2012 PLANNING RULE MONITORING PROGRAM EVALUATION REPORT
Kisatchie National Forest

February 2016
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1.0 2012 Planning Rule

On April 9, 2012, the U.S. Department of Agriculture adopted final planning regulations for the National Forest System as published in 36 Code of Federal Regulations (CFR) part 219 (77 FR 21161). The 2012 Planning Rule was effective on May 9, 2012. These regulations, known collectively as the 2012 Planning Rule, provide broad programmatic direction in developing and implementing land management plans. The rule explicitly directs the Chief of the Forest Service to establish planning procedures in the Forest Service Directives System (36 CFR 219.2(b)(5)(i)). Responsible Officials implementing the 2012 Planning Rule shall follow the regulations at 36 CFR part 219 and the revised planning directives.

The National Forest Management Act of 1976 requires every national forest or grassland managed by the Forest Service to develop and maintain an effective Land Management Plan (also known as a Forest Plan). The process for the development and revision of plans, along with the required content of plans, is outlined in planning regulations, often referred to as the planning rule. Managers of individual forests and grasslands follow the direction of the planning rule to develop a land management plan specific to their unit.

The Forest Service was operating under the transition provisions of the 2000 planning rule as an interim measure until the 2012 planning rule was issued. The 200 planning rule allowed forests to develop, revise, and amend forest plans using the procedures of the 1982 planning rule. The new 2012 planning rule replaces the final 200 land management planning rule as reinstated in the CFR on December 18, 2009 (74 FR 67062).

The new 2012 planning rule “provides a process for planning that is adaptive and science-based, engages the public, and is designed to be efficient, effective, and within the Agency’s ability to implement. It meets the requirements under the National Forest Management Act (NFMA), the Multiple-Use Sustained-Yield Act (MUSYA), and the Endangered Species Act, as well as all other legal requirements. It was also developed to ensure that plans are consistent with and complement existing, related Agency policies that guide management of resources on the National Forest System (NFS), such as the Climate Change Scorecard, the Watershed Condition Framework, and the Sustainable Recreation Framework.” (36 CFR Part 219).

Monitoring under the 2012 planning rule focuses on “measuring management effectiveness and progress toward achieving or maintaining the plan’s desired conditions or objective.” (36 CFR part 219.12 (a)(2)). The 2012 planning rule contains a two-tier monitoring program approach. The first tier focused on forest plan monitoring which evaluates projects across the forest. The second tier focuses on the broader-scale monitoring strategy for plan monitoring questions that can best be answered at a geographic scale larger than one forest. Implementation of the new planning rule requires changes to the current forest plan’s monitoring program for both tiers of the monitoring plan. There are eight new categories required under the new 2012 planning rule. These new categories are listed below and shown in the tiered approach.
**Forest plan monitoring tier**

- The status of select watershed conditions.
- The status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems.
- The status of focal species to assess the ecological conditions.
- The status of a select set of the ecological conditions which contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern.
- The status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives.
- Progress toward meeting the desired conditions and objectives in the plan, including multiple use opportunities.
- The effects of each management system to determine that they do not substantially and permanently impair the productivity of the land.

**Broader-scale monitoring strategy tier**

- Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area.
- Social, cultural and economic sustainability. Monitoring items related to social and economic sustainability are not explicitly required by the 2012 planning rule, the Forest Service Handbook (FSH 1909.12, Ch. 30) does recognize that monitoring for social and economic sustainability is intended to be a part of this monitoring requirement.

**2.0 Forest Plan Monitoring Program**

The purpose of forest plan monitoring is to provide information about the effects of plan implementation which “enable the responsible official to determine if a change in plan components or other plan content that guide management of resources on the plan area may be needed” (36 CFR part 219.12(a)(1)). The plan monitoring program consists of a set of monitoring questions and associated indicators to evaluate whether and management activities are maintaining or achieving progress toward future desired conditions.

The Forest Plan recognizes three basic categories of monitoring and evaluation: implementation, effectiveness, and validation monitoring. Each monitoring question addresses a separate aspect of Forest Plan monitoring. The answers to these questions help determine if there is a need to amend or revise the Forest Plan to adapt to new information and changed conditions. Through this adaptive management approach, the Forest Plan is kept current. The three types of monitoring questions are defined below.

*Implementation Monitoring: Did we do what we said we were going to do?*
This question answers how well the direction in the Forest Plan is being implemented. Collected information is compared to Objectives, Standards, Guidelines and Management Area direction.

**Effectiveness Monitoring: Are Forest Plan direction and our management working?**

This question answers whether management consistent with the Forest Plan, including the application of standards and guidelines, is achieving the results envisioned in the Forest Plan and the associated Final Environmental Impact Statement.

**Validation Monitoring: Was our initial understanding of the situation accurate? Did we look at the right things?**

This question answers whether the assumptions and predicted effects used to revise the Forest Plan were accurate.

