FY2009

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 2009, 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 2010, 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,

_____ _____

MICHAEL L. BALBONI Date
Forest Supervisor
Kisatchie National Forest

II. Summary of M&E Results and Report Findings

A. Ecosystem Condition, Health, and Sustainability

- One environmental document was completed in FY2009. The Catahoula Ranger District Compartment 76 Project included 701 acres of intermediate commercial thinning, 55 acres of first commercial thinning, 22 acres of pre-commercial thinning, 73 acres longleaf restoration through clearcut and shelterwood with reserves, 481 acres mechanical midstory treatment for wildlife habitat improvement, and 873 acres of prescribed fire.
- Stand examinations were accomplished on 15,449 acres (2.6 percent) of the Forest in FY2009.
- 59 acres were planted with longleaf pine seedlings in FY2009. 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.
- Kisatchie has 126,382 acres in the longleaf pine plant community, compared to the Revised Plan's target of 263,000.
- There were no areas planted with loblolly seedlings in FY2009. Currently, Kisatchie has 336,007 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 FY2009.
- Kisatchie NF has a deficiency of early succession habitat and adequate acreages of mid and late succession habitat.
- Population levels of Northern Bobwhites, Prairie Warblers, Eastern Wood-Pewees, Summer Tanagers, Hooded Warblers, Yellow-Billed Cuckoos, Acadian Flycatchers, Northern Parulas, and Worm-Eating Warblers 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.
- Red-cockaded woodpecker (RCW) populations generally are increasing on Kisatchie National Forest.
- Louisiana pearlshell mussel populations appeared to be stable. Activities from ORVs and urban sprawl continue to threaten the pearlshell's habitat.
- Few activities were planned in old-growth patches. Commercial thinning in dense stands of timber within designated old growth areas are planned for the future in order to maintain healthy conditions for the long term.
- No significant changes in acres or site quality of habitat for sensitive and conservation plant species were found. Completed project actions and associated mitigations meet at least 90% compliance with Forest Plan direction, project design, and National Environmental Policy Act (NEPA) decision direction.
- The Forest accomplished 126,910 acres of prescribed burning, which is 120% of the estimated range expected in the Forest Plan's FEIS.
- Over the last five years growing season burns have accounted for approximately 32 percent of the prescribed burning acres.
- Field reviews of prescribed burning activities were conducted on the Calcasieu, Catahoula, Kisatchie, and Winn Ranger Districts. Smoke management was rated as "exceeds

compliance" for the burns reviewed on the Calcasieu and the Catahoula Districts and as "full compliance" on the Kisatchie and Winn Districts.

- All areas of the Kisatchie National Forest are in attainment of the National Ambient Air Quality Standards (NAAQS) including those for ozone.
- Wildland fire losses were not being minimized due to the funding shortfall.
- There were no incidents of Southern pine beetle or Annosus root disease reported during FY2009.
- Monitoring for implementation of timber removal standards and guideline (S&G) was conducted on the Calcasieu, Catahoula, Kisatchie, and Winn Ranger Districts. All implemented S&Gs were rated as either "Full Compliance" or "Exceeds" except the element "Erosion control measures implemented effectively (FW-450, 605)" on a unit on the Calcasieu District.
- Soil quality monitoring was conducted on a unit site prepared for planting by burning on the Calcasieu District. Results indicated that soil loss was negligible and soil quality and productivity were maintained.
- 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 commonly met. Lake dredging and swim beach restoration activities stirred lake sediments and temporarily elevated coliform counts above state health standards. The affected swim areas were closed until the coliform levels returned to safe levels.
- Predator/prey fish populations in Forest lakes are sufficient for a sustainable recreational fishery. 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.
- Supplemental stockings of Florida strain largemouth bass occurred across the Forest to maintain and enhance recreational fishing success. Largemouth bass fingerlings (2,400) were stocked in Valentine, Fullerton and Lower Caney Lakes.
- Channel catfish fingerlings were stocked in Corney Lake (4,000) to improve the sport fishery and fill a habitat niche that would otherwise be filled by undesirable species (ex. bullheads).
- Infestations of *hydrilla verticillata* still threaten spawning habitat and fish population balance in Caney Lakes. The control structures on both the lower and upper lakes were replaced to manipulate water levels for controlling aquatic weeds.

B. Sustainable Multiple Forest and Range Benefits

- Populations of squirrels are stable. Deer populations are and have been considerably below the habitats' carrying capacity. Bobwhite population densities are low region-wide.
- Approximately 8% of KNF habitat is categorized as riparian/bottomland hardwoods.
- Shifts in Recreation Opportunity Spectrum (ROS) class eligibility were unlikely because only minor road construction or decommissioning was planned and accomplished.
- Meaningful Measures inventories were completed and data was updated to the corporate infrastructure database (INFRA). Critical standards are being met.
- All local and collector roads reconstructed or constructed were reviewed and found 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 and no private land was acquired in 2009.
- The Kisatchie National Forest proposal for the acquisition of 5,000 acres of Plum Creek lands was accepted and nominated by the Regional Office for consideration at the Washington Office
- Only 60 miles of landline were maintained to standard. With the continued decrease in funding, property lines will not be well-defined.
- Timber harvest levels were 32,912 CCF (3.3 MMCF or 18.1 MMBF). Prices and markets continue to drive the demand for wood products.
- 98,990 CCF (9.9 MMCF or 50 MMBF) of timber was actually sold. This is a slight decrease from 2008 (11.0 MMCF or 55 MMBF), but the sale program is expected to level off to around 90,000 CCF. The Forest has project plans and environmental assessments (EA) in progress to continue to maintain this level of sales.
- The Secure Rural Schools and Community Self Determination Act, passed in 2000 and extended in 2007, was revised and included in the Emergency Economic Stabilization Act of 2008. Parishes elected to spend 15% of the funds they receive on projects that will benefit the National Forests and rural communities.
- 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.
- Demand for grazing maintained its decline. Only three grazing allotments were actively used for cattle grazing, with numerous permittees taking “non-use”.
- No gas/oil wells were drilled in 2009.
- The interest in special wood products from the Forest continues to remain steady. Firewood demand exceeds supply.
- The demand for woody biomass increased sharply in 2009; however, the Forest did not have signed NEPA Decisions to cover the sale of this product, nor does the Timber Sales program have a method to calculate the volume of biomass in the unused portions of the individual trees that are sold.
- FY2009 saw an increase in request for archeological surveys. A total of 7,802 acres were inventoried. All these acres were in support of timber sales. Eleven new sites were added to the Forest’s heritage database.
- 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 was signed. Additionally a Programmatic Agreement with the SHPO, The Advisory Council on Historic Preservation (ACHP), the Caddo Tribe of Oklahoma, and the Choctaw Tribe of Oklahoma was signed.
- The Forest began to evaluate a potentially significant heritage site for eligibility to the National Register of Historic Places. The number of backlogged sites has remained at 452. Given FY2009 funding and staffing levels, we were not able to satisfy compliance with Section 110 of the National Historic Preservation Act (NHPA), requiring assessments of NRHP eligibility for all known cultural properties.
- 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

- Supplemental Funding for Hurricane related disasters were received. The additional funding helped the Forest to repair/restore damage to our roads, trails, vegetation, facilities, etc.
- A landscape level assessment to identify habitat quality using GIS was initiated. Several plots were examined on the Winn Ranger District to evaluate its suitability as RCW foraging habitat.
- A Plan amendment proposing to eliminate use of dogs to hunt deer on the KNF was initiated in the summer of 2009. Completion on this amendment is not expected until FY2010.
- A new cultural resource management Participating Agreement between the Kisatchie National Forest and Northwestern State University went into effect.
- Challenge Cost Share agreements were established with Steven F. Austin University (SFA) and Student Conservation (SCA). SFA completed preparation tasks for the upcoming National Visitor Use Monitoring Survey for 2010.
- The Kisatchie entered into agreement with Trails Unlimited to complete river maintenance and trails maintenance tasks that include deferred maintenance and hurricane damaged mileage and bridges.

