	20
Vernon	350	152	143	141	134	129	126
Forest Total:	1,386	386	361	339	314	286	277

RCW populations are increasing on Kisatchie National Forest.

Louisiana pearlshell mussel populations appeared to be stable from recent surveys, increasing in some areas, decreasing in others. Activities from ORVs and urban sprawl continue to threaten the pearlshell's habitat. The Forest Service is working with the US Fish and Wildlife Service (USFWS) and several partners to maintain an active task force with a panel of experts and interested parties for the betterment of the pearlshell. The LDWF Natural Heritage program has discovered increasing numbers of pearlshell mussels on private lands, which decreases, somewhat, the mussel's vulnerability to extirpation.

The FS and the FWS have collaborated in a joint project to potentially identify the pearlshell host fishes. The pearlshell mussel goes through a parasitic stage in the early part of its life cycle where it lives on the gills of fish. Mussels are sometimes specific as to which species of host fish they select. We have recently identified the blackspotted topminnow as a host fish, but there may be others. Previously, the host fishes for the Louisiana pearlshell mussel were unknown.

Along with the host fish studies, we are trying to determine what time/s of year the LPM release their glochidia (to reproduce). To date, the LPM glochidia have not been described and the work we've done is monumental to the species. Genetic studies are ongoing as well. The Natchitoches Fish and Wildlife Service Fish Hatchery provided funding to Iowa State University to map the genetic library of the LPM and locate possible micro-satellite populations. This work is important to the LPM recovery efforts and is a vital step toward rearing/re-stocking LPMs.

Through the USDA APHIS program, beavers were removed and beaver dams were destroyed to protect this threatened species from inundation. Forest Service personnel also remove beaver dams and access threats to the pearlshell caused by beavers. Routine water quality sampling this past year discovered that beavers on private land had built a dam and cut off flow to one of our pearlshell streams. Networking through our partners listed above, we were able to restore flow to the stream, but we did incur considerable losses to the LPM (approximately 200 mortalities). Events like this stress the importance of monitoring and the vulnerability of this species.

Water samples taken on mussel streams indicated good water quality and were within state standards set by LDEQ.

FY2009 Recommended Actions: Closely monitor all populations for signs of stability. Prescribe burn the RCW foraging habitat as much as feasible. Engage in RCW translocations to bolster populations, if feasible. Continue interactions with the USFWS.

Continue beaver control, enforcement of Forest Service regulations prohibiting ORVs from riding in streams, and implementation of Best Management Practices (BMPs) and Streamside Habitat Protection Zones (SHPZs) that protect Louisiana pearlshell mussel habitat. Close and monitor areas to ORVs where violations continually occur. Encourage collaboration from other agencies, partners, private landowners, and volunteers to help protect the pearlshell.

Objective 2–4: Develop or maintain old-growth forest attributes, for their contribution to biological and visual diversity, habitats for plant and animal species, and maintenance of a natural gene pool, within designated patches on approximately 13 percent of the Forest based upon representation of the major forest ecosystems and old-growth community types. Long-term old-growth forest objectives are as follows:

Longleaf pine forest dominated patches: 48,800 acres.

- Coastal plain upland mesic hardwood: 2,550 acres.
- Upland longleaf, woodland, and savanna: 45,350 acres.
- Southern wet pine forest, woodland, and savanna: 780 acres.
- Dry and xeric oak forest, woodland, and savanna: 120 acres.

Shortleaf pine/oak-hickory forest dominated patches: 13,500 acres.

- Coastal plain upland mesic hardwood: 1,290 acres.
- Dry and dry-mesic oak-pine forest: 11,630 acres.
- Dry and xeric oak forest, woodland, and savanna: 60 acres.
- Xeric pine and pine-oak forest and woodland: 50 acres.
- Seasonally wet oak-hardwood woodland: 350 acres.
- River floodplain hardwood forest: 120 acres.

Mixed hardwood-loblolly pine forest dominated patches: 6,100 acres.

- Coastal plain upland mesic hardwood: 700 acres.
- Seasonally wet oak-hardwood woodland: 300 acres.
- Dry and dry-mesic oak-pine forest: 4,650 acres.
- River floodplain hardwood forest: 450 acres.

Riparian forest dominated patches: 12,700 acres.

- Coastal plain upland mesic hardwood: 1,820 acres.
- River floodplain hardwood forest: 1,180 acres.
- Cypress-tupelo swamp forest: 1,400 acres.
- Eastern riverfront forest: 6,400 acres.
- Seasonally wet oak-hardwood woodland: 1,400 acres.
- Dry and dry-mesic oak-pine forest: 500 acres.

Are management practices designed to develop old-growth forest attributes being implemented?

(I)

FY2008 Findings: Currently there are very limited activities planned in old-growth patches. There are small acreages of thinning in existing plantations that fall within the patches. Actions meet Plan standards and guidelines for old-growth management.

FY2009 Recommended Actions: Continue to review all project decisions with management practices within old-growth patches. Conduct sample field reviews after implementation.

Are the management practices successfully developing or maintaining forest attributes similar to those found in old-growth? **(E)**

FY2008 Findings: No activities have been completed at this time.

FY2009 Recommended Actions: Continue prescribed fire and commercial thinning in some old growth patches in the uplands to enhance the old-growth attributes and help mold appropriate

overstory and understory composition. Actions meet Plan standards and guidelines for old-growth management.

Objective 2–5: Manage to protect or enhance the unique plant and animal communities, special habitat features, habitat linkages and corridors, and aquatic ecosystems associated with streamside habitat and riparian areas.

Are streamside habitat protection zones and riparian area protection zones being delineated and managed as prescribed? (I)

FY2008 Findings: Management practices require NEPA documentation prior to being implemented. The application of harvesting techniques consistently included streamside habitat protection zones and riparian area protection zones with mitigation measures taken. At the present, no broad scale actions have been taken which might impact these areas. All activities are in compliance with the standards and guidelines of the Forest Plan.

FY2009 Recommended Actions: Annually conduct silvicultural surveys on approximately 10 percent of the forest and prepare documents addressing management practices where needed. Document the streamside habitat protection zones and mitigation actions needed to manage in and near these areas. Delineate these areas in the stand maps in GIS.

Are these zones successfully protecting or enhancing unique plant and animal communities, special habitat features, habitat linkages, and aquatic ecosystems? (E)

FY2008 Findings: Earthfruit (*Geocarpon mimum*) does not currently exist on the Kisatchie National Forest, and it has never been known to occur on the Forest. The term “glade” has broad connotations when used in defining natural communities, and while earthfruit does occur in sandstone glades in Missouri, the sandstone glades on the Kisatchie National Forest (as found on the Kisatchie Ranger District) are not suitable habitat for earthfruit. The sandstone glades in Missouri differ markedly from those on the Kisatchie National Forest by containing high quantities of trace magnesium. They also have particularly smooth, water-worn surface channels that catch fine silt from runoff in small depressions that form the habitat for earthfruit. In Texas, earthfruit occurs in a saline barren complex, which is similar habitat for the occurrences in Arkansas and Louisiana. More suitable habitat for earthfruit does exist on the Kisatchie National Forest in and around the “salt flats” on the Winn Ranger District.

No significant changes in acres or site quality of habitat for sensitive and conservation plant species were found. Particular attention is directed at protecting bogs, wetlands and streams on the Forest. Completed project actions and associated mitigations meet at least 90% compliance with Forest Plan direction, project design, and NEPA decision direction.

FY2009 Recommended Actions: No significant changes in acres or site quality of habitat for sensitive and conservation plant species were found. Particular attention is directed at protecting bogs, wetlands and streams on the Forest. Completed project actions and associated mitigations meet at least 90% compliance with Forest Plan direction, project design, and NEPA decision direction.

Objective 6–2: Utilize prescribed fire in fire-dependent ecosystems, including Kisatchie Hills Wilderness, to maintain natural plant communities by varying the timing, frequency, and intensity of fire. Apply prescribed fire on 80,000–105,000 acres annually, with 10–20 percent of the area burned during the growing season. Focus growing season burning on longleaf pine landscapes.

Are the prescribed fire regimes being applied to all appropriate landscapes as prescribed, to maintain fire-dependent ecosystems? (I)

FY2008 Findings: The annual prescribed burning estimates from the Forest Plan range from 80,000-105,000 acres. The Forest accomplished 143,211 acres which is 155% of the estimated annual average. We accomplished 99,035 acres during the dormant season and 44,176 acres in the growing season. Prescribed burning occurred in the following land type associations (LTAs):

<u>LTA</u>	<u>Dormant Season Acres</u>	<u>Growing Season Acres</u>
1	51,102	26,538
2	15,406	4,694
3	14,437	2,566
4	3,117	0
5	8,203	4,701
6	6,770	5,677
7	0	0
8	0	0
9	0	0
Total	99,035	44,176

FY2009 Recommended Actions: The Forest should continue to monitor the weather and take advantage of every burning opportunity. Strive to maximize the implementation of growing season burns on longleaf pine plant community landscapes. The Forest should maximize its burn opportunities in fall. The Forest will have two Regional Fuels Helicopters to increase the production and reduce the cost of CWN helicopters.

Are the natural plant communities being maintained by the prescribed fire regimes? **(E)**

FY2008 Findings: The prescribed burning program on Kisatchie National Forest has been emphasized with an increase in manpower, an increase in number of acres burned, and an increase in growing season burns. Over the last five years 120,000+ acres have been burned each year, and growing season burns have accounted for approximately 32 percent of those acres. The regular 2-5 year burning cycle has greatly benefited the native longleaf/bluestem communities, as approximately 87 percent of the acres burned have been in the rolling uplands and Kisatchie Sandstone Hills characterized by the longleaf plant community. The burning program on Kisatchie has been instrumental in restoring the longleaf pine back to areas where past loblolly plantings dominate. All plant communities on Kisatchie are fire-dependent and benefit greatly from regular prescribed burning, increasing plant diversity and improving the health of the ecosystem.

FY2009 Recommended Actions: Continue a rigorous burning program. Emphasize burns in the young longleaf plantations to release them from competition and promote extension out of the grass stage. These burns should be in spring or early growing season. Without fire, these young longleaf pine plantations will be lost.

- FOREST HEALTH

Objective 1–3: Manage for air quality consistent with the Clean Air Act by implementing practices which are designed to meet state air quality standards and are consistent with maintaining the general forest area in Class II air quality.

Are Forest Service and the La. Dept. of Agriculture & Forestry's smoke management guidelines and regulations being applied? Are performance requirements concerning air quality being incorporated in permitted activities? (I)

FY2008 Findings: The Kisatchie National Forest followed the direction and parameters as set in the Louisiana Smoke Management Voluntary Guidelines. A burn plan is prepared for each proposed prescribed fire burn unit identifying smoke sensitive areas and targets with existing visibility or air quality problems. In addition, site specific concerns and smoke management criteria for the individual burn unit are identified in the burn plan.

The daily fire weather forecast includes smoke management parameters for transport wind speed, mixing height and dispersal. A burn may not be ignited unless a forecast is obtained and all smoke management prescription parameters are met. A smoke-screening map is required to be attached to the burn plan identifying forecasted wind direction and the projected smoke plume. Smoke dispersal is monitored throughout the burn period of each fire. Smoke plume direction and spread is monitored via helicopter. When practical a helicopter recon is utilized to observe smoke dispersement. A post - burn evaluation is then performed and includes a requirement to note any smoke management violations.

A field review of prescribed burning activities was conducted in Compartment 10 of the Catahoula Ranger District on August 21, 2008. Appropriate S&G's were implemented in full compliance, and S&G FW-060 for smoke management was rated as "exceeds compliance". The burn plan identified smoke sensitive areas, there was good mixing height and transport wind the day of the burn, the District coordinated with local law enforcement for traffic safety, and the roads were posted for smoke conditions.

FY2009 Recommended Actions: Review burn plans to evaluate how Louisiana Smoke Management Guidelines are being followed during reviews of soil, water and air standards and guidelines (Best Management Practices) and report findings. Develop a protocol to monitor particulate matter concentrations in the air within the sensitive communities adjacent to and within the boundaries of the National Forest before, during, and after prescribed burning operations. The first part would be to model the production, dispersion, and transport of PM_{2.5} emissions, and potential impacts of those emissions on local communities. The second part is real-time, localized, particulate matter monitoring using portable samplers. The particulate samplers would be placed at strategic locations within or near smoke sensitive areas identified in the burn plan. Coordinate with the Zone Air Specialist in Arkansas until a protocol is developed, modeling is accomplished, samplers are acquired, and monitoring is implemented.

Does air quality meet NAAQS and state standards? (E)

FY2008 Findings: All areas of the Kisatchie National Forest are in attainment of the National Ambient Air Quality Standards (NAAQS) including those for ozone.

The LDEQ has been monitoring particulate matter with a Federal Reference Method PM 2.5 monitor located in Alexandria (Rapides Parish) since 1999. PM 2.5 refers to particulate matter that has a diameter of 2.5 micrometers or less. The monitoring data indicates that the NAAQS for particulates is being met.

FY2009 Recommended Actions: Continue to coordinate with LDEQ Air Quality Dept. on monitoring.

Objective 1–4: Provide a level of wildfire protection which emphasizes cost effective wildfire prevention and suppression while minimizing loss of resources.

Is wildfire protection being provided in a cost effective manner? Are losses to wildfire being minimized? (I)

FY2008 Findings: Wildland fire preparedness funding continues to be below the most efficient level. As a result, wildland fire losses were not being minimized due to the funding shortfall. The Forest still could not fill vacant firefighter positions. The future Fire Planning Analysis is expected to assist the Forest on this issue.

FY2009 Recommended Actions: The Forest should continue to request wildland fire preparedness funding at the 100% efficient level and staff accordingly.