### 3.0 Monitoring Program Review Process

An Interdisciplinary Team (IDT) was assembled to evaluate the Forest Plan’s monitoring program and its compliance with the new 2012 planning rule. The IDT was comprised of key program managers at the Supervisors Office. The review process was conducted from September 29, 2015 through December 31, 2015. The IDT conducted the review using the Region 8 Forest Plan Monitoring Transition Guidance issued on September 23, 2015. Each program manager reviewed the new 2012 planning rule information, evaluated the existing monitoring program’s questions and provided documentation as to whether:

1. Existing monitoring questions comply with the 2012 planning rule new categories.
2. The Best Available Science was utilized.
3. New questions need to be developed and addressed to comply with the 2012 planning rule’s new categories.
4. Focal species were identified on the forest which can be monitored.
5. Each new monitoring category has a minimum of one question.

Not all existing monitoring questions have to fall under one of the new planning categories but all will continue to be monitored.

### 4.0 Monitoring Plan Review Findings

The existing monitoring program questions, Table 5-1 of the Forest Plan, are provided in attachment one for reference. A summary of the findings is provided in attachment two. Each of the new 2012 planning rule categories are listed below with the number of existing Forest Plan monitoring program questions that comply. Some of the existing monitoring plan questions can be utilized for more than one of the new 2012 monitoring program categories. However, each new category must have at least one monitoring question associated with it. Any new questions or changes to the existing monitoring program are discussed in section 4.1.
4.1 Forest plan monitoring tier

- Status of select watershed conditions has a total of five existing monitoring questions that comply with this new category. These existing monitoring program questions are:
  - Objective 1-2 Implementation and Effectiveness questions
  - Objective 1-4 Implementation question
  - Objective 2-2 Validation question
  - Objective 6-2 Implementation question

- Status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems had a total of fifteen existing monitoring questions that comply with this new category. These existing monitoring program questions are:
  - Objective 1-2 Implementation and Effectiveness questions
  - Objective 1-5 Implementation and Effectiveness questions
  - Objective 2-2 Effectiveness and Validation questions
  - Objective 2-3 Effectiveness question
  - Objective 2-5 Implementation and Validation questions
  - Objective 2-6 Implementation and Validation questions
  - Objective 2-7 Effectiveness and Validation questions
  - Objective 6-2 Implementation and Effectiveness questions

- Status of focal species to assess the ecological conditions had a total of six existing monitoring questions that comply with this new category. Three focal species have been identified see proposed Table 5-2a. in section 5.4. The following existing monitoring questions will provide the monitoring information related to these focal species:
  - Objective 2-2 Effectiveness and Validation questions
  - Objective 2-3 Implementation, Effectiveness and Validation questions
  - Objective 6-2 Implementation question

- Status of a select set of the ecological conditions which contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern had a total of four existing monitoring questions that comply with this new category. These existing monitoring program questions are:
  - Objective 2-3 Implementation, Effectiveness and Validation questions
  - Objective 6-2 Implementation question

- Status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives had a total of nine existing monitoring questions that comply with this new category. These existing monitoring program questions are:
  - Objective 2-7 Validation question
- Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities had a total of 31 existing monitoring questions that comply with this new category. These existing monitoring program questions are:

  - Objective 1-3 Implementation and Effectiveness questions
  - Objective 1-5 Implementation question
  - Objective 1-6 Implementation and Effectiveness questions
  - Objective 2-1 Implementation and Effectiveness questions
  - Objective 2-4 Implementation and Effectiveness questions
  - Objective 2-7 Effectiveness and Validation questions
  - Objective 2-8 Implementation and Effectiveness questions
  - Objective 3-1 Implementation question
  - Objective 3-2 Implementation question
  - Objective 3-3 Implementation question
  - Objective 3-4 Implementation and Effectiveness questions
  - Objective 3-5 Implementation and Validation questions
  - Objective 3-6 Implementation and Effectiveness questions
  - Objective 3-7 Effectiveness question
  - Objective 5-1 Implementation question
  - Objective 5-2 Implementation and Effectiveness questions
  - Objective 5-3 Implementation question
  - Objective 5-4 Implementation and Effectiveness questions
  - Objective 6-1 Implementation question
  - Objective 7-1 Implementation question
  - Objective 7-2 Implementation question

- The effects of each management system to determine that they do not substantially and permanently impair the productivity of the land had a total of eight existing monitoring questions that comply with this new category. These existing monitoring program questions are:

  - Objective 1-1 Implementation, Effectiveness and Validation questions
  - Objective 1-4 Implementation question
  - Objective 1-6 Effectiveness question
  - Objective 3-5 Validation questions
  - Objective 6-2 Implementation question
  - Objective 7-1 Implementation question
4.2 Broader-scale monitoring strategy tier
The following monitoring requirements will be addressed at both the Broad-scale monitoring level, as well as at the Forest level.