III. Detailed M&E Results and Report Findings

A. Ecosystem Condition, Health, and Sustainability

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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)**

FY2009 Findings: One environmental document was completed in FY2009 that focuses 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 Catahoula Ranger District Compartment 76 Project included 701 acres of intermediate commercial thinning, 55 acres of first commercial thinning, 22 acres of pre-commercial thinning, 73 acres longleaf restoration through clearcut and shelterwood with reserves, 481 acres mechanical midstory treatment for wildlife habitat improvement, and 873 acres of prescribed fire.

Environmental documents for wind and fire damaged areas on the Winn and Catahoula Ranger Districts provide opportunities for longleaf pine restoration in small patches within the Districts.

One first thinning environmental document was completed in FY2009 on the Catahoula Ranger District including forest health and fuel reduction benefits on 2,053 acres.

Other environmental documents included plans for commercial thinning for RCW habitat improvement, 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 habitat improvement. Increased emphasis on commercial thinnings for forest health and wildlife habitat improvements has indirectly resulted in less emphasis on restoration of the native forest community. Kisatchie's burning program of approximately 133,000 in FY2009 work toward restoring and maintaining an open understory and the native ground cover diversity.

Stand examinations were accomplished on 15,449 acres (2.6 percent) of the Forest in FY2009.

FY2010 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)**

FY2009 Findings: 59 acres were planted with longleaf pine seedlings in FY2009 in areas that had been cleared by final harvests. 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 126,382 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 FY2009. Currently, Kisatchie has 61,461 acres in the shortleaf pine/oak-hickory plant community, compared to the Revised Plan's target of 62,000 acres.

There were no areas planted with loblolly seedlings in FY2009. Currently, Kisatchie has 336,007 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 FY2009. Riparian plant communities continue to be maintained in concert with management practices. Typically, riparian zones are excluded from mechanical harvesting activities except where selective thinning (commercial and noncommercial) are need to improve the hardwood component for wildlife habitat improvement. In these cases, the standards and guidelines of the Forest Plan are followed in order to protect the soil and water resources.

FY2010 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 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 308,207 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)**

FY2009 Findings: No MIS surveys for plants were conducted in FY2009.

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)	FY2003 acres	FY2004 acres	FY2005 acres	FY2007 acres	FY2008 acres	FY2009 acres
Longleaf pine, all stages	121,000	122,503	119,245	125,661	125,415	125,481	126382
Shortleaf pine / oak-hickory, early stages (<10 yrs)	0	626	1,149	1,182	999	1,042	1,174
Shortleaf pine / oak-hickory, mid-late stages	16,000	45,610	36,396	45,450	56,909	57790	60,287
Mixed hardwood-loblolly pine, early stages (<10 yrs)	42,000	6,811	9,720	3,053	1,141	1,129	989
Mixed hardwood-loblolly pine, mid-late stages	252,000	259,284	253,922	267,186	241,372	249,343	335,018
Riparian, small streams	85,000 (no annual change)	85,000	85,000	85,000	85,000	85,000	85,000[1]
Riparian, large streams	92,000 (no annual change)	92,000	92,000	92,000	92,000	92,000	92,000[2]

[1] The actual inventoried acreage was 30,355 acres, based on existing small stream forest types.

[2] The actual inventoried acreage was 43,374 acres, based on existing large stream forest types.

Considering Kisatchie NF habitat types and the Forest Plan goals:

Successional Habitat (all Forest Types)	Forest Plan goal (acres)	FY2003 acres	FY2004 acres	FY2005 acres	FY2007 acres	FY2008 acres	FY2009 acres
Early (0-10 yrs)	>= 20,000	13,189	14,339	14,859	6,216	5,947	5,987
Middle (31-50 yrs)	>= 50,000	82,780	66,452	78,445	86,969	89,401	87,529
Late (71+ yrs)	>= 75,000	179,201	175,024	189,636	238,019	257,017	272,177

According to Revised Kisatchie Forest Plan guidance, Kisatchie NF has a deficiency of early successional habitat and adequate acreages of mid and late successional habitat.

FY2010 Recommended Actions: The management indicator species list should be modified by considering the following criteria:

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

Additionally, the 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.

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

FY2009 Findings: For the plan MIS, 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 are as follows:

Management Indicator (terrestrial)	KNF 2008 Number[1]	KNF 2007 Number[1]	KNF 2006 Number[1]	KNF 1998-1999 Average[1]	KNF 2005-2007 Average[2]	KNF 2006-2008 Average[2]	Found in Habitat Types[3]
Bachman's Sparrow	0.22	0.16	0.12	0.12	0.14	0.16	A
Northern Bobwhite	0.03	0.02	0.03	0.15	0.04[a]	0.03[a]	A
Prairie Warbler	0.08	0.08	0.06	0.3	0.10[a]	0.07[a]	A,B
Red-Cockaded Woodpecker	0.02	0.01	0.03	0.1	0.01[c]	0.02[c]	A,C,E
Red-Headed Woodpecker	0.12	0.12	0.09	0.11	0.10	0.11	A
Cooper's Hawk	0	0	0	0	0	0	C
Eastern Wood-Pewee	0.08	0.11	0.08	0.37	0.07[a]	0.09[a]	C
Pileated Woodpecker	0.25	0.25	0.24	0.25	0.27	0.25	C,E,G
Summer Tanager	0.33	0.34	0.47	0.67	0.37[a]	0.38[a]	C
Hooded Warbler	0.42	0.54	0.65	0.91	0.58[a]	0.54[a]	E
Wood Thrush	0.08	0.08	0.06	0.06	0.05	0.07	E
White-Eyed Vireo	0.32	0.34	0.45	0.42	0.40	0.37	D,F
Yellow-Billed Cuckoo	0.28	0.30	0.40	0.54	0.41	0.33[a]	E,F
Acadian Flycatcher	0.07	0.08	0.16	0.51	0.15[a]	0.10[a]	F
Louisiana Waterthrush	0.01	0	0	0.03	0	0	F
Kentucky Warbler	0.22	0.27	0.20	0.2	0.22	0.23	G
Northern Parula	0.04	0.04	0.04	0.12	0.04[a]	0.04[a]	G
Warbling Vireo	0	0	0	0	0	0	G
White-Breasted Nuthatch	0.02	0.03	0.04	0.05	0.02	0.03	G
Worm-Eating Warbler	0.03	0.05	0.03	0.19	0.03[a]	0.04[a]	G

[1](Cumulative number of individuals observed per District / number of points surveyed per year per District) / 5 Districts.
[2](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.
[3]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).

Population levels of Northern Bobwhites, Prairie Warblers, Eastern Wood-Pewees, Summer Tanagers, Hooded Warblers, Yellow-Billed Cuckoos, Acadian Flycatchers, Northern Parulas, and Worm-Eating Warblers 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.

FY2010 Recommended Actions: The plant 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.

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)**

FY2009 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 Threatened, Endangered, Sensitive, and Conservation (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.

FY2010 Recommended Actions: Continue the current prescribed burning program of 80,000 to 100,000 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 USDI Fish and Wildlife Service 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)**

FY2009 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.