Are resources identified in NFMAS being made available in accordance with budget funding levels? Are acres lost to wildfire within the range identified by NFMAS for the current budget level? (E)

FY2008 Findings: Resources identified in NFMAS are being made available in accordance with budget funding level. The Forest burned 2,759 acres of the Forest burned in wildland fires in FY2008. The acceptable range in NFMAS is 2,108. The Forest was 651 acres above this acceptable range. The Forest had 68 statistical fires for 2,759 acres of FS land.

FY2009 Recommended Actions: Manage for productive and healthy forest ecosystems by utilizing prescribed fire to prevent and minimize resource losses to wildland fires.

Objective 1–5: Manage for productive and healthy forest ecosystems by utilizing comprehensive integrated approaches designed to prevent and minimize resource losses or damage due to insects and disease.

Do management practices provide for correct site/species selection, reduce overstocked stands to optimum levels and insure prompt detection and control of insects and diseases? (I)

FY2008 Findings: Timber sales during FY2008 included 140 acres clearcut with residual desired species, 5,502 acres of commercial thinning, and 160 acres of final seed tree removals. These harvests manage for healthy forest ecosystems to reduce disease and insect losses and improve species site selection. The commercial thinnings reduce the density in overstocked stands; and therefore, reduce the hazard for SPB infestations. There were no SPB spots reported during FY 2008.

Reducing competition in young longleaf plantation using handtools and herbicide was accomplished on 1,186 acres in FY2008; thus improving the site/species selection.

Prescribed burning on longleaf plantations continues to be prescribed and implemented to address brown-spot needle blight.

There has been no reported mortality from Annosus root disease.

FY2009 Recommended Actions: Continue to identify restoration and forest health needs through the inventory process.

Continue to monitor areas for forest decline and bug spots through aerial surveillance flights.

Has management resulted in a decrease of susceptibility of southern pine beetle and other pests? Are pest incidents decreasing with applied integrated management? (E)

FY2008 Findings: Insect and disease population trends on the Kisatchie National Forest were stable and low in FY2008 and are predicted to be low through 2009.

FY2009 Recommended Actions: Continue to monitor for possible SPB attacks through aerial observations. Field check for increased mortality from Annosus root disease on thinned loblolly stands on high hazard sites.

- WATERSHED CONDITIONS

Objective 1–1: Maintain or improve the Forest’s long-term soil productivity. This is accomplished through land management practices designed to meet requirements for minimizing soil erosion and compaction, by not exceeding allowable soil loss for any given soil, by revegetating disturbed areas, and by restoring degraded areas to a natural condition.

Are management practices designed to minimize soil erosion, compaction and loss of soil productivity being applied? (I)

FY2008 Findings: Monitoring for implementation of Timber Removal S&G’s was conducted on the Catahoula and Calcasieu Ranger Districts on October 26, 2007 and February 27, 2008, respectively. Reviewers determined that all applicable S&G’s were implemented.

All monitoring items on the Calcasieu sale were rated as “Full Compliance”, except for item 4, SHPZs meet S&G’s for sale layout, which was rated as “Exceeds”. The SHPZs were excluded from entry during sale area layout, and harvest was designed to negate the need for any stream crossings. Ruts and soil movement still evident had been identified for rehabilitation by the Sale Administrator as soon as harvest activities were completed and there was assurance that restoration work would not be destroyed by harvesting equipment.

Items monitored were rated as in full compliance on the Catahoula sale with two exceptions. The first was a minor departure for, “Stream crossings minimize impacts to water quality”. A temporary stream crossing had been constructed by placing tree stems laid parallel to flow in an ephemeral channel. The stems had not been completely removed after harvest was completed, and the channel was left about 1/3 full with sediment. The second exception, “No more than 15 % of an area rutted, compacted, eroded”, was rated as Exceeds. The sale area was well covered with slash, and there was very little evidence of any bare soil, equipment rutting, soil compaction, or potential for upland erosion.

A field review of prescribed burning activities was conducted in Compartment 10 of the Catahoula Ranger District on August 21, 2008. Appropriate S&G’s were implemented in full compliance. Soil cover was near 100 %, and S&G FW-060 for smoke management was rated as “exceeds compliance”. The burn plan identified smoke sensitive areas, there was good mixing height and transport wind the day of the burn, the District coordinated with local law enforcement for traffic safety, and the roads were posted for smoke conditions.

With the noted exception of the ephemeral stream crossing on the Catahoula sale area, no sediment was observed to have been delivered to any water bodies.

FY2009 Recommended Actions: Continue monitoring prescribed fire management and timber management activities for implementation of Standards and Guidelines.

Is allowable soil loss being exceeded? Are disturbed and degraded areas being restored and revegetated to a natural condition? (E)

FY2008 Findings: Watershed improvement work is ongoing. All targets for watershed improvement work were accomplished in FY2008 with watershed improvement funding. Projects were located on all districts but the Catahoula and all projects included erosion and sediment control measures.

A new protocol for soil quality monitoring is being considered in R8, and soil loss is not part of that monitoring protocol. So there was no soil loss monitoring conducted in FY2008. However, timber harvest monitoring on the Calcasieu District, Compartment 234, Unit 4 was conducted with Dr. Andy Scott, Research Soil Scientist of the Southern Forest Research Station in Pineville, in attendance. The conclusion of the review was that soil loss was negligible, and that soil quality and productivity were maintained.

FY2009 Recommended Actions: Continue to restore and revegetate disturbed areas.

How do timber management practices, especially timber harvesting and consequent compaction, affect soil productivity? (V)

FY2008 Findings: Preliminary findings from the Long Term Soil Productivity Study being conducted by the Southern Research Station indicate that when sites located on several soil types with a severe compaction hazard rating were subjected to experimental compaction, bulk densities recovered to near original undisturbed levels within ten years and pine productivity was unaffected.

Preliminary results also indicate that soil productivity may be decreased by slash removal or increased by phosphorus fertilization on phosphorus-deficient sites. In general, less productive sites are more susceptible to detrimental harvesting impacts than highly productive sites. The Long Term Soil Productivity Study is a national study being conducted to evaluate the effects of various timber management practices on the productivity of soil. Research plots are located at various locations around the U. S. including the Catahoula and Calcasieu Ranger Districts.

FY2009 Recommended Actions: Continue to coordinate with and assist the Southern Research Station with the Long Term Soil Productivity Study.

Objective 1–2: Maintain or improve the integrity of aquatic ecosystems to provide for high water quality, stream-channel stability, natural flow regimes, water yield, and aquatic resources by managing in accordance with the Clean Water Act and by meeting all state and federal water quality standards.

Are management practices designed to minimize contamination, sedimentation, and maintain stream channel stability being applied? (I)

FY2008 Findings: A field review was conducted of prescribed burning activities on the Catahoula Ranger District as discussed earlier under Watershed Conditions. Streamside Habitat Protection Zones (SHPZs) were being protected per the Forest Plan guidance.

Monitoring for implementation of Timber Removal S&G's was conducted on the Catahoula and Calcasieu Ranger Districts on October 26, 2007 and February 27, 2008, respectively. Reviewers determined that all applicable S&G's were implemented.

All monitoring items on the Calcasieu sale were rated as "Full Compliance", except for item 4, SHPZs meet S&G's for sale layout, which was rated as "Exceeds". The SHPZs were excluded from entry during sale area layout, and harvest was designed to negate the need for any stream crossings. Ruts and soil movement still evident had been identified for rehabilitation by the Sale Administrator as soon as harvest activities were completed and there was assurance that restoration work would not be destroyed by harvesting equipment.

Review items were rated as in full compliance on the Catahoula sale with two exceptions. The first was for minor departure for, "Stream crossings minimize impacts to water quality". A temporary stream crossing had been constructed by placing tree stems laid parallel to flow in an ephemeral channel. The stems had not been completely removed after harvest was completed, and the channel was left about 1/3 full with sediment. The second exception, Monitoring Element 2 (No more than 15 % of an area rutted, compacted, eroded), was rated as Exceeds. The area was well covered with slash, and there was very little evidence of any bare soil, equipment rutting, soil compaction, or potential for upland erosion.

FY2009 Recommended Actions: Continue to monitor prescribed burning and timber management activities for implementation of Standards and Guidelines.

Are state water quality standards and state anti-degradation policies being met? Is water quality being degraded? (E)

FY2008 Findings: The water quality of nine streams on the KNF continued to be monitored quarterly in cooperation with the La. Dept. of Environmental Quality (LDEQ). The data is being incorporated into the State's Clean Water Act Sect. 305b Water Quality Inventory www.deq.state.la.us/surveillance/wqdata/wqnsites.stm.

Streams / Site Numbers are: Cress Creek / 0556, Beaver Creek / 0570, Bayou Clear / 0554, Loving Creek / 0555, Long Branch / 0572, Castor Creek / 0573, Little Bayou Clear / 0574, Brown Creek / 0571, Saline Bayou / 0553. All monitored streams are habitat for the Louisiana Pearlshell mussel except for Saline Bayou, which is a National Scenic Stream.

Beginning in FY2007 an additional stream was included in an every two month sampling schedule on Grays Creek (stream # 3240) in 2007. This location was added to monitor for highway construction effects to Grays Creek, which is also Louisiana Pearlshell mussel habitat. That monitoring continued through the end of FY2008.

The monitoring was done according to a cooperative arrangement with LDEQ under the Forest's Non-Point Source Pollution Control Memorandum of Agreement with the State. The measured parameters include suspended solids and turbidity. The monitoring data indicates that all these streams meet the criteria for designated uses, including propagation for fish and wildlife. Almost all samples from these streams have turbidity levels well below 25 nephelometric turbidity units (NTU), which is the criterion for natural and scenic streams. Additional parameters being monitored are metals (arsenic, chromium, cadmium, copper, lead, mercury, and nickel), nutrients (carbon, phosphates, potassium, nitrogen, nitrites, and nitrates) and sulfates. The monitoring data indicate minimal or trace levels of some of these substances but no contamination that would affect fish or wildlife.

Bi-weekly testing of fecal coliform levels at Stuart Lake, Kincaid Lake and Caney Lake swim beaches indicated that water quality standards for protection of public health and safety were met.

FY2009 Recommended Actions: The interagency MOU with LDEQ for managing and monitoring water quality on KNF was renewed in early FY2008. In a cost savings move, LDEQ stopped accepting surface water samples from KNF for water quality analysis. KNF has monitored water quality from selected streams for about 20 years, and sufficient background data has been collected to demonstrate that forest management practices by the Forest provide adequate water quality protection. Quarterly monitoring results consistently show that water quality standards are being met on the Forest.

Continue to coordinate with LDEQ on monitoring the water quality of streams on the KNF. Develop a monitoring strategy in lieu of the grab sample monitoring no longer implemented with the closure of the LDEQ lab in Baton Rouge. Continue required monitoring for coliform bacteria at KNF swim beaches.

Objective 2-6: Manage perennial and intermittent streams as well as natural and man-made lakes, reservoirs, and ponds for native and desirable nonnative fish species and aquatic communities.

Are lake predator-prey populations in balance? Are management practices sufficiently protecting stream and lake habitats? Are primary aquatic food chain organisms being impacted by siltation? (U)

FY2008 Findings: Predator/prey populations across the Forest are sufficient for a sustainable recreational fishery.

The National Natchitoches Fish and Wildlife Service Fish Hatchery, in cooperation with the Louisiana Department of Wildlife and Fisheries Booker-Fowler Fish Hatchery, provide all fish stockings for Kisatchie National Forest.

FS streams were surveyed for LPM host fish studies in 2006-2007. Water quality was within acceptable norms (LDEQ), and population trends of MIS (see 2005 MIS report) suggest that BMPs and SHPZs are adequately protecting the integrity and quality of watersheds within the Forest.

Young-of-year and recruitment of all age classes is evidence that sediment has not inhibited reproduction of fishes or altered habitat beyond natural conditions.

FY2009 Recommended Actions: Establish size and creel limits on the Forest to ensure recruitment and sustainability of the resource. Continue to monitor and collect data.

Continue to monitor and assess (analyze and interpret data) the effectiveness of management strategies on the Forest concerning aquatic resources.

Continue to monitor and identify any future restoration projects, which may include renovation of older ponds when funds are available.

Lower Caney Lake and the Longleaf Pond underwent renovation this past year.

Are lake populations healthy? Are non-natives and / or generalist-omnivore natives affecting lake biomass and balance? Is lake habitat sufficient? (E)

FY2008 Findings: Relative weights of largemouth bass indicated healthy populations and adequate forage bases and there was no evidence of primary or secondary infections and disease.

Supplemental stockings of Florida strain largemouth bass occurred across the Forest to maintain and enhance recreational fishing success, including newly constructed Gum Springs Pond (1,117 fingerlings).

Presence of forage fish and omnivores were evaluated in Forest lakes. Infestations of hydrilla verticillata still threaten spawning habitat and fish population balance in Caney Lakes. The control structures on the lower lake have been repaired/replaced. The upper lake control structures are still unfunded and repair/replacement is critical to the lakes survival.

Lower Caney Lake needs to undergo a drawdown to mitigate infestations of hydrilla.

Corney Lake is due a drawdown to maintain a healthy fish population balance and to allow decomposition of the "muck" on the benthos layer, or lake floor.

Aquatic weeds are prevalent in Fullerton Lake, the site of one of the earliest sawmills in LA. Boat access for applications of agricultural lime remains a problem in this waterbody, and aquatic weeds that are indicators of acidic conditions may spread until the pH is raised to desirable levels.

Channel catfish fingerlings were stocked in Longleaf Pond (220), Blue Run Pond (160), Lower Caney Lake (650) and Gum Springs (660) to improve the sport fishery and fill a habitat niche that would otherwise be filled by undesirable species (ex. bullheads).