4.2.1 Climate Change
Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area had a total of four existing monitoring questions that comply with this new category at the forest plan level. These existing monitoring program questions are:

- Objective 1-5 Effectiveness question
- Objective 2-1 Effectiveness question
- Objective 2-3 Effectiveness question
- Objective 6-2 Effectiveness question

4.2.2 Social, Cultural and Economic Sustainability
Social, cultural and economic sustainability monitoring items related to social and economic sustainability are not explicitly required by the 2012 planning rule. The Forest Service Handbook (FSH 1909.12, Ch. 30) does recognize that monitoring for social and economic sustainability is intended to be a part of this monitoring requirement. There were a total of seven existing monitoring question that comply with this new category at the forest plan level. These existing monitoring program questions are:

- Objective 2-7 Validation question
- Objective 3-1 Implementation question
- Objective 3-2 Implementation question
- Objective 3-3 Implementation question
- Objective 3-4 Effectiveness question
- Objective 4-3 Implementation question
- Objective 5-5 Effectiveness question

5.0 Proposed Monitoring Program Administrative Changes
The Kisatchie National Forest Land and Resource Management Plan was revised in August 1999. The 2012 Planning Rule, issued by the Forest Service in April 2012, allows us to make non-substantive corrections or adjustments to the revised Forest Plan using a process called “Administrative Changes”. “Administrative changes” as defined by 36 CFR 219.13(c) in the 2012 Planning Rule is “any change to a plan that is not a plan amendment or revision. Administrative changes include corrections of clerical errors to any part of the plan, conformance of the plan to new statutory or regulatory requirements, or other content in the plan (219.7(f)).”

5.1 Proposed Change 1: Monitoring Evaluation Reports
Monitoring Evaluation Reports will be produced on a biennial schedule. It is anticipated that the first biennial Monitoring Evaluation Report will be available by September 2018. The forest will complete the last annual monitoring evaluation report in September of 2016.

5.2 Proposed Change 2: Climate Change

In meeting the requirement to monitor “measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area” (36 CFR 219.12(a)(5)(vi)), the following monitoring questions and indicators will be added to the Forest’s monitoring program in Table 5-1a. below. These monitoring questions are related to climate change and other stressors that may be affecting the plan area.

<table>
<thead>
<tr>
<th>Table 5-1a. Monitoring Plan Climate Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Broad Scale Monitoring Questions</strong></td>
</tr>
<tr>
<td>1. How has climate variability changed and how is it projected to change across the region?</td>
</tr>
<tr>
<td>2. How is climate variability and change influencing the ecological, social, and economic conditions and contributions provided by plan areas in the region?</td>
</tr>
<tr>
<td>3. What effects do national forests in the region have on a changing climate?</td>
</tr>
<tr>
<td><strong>Forest Level Monitoring Question</strong></td>
</tr>
<tr>
<td>4. Are long and short leaf pine management activities moving toward a reduction in climate related vulnerability by restoring and maintaining a healthy resilient native ecosystem in appropriate management areas?</td>
</tr>
</tbody>
</table>

Indicators and procedures for broad scale monitoring questions will be addressed and evaluated through the Region 8 Broader-Scale Monitoring Strategy, which the Forest will incorporate into the Forest Evaluation Reports. To see the indicators and procedures that will be used at the broader-scale for these monitoring questions, see the Region 8’s Broader-Scale Monitoring Strategy at [www.fs.usda.gov/main/r8/landmanagement/planning](http://www.fs.usda.gov/main/r8/landmanagement/planning). Indicators and procedures for the forest level monitoring question is addressed in a new task sheet which was developed to show how the new Forest level monitoring question will be addressed. The proposed monitoring task sheet number 85 is available upon request.

5.3 Proposed Change 3: Social, Cultural and Economic Sustainability

In meeting the requirement to monitor plan contributions to the social, cultural, and economic sustainability of communities the following monitoring questions and indicators will be added to the Forest’s monitoring program in Table 5-1b. below. These monitoring questions are related to social, cultural, and economic sustainability which is a part of monitoring the progress toward meeting the desired conditions and objectives, including providing multiple use opportunities (36 CFR 219.12(a)(5)(vii)).
### Table 5-1b. Monitoring Plan Social, Cultural and Economic Sustainability

<table>
<thead>
<tr>
<th><strong>Broad Scale Monitoring Questions</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What changes are occurring in the social, cultural, and economic conditions in the areas influenced by national forests in the region?</td>
<td></td>
</tr>
<tr>
<td><strong>Forest Level Monitoring Question</strong></td>
<td></td>
</tr>
<tr>
<td>2. Are the identified contributions to social and economic sustainability in the Forest Plan desired conditions being achieved?</td>
<td></td>
</tr>
</tbody>
</table>

Indicators and procedures for this monitoring question will be addressed and evaluated through the Region 8 Broader-Scale Monitoring Strategy, which the Forest will incorporate into the Forest Evaluation Reports. To see the indicators and procedures that will be used at the broader-scale for this monitoring question, see the Region 8’s Broader-Scale Monitoring Strategy at [www.fs.usda.gov/main/r8/landmanagement/planning](http://www.fs.usda.gov/main/r8/landmanagement/planning). Indicators and procedures for the forest level monitoring question is addressed in a new task sheet which was developed to show how the new Forest level monitoring question will be addressed. The proposed monitoring task sheet number 86 is available upon request.

#### 5.4 Proposed Change 4: Focal Species

Another requirement is that the plan monitoring program must include monitoring questions and indicators on the status of a select set of focal species to access ecological conditions (see 36 CFR 219.12(a)(5)(iii)). A “focal species” is defined as a “species whose status permits inference to the integrity of the larger ecological system to which it belongs and provides meaningful information regarding the effectiveness of the plan in maintaining or restoring the ecological conditions to maintain the diversity of plant and animal communities in the plan area” (36 CFR 219.19).

