

LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES  
WILDLIFE MANAGEMENT AREA (WMA)  
GENERAL FOREST MANAGEMENT PLAN

MISSION STATEMENT

To conserve, manage and enhance the Department's forest land ecosystem so recreational, educational, research, and economic opportunities will be provided for the citizens of this state.

GOALS

1. To conserve, manage and enhance the native flora and fauna on the forested lands of the Department's WMA system.
2. To re-establish appropriate forest habitat and associated plant communities on the cleared agricultural lands contained in recently acquired WMAs.
3. To provide forest habitats with associated natural plant and animal communities for recreational use by the citizens of this state.
4. To integrate the Department's forest habitat management strategies on WMAs with the socio-economic considerations of local communities through the sale of forest products.
5. To incorporate research and educational opportunities into the Department's WMA forest management program.

# LOUISIANA DEPARTMENT OF WILDLIFE AND FISHERIES

## WILDLIFE MANAGEMENT AREA

### GENERAL FOREST MANAGEMENT PLAN REVISION

The Louisiana Department of Wildlife and Fisheries has acquired approximately 462,000 acres of land since 1959. The extensive clearing of forestlands, especially bottomlands, for agricultural production was a key factor that prompted the Department to purchase these lands, thereby insuring the continued existence of these valuable ecosystems.

Forest *management* on these timbered tracts prior to purchase by the Department was non-existent, as evidence indicates the timber on most lands was severely high-graded. Each time timber was cut, only the best trees were removed resulting in many stands of poor quality and cull trees. Additionally, a change in the natural hydrology, due to the demand of urbanization and agriculture, has affected the historic productive capacity of the ecosystem to accommodate wildlife populations on the remnant isolated tracts of bottomland hardwoods. The Department now has the task of recuperating these lands to improve wildlife habitat, maintain habitat diversity within the WMA, provide recreational opportunity for our various user groups, and at the same time grow quality timber.

#### OBJECTIVES

The objectives of the forest management program on these areas are to design and implement a plan to enhance wildlife production while maintaining the native flora and fauna characteristic of the areas; to provide quality wildlife oriented recreational opportunities for the public; to develop timber stands consisting of a wide variety of species, mast-producing bottomland hardwoods of all ages, habitat diversity, and areas comparable to earlier forests in structure, composition, and diversity. Aesthetic qualities of the areas will be considered in forest management prescriptions. Educational and research opportunities will be promoted to further a better understanding of the ecological/environmental factors associated with the diverse habitats represented. Additionally, production of timber products will be maintained, consistent with other objectives, as it plays an important role in the environmental and sociological atmosphere of the areas.

#### PLAN

Plan development requires an initial data base relative to the objectives of the plan. Working knowledge of the various areas indicates the presence of at least sixteen (16) timber types as recognized by the Society of American Foresters publication "Forest Cover Types of the United States and Canada". However, certain forest variables that are associated with wildlife habitat quality are usually not accounted for in a normal forest inventory. Forestry Program staff have classified 58 different forest cover types that we recognize on our WMAs.

Since the approval and adoption of the WMA General Forest Management Plan by the LWF Commission in 1995, forest inventory data has been accumulated and utilized on the WMAs to prescribe habitat improvement plans (prescriptions). These forest inventories have been standard systematic plot cruises, based on a 5% sample of the management compartment being inventoried. These inventories provide sufficient data to determine forest management needs for sustaining forest product production. However, as we have learned over the past years of managing these resources for sustaining wildlife populations, sampling of additional wildlife habitat forest variables is necessary to better analyze the overall forest/habitat conditions. This Plan Revision will alter the methodology of forest inventory on the WMAs as well as the schedule of forest inventory.

The new inventory method will involve obtaining a complete inventory of one or several WMAs each year, based upon a goal of 50-60,000 acres inventoried each year. However, the sampling method will be less intense than the standard 5% systematic cruise, and will involve collecting data on more specific "secondary forest variables", directly related to discerning wildlife habitat quality of the existing forest structure. Standard forest product measurements will still be obtained as well to allow managers to evaluate the sustainability and growth of our forests.