To decrease the need for continual stocking in a put-and-take fishery, catfish spawning cavities were designed, constructed and placed in FS lakes and ponds, including newly constructed Gum Springs.

Water quality on FS lakes was within the norms associated with infertile oligotrophic systems of the sandy coastal plains. Restoration projects were prescribed to maintain and enhance lake productivity and habitat. Applications of lime and fertilizer were applied to increase and maintain pH and alkalinity, increase primary production; therefore increasing survival rates of young-of-year fish, and suppressing unwanted aquatic weeds.

FY2009 Recommended Actions: Continue monitoring. Stock catfish fingerlings when available and necessary. Monitor the success and utilization of the spawning cavities placed in FS lakes. Continue restoration and enhancement projects.

B. Sustainable Multiple Forest and Range Benefits

- OUTDOOR RECREATION OPPORTUNITIES

Objective 2–7: Provide habitat for game and fish populations. Population levels will be measured by the Louisiana Department of Wildlife and Fisheries and agreed upon by the Forest.

Are management practices successfully expanding quality habitats for game and fish species?

(E)

FY2008 Findings: Planned and actual acreage by successional habitat are shown below. The Forest has a shortage of early successional habitat and is within the Plan guidelines for mid- and late successional habitats.

Successional Habitat (all Forest Types)	Forest Plan goal (acres)	FY2002 acres	FY2003 acres	FY2004 acres	FY2005 acres	FY2007 acres	FY2008 acres
Early (0-10 yrs)	>= 20,000	24,921	13,189	14,339	14,859	6,216	5,947
Middle (31-50 yrs)	>= 50,000	55,265	82,780	66,452	78,445	86,969	89,401
Late (71+ yrs)	>= 75,000	151,111	179,201	175,024	189,636	238,019	257,017

Early successional habitat has decreased since the base year 1999 (the year the KNF Revised Land and Resource Management Plan was published); mid-successional habitat has increased since the base year; and late successional habitat has increased since the base year.

FY2009 Recommended Actions: Continue to adhere to Revised Plan guidance.

Are habitat objectives for selected demand species management indicators providing game and fish populations sufficient for quality recreational opportunities? **(V)**

FY2008 Findings: Estimated population densities of select game species on Kisatchie NF are as follows:

White-Tailed Deer (acres/animal)	2002	2003	2004	2005	2007	2008
Catahoula District	90	110	100	140	140	130
Evangeline District	90	120	100	200	200	190
Kisatchie District	90	110	100	110	110	100
Winn District	75	90	85	100	100	100
Vernon District	75	75	75	75	75	75
Caney District	50	50	50	50	50	50

Wild Turkey (acres/animal)		2002	2003	2004	2005	2007	2008
	Catahoula District	200	200	200	200	200	200
	Evangeline District	300	300	300	300	300	300
	Kisatchie District	100	100	100	100	100	100
	Winn District	150	150	150	150	150	150
	Vernon District	250	250	250	250	250	250
	Caney District	300	300	300	300	300	300
Fox Squirrel (acres/animal in upland hardwoods)		2002	2003	2004	2005	2007	2008
	Catahoula District	5	5	5	5	5	5
	Evangeline District	5	5	5	5	5	5
	Kisatchie District	5	5	5	5	5	5
	Winn District	5	5	5	5	5	5
	Vernon District	5	5	5	5	5	5
	Caney District	5	5	5	5	5	5
Gray Squirrel (acres/animal in bottomland hardwood)		2002	2003	2004	2005	2007	2008
	Catahoula District	3	3	3	3	3	3
	Evangeline District	3	3	3	3	3	3
	Kisatchie District	3	3	3	3	3	3
	Winn District	3	3	3	3	3	3
	Vernon District	3	3	3	3	3	3
	Caney District	3	3	3	3	3	3
Northern Bobwhite (acres/covey)		2002	2003	2004	2005	2007	2008
	Catahoula District	1,800	1,800	1,800	1,800	1,800	1,800
	Evangeline District	1,800	1,800	1,800	1,800	1,800	1,800
	Kisatchie District	1,800	1,800	1,800	1,800	1,800	1,800
	Winn District	1,800	1,800	1,800	1,800	1,800	1,800
	Vernon District	1,800	1,800	1,200	1,800	1,800	1,800
	Caney District	1,800	1,800	1,800	1,800	1,800	1,800

Populations of squirrels were stable. Deer populations are and have been considerably below the habitats' carrying capacity; herd densities are too low to provide adequate aesthetic enjoyment for non-consumptive users. Catahoula and Evangeline deer numbers are based on the LSU deer abundance survey during late fall 2005. Bobwhite population densities are low region-wide.

FY2009 Recommended Actions: Attempt to implement hunting seasons comparable to those of Louisiana Department of Wildlife and Fisheries' Wildlife Management Areas with similar habitat in central and northern Louisiana.

Objective 2–8: Protect, restore, maintain, acquire, and improve habitat on the Forest for waterfowl and wetland wildlife, as stated in the North American Waterfowl Management Plan.

Are management practices designed to protect, restore, maintain, and improve waterfowl and wetland wildlife being implemented? (I)

FY2008 Findings: KNF District personnel are required to design and implement management activities according to NEPA standards. KNF Ecosystem Conservation staff provides assistance as requested.

FY2009 Recommended Actions: Adhere to KNF Revised Land and Resource Management Plan guidance.

Are these management practices successfully providing for waterfowl and wetland wildlife? (E)

FY2008 Findings: In 2008, KNF provided 49,097 acres of riparian/bottomland habitat for waterfowl and wetland wildlife. In 2009, KNF will provide 48,650 acres of riparian/bottomland habitat for waterfowl and wetland wildlife.

Kisatchie NF riparian/bottomland habitat acres.					
Year:	2003	2004	2005	2008 Feb	2009 Mar
# acres	48,483	45,509	49,336	49,097	48,650

FY2009 Recommended Actions: Continue to adhere to Revised KNF Plan guidance.

Objective 4–1: Manage the Forest to create and maintain landscapes having high scenic diversity, harmony, and unity for the benefit of society through the application of the Scenery Management System, and consistent with assigned scenic integrity objectives (SIO). The SIOs are as follows:

- **Very high: 8,699 acres.**
- **High: 93,980 acres.**
- **Medium: 89,155 acres.**
- **Low: 415,020 acres.**
- **Very low: 1,278 acres.**

Is the Forest being managed in accordance with the assigned SIOs ? (I)

FY2008 Findings: Consultations with district staff reveal recent management actions are in compliance the SIOs.

FY2009 Recommended Actions: Continue to review proposed projects for SIO compliance. Work with Districts to implement new SMS guidelines. Encourage better participation on ID Team meetings.

Objective 4–2: Provide visitors the opportunity 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. The Forest’s ROS class objectives are as follows:

- **Primitive: 8,700 acres.**
- **Semi-primitive non-motorized: 57,269 acres.**
- **Semi-primitive motorized: 89,963 acres.**
- **Roaded natural-appearing: 217,152 acres.**
- **Roaded natural modified: 191,671 acres.**
- **Rural: 6,162 acres.**

Has class eligibility shifted significantly? (E)

FY2008 Findings: Comparisons were not made due to continued staffing limitations. However, shifts in ROS class eligibility are not likely to have occurred because only minor road construction or decommissioning was planned and accomplished. ROS class eligibility changes are dependant, primarily, on changes in road density and OHV management status.

FY2009 Recommended Actions: Monitor for changes as the new travel management rule continues to be implemented.

Objective 4–3: Develop, maintain, and protect existing and potential developed and dispersed recreation sites and trails consistent with public use and demand through construction, operation, maintenance, and rehabilitation activities.

How satisfied are our recreation customers? Are recreation resources managed in a manner that is responsive to public recreation needs yet as cost effective as possible, in accordance with the negotiated recreation program of work based on Meaningful Measures standards? (I)

FY2008 Findings: Meaningful Measures (INFRA) inventories were completed and data was updated to the corporate INFRA database. Critical standards are being met. Full compliance with all Meaningful Measures standards is not possible at current funding level. Customer service response has continued to improve. The Customer Service Representative receives requests, questions, or complaints. She then answers or refers to appropriate district or source for best response.

FY2009 Recommended Actions: Continue the annual update of INFRA data. Continue management of the recreation program using the IWEB INFRA system and the Recreation Realignment Process. Implement the Excellence by Design process for all recreation and trails projects to ensure design compliance, feasibility and good customer service. Continue to improve customer service through the Customer Service Representative. The Program Specialist will assist with customer service requests and also assists with the INFRA database and inventory needs. Preparations are being completed to participate in the next round of the National Visitor Use Monitoring process through an agreement with Stephen F. Austin University.

- INFRASTRUCTURE

Objective 3–7: Manage the transportation system to ensure that any roads constructed are designed according to standards appropriate to the planned uses.

Is the transportation facility serviceable by the intended user? (E)

FY2008 Findings: During FY2005 through FY2008, 6.48 miles of local and collector roads were reconstructed or constructed. Of this total, 6.48 miles were reviewed. Of the roads reviewed, 100.0% of the road length was observed to be serviceable by the intended user and required no significant increase in the level or frequency of maintenance.

Functional Class	FY2005		FY2006		FY2007		FY2008		Totals
	Local	Collector	Local	Collector	Local	Collector	Local	Collector	
Road Reconstruction/Construction (miles)	1.00	0.0	3.40	0.0	0.22	0.09	1.77	0.0	6.48
Roads Monitored (miles)	1.00	0.0	3.40	0.0	0.22	0.09	1.77	0.0	6.48
Roads requiring increased level/frequency of maintenance or not serviceable by use (miles)	0.0	0.0	0.0	0.0	0.00	0.00	0.0	0.0	0.0

FY2009 Recommended Actions: Continue use of appropriate design standards for road reconstruction and construction. Continue monitoring road condition and use.

- HUMAN INFLUENCES

Objective 1–6: Manage national forest lands in an efficient manner to provide for the future needs of society by pursuing opportunities to make land ownership adjustments that improve management effectiveness and enhance public benefits through land consolidation; acquiring rights-of-way that facilitate efficient management; issuing land use authorizations necessary to meet public and private needs only when no viable alternative to long-term commitments on Forest land exists; and establishing and maintaining all landline boundaries.

Are non-federal lands being acquired to enhance public benefits and improve management effectiveness? Are acquired rights-of-way achieving better Forest management? Are land use authorizations being issued only after all other alternatives are explored to provide goods and services? How well are landline boundaries being established, maintained, and protected from obliteration? (I)

FY2008 Findings: The Forest is following the progress of the Collins Camp legislated sale, introduced in Congress as H.R. 940, February 10, 2009. No right-of-ways were identified as needed or acquired in FY2008. No private land was acquired in FY2008.

FY2009 Recommended Actions: The Region has completed digitizing our title records. The Forest will continue to manage and monitor the lands program to the level that funding will allow.

Are newly acquired lands compatible with management practices in the Management Area where they are located? Are encroachments discouraged by well-defined property lines? (E)

FY2008 Findings: No land acquisitions were completed in FY2008. With decreased funding this FY only 60 miles of landline were maintained to standard. Previous funding levels allowed approximately 300 miles of maintained landlines. With the continued decrease in funding, property lines will not be well-defined, which will lead to encroachments.

FY2009 Recommended Actions: Increase funding to adequately maintain landlines.

Objective 3–1: Provide for long-term sustainable production of commodities for economies, local community stability, and people.

How does the flow of commodity outputs to local economies and people compare with the Forest Plan projections? (I)

FY2008 Findings: Harvest levels in FY2008 were 75,195 CCF (7.5 MMCF or 38.3 MMBF). Prices and markets continue to drive the demand for wood products. The future demand is uncertain, as global demand has weakened.

In FY2008, 109,702 CCF (11.0 MMCF OR 55 MMBF) was actually sold. This is a slight increase from 2007 (9.4 MMCF or 42 MMBF), but the sale program is expected to decrease to around 90,000 CCF. If the funding were available, the program would continue to climb steadily until we begin to achieve the offer/sold levels outlined in the Forest Plan.

The Secure Rural Schools and Community Self Determination Act, passed in 2000 and extended in 2007, has provided parishes with a steady income in lieu of taxes. 2007 was the last year for this to be in effect, however a revised version was included in the Emergency Economic Stabilization Act of 2008, and parishes may re-enroll in the program for 4 more years. Although there were some significant changes in the type of projects allowed, as well as the method of

funding, the parishes still elected to spend 15% of the funds they receive on projects that will benefit the National Forests and rural communities. These projects must either: 1) be associated with wildfire protection, 2) provide for protection, restoration, and enhancement of fish and wildlife habitat, or 3) improve the maintenance of existing infrastructure, enhance forest ecosystems, and restore land health and improve water quality. These are all consistent with the Forest Plan objectives.

FY2009 Recommended Actions: Continue to monitor the situation.

Objective 3–6: Assist local forest communities in diversifying and enhancing existing economies with an emphasis on the conservation of natural, cultural, and recreational resources of the Forest and the state.

Are programs and opportunities for improving rural economies and social conditions being developed? (I)

FY2008 Findings: The Forest received no Economic Recovery (ER) grant proposals as funding has been cut.

FY2009 Recommended Actions: None.

Are programs and opportunities improving sustainable local economies and social conditions? (E)

FY2008 Findings: No, the program dollars have been cut.

FY2009 Recommended Actions: Continue emphasis on new communities and capacity-building projects that result in increased local job opportunities and local incomes. Stress environmental concerns for the future. Pursue future program dollars.

- ROADLESS AREA/WILDERNESS/WILD & SCENIC RIVERS

Objective 5–6: Manage each special interest area (SIA) as an integral part of the Forest, with emphasis on protecting, enhancing, or interpreting its unique values.