The following table shows the species that are being identified as “focal species” for this plan’s monitoring program, along with ecological system/ecological conditions that each focal species will serve as an indicator of. The species listed in Table 5-2a. will be added to the Forest Plan’s monitoring program.

<table>
<thead>
<tr>
<th><strong>Table 5-2a. Monitoring Plan Focal Species</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Focal Species</strong></td>
<td><strong>Ecological System/Conditions</strong></td>
</tr>
<tr>
<td>Shortleaf Pine, <em>Pinus echinata</em></td>
<td>Shortleaf oak hickory landscape community.</td>
</tr>
</tbody>
</table>

#### 5.5 Proposed Change 5: Administrative change for correction of analysis system name.

During the monitoring program transition evaluation of Goal 1, Objective 1-4, Effectiveness question it was determined the National Fire Management Analysis System (NFMAS) is no longer in use and has been replaced by Fire Program Analysis (FPA). This analysis program
functions similar to the NFMAS and is the current analytical tool used in the fire program. The reference made to NFMAS will be replaced as FPA.

5.6 Proposed Change 6: Administrative change for correction of analysis system name

During the monitoring program transition evaluation of Goal 5, Objective 5-1, Implementation question it was determined the Southern Regional Heritage Programmatic Agreements is no longer in use and has been replaced by the Kisatchie National Forest Programmatic Agreement. This agreement functions similar to the Southern Regional agreement and is the current agreement used in the heritage program. The reference made to Southern Regional Heritage Programmatic Agreement will be replaced as the Kisatchie National Forest Programmatic Agreement.

6.0 Administrative Change Public Involvement

The action was listed as a proposal on the Kisatchie National Forest Schedule of Proposed Actions (SOPA) and the public was notified of the proposed action through mailing scoping letters on February 24, 2016. A 30-day public review and comment period will be observed from February 26 to March 26, 2016. The Kisatchie National Forest is proposing to make these Administrative Changes to the LRMP to be in compliance with the 2012 planning rule.

This Administrative Change will become effective upon signature and being posted online on the Forest’s website at http://www.fs.usda.gov/projects/kisatchie/landmanagement/projects. Administrative changes are not subject to the objection process (36 CFR 219.50).
Attachment 1
Forest Plan Table 5-1 Monitoring Questions
**Goal 1:** Ensure that healthy, sustainable forest ecosystems endure for future generations by managing with the highest standards of stewardship. Protect or conserve basic soil, water, air, and land resources and incorporate integrated pest management principles.

**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.

**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.

**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.

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

**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.

**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.

**TABLE 5–1, MONITORING QUESTIONS**

<table>
<thead>
<tr>
<th>FORESTWIDE DESIRED FUTURE CONDITION GOALS AND OBJECTIVES</th>
<th>IMPLEMENTATION QUESTIONS</th>
<th>EFFECTIVENESS QUESTIONS</th>
<th>VALIDATION QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal 1:</strong> Ensure that healthy, sustainable forest ecosystems endure for future generations by managing with the highest standards of stewardship. Protect or conserve basic soil, water, air, and land resources and incorporate integrated pest management principles.</td>
<td>Are management practices designed to minimize soil erosion, compaction and loss of soil productivity being applied?</td>
<td>Is allowable soil loss being exceeded? Are disturbed and degraded areas being restored and revegetated to a natural condition?</td>
<td>How do timber management practices, especially timber harvesting and consequent compaction, affect soil productivity?</td>
</tr>
<tr>
<td><strong>Objective 1–1:</strong> 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.</td>
<td>Are management practices designed to minimize contamination, sedimentation, and maintain stream channel stability being applied?</td>
<td>Are State water quality standards and State anti-degradation policies being met? Is water quality being degraded?</td>
<td></td>
</tr>
<tr>
<td><strong>Objective 1–2:</strong> 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.</td>
<td>Are management practices designed to minimize soil erosion, compaction and loss of soil productivity being applied?</td>
<td>Is allowable soil loss being exceeded? Are disturbed and degraded areas being restored and revegetated to a natural condition?</td>
<td>How do timber management practices, especially timber harvesting and consequent compaction, affect soil productivity?</td>
</tr>
<tr>
<td><strong>Objective 1–3:</strong> 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.</td>
<td>Are Forest Service and the La. Dept. of Agriculture &amp; Forestry’s smoke management guidelines and regulations being applied? Are performance requirements concerning air quality being incorporated in permitted activities?</td>
<td>Does air quality meet NAAQS and State standards?</td>
<td></td>
</tr>
<tr>
<td><strong>Objective 1–4:</strong> Provide a level of wildfire protection which emphasizes cost-effective wildfire prevention and suppression while minimizing loss of resources.</td>
<td>Is wildfire protection being provided in a cost-effective manner? Are losses to wildfire being minimized?</td>
<td>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?</td>
<td></td>
</tr>
<tr>
<td><strong>Objective 1–5:</strong> 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.</td>
<td>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?</td>
<td>Has management resulted in a decrease of susceptibility of southern pine beetle and other pests? Are pest incidents decreasing with applied integrated management?</td>
<td></td>
</tr>
<tr>
<td><strong>Objective 1–6:</strong> 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.</td>
<td>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?</td>
<td>Are newly acquired lands compatible with management practices in the Management Area where they are located? Are encroachments discouraged by well-defined property lines?</td>
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</tbody>
</table>
### Table 5-1, Monitoring Questions