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

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	3,824	13,614	16,132	10,179	79,976	95,690	26,154	4,162
Slash	34	618	1,525	7,392	35,043	31,273	118	11
Loblolly	740	38,880	77,630	81,214	165,668	147,014	30,572	15,382
Shortleaf	966	938	787	927	6,279	8,000	7,247	4,799
Sub-Total	5,564	54,050	96,074	99,712	286,966	281,977	64,091	24,354
Sub-Total %	1.2	11.7	21.2	21.7	63.4	61.3	14.2	5.3
Forestwide %	0.9	9.0	16.1	16.6	48.1	47.0	10.7	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	423	1,200	4,401	4,593	11,639	15,024	9,547	4,438
Hwd-Pine	0	371	830	2,958	15,994	25,071	19,424	8,229
Sub-Total	423	1,571	5,231	7,551	27,633	40,095	28,971	12,667
Sub-Total %	0.7	4.9	8.4	23.7	44.4	125.8	46.5	39.7
Forestwide %	0.1	0.3	0.9	1.3	4.6	6.7	4.9	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	2,334	2,752	15,370	24,809	15,710	5,480
Bottomland	0	311	1,141	2,664	16,476	29,917	31,146	12,045
Sub-Total	0	833	3,475	5,416	31,846	54,726	46,856	17,525
Sub-Total %	0.0	1.1	4.2	6.9	38.8	69.7	57.0	22.3
Forestwide %	0.0	0.1	0.6	0.9	5.3	9.1	7.8	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	5,987	56,454	104,780	112,679	346,445	376,798	139,918	54,546
Forestwide %	1	9.4	18	18.8	58	62.7	24	9.1

Generally, the older 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.

FY2010 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)**

FY2009 Findings:

RCW Population Survey Results:

RCW Populations	Population Recovery Goal	Number of Active Pre-Breeding Groups						
		2009	2008	2007	2006	2005	2004	2003
Catahoula	250	66	53	44	39	34	28	27
Evangeline	231	117	107	106	98	91	83	79
Kisatchie	292	45	42	37	31	27	23	25
Winn	263	31	32	31	30	28	23	20
Vernon	350	154	152	143	141	134	129	126
Forest Total:	1,386	413	386	361	339	314	286	277

RCW populations generally 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 USDI 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 Louisiana Department of Wildlife and Fisheries (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.

Water samples taken on mussel streams indicated good water quality and were within state standards set by Louisiana Department of Environmental Quality (LDEQ).

FY2010 Recommended Actions: Continue monitoring 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)**

FY2009 Findings: Currently, there are very limited activities planned in old-growth patches. Commercial thinning in dense stands of timber within designated old growth areas are planned in order to maintain healthy conditions to grow the stands for the long term. Actions meet Plan standards and guidelines for old-growth management.

FY2010 Recommended Actions: Continue to review 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)**

FY2009 Findings: No activities have been completed at this time.

FY2010 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)**

FY2009 Findings: NEPA documentation specifies measures to be followed during project implementation for protecting streamside habitat zones and riparian area zones. 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.

FY2010 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 prescription stand maps and in GIS.

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

FY2009 Findings: 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.

FY2010 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)**

FY2009 Findings: The Forest accomplished 126,910 acres of prescribed burning, which is 120% of the estimated range expected in the Forest Plan's FEIS. We accomplished 95,575 acres during the dormant season and 31,335 acres in the growing season burns. Prescribed burning occurred in the following land type associations (LTAs):

LTA	Dormant Season Acres	Growing Season Acres
1	48,464	22,153
2	15,513	9,091
3	8,196	1,370
4	6,461	342
5	5,098	2,978
6	5,186	277
7	0	0
8	512	0
9	4,757	0
Total	94,187	36,210

FY2010 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 the 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)**

FY2009 Findings: On average 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. Most plant communities on Kisatchie are fire-dependent and benefit greatly from regular prescribed burning, increasing plant diversity and improving the health of the ecosystem.

FY2010 Recommended Actions: 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)**

FY2009 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.

Field reviews of prescribed burning activities were conducted on the Calcasieu, Catahoula, Kisatchie, and Winn Ranger Districts in FY2009. Appropriate S&G's were implemented, and S&G FW-060 for smoke management was rated as "exceeds compliance" for the burns reviewed on the Calcasieu and the Catahoula Districts. The S&G was rated as "full compliance" on the Kisatchie and Winn Districts. The burn plans identified smoke sensitive areas, there was good mixing height and transport wind the days of the burns, the District coordinated with local law enforcement as necessary for traffic safety, and the roads were posted for smoke conditions.

FY2010 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. Coordinate with the Zone Air Specialist in Arkansas for real time smoke monitoring of selected prescribed burns in FY2010.

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

FY2009 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.

FY2010 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)**

FY2009 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 some vacant firefighter positions. The future Fire Planning Analysis is expected to assist the Forest on this issue.

FY2010 Recommended Actions: The Forest should continue to request wildland fire preparedness funding at the 100% efficiently 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)**

FY2009 Findings: Resources identified in National Fire Management Analysis System (NFMAS) are being made available in accordance with budget funding level. 2,761 acres of the Forest burned in wildland fires in FY2009. The acceptable range in NFMAS is 2,108. The Forest was 653 acres above this acceptable range. The Forest had 68 statistical fires for 2,761 acres of FS land.

FY2010 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)**

FY2009 Findings: Harvests during FY2009 included 169 acres clearcut with residual desired species, 8,023 acres of commercial thinning, and 123 acres of salvage 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 FY2009.

Reducing competition in young longleaf plantations using handtools and herbicide was accomplished on 1,709 acres in FY2009; 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.

FY2010 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)**

FY2009 Findings: Insect and disease population trends on the Kisatchie National Forest were stable and low in FY2009 and are predicted to be low through 2010.

FY2010 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)

FY2009 Findings: Monitoring for implementation of timber removal S&G's was conducted on the Calcasieu, Catahoula, Kisatchie, and Winn Ranger Districts in FY2009. Reviewers determined that all applicable S&G's were implemented. All implemented S&Gs were rated as either "Full Compliance" or "Exceeds". The exception was the element "Erosion control measures implemented effectively (FW-450, 605)" on the unit on Calcasieu District. The monitoring team noted that there should have been more water diversions on the haul road, there should have been a follow up inspection of conditions after the sale area closed, and there should have been more slash or other ground cover scattered on the haul road.

A field review of prescribed burning activities for compliance with soil and water S&Gs was conducted in compartments of the Calcasieu, Catahoula, Kisatchie, and Winn Ranger Districts in FY2009. Appropriate S&G's were implemented and most were rated either "Full Compliance" or "Exceeds". Exceptions were a minor departure for a diversion located within 50 feet of a stream channel on the Catahoula and the Kisatchie Districts, and for water bars improperly constructed on steep slopes and wet conditions on the Kisatchie District. The minor departures were discussed in detail with the District crews. Improvement in implementing these elements should be expected in future activities. No sediment was observed to have been delivered to any water bodies, nor was any potential for serious erosion observed.

FY2010 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)**

FY2009 Findings: Watershed improvement work is ongoing. All targets for watershed improvement work were accomplished in FY2009 with watershed improvement and CWKV 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. However, soil loss is not part of that monitoring protocol, nor was a new protocol mandatory in 2009. Therefore, soil quality monitoring was conducted using the protocol previously developed and implemented on the Forest.

Soil quality monitoring was conducted on a unit site prepared for planting by burning on the Calcasieu District. Soil loss from the unit was estimated at about 0.161 tons per acre per year, well below 5.0 tons per acre per year, which is the allowable annual soil loss for Ruston and Smithdale series predominant on the unit. The conclusion of the review was that soil loss was negligible, and that soil quality and productivity were maintained.

FY2010 Recommended Actions: Continue to restore and revegetate disturbed areas.

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

FY2009 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.

FY2010 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)**

FY2009 Findings: Field reviews were conducted of prescribed burning activities as discussed earlier under soils conditions. Streamside Habitat Protection Zones (SHPZ) were being protected per the Forest Land Management Plan.

Monitoring for implementation of timber removal S&Gs was also conducted as discussed above under the soils condition section. Reviewers determined that all applicable S&Gs were implemented appropriately with the noted minor departure.

There were no observations of project related sediment being delivered to any streams.

FY2010 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)**

FY2009 Findings: The water qualities of nine streams on the KNF have historically been monitored quarterly in cooperation with the La. Dept. of Environmental Quality (LDEQ). 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.