Is Forest Plan SIA direction being applied? (I)

FY2008 Findings: The realignment process is assisting the Recreation Staff in identifying projects that may be associated with SIAs. The public is learning more about these areas through education efforts. Additional mileage of the Saline Bayou was maintained by sign placement and paint. The realignment process continues to assist in this area. Baseline information was entered into the Wild and Scenic River IWEB database.

FY2009 Recommended Actions: Continue to update and add information to the new database. Work with District personnel to determine needs and work towards solutions.

Objective 5–7: Manage the Kisatchie Hills Wilderness to enhance and perpetuate wilderness as a resource. Avoid resource damage resulting from overuse.

Is Kisatchie Hills Wilderness being managed to enhance and perpetuate wilderness values? Are natural processes allowed to operate freely? Is Forest Plan direction that would ensure the above being applied? (I)

FY2008 Findings: National Meaningful Measures standards for wilderness management have been completed. The Forest developed a 10 Year Strategy Plan to bring Kisatchie Hills Wilderness into compliance. A Wilderness Strategy Group was formed on the Forest.

FY2009 Recommended Actions: Strive to manage Kisatchie Hills Wilderness in compliance with the new national Wilderness Meaningful Measures Standards. Continue to promote the area and educate users. Continue working towards bringing the Kisatchie Hills Wilderness Area into compliance with standards by implementing the strategy that was developed for the Forest.

- TIMBER

Objective 3–2: Offer for competitive bid an average of 9.7 million cubic feet of timber sale volume on an annual basis for the first decade of the Plan.

Is the Forest providing for competitive bid the average annual allowable sale quantity it projected for the first decade? (I)

FY2008 Findings: In FY2008, 109,702 CCF (11.0 MMCF OR 55 MMBF) was actually sold. Compared with 2007 (9.4 MMCF or 47 MMBF), this was a 17% increase and is 13% more than the average annual allowable sale quantity. This brings the cumulative average up to 5.7 MCF or 59% of the ASQ. The sale program is expected to stabilize somewhere around 90,000 CCF.

The Forest has project plans and EA's in progress to continue to maintain this level of sales.

FY2009 Recommended Actions: Continue to monitor the situation.

Objective 6–1: Manage the Forest to achieve a mixture of desired future conditions using even-aged, two-aged, and uneven-aged silvicultural systems and regeneration methods; and a variety of manual, mechanical, prescribed fire, and herbicide vegetation management treatments. Apply the uneven-aged silvicultural system on a minimum of 32,000 acres.

Are management practices designed to achieve a mixture of desired future conditions being applied? (I)

FY2008 Findings: Decisions signed in FY2008 include a variety of prescribed treatments. General direction on the Forest has been to concentrate projects within RCW HMAs. As a result, most treatments involve longleaf restoration and thinnings.

These planned activities included:

- Even-age management using clearcut with reserves to restore longleaf pine on 158 acres and shortleaf pine on 156 acres.
- Site preparation treatments using a range of methods, including fire, mechanical and herbicide.
- Commercial thinning (4,241 acres) to accomplish a mixture of goals including RCW habitat enhancement, longleaf ecosystem enhancement, hardwood enhancement, fuel reduction, and forest health/pest prevention.
- Commercial 1st thinning (8,170 acres) for forest health/pest prevention and fuel reduction.
- RCW habitat improvements includes mechanical removal of brush and non-commercial midstory on 2,420 acres, in addition to installation of artificial cavity inserts.
- Three prescribed burning environmental documents were also signed in FY 2008 that plan the burning program for the next 3 to 5 years on the Forest.

Prescribed activities in FY2008 continue to move closer to Forest Plan average estimated outputs. Regeneration harvests continue to be far below the anticipated Forest Plan outputs.

FY2009 Recommended Actions: Continue to complete field exams and prescriptions to meet Forest Plan goals.

- FORAGE

Objective 3–4: Maintain or improve forage resources for domestic livestock grazing on 86,000 acres within designated grazing allotments to meet the needs of local demand.

Are forage resources being maintained or improved on the designated allotments? (I)

Are active allotments meeting the needs of the local demand for forage resources? (E)

FY2008 Findings: A 25-year trend of decreasing demand from the public for grazing resources continues. Only three grazing allotments were actively used for cattle grazing, with numerous permittees taking “non-use”. Otherwise, grazing resources are declining in acreage available due to the lack of management and lack of use. Management practices require NEPA documentation prior to being implemented. The three active allotments are meeting the current demand for allotment based forage resources.

FY2009 Recommended Actions: Given the continued non-use of the majority of KNF allotments, carefully scrutinize future expenditure as to their cost-effectiveness.

- OTHER PRODUCTS

Objective 3–3: Make all U.S. minerals available for lease except in areas where consent has been legislatively or administratively withdrawn. Development of federal minerals will be allowed within the constraints of the lease and accompanying stipulations and restrictions. To the extent legally possible, manage surface occupancy to avoid or minimize environmental effects where reserved and outstanding mineral rights exist. As allowed by state and federal law and under the terms of the severance deed, ensure that surface resources will not be adversely affected to an unacceptable degree by the exercise of reserved and outstanding mineral rights.

Are parcels being made available for lease according to U.S. ownership and management restrictions? Are applications for minerals exploration and development being processed according to directions and in a timely manner? Are operating plans for exploration of private minerals being reviewed for compliance with existing state and federal laws? (I)

FY2008 Findings: Parcels were made available for lease according to the latest U.S. ownership (based on court judgments) and management restrictions. The Forest Service continues to offer federal minerals for lease through the BLM Federal Oil and Gas Leasing Program and within the 60 days established by policy when Expressions of Interest are received.

No gas/oil wells were drilled in 2008. A 60,000 acre seismic project was completed on the Winn District and a 300 acre seismic project was completed on the Caney. Operating plans for these projects were reviewed for compliance with existing state and federal laws.

Existing operations of private minerals were reviewed for compliance with existing state and federal laws.

All operations including those on federal minerals were also inspected to ensure compliance with state and federal environmental laws.

FY2009 Recommended Actions: Continue to improve working relationship with BLM, Eastern States in responding to Expressions of Interest in a timely manner. Work to streamline responses to BLM Expressions of Interest and other leasing questions by upgrading the Minerals database on the Forest. The forest will offer additional acres for leasing in areas showing mineral interest.

Objective 3–5: Provide other forest products such as firewood and pinestraw as available, as long as their use does not impair ecosystem health or the achievement of other resource objectives.

How does management of these products compare with Forest Plan direction? (I)

FY2008 Findings: The interest in special wood products from the Forest continues to remain steady. It should be noted that many items, such as firewood, demand exceeds supply. The number of permits issued year to year is about the same, with slight variation. A few more permits were issued on those districts which had suffered storm damage and were in need of the removal of downed material.

FY2009 Recommended Actions: None.

Is the Forest providing opportunities for other specialty forest products without negatively impacting forest health or other resources? (V)

FY2008 Findings: Low demand for special forest products continued. The majority of permit requests are for personal plant collection which is handled with a FS-2400-8 Forest Products Free Use Permit. There were no known negative impacts on forest health or resources noted.

FY2009 Recommended Actions: None.

- HERITAGE RESOURCES

Objective 5–1: Manage the nonrenewable heritage resources of the Forest in a spirit of stewardship for the American public. Include the Louisiana State Historic Preservation Officer (SHPO) and interested federally recognized tribes as primary partners in managing the Forest’s heritage resources.

Are significant archeological and historical sites being identified, prior to project decisions, through inventories conducted in consultation with the Louisiana State Historic Preservation Officer (SHPO) according to the National Historic Preservation Act (NHPA), 36 CFR 800, NEPA, and the Southern Regional Heritage Programmatic Agreements (PA)? (I)

FY2008 Findings: All compliance reviews and consultations pursuant to Section 106 of the National Historic Preservation Act (NHPA) were completed prior to agency decisions. FY2008 saw an increase in request for surveys. In FY2008, a total of 6,045 acres were inventoried. All these acres were in support of timber sales. Fifty eight new sites were added to the KNF heritage database. In FY2008, the Forest continued government-to-government relations with six federally recognized tribal nations. These include the Caddo Tribe of Oklahoma, the Chitimacha Indian Tribe, the Coushatta Indian Tribe, the Jena Band of the Choctaw, the Tunica Biloxi Tribe, and the Choctaw Tribe of Oklahoma. Negotiations are underway for a Memorandum of Understanding with the Caddo Tribe of Oklahoma, the Ozark National Forest, the Ouachita National Forest, the National Forests and Grasslands in Texas and the Kisatchie National Forest. A Programmatic Agreement with the SHPO, the Caddo Tribe of Oklahoma, and the Choctaw Tribe of Oklahoma is nearing the final version.

FY2009 Recommended Actions: Continue the current course of pre-decisional inventories and consultations. Continue working with interested tribes to establish required government-to-

government relations and partnerships. Complete Programmatic Agreement with the SHPO and Tribes.

Objective 5–2: Provide protection for heritage resource sites that preserves the integrity of scientific data that they contain, for the benefit of the public and scientific communities.

Is law enforcement and heritage support provided at sufficient levels to protect significant heritage sites from internal and/or external activities? (I)

FY2008 Findings: Two archaeological sites were revisited to determine the extent of internal or externally caused damage. External damage (unauthorized site looting) was recorded at these two sites that were visited. Additionally, unauthorized trespass that included digging of a trench was investigated. Fortunately no site was located at this area. No formal Law Enforcement case reports were generated. There are still insufficient funds for Law Enforcement Officers and Heritage Specialists to physically monitor all sites at risk.

FY2009 Recommended Actions: Continue current course of physical monitoring. The Forest still needs to request and receive funding to increase monitoring efforts, with an eye towards using remote sensing-technology to supplement physical monitoring.

Are protection measures effective at preventing unacceptable damage? (E)

FY2008 Findings: COR's and HRT's are doing an effective job of monitoring projects.

FY2009 Recommended Actions: Current strategies for site and buffer zone delineation appear effective and should be continued.

Objective 5–3: Reduce the existing backlog of heritage sites needing formal evaluation so that the overall number decreases each year.

Are sufficient numbers of significant or potentially significant sites being evaluated so that the number of backlogged properties decreases each year? (I)

FY2008 Findings: The Forest did not evaluate any potentially significant heritage site for eligibility to the National Register of Historic Places. The number of backlogged sites has remained at 452. Given FY2008 funding and staffing levels, we were not able to satisfy compliance with Section 110 of the NHPA, requiring assessments of NRHP eligibility for all known cultural properties.

FY2009 Recommended Actions: Continue to request additional funds needed to conduct cultural site evaluations for all sites in backlogged status.

Objective 5–4: Enhance and interpret appropriate sites and heritage values to the American public.

Are sites and heritage values being identified for public interpretation? (I)

FY2008 Findings: The Forest Service was a contributor to Louisiana Archaeology Week for the 19th year. Heritage Specialists visited primary and secondary level classrooms to make presentations on Louisiana history and archeological ethics. Additionally, Heritage Specialists made presentations at society meetings promoting the heritage work performed on the Forest. The Forest and the Calcasieu District are continuing to consider interpretation at the Fullerton Mill site. This site is also listed on the National Register of Historic Places.

FY2009 Recommended Actions: Continue to offer PIT projects as possible given funding constraints, and remain as a primary partner with the LA SHPO in Louisiana Archaeology Week. Work with partners to interpret the Fullerton site.

Continue to strengthen the relationship between Recreation and Heritage Resources to provide interpretive opportunities between the two resources, such as the continued efforts on the Old LSU Site trail and interpretive area.

Has interpretation enhanced awareness of heritage values among the general public? (E)

FY2008 Findings: Public responses from public presentations indicate a general increase in awareness and sensitivity about the nonrenewable cultural resource base.

FY2009 Recommended Actions: Continue to offer PIT projects, classroom and civic organization presentations, and partner with the LA SHPO in Louisiana Archeology Week.

Objective 5–5: Provide an ongoing interpretive services program that accurately and adequately develops an interest in and understanding for the natural and cultural environment of the Forest and the mission of the Forest Service in managing it.

Does the interpretive services program provide usable information to the public about the full scope of forest management practices and philosophy? (I)

FY2008 Findings: The full scope of forest management practices and philosophy was incorporated in presentations to the public, schools and media.

Numerous school visits and presentations at events such as Forestry Awareness Week and 4H Achievement Day were made by Recreation staff to increase awareness about recreation and how it is incorporated with other resources such as heritage resources, timber, etc.

FY2009 Recommended Actions: Continue to provide funding for high-profile and effective interpretive programs such as Passport in Time, Audubon Zoo Earthfest, Audubon Nature Center Demonstration, Tensas Wildlife Refuge Fire Demonstration, and Outdoor Education Classroom with Louisiana School for the Deaf.

Continue to expand types of audiences reached with educational presentations, such as schools from the larger cities and the Louisiana School for the Deaf. Continue to increase efforts with the LSU Ag Center and 4H groups.

Has interpretive services increased measurable public support of Forest Service resource management goals and objectives? (E)

FY2008 Findings: The Kisatchie National Forest enjoys public support on a wide range of issues and management activities including silvicultural work, prescribed fire, recreation management, transportation management, and a host of other activities.

FY2009 Recommended Actions: Provide increased funding for environmental education projects, printed materials, and video productions. Increase presentations to civic groups, increase participation with non-profit organizations such as Boy Scouts and Girl Scouts; travel to destinations outside Forest boundary to reach various user groups and work with nontraditional audiences. Commitments to the New Orleans Earthfest and the Shreveport State Fair should be renewed.

C. Organizational Effectiveness

- ECONOMICS

FY2008 Findings: The Kisatchie NF received extensive damage caused by hurricane Gustav which hit the Forest on September 1. Funds were needed to assess damage, clear roads and trails for navigation and make other unforeseen expenditures for the continued operation of the Forest. Even with the unforeseen costs, the Forest was able to stay within the funds allocated with few exceptions. With the exception of NFVW, deficits that occurred in all other funds were due to year end payroll obligations entered by the ASC.