<table>
<thead>
<tr>
<th>Forestwide Desired Future Condition Goals and Objectives</th>
<th>Implementation Questions</th>
<th>Effectiveness Questions</th>
<th>Validation Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 2: Manage to provide for a variety of life by maintaining biologically diverse ecosystems and viable populations of all native and desirable nonnative plant, wildlife, fish, and aquatic species. Conserve threatened, endangered, and rare species; restore and maintain ecosystems and ecological processes; identify and manage old-growth forests; and protect riparian and streamside habitat areas.</td>
<td>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?</td>
<td>Are the management practices successfully restoring or maintaining quality forest ecosystems and, the structure, composition, and processes of the four major landscape forest ecosystems?</td>
<td>Are management practices successfully expanding quality habitats for management indicators?</td>
</tr>
<tr>
<td>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 is as follows:</td>
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<tr>
<td>Longleaf pine forest: 263,000 acres.</td>
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<tr>
<td>Shortleaf pine / oak-hickory forest: 62,000 acres.</td>
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<tr>
<td>Mixed hardwood-loblolly pine forest: 27,800 acres.</td>
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<td></td>
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<tr>
<td>Riparian forest: 181,000 acres</td>
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<tr>
<td>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:</td>
<td></td>
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<tr>
<td>Longleaf pine, all stages: 121,000 acres.</td>
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<tr>
<td>Shortleaf pine / oak-hickory, early stages: 0 acres.</td>
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<tr>
<td>Shortleaf pine / oak-hickory, mid-late stages: 16,000 acres.</td>
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<tr>
<td>Mixed hardwood-loblolly pine, early stages: 42,000 acres.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Mixed hardwood-loblolly pine, mid-late stages: 252,000 acres.</td>
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<tr>
<td>Riparian, small streams: 85,000 acres</td>
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<tr>
<td>Riparian, large streams: 92,000 acres</td>
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<tr>
<td>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.</td>
<td>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?</td>
<td>Are habitat conditions for threatened, endangered, sensitive, and conservation species improving?</td>
<td>Are Red-cockaded Woodpecker and Louisiana pearlshell mussel population trends responding positively to management strategies?</td>
</tr>
</tbody>
</table>
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.

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.

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.
### TABLE 5-1, MONITORING QUESTIONS

<table>
<thead>
<tr>
<th>FORESTWIDE DESIRED FUTURE CONDITION GOALS AND OBJECTIVES</th>
<th>IMPLEMENTATION QUESTIONS</th>
<th>EFFECTIVENESS QUESTIONS</th>
<th>VALIDATION QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 2–7: Provide quality habitat for game and fish populations.</td>
<td>Are management practices successfully expanding quality habitats for game and fish species?</td>
<td>Are habitat objectives for selected demand species providing game and fish populations sufficient for quality recreational opportunities?</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>Are management practices designed to protect, restore, maintain, and improve waterfowl and wetland wildlife being implemented?</td>
<td>Are these management practices successfully providing for waterfowl and wetland wildlife?</td>
<td></td>
</tr>
<tr>
<td>Goal 3: Contribute to local community stability by providing an even flow of commodity resources in an environmentally acceptable manner. Allow for timber harvest to meet multiple-use goals and provide for stand regeneration; a limited amount of domestic livestock grazing; continued exploration and extraction of leasable and salable minerals; and provide a transportation system to meet multiple-use goals. Promote rural development and human resource programs.</td>
<td>How does the flow of commodity outputs to local economies and people compare with the Forest Plan projections?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective 3–1: Provide for long-term sustainable production of commodities for economies, local community stability, and people.</td>
<td>Is the Forest providing for competitive bid the average annual allowable sale quantity it projected for the first decade?</td>
<td></td>
<td></td>
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<tr>
<td>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.</td>
<td>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?</td>
<td></td>
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</tr>
<tr>
<td>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.</td>
<td>Are forage resources being maintained or improved on the designated allotments?</td>
<td>Are active allotments meeting the needs of the local demand for forage resources?</td>
<td></td>
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<tr>
<td>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.</td>
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</tbody>
</table>
### TABLE 5–1, MONITORING QUESTIONS