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, and Saline Bayou/0553. All monitored streams are habitat for the Louisiana Pearlshell mussel except for Saline Bayou, which is a National Scenic Stream.

Formerly, water samples were collected from these streams and sent to the LDEQ water chemistry laboratory in Baton Rouge for extensive chemical analysis. However, LDEQ closed their laboratory in 2009, and they no longer accept samples for analysis. The Kisatchie has ample

documentation indicating that Forest streams meet state water quality standards for the parameters that were tested, and the expense of continued extensive chemical analysis at a commercial laboratory on a quarterly basis is prohibitive; therefore, extensive water chemistry analysis ceased on the Kisatchie National Forest at mid-fiscal year 2009.

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 commonly met. Lake dredging and swim beach restoration activities stirred lake sediments and temporarily elevated coliform counts above state health standards. The affected swim areas were closed until the coliform levels returned to safe levels.

FY2010 Recommended Actions: The interagency MOU with LDEQ for managing and monitoring water quality on KNF was revised in early FY2008 and is awaiting LDEQ signature.

In lieu of extensive water chemistry analysis of Forest streams, monitor the same streams for dissolved oxygen, pH, temperature, turbidity, and conductivity via a portable water quality probe. 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? **(I)**

FY2009 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. 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.

FY2010 Recommended Actions: Provide appropriate input to LDWF on creel limits and regulations on the Forest as needed 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.

Fullerton Lake and Lower Caney Lake were drawn down for aquatic weed control this year.

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

FY2009 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. Largemouth bass fingerlings (2,400) were stocked in Valentine, Fullerton and Lower Caney Lakes.

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 both the lower and upper lakes have now been replaced, and are key to manipulating the water levels to control aquatic weeds. Both lakes need to undergo drawdowns 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. Corney is a difficult lake to draw down because of its large watershed and during wet winters drawdowns are not effective.

Aquatic weeds are prevalent in Fullerton Lake, the site of one of the earliest sawmills in LA. Habitat improvements are needed to deepen the shoreline areas and reduce favorable conditions that exist for aquatic weeds. Aquatic weeds that are indicators of acidic conditions may spread until lime is applied and the pH is raised to desirable levels.

Channel catfish fingerlings were stocked in Corney Lake (4,000) to improve the sport fishery and fill a habitat niche that would otherwise be filled by undesirable species (ex. bullheads).

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.

FY2010 Recommended Actions: Continue monitoring.

Stock catfish fingerlings when available and necessary. Monitor the success and utilization of the spawning cavities placed in Forest Service 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)**

FY2009 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	FY2009 acres
Early (0-10 yrs)	>= 20,000	24,921	13,189	14,339	14,859	6,216	5,947	5,987
Middle (31-50 yrs)	>= 50,000	55,265	82,780	66,452	78,445	86,969	89,401	87,529
Late (71+ yrs)	>= 75,000	151,111	179,201	175,024	189,636	238,019	257,017	272,177

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.

FY2010 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)**

FY2009 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*	*2009*
Catahoula District	90	110	100	140	140	130	130
Evangeline District	90	120	100	200	200	190	190
Kisatchie District	90	110	100	110	110	100	100
Winn District	75	90	85	100	100	100	100
Vernon District	75	75	75	75	75	75	75
Caney District	50	50	50	50	50	50	50
Wild Turkey (acres/animal)	*2002*	*2003*	*2004*	*2005*	*2007*	*2008*	*2009*
Catahoula District	200	200	200	200	200	200	200
Evangeline District	300	300	300	300	300	300	300
Kisatchie District	100	100	100	100	100	100	100
Winn District	150	150	150	150	150	150	150
Vernon District	250	250	250	250	250	250	250
Caney District	300	300	300	300	300	300	300
Fox Squirrel (acres/animal in upland hardwoods)	*2002*	*2003*	*2004*	*2005*	*2007*	*2008*	*2009*
Catahoula District	5	5	5	5	5	5	5
Evangeline District	5	5	5	5	5	5	5
Kisatchie District	5	5	5	5	5	5	5
Winn District	5	5	5	5	5	5	5
Vernon District	5	5	5	5	5	5	5
Caney District	5	5	5	5	5	5	5
Gray Squirrel (acres/animal in bottomland hardwood)	*2002*	*2003*	*2004*	*2005*	*2007*	*2008*	*2009*
Catahoula District	3	3	3	3	3	3	3
Evangeline District	3	3	3	3	3	3	3
Kisatchie District	3	3	3	3	3	3	3
Winn District	3	3	3	3	3	3	3
Vernon District	3	3	3	3	3	3	3
Caney District	3	3	3	3	3	3	3

Northern Bobwhite (acres/covey)		2002	2003	2004	2005	2007	2008	2009
	Catahoula District	1,800	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	1,800
	Kisatchie District	1,800	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	1,800
	Vernon District	1,800	1,800	1,200	1,800	1,800	1,800	1,800
	Caney District	1,800	1,800	1,800	1,800	1,800	1,800	1,800

Populations of squirrels are stable. Deer populations are and have been considerably below the habitats' carrying capacity. Catahoula and Evangeline deer numbers are based on the Louisiana State University (LSU) deer abundance survey during late fall 2005. Bobwhite population densities are low region-wide.

FY2010 Recommended Actions: Implement hunting seasons in cooperation with Louisiana Department of Wildlife and Fisheries.

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)**

FY2009 Findings: KNF District personnel are required to design and implement management activities according to NEPA standards. KNF Ecosystem Conservation staff provides assistance as requested.

FY2010 Recommended Actions: Adhere to KNF Revised Land and Resource Management Plan guidance.

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

FY2009 Findings: Approximately 8% of KNF habitat is categorized as riparian/bottomland hardwoods.

Kisatchie NF riparian/bottomland habitat acres.						
Year:	2003	2004	2005	2008 Feb	2009 Mar	2010 Apr
# acres	48,483	45,509	49,336	49,097	48,650	48,763

FY2010 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)**

FY2009 Findings: Consultations with district staff reveal recent management actions are in compliance the SIOs.

FY2010 Recommended Actions: Continue to review proposed projects for SIO compliance. Work with Districts to implement new Scenery Management System (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.***
- ***Semiprimitive nonmotorized: 57,269 acres.***
- ***Semiprimitive 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)**

FY2009 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 off-highway vehicles (OHV) management status.

FY2010 Recommended Actions: Continue to 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)**

FY2009 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.

FY2010 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 FY2010 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)**

FY2009 Findings: During FY2006 through FY2009, 5.59 miles of local and collector roads were reconstructed or constructed. Of this total, 5.59 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	*FY2006*		*FY2007*		*FY2008*		*FY2009*		*Totals*
	Local	Collector	Local	Collector	Local	Collector	Local	Collector	
Road Reconstruction/Construction (miles)	3.40	0.0	0.22	0.09	1.77	0.00	0.11	0.0	5.59
Roads Monitored (miles)	3.40	0.0	0.22	0.09	1.77	0.00	0.11	0.0	5.59
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

FY2010 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)**

FY2009 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 2009. No private land was acquired in 2009. The Kisatchie National Forest LWCF proposal for the acquisition of 5,000 acres of Plum Creek lands was accepted and nominated by the Regional Office for consideration in the WO.

FY2010 Recommended Actions: 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)

FY2009 Findings: No land acquisitions were completed in 2009. With decreased funding this fiscal year only 60 miles of landline were maintained to standard. With the continued decrease in funding, property lines will not be well-defined, which will lead to encroachments.

FY2010 Recommended Actions: Increase funding to adequately maintain landlines to facilitate the prevention and location of encroachments.

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)**

FY2009 Findings: Harvest levels in FY2009 were 32,912 CCF (3.3 MMCF or 18.1 MMBF). Prices and markets continue to drive the demand for wood products. The future demand is uncertain, as global demand has weakened.