See Appendix A for a comparison of planned budgets and actual budgets.

FY2009 Recommended Actions: Continue providing funds as needed to meet Plan objectives.

- EVALUATION OF NEW INFORMATION

Objective 7-1: Monitor and document the annual progress towards accomplishment of Forest goals, objectives, and desired future conditions.

Is the Forest preparing and distributing a yearly monitoring and evaluation report to the public? (I)

FY2008 Findings: Yes, this report documents monitoring results for FY2008 activities and shows recommendations for FY2009. This report will be posted at the Region 8 public web site (<http://www.southernregion.fs.fed.us>) and internally at the Kisatchie's web site (<http://fsweb.kisatchie.r8.fs.fed.us>).

FY2009 Recommended Actions: Continue producing this report annually. Target audience continues to be the Forest line officers, the Regional Forester, and any others who may request a copy of this report or wish to access it over the Internet.

Objective 7-2: Evaluate new information and monitoring results; adapt management accordingly.

Is the Forest Plan being kept current through timely changes as identified in the annual M&E Report? (I)

FY2008 Findings: The Forest Plan had its first amendment during FY2003. *Amendment #1* to the Plan came about as a result of the ROD for the Supplement to the Final Environmental Impact Statement, Vegetation Management in the Coastal Plain/Piedmont (SEIS)(October 2002). This amendment provided clarification of direction for the preparation of site-specific Biological Evaluations (BEs) including inventory requirements for Proposed, Endangered, Threatened, and Sensitive (PETS) species for the KNF. The new amendment made the process of conducting BEs more efficient and consistent throughout the Southern Region and removed/added specific language to Forestwide standard FW-009. During 2007, this first amendment to the Plan was challenged in court. Plaintiffs sought to vacate the regional SEIS direction. On February 22, 2008 the court ordered the Forest to revert to the original standard approved in the 1999 Plan Revision. The following table briefly describes the implications to the Kisatchie:

Forest	Project Timing	Project Implications	Plan Implications
Kisatchie NF	Projects Approved Under Revised Plan (1999), but before Amendment 1 (SEIS)	No Change Needed	No Change Needed to 1999 Revised Forest Plan
	Projects Approved Under Amendment 1 (SEIS)	If enjoined in final court order, will likely have to Supplement the BE using the original Revised Plan protocol, then go	

		through the "Reconsideration of Decision" NEPA process*	
	New Projects (any approved after 2/22/08)	Do not reference Amendment 1 or R8 FSM Supplement in the BE (only reference FSM 2672). Prepare BEs under the original Revised Plan language	

The final court order of November 24, 2008, did not enjoin any ongoing projects on the Kisatchie.

Amendment #2 was signed in May, 2003. That amendment, Increased Utilization and Expansion of the Claiborne Air-to-Ground Weapons Range, LA, re-allocated some of the land in the RCW HMA on the Calcasieu RD, Evangeline Unit, and authorized re-issuance of a Special Use Permit to the US Air Force for use of the Claiborne Range.

Amendment #3 (Sandstone Multiple Use Trail Management Plan on the Kisatchie Ranger District) and *Amendment #4* (Providing Off Road Vehicle Management on the Calcasieu Ranger District) were begun in FY2004. They were later signed in FY2005.

In October of 2005, *Amendment #5* (Recovery Plan Amendment to Kisatchie National Forest Plan) was signed. It added new direction and modified some of the current direction for managing RCW on the Forest.

In April 2006, *Amendment #6* (Breezy Hill Trail Project) was signed. It designated approximately 66 miles of single-track, multi-directional (two-way travel) motorized trail in response to user demand and the adverse environmental impacts of unmanaged recreational activities with ORVs on the District. Implementation included the allocation of land needed to construct the Breezy Hill Trail corridor from its existing non-designated trail use to motorized use and allocated the areas designated as trailheads to recreational use. Trailhead facilities' construction would occur at a later date, once facility needs and design are determined, and the environmental effects evaluated in separate analyses and decision(s).

In FY2008, Plan *Amendment #7* (Kisatchie National Forest Travel Management Project), was signed. It added prohibitions for motorized travel off designated areas/routes forestwide, as well as initiated the creation of Motor Vehicle Use Maps (MVUM) for each ranger district. The MVUM are to be reviewed annually and updated as local conditions or needs change.

FY2009 Recommended Actions: Amend the Plan for any new allocations needed for changing land uses. Assess the need to make changes to the RCW HMA on the Forest, as recommended in the 2006 CER. Begin transitioning from the 1982 Planning Rule and review changes needed for compliance with the expected 2008 Planning Rule as new FSH direction becomes available.

Objective 8–1: Benefit from research information, technical assistance and technology development by maintaining a close, continuous working relationship with scientists at the Southern Research Station, academic institutions, and Forest Health Protection units.

Are cooperative relationships being developed and maintained? (I)

FY2008 Findings: The following longleaf pine research studies are managed by SRS-4158 Restoring and Managing Longleaf Pine Ecosystems and continue to be monitored and analyzed:

- Pine Straw Study (#247)
- Longleaf Pine Establishment Study on Upland Pine Sites (#268)
- Longleaf Pine Establishment Study on Wet Sites (#269)
- Comparison Study of Longleaf/Loblolly/Slash Pine Establishment on Upland Pine Sites (#270)
- Comparison Study of Longleaf/Loblolly/Slash Pine Establishment on Wet Pine Sites (#271)

- Study Comparing Management Intensity Levels Used in The Establishment of Longleaf on Upland Pine Sites (#272)
- Study Comparing Management Intensity Levels Used in The Establishment of Longleaf on Wet Pine Sites (#273)
- Delayed Prescribed Burn Study (#275)
- Croker Study Involving The Kisatchie National Forest and the Southern Research Station Units 4158 and 4501 (#3.4)
- Natural Longleaf Pine Burning Study (#3.7)
- Season of Burning Monitoring (#411262)
- Monitoring of Demonstration Areas (#411262)
- Longleaf Pine Ecosystem Restoration Study (#411262)
- Joint Fire Science Program Demonstration Sites (#98-IA-189)

Some of the above studies include cooperative work with the Kisatchie National Forest, Southern Research Station Unit FMR-4158, the Forest Insect Unit FIR-4501, and LSU involving insect attacks on severely burned longleaf pine trees. Other studies are loblolly and longleaf pine plots established by SRS-4158 to monitor changing management practices on growth and yield.

SRS-4704 Utilization of Southern Forest Resources in cooperation with Kisatchie National Forest and Forest Health Protection is studying the use of biofuels to generate electricity. A BioMax 25 generator has been erected at the Winn Ranger District that uses carbon products such as wood and paper to generate combustible gases that are converted to electricity and used by the District office. This sustainability study monitors the combustible gas content and kilowatt generation from different types of carbon sources.

Kisatchie NF maintained a Challenge Cost Share Agreement with the National Wild Turkey Federation to enhance wildlife habitat. Kisatchie NF contracts with local birding experts to conduct bird surveys. Kisatchie NF participates in the Louisiana Wildlife & Fisheries Commission's Quail and Grassland Birds Task Force. Kisatchie NF maintains a strong rapport with the Louisiana Department of Wildlife and Fisheries, National Wild Turkey Federation, and the Louisiana Wildlife Federation.

FY2009 Recommended Actions: Continue with such cooperative relationships.

Objective 8–2: Continue to identify research needs as the Forest implements the Plan.

Are research needs being identified in a timely manner? (I)

FY2008 Findings: Research targeting 1) how to increase quail abundance and 2) the population densities of deer on the various Districts is needed.

Future research needs are listed below:

- Effects of prescribed burning on bark beetle populations
- Fire effects on the growth and yield of longleaf pine
- Effects of prescribed burning on forest sustainability
- Longleaf pine restoration techniques
- Management impacts on soil productivity and the resulting longleaf pine ecosystem
- Effectiveness of the Kisatchie National Forest standards and guidelines in reducing non-point source pollution
- Reducing soil loss due to burning on erosive soils particularly the Kisatchie severely eroded soil type

FY2009 Recommended Actions: The Kisatchie National Forest should continue to assist the Southern Research Station in ongoing studies. The Forest will help initiate additional studies when requested and as funding allows.

Continue to participate in research endeavors targeting quail and deer.

Objective 9–1: Continue coordination and cooperation efforts with other federal and state agencies, such as the U.S. Department of Interior, Fish & Wildlife Service, the Louisiana Department of Wildlife and Fisheries, the Louisiana Department of Environmental Quality, Louisiana Department of Agriculture and Forestry, and the Louisiana SHPO on issues of mutual concern.

Are coordination and cooperation efforts being conducted with federal and state agencies? (I)

FY2008 Findings: Federal and state agencies were consulted as new proposals were developed and underwent the NEPA process. SHPO and THPO (Tribal Historic Preservation Officials) contributed during the preparation and analysis done for EAs. The USFWS and LDWF provided consultation and effects analysis for game and non-game animals potentially affected by project proposals. The Natural Heritage Program (with the LDWF) provided comment on the effects of proposed actions on plants in general, and/or at known locations.

FY2009 Recommended Actions: Coordinate with tribal, federal, and state agencies as needed.

Objective 9–2: Seek to increase the participation of other federal and state agencies, academic institutions, federally recognized Native American tribes, organizations and individuals in the accomplishment of Forest goals and objectives through the use of memorandums of understanding, cooperative agreements, partnerships, and challenge cost share agreements.

Are memorandums of understanding, cooperative agreements, partnerships, and challenge cost share agreements being developed? Are we increasing the participation of groups and individuals in the accomplishment of Forest Plan goals and objectives? (I)

FY2008 Findings: The Kisatchie NF and the Louisiana Department of Wildlife and Fisheries cooperate to better manage demand species such as deer. The Kisatchie NF, Louisiana Department of Wildlife and Fisheries, and the USDI Fish and Wildlife Service coordinate Red-Cockaded Woodpecker, Louisiana Pine Snake, and the Louisiana Pearlshell Mussel management activities. Also, Kisatchie NF maintained a Challenge Cost Share Agreement with the National Wild Turkey Federation to enhance wildlife habitat.

The KNF continued participation in the Non-point Source Interagency Committee with LDEQ, NRCS, LA Dept. of Forestry and other agencies under the Forest's Memorandum of Agreement (MOA) with the State of Louisiana on Non-Point Source Pollution Control. (Clean Water Act Section 319)

The KNF continued to conduct water quality monitoring on 9 streams. The monitoring was done by arrangement with LDEQ under the Forest's Non-Point Pollution Control Memorandum Of Agreement with the State of Louisiana. The data is incorporated into the State's Clean Water Act Sect. 305b Water Quality Inventory www.deq.state.la.us/surveillance/wqdata/wqnsites.stm. Soil and water staff cooperated with LSU staff to initiate a study of the water quality of three Louisiana pearlshell mussel streams.

A new Participating Agreement between the Kisatchie National Forest and Northwestern State University went into effect. The Forest realizes the importance of the agreement and will endeavor to enter into another such agreement as this partnership agreement coordinates one or more graduate level/advanced undergraduate Intern position in NSU's Masters Program in History with Cultural Resource Management emphasis or anthropology program. NSU has a need to provide these Interns with real life experience and training to complement training gained

in their academic endeavors while the Forest has need for additional Heritage Resource Management program presence in Natchitoches Parish, specifically the Kisatchie Ranger District and the Winn Ranger District. The Forest will achieve an increased level of compliance with NEPA, Sections 106 and 110 of the National Historic Preservation Act and the Southern Regional PA, while NSU will graduate students in Cultural Resource Management with balanced, marketable skills, and experience in the workplace.

The Kisatchie National Forest also has a Participating Agreement with the Louisiana Division of Archaeology (the Division) in executing Louisiana Archaeology Awareness Week. The Forest and the Division are dedicated to providing educational experiences to the public to establish awareness and understanding. Through such programs as this, the degradation of archeological and historical sites or values on Forest, state, private, and other federal lands in Louisiana, and the data they contain, will diminish.

FY2009 Recommended Actions: Continue to accommodate interested partners who wish to form partnerships, cooperative agreements, memorandums of agreements consistent to Forest Plan goals and objectives. The Forest currently has a Draft Programmatic Agreement with the SHPO and Tribes concerning Heritage Resource Management. The Forest should complete this PA in FY2009. The Forest also developed a Memorandum of Understanding with the Caddo Tribe of Oklahoma in 2008.

The Memorandum of Understanding between the Kisatchie NF and the Louisiana Department of Wildlife and Fisheries is over 20 years old and it needs updating. Continue accommodating interested partners who wish to participate in implementing the KNF Revised Land and resource Management Plan.