With some exception, each Department-owned WMA has had growth monitoring plots established to determine baseline information concerning general forest composition of the area, affects of past, present, and future management practices on vegetational diversity, and quality of wildlife habitat variables. These are permanent plots from which data is being collected at 10-year intervals. Continued acquisition of this data is important to understanding the development of these forest resources and the temporal benefits from associated management and non-management activities.

Each WMA has been subdivided into compartments based on an entry schedule ranging from 10-20 years. A new entry schedule will be developed for each WMA as it is inventoried in the new method. The entry schedule will be based on analysis of the WMA inventory data and knowledge/experience of the Wildlife Forester, Wildlife Division Program Managers and other Wildlife Division Regional personnel. A prescription (compartment plan) will be prepared for each compartment upon its scheduled entry that depicts the management activities (if any) necessary to achieve compliance with the plan objective(s). Desired Forest Conditions developed by the Lower Mississippi Valley Joint Venture's Forest Resource Conservation Working Group (2007) will be used to guide forest management decisions. Timber market conditions may cause a delay in implementation of annual plans.

Maps of each WMA will show management units or compartments, locations of natural areas, scenic streams, unique areas, greentree reservoirs, and any areas known to be occupied by endangered species.

Establishment of Natural Areas (NAs) on the WMAs was approved, as presented, by the LWF Commission on 3 January 2002. NAs will provide that niche of habitat which is

currently regarded/addressed with many uncertainties relative to the effects of man's manipulations in "managed" habitats. The NAs will also serve as control areas, allowing appropriate monitoring of management activities to be compared against the unmanaged habitats represented in the NAs. Unique areas will be preserved in their natural state. A Streamside Management Zone (SMZ) will be maintained along streams and lake perimeters. Timber removal in these buffers will be limited to 25% of total volume, but in no instance should the remaining basal area be less than a minimum of 60 sq. ft. Streams in the Scenic Rivers System will be managed in compliance with the Scenic River's Act. Best Management Practices for forest management in Louisiana will be followed.

Prescribed burning will be practiced to improve and promote habitat quality. All burning practices should follow a burn plan developed by the Region Biologist or Wildlife Division Forester. All firelanes shall be established in a manner to prevent soil erosion problems (water bars and turn outs placed appropriately). Dormant and growing season burning will be practiced as site requirements dictate.

Roads will be managed to provide habitat diversity as well as reasonable access to the WMAs. All roads except primary thoroughfares will be managed and treated as openings, resulting in less maintenance cost and better wildlife habitat conditions. Additionally, when a timber harvest prescription requires volume removal of over 75% in a stand adjacent to a primary thoroughfare, an appropriate buffer will be maintained following the harvest limitations for streamside buffers. However, if long-term habitat benefits are deemed greater than the short-term aesthetic disruption, the buffer may not be maintained.

Greentree reservoirs or any specific areas which can be managed for waterfowl will be managed accordingly with emphasis on increasing waterfowl food supplies. This will entail maintenance of quality cavity trees, thinning of non-preferred (by waterfowl) mast trees in order to increase desirable mast species along with other duck foods such as smartweed, millets, sedges and panicums, while maintaining leaf litter and herbaceous accumulations for invertebrate populations. The artificial flooding regime will be adjusted periodically to maintain vigor in the mast producing overstory, and/or promote regeneration of the stand. All artificial flooding periods should reflect the historical overflow occurrence as much as possible to avoid negative effects on tree growth and mast production.

Management plans will be coordinated with the Louisiana Natural Heritage Program to provide suitable habitat maintenance for endangered, threatened or state rare species occurring on the area.