In FY2009, 98,990 CCF (9.9 MMCF or 50 MMBF) was actually sold. This is a slight decrease from 2008 (11.0 MMCF or 55 MMBF), but the sale program is expected to level off 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.

FY2010 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)**

FY2009 Findings: The Forest received no Economic Recovery (ER) grant proposals as funding has been cut.

FY2010 Recommended Actions: None.

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

FY2009 Findings: No, the program dollars have been cut.

FY2010 Recommended Actions: None.

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)**

FY2009 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. Trails Unlimited will be assisting the Forest with maintenance of Saline Bayou. The realignment process continues to assist in this area. Updated information was entered into the Wild and Scenic River IWEB database.

FY2010 Recommended Actions: Continue to update and add information to the new database. Continue with the planned maintenance tasks with Trails Unlimited. 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)**

FY2009 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. Continue with the Wilderness Strategy Group on the Forest. The Education Plan and Air Quality Plan were completed.

FY2010 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)**

FY2009 Findings: In FY2009, 98,990 CCF (9.9 MMCF or 50 MMBF) was actually sold. Compared with 2008 (11.0 MMCF or 55 MMBF), this was a 9.7% decrease and is 2% more than the average annual allowable sale quantity. This brings the cumulative average up to 6.8 MMCF or 71% 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.

FY2010 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)**

FY2009 Findings: Decisions signed in FY2009 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 and longleaf shelterwood methods to restore longleaf pine on 73 acres.
- Site preparation treatments using a range of methods, including fire, mechanical and herbicide.
- Commercial thinning (~270 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 (2,053 acres) for forest health/pest prevention and fuel reduction.
- RCW habitat improvements include mechanical removal of brush and non-commercial midstory on 2,420 acres, in addition to installation of artificial cavity inserts.
- Wind and fire damaged areas on the Catahoula and Winn Ranger Districts required salvage removal and provided the opportunity for longleaf restoration (site prep and planting) in small open patches within the damaged area.
- One prescribed burning environmental document was signed in FY2009 that plans the burning program for the next 5 years on the Kisatchie Ranger District.

Prescribed activities in FY2009 continue to move closer to Forest Plan average estimated outputs. Regeneration harvests continue to be far below the anticipated Forest Plan outputs.

FY2010 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)**

FY2009 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.

FY2010 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)**

FY2009 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 2009. 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.

FY2010 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 pine straw 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)**

FY2009 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.

The demand for woody biomass increased sharply in 2009; however, the Kisatchie did not have signed Decisions to cover the sale of this product, nor does the Timber Sales program have a method to calculate the volume of biomass in the unused portions of the individual trees that are sold. For 2010, a new version of the volume calculation program has been issued that will calculate the volume of biomass in a merchantable tree. The Kisatchie NF is evaluating the possibility of selling unused tops and branches as biomass in 2010.

FY2010 Recommended Actions: Sell an experimental amount of biomass from merchantable trees in 2010. Sell one sale of standing biomass (understory) to determine a value.

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

FY2009 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.

FY2010 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)**

FY2009 Findings: All compliance reviews and consultations pursuant to Section 106 of the National Historic Preservation Act (NHPA) were completed prior to agency decisions. FY2009 saw an increase in request for surveys. In FY2009, a total of 7802 acres were inventoried. All these acres were in support of timber sales. Eleven new sites were added to the KNF heritage database.

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. 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 was signed. Additionally a Programmatic Agreement with the

SHPO, The ACHP, the Caddo Tribe of Oklahoma, and the Choctaw Tribe of Oklahoma was signed.

FY2010 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. Make amendments to the Programmatic Agreement as needed.

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)**

FY2009 Findings: One archaeological site was revisited to determine the extent of internal or externally caused damage. An existing road runs through this historic site and it was found that there was no damage to the site. 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.

FY2010 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)**

FY2009 Findings: Contracting Officer's Representatives (COR) and Heritage Resource Technicians (HRT) are doing an effective job of monitoring projects.

FY2010 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)**

FY2009 Findings: The Forest began to evaluate a potentially significant heritage site for eligibility to the National Register of Historic Places. The number of backlogged sites has remained at 452. Given FY2009 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.

FY2010 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)**

FY2009 Findings: 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. The

Forest did participate in a History Panel with Ft Polk as a public outreach. This panel discussed the historic uses of the land that Ft. Polk now uses.

FY2010 Recommended Actions: Continue to offer Passport in Time (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)**

FY2009 Findings: Public responses from public presentations indicate a general increase in awareness and sensitivity about the nonrenewable cultural resource base.

FY2010 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)**

FY2009 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. Responsible recreation use and wellness were one of the focus points in the presentations. They successfully incorporated recreation into a local magnet school's curriculum class.

FY2010 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)**

FY2009 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.

FY2010 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

FY2009 Findings: Supplemental Funding for Hurricane related disasters were received in FY2009. The additional funding helped the Forest to repair/restore damage to our roads, trails, vegetation, facilities, etc.

Although cost pool funding has remained flat while operating costs have increased, the Forest has managed to stay within their allotted cost pool ceiling.

Some of our EBLI's did have end of year deficits which were due to year end payroll obligations entered by ASC. (See Appendix A)

FY2010 Recommended Actions: Continue providing funds as needed to meet Plan objectives. Allowing Forests to offset ASC payroll obligations would prevent the year end deficits.

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)**

FY2009 Findings: Yes, this report documents monitoring results for FY2009 activities and shows recommendations for FY2010. 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).

FY2010 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)**

FY2009 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:

Project Timing	*Project Implications*	*Plan Implications*
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 Habitat Management Area (HMA) on the Calcasieu Ranger District, 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 on the Forest, 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.

An assessment to identify habitat quality using GIS was initiated in the spring of 2009. Several plots were examined on the Winn Ranger District to evaluate its suitability as RCW foraging habitat. This data was used to "teach" a GIS model to identify good quality of habitat from photo imagery held in the GIS.

A Plan amendment proposing to eliminate use of dogs to hunt deer on the KNF was initiated in the summer of 2009. Completion on this amendment is not expected until FY2010.

FY2010 Recommended Actions: Amend the Plan for any new allocations needed for changing land uses. Incorporate changes to the Plan direction based on the decision made for the dog-

deer hunting proposal. Assess the need to make changes to the RCW HMA on the Forest, as recommended in the 2006 CER.

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)**

FY2009 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.

FY2010 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)**

FY2009 Findings: Research targeting 1) how to increase quail abundance and 2) the population densities of deer on the various Districts is needed.

Other 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

FY2010 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)**

FY2009 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.

FY2010 Recommended Actions: Continue coordination 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)**

FY2009 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, Natural Resources Conservation Service (NRCS), Louisiana Department 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 (NSU) 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.

Challenge Cost Share agreements were established with Steven F. Austin University (SFA) and Student Conservation (SCA). SFA completed preparation tasks for the upcoming National Visitor Use Monitoring Survey for 2010. The Kisatchie NF sponsored 7 student crews throughout the Forest to accomplish trails and developed recreation area work. Forest Capital was a partial sponsor of one crew. This was a highly successful venture. The Kisatchie also entered into agreement with Trails Unlimited to complete river maintenance and trails maintenance tasks that include deferred maintenance and hurricane damaged mileage and bridges.

FY2010 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 now has a Programmatic Agreement with the SHPO, ACHP and Tribes concerning Heritage Resource Management. The Forest also developed a Memorandum of Understanding with the Caddo Tribe of Oklahoma n 2008.

The Memorandum of Understanding between the Kisatchie NF and the Louisiana Department of Wildlife and Fisheries is 25 years old and may need updating. The KNF will review the MOU and determine if a revision is needed and if so, what specifically needs updating. If the KNF determines a need to revise the MOU, we will initiate discussions with the Secretary of the LDWF. Continue accommodating interested partners who wish to participate in implementing the KNF Revised Land and resource Management Plan.