IV. Evaluation of Outcomes on the Land

This section of the Report evaluates the perceived outcome of the monitoring results for this reporting fiscal year (FY2008). The effectiveness of much of the Plan's direction during its first five years of implementation was more thoroughly evaluated during the *Comprehensive Evaluation Report (CER)* (or *5-Year Review*), which was done in FY2006. Based on FY2008 monitoring results, the following observations were made:

Biodiversity

- More emphasis over the last few years has been placed on commercial thinnings for forest health and RCW purposes. Since thinnings were emphasized, less time has been dedicated to ecosystem environmental projects where restoration is considered.
- The Revised Plan projected that 1,456 acres would receive final harvest annually for longleaf restoration. There is no indication that this target will be met in the future. Currently, Kisatchie has 125,481 acres in the longleaf pine plant community, compared to the Revised Plan's target of 263,000.
- Based on inventoried forest-type acreages, Kisatchie NF meets or exceeds the Revised Plan's goal (first 10 years) of acreage provided in each landscape community except the mixed hardwood-loblolly pine early stages, which are insufficient.
- Kisatchie NF generally has a deficiency of early successional habitat; acreages of mid and late successional habitat meet Revised Plan guidance.
- Habitat objectives for selected plant management indicators are being met mainly as a result of the effective Forest prescribed burning program; however, current baseline data and survey methods have not proven effective for analyzing trends in some specific plant indicator species.
- The Forest's prescribed burning program is the most important practice used for restoration of native wildlife habitats, which is proving to be very effective in protecting, improving and maintaining TESC species.
- Activities from ORVs and urban sprawl continue to threaten the Louisiana pearlshell mussel (LPM) habitat. The Forest Service is working with the US Fish and Wildlife Service (USFWS) and several partners to maintain an active task force with a panel of experts and interested parties for the betterment of the LPM.
- The sandstone glades on the Kisatchie National Forest (as found on the Kisatchie Ranger District) are not suitable habitat for the federally Threatened earthfruit. More suitable habitat for earthfruit does exist on the Kisatchie National Forest in and around the "salt flats" on the Winn Ranger District.
- The burning program on Kisatchie has been instrumental in restoring the longleaf pine back to areas where past loblolly plantings dominate.

Forest Health

- The LDEQ has been monitoring particulate matter with a Federal Reference Method PM 2.5 monitor located in Alexandria (Rapides Parish) since 1999. PM 2.5 refers to particulate matter that has a diameter of 2.5 micrometers or less. The monitoring data indicates that the NAAQS for particulates is being met.

- Resources identified in NFMAS are being made available in accordance with budget funding level. 2,759 acres of the Forest burned in wildland fires in FY2008. The acceptable range in NFMAS is 2,108. The Forest was 651 acres above this acceptable range.

Watershed Conditions

- FS streams were surveyed for LPM host fish studies in 2006-2007. Water quality was within acceptable norms (LDEQ), and population trends of MIS (see 2005 MIS report) suggest that BMPs and SHPZs are adequately protecting the integrity and quality of watersheds within the Forest.

Outdoor Recreation Opportunities

- The Forest has a shortage of early successional habitat and is within the Plan guidelines for mid- and late successional habitats.
- Populations of squirrels were stable. Deer populations are and have been considerably below the habitats' carrying capacity; Bobwhite population densities are low region-wide.
- Shifts in ROS class eligibility are not likely to have occurred because only minor road construction or decommissioning was planned and accomplished. ROS class eligibility changes are dependant, primarily, on changes in road density and OHV management status.

Infrastructure

- All roads were found to be serviceable by the intended user and required no significant increase in the level or frequency of maintenance.

Human Influences

- No land acquisitions were completed in FY2008. With decreased funding anticipated for FY2009 only 60 miles of landline will be maintained to standard. Previous funding levels allowed approximately 300 miles of maintained landlines. With the continued decrease in funding, property lines will not be well-defined, which will lead to encroachments.

Timber

- Timber sale volume increased in FY2008, but the sale program is expected to decrease to around 90,000 CCF. If the funding were available, the program would continue to climb steadily until we begin to achieve the offer/sold levels outlined in the Forest Plan.
- Prescribed activities in FY2008 continue to move closer to Forest Plan average estimated outputs. Regeneration harvests continue to be far below the anticipated Forest Plan outputs.

Forage

- A 25-year trend of decreasing demand from the public for grazing resources continues. Two active allotments are meeting the current demand for forage resources. Given the continued non-use of the majority of KNF allotments, carefully scrutinize future expenditure as to their cost-effectiveness.

Heritage Resources

- Given FY2008 funding and staffing levels, we were not able to satisfy compliance with Section 110 of the NHPA, requiring assessments of NRHP eligibility for all known cultural properties.

- There were still insufficient funds for Law Enforcement Officers and Heritage Specialists to physically monitor all sites at risk.

Evaluation of New Information

- The Memorandum of Understanding between the Kisatchie NF and the Louisiana Department of Wildlife and Fisheries is over 20 years old and it needs updating.

V. Summary of M&E Recommendations Planned for FY2009

This section of the Report provides information on all monitoring items that need action during the current fiscal year (FY2009). In addition to the specific recommended actions listed below, the general recommendation for FY2009 is to continue implementing the revised Plan using guidance provided in Chapters 2 and 3 of the Plan in order to reach the objectives stated. Long-term goals for the Forest are to reach the Desired Future Conditions (DFC) stated for the Forest and the DFC stated for individual management and sub-management areas. In order to reach our planned goals and objectives, individual project proposals should consider the guidance provided for each management area, use appropriate NEPA procedures to evaluate the site-specific effects of the proposal and alternatives, and reach a decision consistent with Plan direction.

Recommendations for those items that need attention follow:

Biodiversity

- ✓ Emphasize longleaf and shortleaf restoration where possible.
- ✓ Strive to increase the number of acres restored to longleaf pine.
- ✓ Mixed hardwood-loblolly forest types exceed long-term desired future conditions. Prescribe regeneration cuts on off-site stands where there is a high priority for regeneration such as stands damaged by disease, insect or storms as well as those stands showing signs of decline.
- ✓ Consider selective thinning and hardwood planting treatments within riparian areas to encourage hardwood component.
- ✓ The MIS list should be modified as per the criteria set forth earlier in this document. Additionally, the survey protocol should be revised to follow the successful process implemented by the Mark Twain National Forest in Missouri.
- ✓ Increase the ratio of growing season burns to dormant season burns, since growing season burns are critical for successful gains in our restoration efforts.
- ✓ Continue increased emphasis on RCW management across the Forest.
- ✓ Identify all Louisiana pearlshell mussel beds on the Forest, and develop means of monitoring the number of mussels on a recurring basis.
- ✓ Prescribe burn the RCW foraging habitat as much as feasible. Engage in RCW translocations to bolster populations, if feasible. Continue interactions with the USFWS.
- ✓ Continue beaver control, enforcement of Forest Service regulations prohibiting ORVs from riding in streams, and implementation of Best Management Practices (BMPs) and Streamside Habitat Protection Zones (SHPZs) that protect Louisiana pearlshell mussel habitat.
- ✓ Utilize prescribed fire and commercial thinning in some old growth patches in the uplands to enhance the old-growth attributes and help mold appropriate overstory and understory composition.
- ✓ Strive to maximize the implementation of growing season burns on longleaf pine plant community landscapes. The Forest should maximize its burn opportunities in fall.
- ✓ Emphasize burns in the young longleaf plantations to release them from competition and promote extension out of the grass stage. These burns should be in spring or early growing season.

Forest Health

- ✓ Develop a protocol to monitor particulate matter concentrations in the air within the sensitive communities adjacent to and within the boundaries of the National Forest before, during, and after prescribed burning operations. Coordinate with the Zone Air Specialist in Arkansas until a protocol is developed, modeling is accomplished, samplers are acquired, and monitoring is implemented.
- ✓ Monitor for possible SPB attacks through aerial observations. Field check for increased mortality from Annosus root disease on thinned loblolly stands on high hazard sites.

Watershed Conditions

- ✓ Coordinate with and assist the Southern Research Station with the Long Term Soil Productivity Study.
- ✓ Coordinate with LDEQ on monitoring the water quality of streams on the KNF. Develop a monitoring strategy in lieu of the grab sample monitoring no longer implemented with the closure of the LDEQ lab in Baton Rouge.
- ✓ Stock catfish fingerlings when available and necessary. Monitor the success and utilization of the spawning cavities placed in FS lakes.

Outdoor Recreation Opportunities

- ✓ Implement hunting seasons comparable to those of Louisiana Department of Wildlife and Fisheries' Wildlife Management Areas with similar habitat in central and northern Louisiana.
- ✓ Monitor for changes as the new travel management rule continues to be implemented.
- ✓ Implement the Excellence by Design process for all recreation and trails projects to ensure design compliance, feasibility and good customer service.

Human Influences

- ✓ Request an increase in funding to adequately maintain landlines.

Forage

- ✓ Given the continued non-use of the majority of KNF allotments, carefully scrutinize future expenditure as to their cost-effectiveness.

Other Products

- ✓ Continue to improve working relationship with BLM, Eastern States in responding to Expressions of Interest in a timely manner. Work to streamline responses to BLM Expressions of Interest and other leasing questions by upgrading the Minerals database on the Forest.

Heritage Resources

- ✓ Complete Programmatic Agreement with the SHPO and Tribes.
- ✓ Request funding to increase monitoring efforts, with an eye towards using remote sensing-technology to supplement physical monitoring.
- ✓ Request additional funds needed to conduct cultural site evaluations for all sites in backlogged status.
- ✓ Strengthen the relationship between Recreation and Heritage Resources to provide interpretive opportunities

- ✓ Offer PIT projects, classroom and civic organization presentations, and partner with the LA SHPO in Louisiana Archeology Week.
- ✓ Increase presentations to civic groups, increase participation with non-profit organizations such as Boy Scouts and Girl Scouts; travel to destinations outside Forest boundary to reach various user groups and work with nontraditional audiences. Commitments to the New Orleans Earthfest and the Shreveport State Fair should be renewed.

Evaluation of New Information

- ✓ Amend the Plan for any new allocations needed for changing land uses. Assess the need to make changes to the RCW HMA on the Forest, as recommended in the 2006 CER.
- ✓ Assist the Southern Research Station in ongoing studies.
- ✓ Participate in research endeavors targeting quail and deer.
- ✓ The Forest currently has a Draft Programmatic Agreement with the SHPO and Tribes concerning Heritage Resource Management. The Forest should complete this PA in FY2009.
- ✓ The Memorandum of Understanding between the Kisatchie NF and the Louisiana Department of Wildlife and Fisheries is over 20 years old and it needs updating.

VI. Status of FY2007 Monitoring & Evaluation Report Recommendations

FY2007 M&E Recommendation: Strive to accomplish stand exams on 10 percent of the Forest every year and continue preparing environmental documents addressing management practices on as many of these acres as possible. Emphasize longleaf restoration where possible. Forest Silviculturist should continue to field-check samples of implemented project decisions.

STATUS in 2008: *Stand exams occurred on 2.5 percent of the Forest and 2 environmental documents were signed directing longleaf pine restoration to occur on 158 acres and shortleaf pine restoration to occur on 40 acres. More accomplishments were not completed due to new inexperienced personnel, vacant positions, and budget constraints.*

FY2007 M&E Recommendation: Strive to increase the number of acres restored to longleaf pine. Continue to monitor sites for additional treatment needs. Thinning prescriptions within RCW HMAs should emphasize the needed longleaf stand composition. Post implementation field checks should be done on thinnings to ensure sufficient longleaf emphasis and evaluate species composition changes and update the FSVeg database for these changes.

Continue restoration treatments on shortleaf/hardwood sites where there is high priority for regeneration such as stands damaged by disease, insect or storms as well as those stands showing signs of decline.

Mixed hardwood-loblolly forest types exceed long-term desired future conditions by 308,560 acres. Prescribe regeneration cuts on off-site stands where there is a high priority for regeneration such as stands damaged by disease, insect or storms as well as those stands showing signs of decline.

Continue to monitor management practices being implemented within streamside and riparian area protection zones for compliance with the Forest Plan, through timber sale contract administration and field checks. Continue to consider selective thinning and hardwood planting treatments within riparian areas to encourage hardwood component.

STATUS in 2008: *124 acres were planted with longleaf pine and 12 acres were planted with loblolly pine in FY2008.*

FY2007 M&E Recommendation: The management indicator species list should be modified to include more commonly occurring native plants that occupy a wider range of forest habitat types. Additionally, the survey protocol needs to be re-examined and possibly revised. It is recommended that successful botany MIS programs from other forests in R8 be considered as models, and that statisticians and vegetation ecologists participate in the review of a new KNF MIS protocol.

STATUS in 2008: *Delayed until new EMS system is implemented on the Forest. Due to the absence of a Forest Botanist for most of the FY, no action has been taken on this item.*

FY2007 M&E Recommendation: As stated above, the management indicator species list should be modified to include more commonly occurring native plants that occupy a wider range of forest habitat types. Additionally, the survey protocol needs to be re-examined and possibly revised. It is recommended that successful botany MIS programs from other forests in R8 be considered as models, and that statisticians and vegetation ecologists participate in the review of a new KNF MIS protocol. After consultation with forest planners and the ecosystem conservation

team leader, it was decided to delay any MIS survey until the planning changes in the new EMS system are made on Forest.

STATUS in 2008: *Due to the absence of a Forest Botanist for over half of the FY, no action has been taken on this item.*

FY2007 M&E Recommendation: Continue the current prescribed burn program of [sic]125,000 to 150,000 acres per year [Note: the number from the Plan, Objective 6-2, p. 2-6, gives a range of 80,000 to 105,000]. Growing season burns are critical for successful gains in our restoration efforts. It is important to increase efforts to remove encroaching woody plants in the Winn District prairies and bogs throughout the Forest, as these habitats host many of our TESC species.

Continue increased emphasis on RCW management across the Forest. Identify and prioritize thinning of foraging habitat, improvement and expansion of RCW clusters, and mid-story removal projects. Work with the USFWS to prioritize future projects and identify habitat needs. Identify all Louisiana pearlshell mussel beds on the Forest, and develop means of monitoring the number of mussels on a recurring basis.

STATUS in 2008: *139,000 acres were managed with prescribed fire in FY2008. 97,365 acres received prescribed fire during the dormant season and 41,585 acres during the growing season.*

FY2007 M&E Recommendation: Closely monitor all populations for signs of stability. Prescribe burn the RCW foraging habitat as much as feasible. Engage in RCW translocations to bolster populations, if feasible. Continue consultations with the USFWS.