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 3–5:</strong> 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.</td>
<td>How does management of these products compare with Forest Plan direction?</td>
<td>Is the Forest providing opportunities for other specialty forest products without negatively impacting forest health or other resources?</td>
<td></td>
</tr>
<tr>
<td><strong>Objective 3–6:</strong> 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.</td>
<td>Are programs and opportunities for improving rural economies and social conditions being developed?</td>
<td>Are programs and opportunities improving sustainable local economies and social conditions?</td>
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<tr>
<td><strong>Objective 3–7:</strong> Manage the transportation system to ensure that any roads constructed are designed according to standards appropriate to the planned uses.</td>
<td></td>
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<td>Is the transportation facility serviceable by the intended user?</td>
</tr>
<tr>
<td><strong>Goal 4:</strong> Provide for scenic quality and outdoor experiences which respond to the needs of forest users and local communities. Provide access to a wide variety of recreational opportunities and facilities.</td>
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<tr>
<td><strong>Objective 4–1:</strong> 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:</td>
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<tr>
<td>° Very high: 8,699 acres.</td>
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<tr>
<td>° High: 93,980 acres.</td>
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<tr>
<td>° Medium: 89,155 acres.</td>
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<tr>
<td>° Low: 415,020 acres.</td>
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<td></td>
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<tr>
<td>° Very low: 1,278 acres.</td>
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<tr>
<td><strong>Objective 4–2:</strong> 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:</td>
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<tr>
<td>° Primitive: 8,700 acres.</td>
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<tr>
<td>° Semiprimitive nonmotorized: 57,269 acres.</td>
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<tr>
<td>° Semiprimitive motorized: 89,963 acres.</td>
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<tr>
<td>° Roaded natural-appearing: 217,152 acres.</td>
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<tr>
<td>° Roaded natural modified: 191,671 acres.</td>
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<tr>
<td>° Rural: 6,162 acres.</td>
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</tbody>
</table>

How does management of these products compare with Forest Plan direction? Are programs and opportunities for improving rural economies and social conditions being developed? Are programs and opportunities improving sustainable local economies and social conditions? Is the Forest being managed in accordance with the assigned SIOs? Has class eligibility shifted significantly?
### Table 5–1, Monitoring Questions

<table>
<thead>
<tr>
<th>Forestwide Desired Future Condition Goals and Objectives</th>
<th>Implementation Questions</th>
<th>Effectiveness Questions</th>
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</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>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?</td>
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</tr>
<tr>
<td>Goal 5: Manage to protect and perpetuate natural and cultural values associated with unique, rare, or irreplaceable resources. Recognize and protect historical areas, cultural sites, and areas which are of special interest because of unique geological, botanical, or zoological features.</td>
<td>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)?</td>
<td>Are protection measures effective at preventing unacceptable damage?</td>
<td></td>
</tr>
<tr>
<td>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.</td>
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<tr>
<td>Objective 5–2: Provide protection for heritage resource sites which preserves the integrity of scientific data that they contain, for the benefit of the public and scientific communities.</td>
<td>Is law enforcement and heritage support provided at sufficient levels to protect significant heritage sites from internal and/or external activities?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective 5–3: Reduce the existing backlog of heritage sites needing formal evaluation so that the overall number decreases each year.</td>
<td>Are sufficient numbers of significant or potentially significant sites being evaluated so that the number of backlogged properties decreases each year?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective 5–4: Enhance and interpret appropriate sites and heritage values to the American public.</td>
<td>Are sites and heritage values being identified for public interpretation?</td>
<td>Has interpretation enhanced awareness of heritage values among the general public?</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>Does the interpretive services program provide usable information to the public about the full scope of forest management practices and philosophy?</td>
<td>Has interpretive services increased measurable public support of Forest Service resource management goals and objectives?</td>
<td></td>
</tr>
<tr>
<td>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.</td>
<td>Is Forest Plan SIA direction being applied?</td>
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</tbody>
</table>
### Table 5-1, Monitoring Questions

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Objective 5-7: Manage the Kisatchie Hills Wilderness to enhance and perpetuate wilderness as a resource. Avoid resource damage resulting from overuse.</td>
<td>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?</td>
<td>Are management practices designed to achieve a mixture of desired future conditions being applied?</td>
<td></td>
</tr>
<tr>
<td>Goal 6: Apply vegetation management activities and treatments best suited to achieve a mixture of desired future conditions or to mimic natural processes. Implement and use a variety of silvicultural systems, regeneration methods, prescribed fire applications, and vegetation management treatments needed to achieve objectives.</td>
<td></td>
<td>Are the prescribed fire regimes being applied to all appropriate landscapes as prescribed, to maintain fire-dependent ecosystems?</td>
<td>Are the natural plant communities being maintained by the prescribed fire regimes?</td>
</tr>
<tr>
<td>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.</td>
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<tr>
<td>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.</td>
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<tr>
<td>Goal 7: Monitor to provide feedback regarding progress toward accomplishing Forest goals and objectives; and adapt management according to new information.</td>
<td></td>
<td>Is the Forest preparing and distributing a yearly monitoring and evaluation report to the public?</td>
<td></td>
</tr>
<tr>
<td>Objective 7-1: Monitor and document the annual progress towards accomplishment of Forest goals, objectives, and desired future conditions.</td>
<td></td>
<td>Is the Forest Plan being kept current through timely changes as identified in the annual M&amp;E Report?</td>
<td></td>
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<tr>
<td>Objective 7-2: Evaluate new information and monitoring results; adapt management accordingly.</td>
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<tr>
<td>Goal 8: Promote collaboration between researchers and land managers to incorporate new technologies, information, and scientific methods into the decision-making process.</td>
<td></td>
<td></td>
<td>Are cooperative relationships being developed and maintained?</td>
</tr>
<tr>
<td>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.</td>
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</tbody>
</table>
## TABLE 5-1, MONITORING QUESTIONS

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>Objective 8-2: Continue to identify research needs as the Forest implements the Plan.</td>
<td>Are research needs being identified in a timely manner?</td>
<td></td>
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<tr>
<td>Goal 9: Promote cooperation and coordination with other federal and State agencies, Native American tribes, organizations, and individuals. Actively seek public involvement during project planning, implementation and monitoring.</td>
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<tr>
<td>Objective 9-1: Continue coordination and cooperation efforts with other federal and State agencies, such as the U.S. Department of Interior, Fish &amp; 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.</td>
<td>Are coordination and cooperation efforts being conducted with federal and State agencies?</td>
<td></td>
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</tr>
<tr>
<td>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.</td>
<td>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?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The major landscape community in these areas is longleaf pine forest. Unique or under-represented includional communities include hillside bogs, sandy woodlands, Fleming glade, longleaf pine flatwoods savannah, and sandstone glades and barrens. These landscapes are most closely associated with landtype associations 1, 2, 5, and 6.