If funding allows, move forward with another agreement with SCA. Continue forward with Challenge Cost Share agreement established with Steven F. Austin University (SFA) to complete the National Visitor Use Monitoring (NVUM) process for 2010. Continue forward with Trails Unlimited Agreement to complete trails tasks. Continue to work with interested partners to accomplish Forest goals and objectives.

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 (FY2009). 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 FY2009 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 126,382 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.
- More regeneration cuts within the mixed hardwood-loblolly forest types are needed 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.
- Kisatchie NF has a deficiency of early successional habitat; acreages of mid and late successional habitat meet Revised Plan guidance. Generally, the older 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.
- 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.
- Treatment of non-native invasive species continues to improve habitat for TESC species.
- RCW populations generally are increasing on Kisatchie National Forest. Louisiana pearlshell mussel populations appeared to be stable
- Activities from ORVs and urban sprawl continue to threaten the Louisiana pearlshell mussel (LPM) habitat. The Forest Service should continue working with the USDI Fish and Wildlife Service (USFWS) and other partners to maintain an active task force 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.
- 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.

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. 2,761 acres of the Forest burned in wildland fires in FY2009. The acceptable range in NFMAS is 2,108. The Forest was 653 acres above this acceptable range.

Watershed Conditions

- Forest Service 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.
- Field reviews were conducted of prescribed burning and timber removal activities. Reviewers determined that all applicable S&Gs were implemented appropriately with one noted minor departure. There were no observations of project related sediment being delivered to any streams.
- Infestations of *hydrilla verticillata* still threaten spawning habitat and fish population balance in Caney Lakes. Both lakes need to undergo drawdowns to diminish the hydrilla infestations.

Outdoor Recreation Opportunities

- 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 commonly met. Lake dredging and swim beach restoration activities stirred lake sediments and temporarily elevated coliform counts above state health standards. The affected swim areas were closed until the coliform levels returned to safe levels.
- Densities of select game species on Kisatchie NF vary. Populations of squirrels are 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.
- Meaningful Measures (INFRA) inventories were completed and critical standards are being met.

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 2009. With decreased funding this fiscal year only 60 miles of landline were maintained to standard. With the continued decrease in funding, property lines will not be well-defined, which will lead to encroachments.

Timber

- In FY2009, 98,990 CCF (9.9 MMCF or 50 MMBF) was actually sold. Compared with 2008 (11.0 MMCF or 55 MMBF), this was a 9.7% decrease and is 2% more than the average annual allowable sale quantity. This brings the cumulative average up to 6.8 MMCF or 71% of the ASQ. The sale program is expected to stabilize somewhere around 90,000 CCF.
- Prescribed activities in FY2009 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.

Other Products

- No gas/oil wells were drilled in 2009.
- 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 suffered storm damage and were in need of the removal of downed material.
- The demand for woody biomass increased sharply in 2009, however, the timber sales program does not currently have a method to calculate the volume of biomass in the unused portions of the individual trees that are sold.

Heritage Resources

- All compliance reviews and consultations pursuant to Section 106 of the National Historic Preservation Act (NHPA) were completed prior to agency decisions. FY2009 saw an increase in request for surveys. In FY2009, a total of 7802 acres were inventoried. All these acres were in support of timber sales. Eleven new sites were added to the KNF heritage database.
- The number of backlogged heritage sites has remained at 452. Given FY2009 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.
- Public responses from public presentations indicate a general increase in awareness and sensitivity about the nonrenewable cultural resource base.

Evaluation of New Information

- An assessment to identify habitat quality using GIS was initiated in the spring of 2009. Several plots were examined on the Winn Ranger District to evaluate its suitability as RCW foraging habitat. This data was used to "teach" a GIS model to identify good quality of habitat from photo imagery held in the GIS.
- A Plan amendment proposing to eliminate use of dogs to hunt deer on the KNF was initiated in the summer of 2009. Completion on this amendment is not expected until FY2011.
- 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.
- 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.

V. Summary of M&E Recommendations Planned for FY2010

This section of the Report provides information on all monitoring items that need action during the current fiscal year (FY2010). In addition to the specific recommended actions listed below, the general recommendation for FY2010 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.
- 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.
- 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 and prioritize thinning of foraging habitat, improvement and expansion of RCW clusters, and mid-story removal projects.
- 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.
- Manage for productive and healthy forest ecosystems by utilizing prescribed fire to prevent and minimize resource losses to wildland fires.
- 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.
- The interagency MOU with LDEQ for managing and monitoring water quality on KNF was revised in early FY2008 and is awaiting LDEQ signature. In lieu of extensive water chemistry analysis of Forest streams, monitor the same streams for dissolved oxygen, pH, temperature, turbidity, and conductivity via a portable water quality probe.
- Provide appropriate input to LDWF on creel limits and regulations on the Forest as needed to ensure recruitment and sustainability of the resource. Continue to monitor and collect data.
- Stock catfish fingerlings when available and necessary. Monitor the success and utilization of the spawning cavities placed in Forest Service lakes.

Outdoor Recreation Opportunities

- Monitor for changes as the new travel management rule continues to be implemented.
- Request more participation from scenery experts during project proposal ID Team meetings.
- Implement the Excellence by Design process for all recreation and trails projects to ensure design compliance, feasibility and good customer service.
- Participate in the FY2010 round of the National Visitor Use Monitoring process through an agreement with Stephen F. Austin University.

Human Influences

- Request an increase in funding to adequately maintain landlines.
- Participate with parishes in implementation of Secure Rural Schools and Community Self Determination Act program.

Roadless Area/Wilderness/Wild & Scenic Rivers

- Continue with the planned maintenance tasks with Trails Unlimited. Work with District personnel to determine needs and work towards solutions.
- Work towards bringing the Kisatchie Hills Wilderness Area into compliance with standards by implementing the strategy that was developed for the Forest.

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.
- Sell an experimental amount of biomass from merchantable trees in 2010. Sell one sale of standing biomass (understory) to determine a value.

Heritage Resources

- Make amendments to the Programmatic Agreement with the SHPO and Tribes as needed.
- 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.

Economics

- Allow Forests to offset ASC payroll obligations in order to prevent year end deficits.

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.
- Incorporate changes to the Plan direction based on the decision made for the dog-deer hunting proposal.
- Assist the Southern Research Station in ongoing studies.
- Participate in research endeavors targeting quail and deer.
- The Memorandum of Understanding between the Kisatchie NF and the Louisiana Department of Wildlife and Fisheries is 25 years old and may need updating. The KNF will review the MOU and determine if a revision is needed and if so, what specifically needs updating. If the KNF determines a need to revise the MOU, we will initiate discussions with the Secretary of the LDWF.
- Move forward with another agreement with the Student Conservation Association (SCA).
- Continue with Challenge Cost Share agreement established with Steven F. Austin University (SFA) to complete the NVUM process for 2010.
- Continue with Trails Unlimited Agreement to complete trails' tasks.

VI. Status of FY2008 Monitoring & Evaluation Report Recommendations

This section of the Report looks at how well we followed-up on the items identified in the previous year's list of recommended actions. The following is a list of actions proposed in the FY2008 M&E Report along with an explanation of the status of those recommendations in FY2009:

Recommended: 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.

Status in FY2009: Stand exams occurred on 2.6 percent of the Forest, and one environmental document was signed directing longleaf pine restoration to occur on 73 acres. Accomplishments did not attain recommended actions, but the Forest remains on track meeting Forest Plan goals and objectives.

Recommended: 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 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.

Status in FY2009: 59 acres were planted with longleaf in FY2009.

Recommended: The 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 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.

Status in FY2009: Delayed until new EMS for this element is implemented on the Forest. No MIS surveys for plants were conducted in FY2009.

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

Status in FY2009: No action was taken on this item in FY2009.

Recommended: 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.

Status in FY2009: 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.