In gathering data and developing plans, the Wildlife Division Forester will keep the Regional Biologist Manager, Regional Biologists, Area Supervisor, and Louisiana Natural Heritage Program Coordinator informed as to the progress of the plan. Upon plan completion, the Wildlife Division Forestry Program Manager will submit the prescriptions for posting on the Department website for in-house and outside public

review. The period of review will be 45 days from initial posting. Comments received will be reviewed by the Program Manager and prescriptions adjusted as appropriate, after review with the Assistant Administrator and Administrator of the Wildlife Division.

## METHODS

Commercial timber harvest is the most economical and only practical method of manipulating the vast acreages of forest habitat under Department ownership. However, some habitat work will be accomplished by Department personnel in commercially inoperative or prohibitive areas.

Combinations of single-tree, group selection and clearcut harvest systems will be used to address maintenance and development of desired forest conditions considered necessary for sustaining general wildlife populations. A combination of selective thinning and clearcutting will maintain the species diversity of each area by not allowing domination of a single tree species or association of species that create conditions unfavorable to normal plant succession and species diversity.

Shelterwood and clearcutting systems will be used as necessary in managing stands of limited species composition, with minimum desirable regeneration stocking, or as required to improve habitat conditions of specific wildlife. Shelterwood cutting will promote establishment of oak regeneration and allow it to develop (when given a suitable length of time between cuttings, dependent on site quality) to a competitive size that is proper for final release and ensure representation in future stand. Clearcutting will be used after establishment of advanced reproduction of hard mast producers has been ascertained. Without sufficient advance oak reproduction, this harvest practice may not foster the component of oak regeneration desired.

Group selection involves the removal of several trees in a group which leaves a larger canopy opening than single-tree selection but not as much canopy opening as a clearcut method. Potential cavity trees will be retained within cluster formations as necessary to provide and protect the den/nest sites and escape cover.

Productive forest management as described above will increase vertical and horizontal diversity, browse and mast (hard and soft) production. The increase of these important food supplies will benefit deer, squirrel, rabbit, raccoon, wild turkey, waterfowl and many species of non-game wildlife, including Neotropical migratory birds. The increased ground cover resulting from timber cuttings will benefit rabbits and deer, and provide improved nesting and brooding habitat for the Wild turkey. In addition to enhancing the establishment and growth of desirable mast producing trees, the described forest management will greatly improve the tree quality from a timber standpoint. Retention of dead wood components (standing snags, tree top, unmerchantable logs, etc.) will be promoted to provide that habitat component where it is lacking.

## TIMBER SALES

Before a timber sale is made, total volume will be determined for pulpwood and sawlogs. Reproduction counts, when necessary, will also be conducted and included in pre-harvest planning. Timber marking operations, following prescription recommendations prepared by the Wildlife Division Forester, will be carried out by the Wildlife Division Forester with assistance from Region personnel.

After all timber to be sold has been tabulated, the Wildlife Division Forestry Program Manager will prepare a timber sale proposal. The Wildlife Division Forester will discuss all aspects of the proposed timber sale with Regional Biologist Managers. The proposal will then be submitted, along with a list of potential bidders, to the Wildlife Division Assistant Administrator and Administrator for approval and advertisement for bids. The Region Biologist Manager and WMA Supervisor will be furnished a copy of the timber sale proposal.

If acceptable bids are received and a contract awarded, the Wildlife Division Forestry Program Manager will contact the buyer to discuss aspects of the contract and request payment. The Wildlife Division Forester or his designee will visit the site periodically during timber harvest operations but, WMA personnel will be responsible for daily monitoring of the timber harvest operations.

The contractor will be instructed to contact the Wildlife Division Forester concerning problems which may arise during the contract period. If for some reason the cutting has to be terminated, the Wildlife Division Forester, or appropriate Region personnel will contact the buyer or his agent.

Requests for contract extensions and performance deposit returns must first be approved by the Wildlife Division Forester with a written request made to the Wildlife Division Forestry Program Manager for final approval.