General habitat characteristics / attributes (compositional, structural and functional components) featured: These areas are dominated by pine communities. The forest canopy for those stands at or approaching maturity is primarily single-layered and open, with a limited amount of within-canopy hardwoods (generally < 30 percent). The midstory is sparse. The herbaceous ground cover is a thick, continuous swath of grasses, composites, legumes, and other forbs. Snags and down logs are common. Prescribed fire is used frequently and is the principal influence in creating and maintaining open, parklike forest conditions. Generally, 10 percent or less of the landscape is in stand-size (10–40 acres) openings ≤ 10 years old. Additional small canopy gaps occur due to natural mortality or as a result of fire, insects, disease, or wind throw.

The management indicator species are:

**Landscape-wide plants**
- Longleaf pine
- Noseburn
- Pinehill bluestem
- Pale purple coneflower

**Landscape-wide wildlife habitats**
- Bachman’s Sparrow
- Northern Bobwhite Quail
- Prairie Warbler
- Red-headed Woodpecker
- Red-cockaded Woodpecker (in HMA)
The major landscape community in these areas is shortleaf pine / oak-hickory forest. Unique or under-represented inclusional communities include calcareous prairies, and calcareous forests. These landscapes are most closely associated with landtype associations 3, 8, and 9.

General habitat characteristics / attributes (compositional, structural and functional components) featured: These areas are dominated by mixed pine-hardwood communities. The forest canopy for those stands at or approaching maturity is multilayered and relatively open with considerable amounts of within-canopy hardwoods (generally 30–50 percent). The midstory is diverse, multilayered, and relatively open, but may be thick in some areas. The herbaceous ground cover ranges from sparse to thick. Snags, down logs, and den trees are common. Prescribed fire is employed at regular intervals and is an important factor in controlling plant community composition and in maintaining open midstory conditions. Generally 10 percent or less of the landscape is in stand-sized openings <10 old. Additional small canopy gaps occur due to natural mortality or as a result of insects, disease, fire, or wind throw.

The management indicator species are:

**Landscape-wide plants**
- Black hickory
- Flowering dogwood
- Mockernut hickory
- Partridge pea
- Shortleaf pine
- White oak
- Wild bergamot

**Early successional wildlife habitats**
- Prairie Warbler

**Mid-to-late successional wildlife habitats**
- Cooper’s Hawk
- Summer Tanager
- Eastern wood-Pewee
- Red-cockaded Woodpecker
- Pileated Woodpecker (in HMA)
The major landscape community in these areas is mixed hardwood-loblolly pine forest. Unique or under-represented inclusional communities include sandy woodlands. These landscapes are most closely associated with landtype association 4.

General habitat characteristics / attributes (compositional, structural and functional components) featured: These areas are generally moist, rich woods dominated by mixed hardwood-pine and hardwood communities. They may include many temporary ponds. The forest canopy for those stands at or approaching maturity is multilayered and relatively closed with high amounts of within-canopy hardwoods (generally >50 percent). The midstory is also multilayered and contains a variety of trees, shrubs, vines, and overstory saplings. The herbaceous understory is sparse and the ground is generally covered with leaf litter. Snags, down logs, and den trees are common to abundant. Prescribed fire is employed infrequently, thus minimally influencing the alteration or maintenance of vegetation patterns. Generally, 10 percent or less of the landscape is in stand-sized (10–40 acres) openings ≤10 years old. Additional small canopy gaps occur due to natural mortality or as a result of insects, disease, or wind throw.

The management indicator species are:

**Landscape-wide plants**
- Bigleaf snowbell
- Black snake-root
- Christmas fern
- Loblolly pine
- Partridge berry
- Southern red oak
- Virginia Dutchman’s pipe

**Early successional wildlife habitats**
- White-eyed Vireo

**Mid-to-late successional wildlife habitats**
- Yellow-billed Cuckoo
- Pileated Woodpecker
- Wood Thrush
- Hooded Warbler
- Red-cockaded Woodpecker (in HMA)
The major landscape community in these areas is riparian forest. This includes cypress swamp, bottomland hardwood forest, and small-stream riparian forest. No unique or under-represented inclusional communities are noted. These areas are embedded within all landtype associations.