Actions recommended for T&E wildlife management were done.

Recommended: 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.

Status in FY2009: 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.

Recommended: 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.

Status in FY2009: The Forest Service has been working closely with the Grant Parish Police Jury, the USFWS, DOTD and the Corp of Engineers to mitigate potential habitat degradation from culvert and bridge replacements in the LA Pearlshell Mussel watersheds.

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

Status in FY2009: Done.

Recommended: 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.

Status in FY2009: Done.

Recommended: 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.

Status in FY2009: Done.

Recommended: 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.

Status in FY2009: 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.

Recommended: 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 maximizes it's burn opportunities in fall. The Forest will have two Regional Fuels Helicopters to increase the production and reduce the cost of CWN helicopters.

Status in FY2009: Fire managers met with the Weather Forecasters and developed some guidelines on what is needed to get more accurate weather forecasts. The Forest took every opportunity to maximize its burning potential in the fall by starting early November. The Forest utilized its helicopters, the Regional Helicopter and others from neighboring States.

Recommended: 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.

Status in FY2009: Done.

Recommended: 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 FY2009: Burn plans were reviewed for compliance with smoke management guidelines as part of the soil/water/air S&G monitoring. The burns were conducted within the prescribed air quality windows. Protocol to monitor particulate matter was not developed for FY09, but cooperative air quality monitoring was scheduled with Regional Air Quality specialists for FY10.

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

Status in FY2009: Done.

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

Status in FY2009: The Forest continues to request 100% funding from the regional office. The Forest has made good progress in getting appropriate staffing for the Districts.

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

Status in FY2009: The fire management officers worked diligently with resource personnel in maintaining a healthy forest ecosystem with numerous prescribed burns and informed fire suppression force.

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

Status in FY2009: Done.

Recommended: 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 FY2009: Done.

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

Status in FY2009: Done.

Recommended: Continue to restore and revegetate disturbed areas.

Status in FY2009: Done.

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

Status in FY2009: Done.

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

Status in FY2009: Done.

Recommended: The interagency MOU with LDEQ for managing and monitoring water quality on KNF was renewed in early FY08. 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.

Status in FY2009: The interagency MOU with LDEQ was sent to LDEQ. They did not act on it in FY2009. Coordination with LDEQ on water quality monitoring has continued. In lieu of grab samples for laboratory analysis the Forest has developed a strategy to monitor ambient temperature, specific conductivity, pH, dissolved oxygen, and turbidity at the same interval and locations as before. Coliform monitoring at swim beaches continued as required.

Recommended: 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.

Status in FY2009: Aquatic weeds continue to be a problem in Caney and Fullerton Lakes. A Grass Carp application was filed with LDWF and a contract was written to address the weed problems on these lakes.

Recommended: Continue monitoring.

Stock catfish fingerlings when available and necessary. Monitor the success and utilization of the spawning cavities placed in Forest Service lakes.

Continue restoration and enhancement projects.

Status in FY2009: The National Natchitoches Fish and Wildlife Service Fish Hatchery, in cooperation with the Louisiana Department of Wildlife and Fisheries Booker-Fowler Fish Hatchery, provided all fish stockings for Kisatchie National Forest.

Recommended: 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 FY2009: KNF continues to work with LDWF and the Louisiana Wildlife & Fisheries Commission in setting the appropriate hunting seasons as agreed to in the MOU with the LDWF.

Recommended: 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 FY2009: Done.

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

Status in FY2009: Done.

Recommended: 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.

Status in FY2009: Done.

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

Status in FY2009: Done.

Recommended: 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.

Status in FY2009: Done.

Recommended: Increase funding to adequately maintain landlines.

Status in FY2009: Districts completed targets, but did not accomplish additional targets and was unable to compete with other forests in Region 8 for additional funding.

Recommended: 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 FY2009: No program dollars received.

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

Status in FY2009: Done.

Recommended: 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 FY2009: Done.

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

Status in FY2009: Done.

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

Status in FY2009: Done.

Recommended: 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.

Status in FY2009: The Forest has responded to BLM EOI's request making 33,000 acres available for leasing oil and gas. The Minerals database is being updated.

Recommended: 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 FY2009: Programmatic Agreement was signed April 2009 with the Louisiana Division of Archaeology, Advisory Council on Historic Places, Choctaw Nation of Oklahoma and the Caddo Nation of Oklahoma.

Recommended: 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 FY2009: Monitored 48 sites and began investigations on National Register Eligibility for 2 sites.

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

Status in FY2009: No sites were documented as being impacted from ground disturbing activities.

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

Status in FY2009: Began cultural site evaluation on 2 sites.

Recommended: 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.

Status in FY2009: Offered one PIT project, but was unable to partner with LA SHPO on Louisiana Archaeology Month this year due to collection problems by the state.

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

Status in FY2009: Offered one PIT project, participated on a History Board with Ft. Polk.

Recommended: 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 FY2009: Offered one PIT project, participated on a History Board with Ft. Polk.

Recommended: 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 FY2009: Done.

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

Status in FY2009: Done.

Recommended: 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 FY2009: Done.

Recommended: 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.

Status in FY2009: A Plan amendment proposing to eliminate use of dogs to hunt deer on the KNF was initiated in the summer of 2009. Completion on this amendment is not expected until FY2010.

An assessment to identify habitat quality using GIS was initiated in the spring of 2009. Several plots were examined on the Winn Ranger District to evaluate its suitability as foraging habitat. This data was used to "teach" a GIS model to identify good quality of habitat from photo imagery held in the GIS.

Recommended: Continue with such cooperative relationships.

Status in FY2009: Done.

Recommended: 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 FY2009: Done. No new studies in silviculture and recreation were initiated.

KNF cooperates with LDWF in the statewide Grassland Birds Task Force and KNF continues to work with the LDWF in setting the appropriate hunting seasons as agreed to in the MOU with the LDWF.

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

Status in FY2009: Done as part of ongoing NEPA scoping for proposed projects.

Recommended: 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 (LDWF) 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.

Status in FY2009: *Programmatic Agreement was signed in April 2009. Also have an agreement with Northwestern State University for an internship where student worked 2 semesters with district archaeologist, several students worked during the summer with another district archaeologist to learn survey strategies, and another student prepared management plan for a significant site. Another agreement is in place with the University of Tennessee to evaluate the Kisatchie National Forest predictive model.*

The MOU revision with the LDWF was not accomplished; the KNF will review the MOU again and determine if a revision is needed and if so, what specifically needs updating. KNF is receptive to input from anyone who has input regarding KNF management practices.

Appendix A

Comparison of FY2009 Budget with Revised Plan Annual Budget

Budget Line Item	Plan EBLI	Plan Budget Estimate	FY2009 EBLI	FY2009 Budget	FY2009 Budget Difference
Ecosystem Planning, Inventory, Monitoring					$ (427,579)
Ecosystem management	NFEM	$ 886,833	N/A	$ -	
Inventory and monitoring	***	-	NFIM	336,460	
Land management planning	***	-	NFPN	122,794	
Recreation Use					456,336
Recreation management	NFRM	1,220,873	N/A	-	
Wilderness management	NFWM	67,991	N/A	-	
Heritage resources	NFHR	295,611	N/A	-	
Recreation, Heritage, Wilderness	***	-	NFRW	1,047,215	
Cooperative work - other	CWFS	44,342	CWFS	-	
Trails, Capital Improvements & Mtce.	***	-	CMTL	349,937	
Rec. facilities deferred Mtce.	***	-	FDRF	200,000	
Timber pipeline – Rec. backlog	***	-	TPCD	303,000	
Fee Demo - collection	***	-	FDCL	31,000	
Fee Demo - projects	***	-	FDDS	154,000	
Rangeland Management					(562,722)
Range management	NFRG	88,683	NFRG	28,500	
Range vegetation management	NFRV	206,928	N/A	-	
Cooperative work - KV	CWKV	295,611	CWKV	-	
Wildlife and Fish Management					(1,630,400)
Wildlife habitat operations and improvement	NFWL	323,694	N/A	-	
Wildlife and fisheries management	***	-	NFWF	1,185,830	
Inland fish operations and improvement	NFIF	133,025	N/A	-	