## REVENUE UTILIZATION

Although revenue generation is not the principal goal of the timber management on these department lands, it certainly is a secondary goal. The Wildlife Division Forester can not manage the timber stands for wildlife without making the timber sales, wherein the purchaser and his logging contractor are the tool to achieve the habitat manipulation. If the prescribed treatment is not economically feasible, it will not sell. Additionally, In-kind Services may be a part of the bid proposal as needed. It is important to put some proceeds back into improving the timber stands and the management ability of those stands. These In-kind Service projects may include, but are not limited to; improving roads, bridges, culverts, soil stabilization, site preparation, chemical and mechanical treatments, tree plantings and other forest management related activities.

The revenues derived as a result of the sale of the timber shall be used in the following manner: They may be deposited in the Wildlife Habitat and Natural Heritage Trust Fund for the purpose of purchasing additional timber / recreational lands and stewardship of those lands; they may be deposited in the Conservation Fund and earmarked as Federal Aid Program Income, to be used on Federal Aid projects administered by the Wildlife Division.

#### INSECTS, DISEASES AND NATURAL DISASTERS

Division personnel should immediately alert the Wildlife Division Forester of any suspected insect or disease problem associated with the WMA forest resources. The Wildlife Division Forester will contact appropriate USDA Forest Insect and Disease Specialists to help investigate the occurrence.

Timber damage due to forest insect infestation or natural disaster (tornado, ice storm, etc.) should be reported to the Wildlife Division Forester for immediate action. The Wildlife Division Forester will, based upon inspection of the site, determine appropriate action to take regarding salvage of the damaged timber.

#### CONTINUING EDUCATION

All Division personnel assigned to Department-owned WMAs will be involved with a combination in-house and extension oriented continuing education program covering all associated aspects of forest management relative to our WMA program. The Wildlife Division Forester will pursue available courses and development of specific courses to address concerns addressed by Division personnel.

#### RESEARCH

Many habitat situations exist on Department owned lands, providing enormous opportunity for research to add to the scientific knowledge required for proper management of the diverse habitats represented. The Department will readily accept for review and possible establishment any research proposals for projects on WMAs. Forestry Section and Region personnel will participate in all research activities as a means of continuing education.

Periodic reviews (every 10-15 years) of WMA entry schedules will allow an update of plans to utilize new research findings relative to the proper management of Department lands and continued adherence to meeting the general WMA plan objectives.

**Revised: January 4, 2007**  
**Approved: March 1, 2007**  
**(Original: September 21, 1995)**

WMA'S IN THE LDWF FOREST MANAGEMENT PROGRAM

<u>WMA</u>	<u>REGION</u>	<u>DEPARTMENT</u>	<u>Ownership</u>	
			<u>COE</u>	<u>STATE</u>
Alexander St. Forest	3	238		
Attakapas Island	6	27,962		
Bayou Macon	2	6,919		
Bayou Pierre	1	2,212		
Big Colewa Bayou	2	899		
Big Lake	4	19,231		
Boeuf	4	50,967		
Buckhorn	4	11,262		
Dewey Wills	3	61,871		
Elbow Slough	3	160		
Elm Hall	6	2,839		
Floy McElroy	2	681		
Grassy Lake	6	12,983		
Hutchinson Creek	7	129		
Joyce	7	15,059		
Lake Boeuf	7	802		
Lake Ramsey	7	796		
Little River	3	4,164		
Loggy Bayou	1	4,243		159
Maurepas Swamp	7	67,713		
Marsh Bayou	5	655		
Ouachita	2	10,389		
Pearl River	7	35,031		
Pomme de Terre	6	6,434		
Red River	4	29,964	11,717	
Russell Sage	2	16,835		
Sandy Hollow	7	3,697		
Sherburne	7	11,780		
Sicity Island Hills	4	7,504		
Spring Bayou	6	12,506		
Three Rivers	4	26,204	1,085	835
Tunica Hills	7	5,905		
Walnut Hill	5	595		
		458,629	12,802	994

**Total 33 WMA's      472,425 acres**