Continue beaver control, enforcement of Forest Service regulations prohibiting ORVs from riding in streams, and implementation of Best Management Practices (BMPs) and Streamside Habitat Protection Zones (SHPZs) that protect Louisiana pearlshell mussel (LPM) habitat. Close and monitor areas to ORVs where violations continually occur. Encourage collaboration from other agencies, partners and private landowners to help protect the LPM.

STATUS in 2008: *RCW recommendations were done. Our state and federal partners, and private citizens and landowners, are continuing to work together for the good of the Louisiana Pearlshell mussel. We are continuing to remove beaver dams that threaten the Louisiana pearlshell mussel's habitat, enforce OHV's from riding destructively through streams, and enforce erosion control along ride-of-ways and highway construction projects.*

FY2007 M&E Recommendation: Continue to review all project decisions with management practices within old-growth patches. Conduct sample field reviews after implementation.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Continue the prescribed fire and commercial thinning in some of the old growth patches in the uplands to enhance the old-growth attributes and help mold appropriate overstory and understorey composition. Make sure actions meet Plan standards and guidelines for old-growth patches.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Every year, conduct silvicultural surveys and prepare documents addressing management practices where needed, on approximately ten percent of the Kisatchie National Forest ownership. Document the streamside habitat protection zones and actions taken to manage in and near these areas. Delineate these areas in the stand maps in GIS.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: The Forest should continue to monitor the weather and take advantage of every burning opportunity. Strive to maximize the implementation of growing season burns on longleaf pine plant community landscapes. The Forest will have two Regional Fuels Helicopters to increase the production and reduce the cost of CWN helicopters.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Continue to work with research to determine effects.

STATUS in 2008: *Done. No new studies initiated.*

FY2007 M&E Recommendation: Review burn plans to evaluate how Louisiana Smoke Management Guidelines are being followed during reviews of soil, water and air standards and guidelines (Best Management Practices) and report findings. Develop a protocol to monitor particulate matter concentrations in the air within the sensitive communities adjacent to and within the boundaries of the National Forest before, during, and after prescribed burning operations. The first part would be to model the production, dispersion, and transport of PM_{2.5} emissions, and potential impacts of those emissions on local communities. The second part is real-time, localized, particulate matter monitoring using portable samplers. The particulate samplers would be placed at strategic locations within or near smoke sensitive areas identified in the burn plan. Coordinate with the Zone Air Specialist in Arkansas until a protocol is developed, modeling is accomplished, samplers are acquired, and monitoring is implemented.

STATUS in 2008: *Did review the burn plans, but did not develop protocol for monitoring particulate matter concentrations. Forest was unable to work with Zone Air Specialist in FY2008.*

FY2007 M&E Recommendation: Continue to coordinate with LDEQ Air Quality Dept. on monitoring.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Continue to request wildland fire preparedness funding at the 100% efficiently level and staff accordingly.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Manage for productive and healthy forest ecosystems by utilizing prescribed fire to prevent and minimize resource losses to wildland fires.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Continue to identify restoration and forest health needs through the inventory process.

Implement backlog of NEPA covered timber stand improvement treatments, including pre-commercial thinning and first thinnings at an increased rate while the aid of Forest Health funding opportunities are available.

Continue to monitor areas for shortleaf decline and bug spots through aerial surveillance flights.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Continue to monitor for possible SPB attacks through aerial observations. Field check for increased mortality from Annosus root disease on thinned loblolly stands on high hazard sites.

STATUS in 2008: *SPB activity in 2008 was negligible to non-existent. Monitoring for possible SPB attacks through aerial observations were carried out. Field checks for mortality from Annosus root disease on thinned loblolly stands on high hazard sites was carried out as required.*

FY2007 M&E Recommendation: Continue monitoring prescribed fire management and timber management activities for implementation of Standards and Guidelines.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Continue to restore and revegetate disturbed areas.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Continue to coordinate with and assist the Southern Research Station with the Long Term Soil Productivity Study.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Continue to coordinate with LDEQ on monitoring the water quality of streams on the KNF. Continue required monitoring of water quality of KNF swim beaches.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Establish size and creel limits on the Forest to ensure recruitment and sustainability of the resource. Continue to monitor and collect data.

Continue to monitor and assess (analyze and interpret data) the effectiveness of management strategies on the Forest concerning aquatic resources.

Continue to monitor and identify any future restoration projects, which may include renovation of older ponds when funds are available.

STATUS in 2008: *Upper Caney Lake is in need of a new control structure to lower the lake and aid in controlling nuisance aquatic weeds. The control pipe on the Longleaf pond on the Evangeline Unit was vandalized and needs to be repaired or replaced.*

FY2007 M&E Recommendation: Stock catfish fingerlings when available and necessary. Monitor the success and utilization of the spawning cavities placed in FS lakes.

Continue restoration and enhancement projects.

STATUS in 2008: *Supplemental stockings of catfish fingerlings were stocked in the Longleaf Pond (220), Lower Caney (650), Blue Run (160) and Gum Springs (660)]*

FY2007 M&E Recommendation: Attempt to implement hunting seasons comparable to those of Louisiana Department of Wildlife and Fisheries' Wildlife Management Areas with similar habitat in central and northern Louisiana.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Continue to review proposed projects for SIO compliance. Work with Districts to implement new SMS guidelines. Encourage better participation on ID Team meetings.

STATUS in 2008: *Done and continue.*

FY2007 M&E Recommendation: Monitor for changes as the new travel management rule is implemented.

STATUS in 2008: *Done by Districts and continue.*

FY2007 M&E Recommendation: Continue the annual update of INFRA data. Continue management of the recreation program using the IWEB INFRA system and the Recreation Realignment Process. Implement the Excellence by Design process for all recreation and trails projects to ensure design compliance, feasibility and good customer service. Continue to improve customer service through the Customer Service Representative.

STATUS in 2008: *Done and continue.*

FY2007 M&E Recommendation: Continue use of appropriate design standards for road reconstruction and construction. Continue monitoring road condition and use.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: The Forest is participating in a significant effort with the Region to digitize our title records. Continue to manage and monitor the lands program to the level that funding will allow.

STATUS in 2008: *The Region has completed digitizing and scanning the Forest's title records. The Forest will continue to manage and monitor the lands program to the level that funding will allow.*

FY2007 M&E Recommendation: Increase funding to adequately maintain landlines.

STATUS in 2008: *Increase still needed.*

FY2007 M&E Recommendation: Continue emphasis on new communities and capacity-building projects that result in increased local job opportunities and local incomes. Stress environmental concerns for the future. Pursue future program dollars.

STATUS in 2008: *Discontinue as there is no funding.*

FY2007 M&E Recommendation: Continue to update and add information to the new Wild and Scenic River IWEB database. Work with District personnel to determine needs and work towards solutions.

STATUS in 2008: *Done and continue.*

FY2007 M&E Recommendation: Strive to manage Kisatchie Hills Wilderness in compliance with the new national Wilderness Meaningful Measures Standards. Continue to promote the area and educate users. Continue working towards bringing the Kisatchie Hills Wilderness Area into compliance with standards by implementing the strategy that was developed for the Forest.

STATUS in 2008: *Done and continue.*

FY2007 M&E Recommendation: Continue to complete field exams and prescriptions to meet Forest Plan goals.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Given the continued non-use of the majority of KNF allotments, carefully scrutinize future expenditure as to their cost-effectiveness.

STATUS in 2008: *Although local demand for allotments has remained static, the number of head per active allotment has increased on 2 of the 3 allotments. Nonetheless, each of the three active allotments is meeting the needs of the local demand for forage resources.*

Forage resources are also being maintained on three active allotments, which are:

- *The Tighteye Allotment on the Vernon Unit utilizes 34 head of cattle (note increase from 2 head of cattle in 2007).*
- *The Tower Allotment on the Vernon Unit utilizes 4 head of cattle (note change from non-use in 2007).*
- *The Saddle Branch Allotment on the Kisatchie Ranger District utilizes 73 head of cattle (the same as in 2007).*

FY2007 M&E Recommendation: Continue to improve working relationship with BLM, Eastern States in responding to Expressions of Interest in a timely manner. Work to streamline responses to BLM Expressions of Interest and other leasing questions by upgrading the Minerals database on the Forest. The forest plans to offer additional acres for leasing in areas showing mineral interest.

STATUS in 2008: *Done, as funding allowed.*

FY2007 M&E Recommendation: Continue the current course of pre-decisional inventories and consultations. Continue working with interested tribes to establish required government-to-government relations and partnerships. Complete Programmatic Agreement with the SHPO and Tribes.

STATUS in 2008: *Continue and continue working on the PA with the Advisory Council on Historic Preservation as well as with the SHPO and Tribes.*

FY2007 M&E Recommendation: Continue current course of physical monitoring. The Forest still needs to request and receive funding to increase monitoring efforts, with an eye towards using remote sensing-technology to supplement physical monitoring.

STATUS in 2008: *Minimally done and need to continue.*

FY2007 M&E Recommendation: Current strategies for site and buffer zone delineation appear effective and should be continued.

STATUS in 2008: *Agree and should continue.*

FY2007 M&E Recommendation: Continue to request additional funds needed to conduct cultural site evaluations for all sites in backlogged status.

STATUS in 2008: *Minimally done and need to continue.*

FY2007 M&E Recommendation: Continue to offer PIT projects as possible given funding constraints, and remain as a primary partner with the LA SHPO in Louisiana Archaeology Week. Work with partners to interpret the Old LSU site.

Continue to strengthen the relationship between Recreation and Heritage Resources to provide interpretive opportunities between the two resources, such as the continued efforts on the Old LSU Site trail and interpretive area.

STATUS in 2008: *Done and continue. Start working with partners to address effects at Gum Springs, interpret, and other opportunities with Fullerton Mill and Drakes Salt works.*

FY2007 M&E Recommendation: Continue to offer PIT projects, classroom and civic organization presentations, and partner with the LA SHPO in Louisiana Archeology Week. Interpretation of the Old LSU site does enhance public awareness.

STATUS in 2008: *Done and continue. Interpretation at Gum Springs, Fullerton Mill and Drakes Salt works can also enhance public awareness*

FY2007 M&E Recommendation: Continue to provide funding for high-profile and effective interpretive programs such as Passport In Time, Audubon Zoo Earthfest, Audubon Nature Center Demonstration, Tensas Wildlife Refuge Fire Demonstration, Outdoor Education Classroom with Louisiana School for the Deaf.

Continue to expand types of audiences reached with educational presentations, such as schools from the larger cities and the Louisiana School for the Deaf. Continue to increase efforts with the LSU Ag Center and 4H groups.

STATUS in 2008: *Done and continue.*

FY2007 M&E Recommendation: Provide increased funding for environmental education projects, printed materials, and video productions. Increase presentations to civic groups, increase participation with non-profit organizations such as Boy Scouts and Girl Scouts; travel to destinations outside Forest boundary to reach various user groups and work with nontraditional audiences. Commitments to the New Orleans Earthfest and the Shreveport State Fair should be renewed.

STATUS in 2008: *Done as time and budget provided.*

FY2007 M&E Recommendation: Continue providing funds as needed to meet Plan objectives. Communication to forests regarding financial corrections that will be processed by ASC will allow forests to incorporate the corrections in the execution of their budget which may prevent future deficits. Year end expenditures and balances would be more accurate at the forest level if correction obligations to offset year end estimates were allowed.

STATUS in 2008: *ASC policy regarding year end correction obligations has not, and to my knowledge, will not be changing. Therefore, deficits in funds that have incorrect obligation*

estimates will continue. There has been some improvement in the ASC communication to the field.

FY2007 M&E Recommendation: Continue producing this report annually. Target audience continues to be the Forest line officers, the Regional Forester, and any others who may request a copy of this report or wish to access it over the Internet.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: Amend the Plan for any new allocations needed for changing land uses. Begin transitioning from the 1982 Planning Rule and review changes needed for compliance with the expected 2008 Planning Rule as new FSH direction becomes available.

STATUS in 2008: *Done, although Planning Rule was still being challenged in court.*

FY2007 M&E Recommendation: Continue with cooperative relationships.

STATUS in 2008: *Done.*

FY2007 M&E Recommendation: The Kisatchie National Forest should continue to assist the Southern Research Station in ongoing studies. The Forest will help initiate additional studies when requested and as funding allows.

Continue to participate in research endeavors targeting quail and deer.

STATUS in 2008: *No new studies with SRS initiated. No new quail and deer research initiated due to budget deficiencies.*

FY2007 M&E Recommendation: Coordinate with tribal, federal, and state agencies as needed.

STATUS in 2008: *Done informally as well as during scoping for project NEPA proposals.*

FY2007 M&E Recommendation: Continue to accommodate interested partners who wish to form partnerships, cooperative agreements, memorandums of agreements consistent to Forest Plan goals and objectives. The Forest currently has a Draft Programmatic Agreement with the SHPO and Tribes concerning Heritage Resource Management. The Forest should complete this PA in FY2008. The Forest is also in development of a Memorandum of Understanding with the Caddo Tribe of Oklahoma. This too should be complete in FY2008.

Continue to develop Challenge Cost Share agreements. Continue to seek interested partners who wish to participate in implementing the revised Forest Plan.

The Memorandum of Understanding between the Kisatchie NF and the Louisiana Department of Wildlife and Fisheries is over 20 years old and it needs updating. Continue accommodating interested partners who wish to participate in implementing the KNF Revised Forest Plan.

STATUS in 2008: *The PA was not completed in 2008, however the MOU was. Agreement with NSU for intern to work on developing Drakes Salt works site map for future site management*

CCS work continued. MOU with LDWF is pending completion.

