

Preparing for Success: Waterfowl Habitat Management Annual Planning

by
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While working with private landowners and wetland managers over the past several years, I've noticed a common theme to managing waterfowl habitat: lack of planning. This isn't to say, however, that most landowners and managers have poor foresight or are procrastinators. Life is busy, and there are many other activities and responsibilities that happen during the "off-season" when waterfowl seasons are closed and temperatures begin to rise, and before long, the next waterfowl hunting season seems just around the corner. As a waterfowl biologist, it's typical to receive phone calls in the early fall asking "Is there anything I can do to make my property more attractive for ducks?" In some cases, there may be some opportunity to improve wetland habitat during the fall, but the bulk of quality waterfowl habitat management is accomplished during the spring and summer months. This article should serve as a general guideline for planning management activities throughout the year, which will help prepare your property for attracting and holding waterfowl upon their arrival to winter in Mississippi. Obviously, not all properties and wetland habitat types are the same, and some deviations from this general timeline will be necessary at times. Nonetheless, having a management schedule adapted for your property will greatly increase your chances of having quality wintering waterfowl habitat.

March – April

When feasible, impoundments should be left at least partially flooded until waterfowl use declines substantially. This generally happens in early March, but just like the fall migration, weather plays an important role in the timing of the northward spring migration for waterfowl. When beginning a drawdown (the removal of water from an impoundment), water should be slowly removed over several weeks. A slow drawdown is particularly important when managing for natural vegetation such as annual grasses and sedges (called moist-soil management). This slow removal of water allows existing seeds to remain in the impoundment and allows the soil to remain moist, rather than quickly drying and crusting over. This slow drawdown also concentrates aquatic invertebrates which are an important part of waterfowl diets before and during spring migration. A good rule of thumb is to remove one board per week from water control structures when drawing down for moist-soil management. In agricultural fields, a slow drawdown is less important, as the main goal will be to dry the area quickly for the current year's crop planting. Early spring is also an important time to evaluate infrastructure such as levees, water control structures, wells, and pumps. Any maintenance or repairs needed should be handled at this time.

May – June

Water drawdowns for moist-soil management should be completed in late spring in order to provide soil moisture for germination of desired natural plants as temperatures increase. The months of May and June are critical for monitoring the resulting natural plant responses. If possible, attempt to monitor the plant composition in your moist-soil areas on a weekly basis. Undesired vegetation (typically herbaceous broad-leaved and woody plants) should be identified

early in the growing season and controlled when needed before they begin to compete with the desired annual grasses and sedges.

May and June are also appropriate times for planting agricultural crops for additional waterfowl food sources (e.g., corn, milo, and rice). These plantings are done later than the normal production agriculture time frame to ensure that food resources don't mature and deteriorate too quickly. Within an impoundment, combining moist-soil management with planted crops can provide an excellent and diverse food source for waterfowl. Planting strips of tall vegetation such as sorghum-Sudan grass or Egyptian wheat for hunter cover and disturbance screens should also be considered during late spring and early summer.

July – August

Mid to late summer is the most critical time of year for producing waterfowl foods in Mississippi. Monitoring moist-soil vegetation and planted crops on at least a weekly basis is key during this time. Late summer often becomes a decision point for moist-soil managers as they evaluate whether to continue with natural vegetation, or to disk and supplement with planting millet or other small grains. Japanese and browntop millets can be planted into early August, provided adequate moisture is available during the late summer and early fall.

If needed, and if possible, irrigation of planted crops and natural vegetation should be used to continue the proper growth of waterfowl food production during the summer. A fall flooding plan should also begin to develop in late summer with habitat types and locations in consideration. Seeds from natural vegetation generally deteriorates more slowly when flooded than agricultural crops. With this in mind, moist-soil habitat should be some of the first habitat flooded, and early flooded areas should be spaced out over the property when possible. Agricultural crops should be planned for flooding later in the year when bird numbers increase and colder temperatures force waterfowl to feed on food sources high in carbohydrates like corn and other crops.

September – October

When food resources have reached maturity in early fall, manipulation of natural vegetation should be considered in areas with tall, dense vegetation or areas where undesirable plant species are dominant. Fall mowing or disking can be beneficial in these areas by providing openings prior to flooding. Careful attention should be given to ensure that no planted vegetation is manipulated. Manipulation of natural vegetation is legal for waterfowl hunting, while planted crops cannot be manipulated for waterfowl hunting.

Early flooding should be considered in September and October on properties where multiple impoundments are available. Wetland habitat availability is very limited during the early fall when many early migrant waterfowl, shorebirds, and wading birds begin entering Mississippi. Shallow flooding of moist-soil habitat is ideal for many of these species, and can help the property get a start on attracting and holding waterfowl for the coming winter months.

November – December

Similar to a slow drawdown, incrementally flooding impoundments as winter moves along can efficiently provide newly flooded food resources as more birds arrive. All impoundments should be near full capacity by the end of December, before Mississippi typically receives peak wintering waterfowl numbers. Careful monitoring (with or without a shotgun in hand) should be done in the winter to evaluate bird abundances in response to habitat types, water depths, and other variables present on the property. Taking notes from observations and hunting trips can help landowners and managers learn what works best for the property and what may need to be changed.

January – February

By early January, water levels should be at full capacity if possible. For impoundments that were flooded in early fall, a partial drawdown in early to mid-January can be done to concentrate invertebrates and other remaining food sources for ducks as they seek to build and maintain body reserves for the approaching spring migration. Notes related to bird responses to habitat should be taken throughout the rest of winter in order to inform management decisions for the upcoming growing season.

Call for Assistance

The Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) offers free technical guidance to private landowners and managers needing wildlife habitat management assistance. MDWFP Waterfowl Program biologists will visit a property to evaluate the current wetland habitat status, discuss management goals, and offer management recommendations, as well as discuss the potential for cost-sharing and other assistance programs. This service can be valuable for fine-tuning management practices, or for those who are starting from the beginning. For more information on wildlife habitat management technical guidance, contact the MDWFP Wildlife Bureau at 601-432-2199.



Photo: The “off-season” is not only a time for waterfowl habitat management, but it’s also a time to make improvements to levees and enhance water control capabilities.



Photo: A slow water drawdown in late spring can provide a variety of beneficial waterfowl foods like annual grasses and sedges.



Photo: Monitoring plant growth and species composition during the spring and summer is an important task in quality wetland management.