Budget Line Item	Plan EBLI	Plan Budget Estimate	FY2009 EBLI	FY2009 Budget	FY2009 Budget Difference
T&E species operations and improvement	NFTE	781,891	N/A	-	
Cooperative work - KV	CWKV	2,626,503	CWKV	891,260	
Rehab. and restoration	***	-	WFW3	188,574	
Cooperative work – Other/Agreement based	CWFS	36,951	CWFS	6,000	
Forestland Management					(4,743,154)
Timber management	NFTM	3,547,331	NFTM	1,877,037	
Forest vegetation management	NFFV	629,651	N/A	-	
Vegetation and watershed management	***	-	NFVW	434,588	
Reforestation of forest lands	***	-	RIRI	16,000	
Reforestation trust fund	RTRT	162,586	RTRT	279,446	
Cooperative work - KV	CWKV	2,069,276	CWKV	446,614	
Stewardship Contracting	***	-	SSCC	256,371	
Timber roads - purchaser election	PEPE	78,337	PEPE	-	
Timber roads - purchaser construction	PUCR	1,773,665	N/A	-	
Timber salvage sales	SSSS	399,075	SSSS	90,000	
Forest health protection	***	-	SPFH	355,600	
Rehab and reforestation	***	-	WFW3	141,112	
Rehab and reforestation	***	-	NFN3	20,000	
Soil, Water and Air Management					(454,633)
Soil, water, air operations	NFSO	96,074	N/A	-	
Soil and water improvement	NFSI	134,503	N/A	-	
Cooperative work - KV	CWKV	69,571	CWKV	62,126	
Cooperative work - other	CWFS	296,049	CWFS	18,785	
Cooperative work – Non-agreement based	***	-	CWF2	48,639	
Rehab and reforestation	***	-	WFW3	12,014	
Minerals and Geology Management					(170,438)
Minerals	NFMG	473,678	NFMG	116,240	
Cooperative work – Non-agreement based	***	-	CWF2	187,000	
Land Ownership Management					(145,169)

Budget Line Item	Plan EBLI	Plan Budget Estimate	FY2009 EBLI	FY2009 Budget	FY2009 Budget Difference
Lands - real estate management	NFLA	273,845	N/A	-	
Landline location	NFLL	207,234	N/A	-	
Landownership management	***	-	NFLM	335,910	
Construction					(1,549,367)
Recreation construction	CNRF	1,724,485	N/A	-	
Trail construction	CNTR	78,453	N/A	-	
Roads reconstruction and construction	CNRD	1,391,430	N/A	-	
Construction emergency supplemental	***	-	CMES	1,645,000	
Land Acquisition					(62,012)
Land acquisition - L&W Cons. Fund	LALW	74,012	LALW	12,000	
Forest Service Fire Protection					2,817,209
Forest fire pre-suppression	WFPR	1,295,214	WFPR	1,456,102	
Forest fuel reduction	WFHF	740,122	WFHF	3,396,443	
Infrastructure Management					1,146,396
Road maintenance and decommissioning	CNRM	1,200,478	CMRD	1,523,152	
Maintenance of facilities	NFFA	301,970	CP09	273,770	
Cooperative work – Non-agreement based	***	-	CWF2	133,263	
Cooperative work – KV (road maintenance)	CWKV	69,571	CWKV	-	
Infrastructure improvement and maintenance	***	-	CMII	16,000	
Facilities maintenance	***	-	CMFC	366,540	
Construction emergency supplemental	***	-	CMES	168,000	
Federal highway program	***	-	HTAE	10,390	
Federal Highway Public Roads	***	-	HTRP	4,000	
NF Scenic Byways trans planning	***	-	HTFB	5,300	
Legacy roads and trails	***	-	CMLG	200,000	
Operations & maintenance - Forest Service quarters	***	-	QMQM	18,000	
General Administration					(976,860)
General administration	NFGA	1,856,226	N/A	-	
Cooperative work - KV	CWKV	1,124,986	CWKV	-	
Cooperative work - other	CWFS	146,544	CWFS	-	

Budget Line Item	Plan EBLI	Plan Budget Estimate	FY2009 EBLI	FY2009 Budget	FY2009 Budget Difference
Timber - salvage sales	SSSS	71,052	SSSS	-	
Operations & maintenance - FS quarters	QMQM	29,605	QMQM	-	
Indirect cost pools	***	-	POOL	2,251,553	
External Agreements					452,323
External agents	***	-	NFXF/NFXN	452,323	
Total (in FY2009 dollars)		$ 27,347,513		21,473,888	$ (5,873,625)

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).

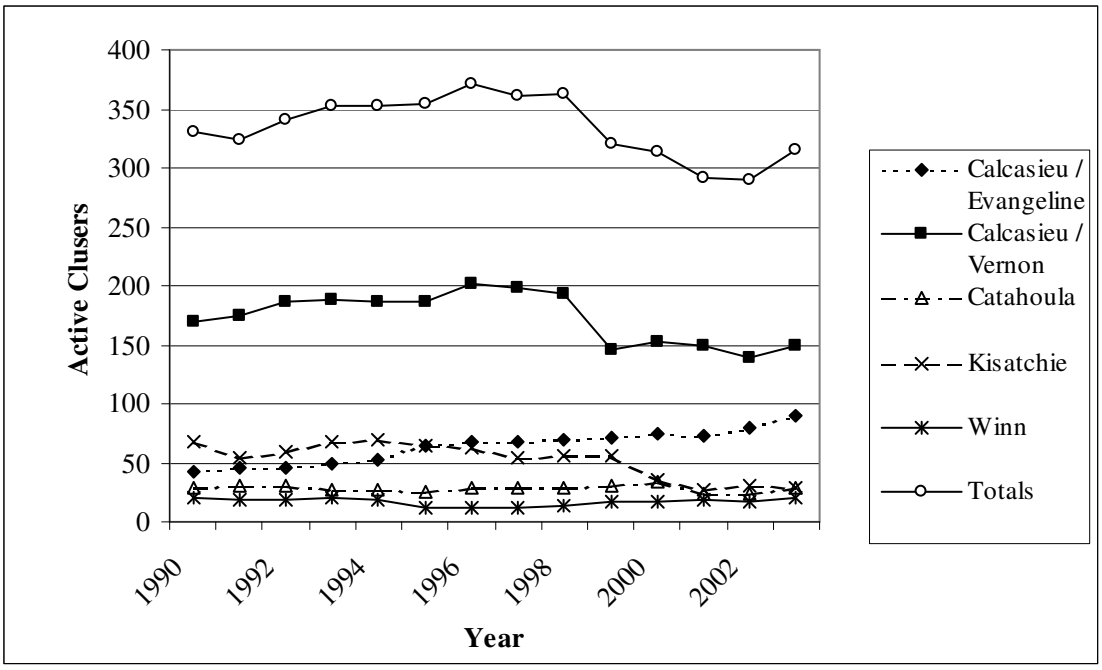
			Kisatchie National Forest	
Common Name	**Upper Coastal Plain**	**State - Louisiana**	**BBS Data**	**Forest Data**
Acadian Flycatcher	= =	= =	= =	= =
Bachman's Sparrow	= =	-	-	= =
Cooper's Hawk	= =	=	NA	=
Eastern Wood-pewee	-	= =	= =	-
Hooded Warbler	= =	= =	= =	= =
Kentucky Warbler	= =	-	= =	+
Louisiana 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	67	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 MIS[3]

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.

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

Appendix D

List of Preparers

Name	**Title**
Cynthia Dancak	*Team Leader – Engineering/Timber/GIS*
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