Began developing agreement with SCA to accomplish trail and facility work and with SFA to accomplish upcoming National Visitor Use Monitoring

Appendix A

Comparison of FY2008 Budget with Revised Plan Annual Budget

<u>Budget Line Item</u>	<u>Plan EBLI</u>	<u>Plan Budget Estimate</u>	<u>FY2008 EBLI</u>	<u>FY2008 Budget</u>	<u>FY2008 Budget Difference</u>
Ecosystem Planning, Inventory, Monitoring					\$ (319,748)
Ecosystem management	NFEM	\$ 852,724	N/A	\$ -	
Inventory and monitoring	***	-	NFIM	410,979	
Land management planning	***	-	NFPN	121,997	
Recreation Use					252,327
Recreation management	NFRM	1,173,916	N/A	-	
Wilderness management	NFWM	65,375	N/A	-	
Heritage resources	NFHR	284,241	N/A	-	
Recreation, Heritage, Wilderness	***	-	NFRW	906,245	
Cooperative work - other	CWFS	42,636	CWFS	-	
Trails, Capital Improvements & Mtce.	***	-	CMTL	378,251	
Rec. facilities deferred mtce.	***	-	FDRF	376,000	
Fee Demo - collection	***	-	FDCL	20,000	
Fee Demo - projects	***	-	FDDS	138,000	
Rangeland Management					(557,383)
Range management	NFRG	85,272	NFRG	11,100	
Range vegetation management	NFRV	198,969	N/A	-	
Cooperative work - KV	CWKV	284,241	CWKV	-	
Wildlife and Fish Management					(1,954,051)
Wildlife habitat operations and improvement	NFWL	311,244	N/A	-	
Wildlife and fisheries management	***	-	NFWF	1,128,709	
Inland fish operations and improvement	NFIF	127,909	N/A	-	
T&E species operations and improvement	NFTE	751,818	N/A	-	
Cooperative work - KV	CWKV	2,525,484	CWKV	658,225	
Cooperative work – Other/Agreement based	CWFS	35,530	CWFS	11,000	

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<u>Budget Line Item</u>	<u>Plan EBLI</u>	<u>Plan Budget Estimate</u>	<u>FY2008 EBLI</u>	<u>FY2008 Budget</u>	<u>FY2008 Budget Difference</u>
Forestland Management					(5,170,480)
Timber management	NFTM	3,410,895	NFTM	1,595,277	
Forest vegetation management	NFFV	605,434	N/A	-	
Vegetation and watershed management	***	-	NFVW	503,101	
Reforestation trust fund	RTRT	156,333	RTRT	191,275	
Cooperative work - KV	CWKV	1,989,689	CWKV	473,315	
Purchaser elect veg. treatments	***	-	PEP2	200,000	
Timber roads - purchaser election	PEPE	75,324	PEPE	-	
Timber roads - purchaser construction	PUCR	1,705,448	N/A	-	
Timber salvage sales	SSSS	383,726	SSSS	30,000	
Forest health protection	***	-	SPFH	163,400	
Soil, Water and Air Management					(474,615)
Soil, water, air operations	NFSO	92,378	N/A	-	
Soil and water improvement	NFSI	129,330	N/A	-	
Cooperative work - KV	CWKV	66,896	CWKV	24,701	
Cooperative work - other	CWFS	284,662	CWFS	30,000	
Cooperative work – Non-agreement based	***	-	CWF2	43,950	
Minerals and Geology Management					(347,861)
Minerals	NFMG	455,460	NFMG	82,599	
Cooperative work – Non-agreement based	***	-	CWF2	25,000	
Land Ownership Management					(172,220)
Lands - real estate management	NFLA	263,313	N/A	-	
Landline location	NFLL	199,264	N/A	-	
Landownership management	***	-	NFLM	290,356	
Construction					(2,613,319)
Recreation construction	CNRF	1,658,158	N/A	-	
Trail construction	CNTR	75,436	N/A	-	
Roads reconstruction and construction	CNRD	1,337,913	N/A	-	
Facilities capital improves & mtce	***	-	CMFC	288,170	
Facilities capital improves & mtce.	***	-	CMII	155,000	

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<u>Budget Line Item</u>	<u>Plan EBLI</u>	<u>Plan Budget Estimate</u>	<u>FY2008 EBLI</u>	<u>FY2008 Budget</u>	<u>FY2008 Budget Difference</u>
Roads capital improves & mtce	***	-	CMRD	15,018	
Land Acquisition					(59,166)
Land acquisition - L&W Cons. Fund	LALW	71,166	LALW	12,000	
Forest Service Fire Protection					2,264,059
Forest fire pre-suppression	WFPR	1,245,398	WFPR	1,287,800	
Forest fuel reduction	WFHF	711,656	WFHF	2,721,725	
Cooperative work - KV	CWKV	-	CWK2	211,588	
Infrastructure Management					581,200
Road maintenance and decommissioning	CNRM	1,154,306	CMRD	1,450,508	
Maintenance of facilities	NFFA	290,356	CP09	225,110	
Cooperative work – Non-agreement based	***	-	CWF2	92,000	
Cooperative work – KV (road maintenance)	CWKV	66,896	CWKV	-	
Infrastructure improvement and maintenance	***	-	CMII	104,600	
Facilities maintenance	***	-	CMFC	37,400	
Federal highway program	***	-	HTAE	10,139	
NF Scenic Byways trans planning	***	-	HTFB	10,000	
Operations & maintenance - FS quarters	***	-	QMQM	18,000	
Legacy roads and trails	***	-	CMLG	145,000	
General Administration					(758,257)
General administration	NFGA	1,784,833	N/A	-	
Cooperative work - KV	CWKV	1,081,717	CWKV	-	
Cooperative work - other	CWFS	140,908	CWFS	-	
Cooperative work – Non-agreement based	***	-	CWF2	100,000	
Timber - salvage sales	SSSS	68,319	SSSS	-	
Operations & maintenance - FS quarters	QMQM	28,466	QMQM	-	
Indirect cost pools	***	-	POOL	2,245,986	
External Agreements					746,653
External agents	***	-	NFEX/ CMXN	746,653	

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<u>Budget Line Item</u>	<u>Plan EBLI</u>	<u>Plan Budget Estimate</u>	<u>FY2008 EBLI</u>	<u>FY2008 Budget</u>	<u>FY2008 Budget Difference</u>
Total (in FY2008 dollars)		\$ 26,295,686		17,690,177	\$ (8,605,509)

Appendix B

Avian Population Trends

Estimated trend in number of birds observed for Kisatchie National Forest Management Indicator Species at three spatial scales: physiographic stratum and state (BBS data 1991–2003), and Forest (BBS data 1991–2003, Forest data 1998–2003). A “+” 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 number of routes in the analysis was < 14 (stratum and state trends) or species was observed, on average, at < 5% of points (Kisatchie National Forest trends); “NA” indicates data insufficient to calculate trend estimate (statistical significance set at alpha < 0.10). Note: Red-cockaded woodpecker trends for Forest Data are trends in the total number of active clusters reported for all Kisatchie National Forest Ranger Districts (1990–2003).

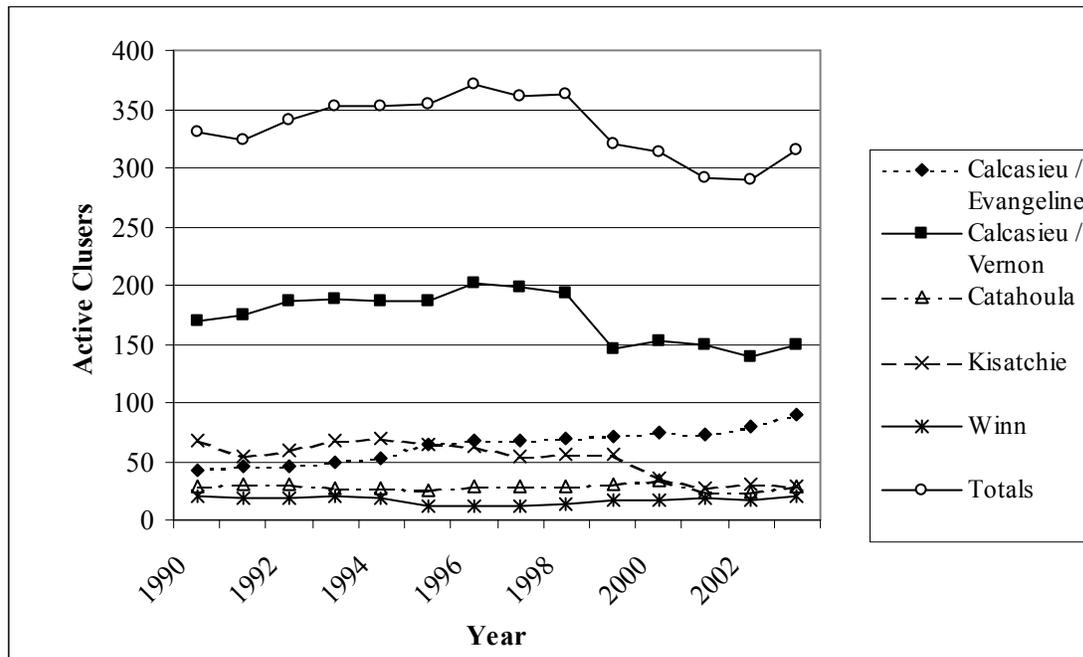
Common Name	Kisatchie National Forest			
	Upper Coastal Plain	State - Louisiana	BBS Data	Forest Data
Acadian Flycatcher	= =	= =	= =	= =
Bachman's Sparrow	= =	-	-	= =
Cooper's Hawk	= =	=	NA	=
Eastern Wood-pewee	-	= =	= =	-
Hooded Warbler	= =	= =	= =	= =
Kentucky Warbler	= =	-	= =	+
Louisiana Waterthrush	= =	=	=	=
Northern Bobwhite	-	-	-	= =
Northern Parula	= =	= =	=	= =
Pileated Woodpecker	= =	= =	= =	+
Prairie Warbler	= =	-	=	-
Red-cockaded Woodpecker	+	=	=	-
Red-headed Woodpecker	= =	= =	=	= =
Summer Tanager	= =	= =	= =	= =
Warbling Vireo	+	NA	NA	=
White-breasted Nuthatch	= =	NA	NA	=
White-eyed Vireo	= =	-	= =	= =
Wood Thrush	-	= =	-	= =
Worm-eating Warbler	+	-	=	= =
Yellow-billed Cuckoo	-	= =	+	= =

Number of active Red-cockaded Woodpecker clusters in the Kisatchie National Forest, 1990–2003:

Ranger District / Population	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Calcasieu / Evangeline	43	46	46	50	52	64	67	68	70	72	75	73	79	89
Calcasieu / Vernon	169	174	186	188	186	187	201	198	194	146	152	149	139	149
Caney ¹	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Catahoula	29	31	31	27	27	26	28	29	29	30	34	24	24	28
Kisatchie	68	54	59	<u>67</u>	69	65	63	54	56	56	35	27	30	29
Winn	21	18	18	21	18	12	12	12	14	17	17	18	17	20
Totals	330	323	340	353	352	354	371	361	363	321	313	291	289	315

¹ The Caney population is believed to be extinct with extirpation occurring sometime in the late 1980's.

Trend in the number of active Red-cockaded Woodpecker clusters in the Kisatchie National Forest 1994–2003:



Combined, the RCW populations on the Forest have declined slightly at an annual rate of -0.20% over the period 1990 through 2003, resulting in the loss of 15 active clusters (or 4.5% of the combined 1990 populations).

Appendix C

Aquatic MIS⁷

MONITORING TRENDS IN MIS

In summary, forest management activities by Kisatchie National Forest do not seem to be negatively impacting lotic systems within the forest. None of the aquatic management indicator species showed an appreciable decline in relative abundance and all showed the presence of juveniles. If management activities had altered the habitat conditions and disrupted the natural hydrology, an effect should have been evident in at least one of the indicator species. This was not the case.

Graphs of relative abundance over time for the indicator species did show significant variability. A number of factors may have contributed to this variability. The most likely explanation is variability in methodologies or the timing of collections. Because streams in the southeastern United States fluctuate hydrologically, species composition in the spring will differ from the summer when many of the smaller streams become intermittent (Byrd 1994, Williams 2000, Taylor and Warren 2001). Also, different collecting methods vary in their ability to sample aquatic species (Hauer and Lamberti 1996). Additionally, all fish indicator species have a relatively short life span (four years or less); thus, they will have high turnover in age-classes over time, which could also partially account for the high variability. Nonetheless, fish populations appear to be viable and sustainable in the protected habitats and refuges of KNF.

Although numbers of largemouth bass and sunfish in KNF are not indicative of eutrophic systems, viable populations do exist for a sustainable sport fishery. The nutrient cycle in oligotrophic systems occasionally produces an influx of nutrients over the short term, but cannot maintain a high level of production every year. Therefore, forest-wide trends of largemouth bass and sunfish may fluctuate, but this is due to natural variability. Thus, where economically feasible, the Forest Service initiates restoration and enhancement projects.

⁷ NOTE: This appendix contains only a small excerpt from the full 2004 MIS Report for the KNF.

Appendix D

List of Preparers

<u>Name</u>	<u>Title</u>
Cynthia Dancak	<i>Team Leader – Engineering/Timber/GIS</i>
Ed Bratcher	<i>Team Leader – Fire, Lands, Minerals, Safety</i>
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Shanna Ellis	<i>Forest Recreation Program Manager</i>
Holly Morgan	<i>Forester/Timber Sales Specialist</i>
Lester Tisino	<i>Fire Management Officer</i>
Ken Dancak	<i>Forest Wildlife Biologist</i>
Bruce Prudhomme	<i>Forest Hydrologist</i>
Jackie Duncan	<i>Forest Silviculturist</i>
David Moore	<i>Forest Botanist/Ecologist</i>
Gretchen Hunt-Moore	<i>Lands Program Manager</i>
Jim Pace	<i>Sup. Civil Engineer</i>
Tim Haley	<i>Entomologist, Forest Health Protection</i>