General habitat characteristics / attributes (compositional, structural and functional components) featured: These areas are moist, rich woods associated with water and dominated by hardwood and hardwood-pine communities. The forest canopy for those stands at or approaching maturity is generally closed and is composed of a variety of oaks, hickories, and other hardwoods. Some pines may be present on small-stream communities within the uplands. The midstory is multilayered and diverse. The herbaceous understory is sparse but may contain a variety of ferns, mosses, sedges, and flowering plants. Snags, down logs, and den trees range from common to abundant. Fire frequency ranges from infrequent to rare. Plant community composition and structure is largely influenced by the frequency, extent, and duration of annual flooding events. Generally, stand-sized (10–40 acres) openings ≤10 years old are frequent or rare. Small canopy gaps occur due to natural mortality or as a result of insects, disease, or wind throw.

The management indicator species are:

### Small-stream riparian plants
- American beech
- Basswood
- Cherrybark oak
- Inland sea-oats

### Large-stream riparian plants
- Ironwood
- Mayapple
- Wild azalea

### Small-stream riparian wildlife habitats
- Acadian Flycatcher
- Louisiana Waterthrush
- White-eyed Vireo (canopy gaps)
- Yellow-billed Cuckoo

### Large-stream riparian wildlife habitats
- Kentucky Warbler
- Northern Parula
- Pileated Woodpecker

### Large-stream riparian plants
- Green hawthorn
- Inland sea-oats
- Lizard’s tail
- Swamp chestnut oak

### Large-stream riparian wildlife habitats
- Warbling Vireo
- White-breasted Nuthatch
- Worm-eating Warbler

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**TABLE 5–2, MANAGEMENT INDICATOR SPECIES FOR RIPARIAN LANDSCAPES**
### TABLE 5–2, FORESTWIDE AQUATIC MANAGEMENT INDICATOR SPECIES

- Aquatic management indicators apply forestwide. The group used depends on the aquatic habitat category involved.

- The management indicator species are:

  **Swift-flowing — sand / gravel bottom**
  - Brown madtom
  - Redfin darter
  - Louisiana pearlshell mussel

  **Slow-flowing — silt / clay bottom**
  - Pirate perch
  - Blackspotted topminnow

  **Impoundments and ponds**
  - Largemouth bass
  - Sunfish
Attachment 2
Monitoring Program Transition Summary
<table>
<thead>
<tr>
<th>New 2012 Planning rule monitoring program categories</th>
<th>Status of select watershed conditions including key characteristics of terrestrial and aquatic ecosystems, 36 CFR 219.12(a)(5)(i)</th>
<th>Status of focal species to assess the ecological conditions, 36 CFR 219.12(a)(5)(ii)</th>
<th>Measureable changes on the plan area related to climate change and other stressors that may be affecting the plan area, 36 CFR 219.12(a)(5)(iii)</th>
<th>Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities, 36 CFR 219.12(a)(5)(iv)</th>
<th>Effects of each management system to determine that they do not substantially and permanently impair the productivity of the land, 36 CFR 219.12(a)(5)(v)</th>
<th>Status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives, 36 CFR 219.12(a)(5)(vi)</th>
<th>Social, cultural and economic sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective 1-1</td>
<td>Objective 2-2, Effectiveness and Validation questions; Objective 2-3 Effectiveness question; Objective 2-4 Implementation and Effectiveness questions; Objective 2-5 Implementation and Effectiveness questions; Objective 2-6 Implementation and Effectiveness questions; Objective 2-7 Implementation and Effectiveness questions; Objective 2-8 Implementation and Effectiveness questions</td>
<td>Objective 2-9 Implementation and Effectiveness questions; Objective 2-10 Implementation and Effectiveness questions</td>
<td>Objective 2-11 Implementation and Effectiveness questions; Objective 2-12 Implementation and Effectiveness questions</td>
<td>Objective 2-13 Implementation and Effectiveness questions; Objective 2-14 Implementation and Effectiveness questions</td>
<td>Objective 2-15 Implementation and Effectiveness questions; Objective 2-16 Implementation and Effectiveness questions</td>
<td>Objective 2-17 Implementation and Effectiveness questions; Objective 2-18 Implementation and Effectiveness questions</td>
<td>Objective 2-19 Implementation and Effectiveness questions; Objective 2-20 Implementation and Effectiveness questions</td>
</tr>
<tr>
<td>Goal 2 Objectives</td>
<td>Objective 2-2 Validation question; Objective 2-3 Validation questions; Objective 2-4 Validation questions</td>
<td>Objective 2-5 Validation questions; Objective 2-6 Validation questions</td>
<td>Objective 2-7 Validation questions; Objective 2-8 Validation questions</td>
<td>Objective 2-9 Validation questions; Objective 2-10 Validation questions</td>
<td>Objective 2-11 Validation questions; Objective 2-12 Validation questions</td>
<td>Objective 2-13 Validation questions; Objective 2-14 Validation questions</td>
<td>Objective 2-15 Validation questions; Objective 2-16 Validation questions</td>
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<td>Goal 3 Objectives</td>
<td>Objective 3-1 Implementation question; Objective 3-2 Implementation and Effectiveness questions; Objective 3-3 Implementation and Effectiveness questions</td>
<td>Objective 3-4 Implementation and Effectiveness questions; Objective 3-5 Implementation and Effectiveness questions</td>
<td>Objective 3-6 Implementation and Effectiveness questions; Objective 3-7 Implementation and Effectiveness questions</td>
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<td>Goal 5 Objectives</td>
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