LANDOWNER GUIDE

HABITAT IMPROVEMENTS IN HARDWOOD PLANTATIONS ON WETLAND RESERVE EASEMENTS

CAN I MANAGE MY WRP/WRE BOTTOMLAND HARDWOOD PLANTATION?

Many landowners with Wetland Reserve Program (WRP) easements and/or Wetland Reserve Easements (WRE) are interested in improving habitat for wildlife on their property.

Under certain conditions, the Natural Resources Conservation Service (NRCS) may allow treatment of WRP/WRE forest plantations if stands are adequately developed, and planned treatments are compatible with long-term program objectives.

Primary program objectives are to protect, restore, and enhance the functions of wetlands to benefit habitat for migratory birds, other wetland dependent wildlife and threatened and endangered species.

Although the sale of forest products may produce revenue for landowners, any authorization by the NRCS to conduct forest treatments in WRP/WRE plantations will be based on achieving program objectives.

This brochure provides information to assist landowners in conducting a self-evaluation to determine if their plantation is ready for a more in-depth assessment by a natural resource professional, as well as the steps necessary to obtain NRCS approval to carry out prescribed management actions.

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Natural Resources Conservation Service
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TRI-STATE CONSERVATION PARTNERSHIP

IS MY PLANTATION READY FOR TREATMENT?

The optimal timing of the first habitat treatment in WRP/WRE plantations depends largely on rate of tree growth. Tree growth is influenced by several factors such as soil quality, elevation, species planted, and stem density (number of trees per acre) of both planted and naturally occurring trees. Most stands will not be ready for treatment until at least 15 years or older, and on many sites, 20 years or older.

EVALUATION METHODS

If you feel your WRP/WRE plantation may need management, you should conduct basic assessments of ground vegetation and percent of live crown to evaluate if treatment may be warranted. Ground vegetation and percent live crown are relatively simple evaluation methods that can be conducted simultaneously to assess stand conditions.

1 GROUND VEGETATION

The quantity of ground vegetation present on the forest floor during the growing season (late spring and summer) can provide basic information on stand condition. As trees advance in size and their crowns grow together, shading of the forest floor results in reduced growth of ground vegetation.

A basic assessment of ground vegetation can be accomplished by walking through your stand and evaluating the density of vegetative cover present on the forest floor. Since many stands have a patchy distribution of ground vegetation, it is important to determine an average density across the stand.

WHAT IT MEANS

If your estimated average ground cover is LOW or MEDIUM, your stand may be ready for treatment and you should seek further evaluation (see section on How Do I Get Additional Assistance and Approval from NRCS). If estimated as HIGH, your stand is likely not ready for treatment and should be reevaluated after a few years.

While conducting your general ground vegetation assessment, you should also consider the second evaluation method, Percent Live Crown.

LOW — A general absence of forest floor vegetation

MEDIUM — Greater presence and diversity of vegetation and/or patches, but walking access is generally un-impeded or only slightly impeded

HIGH — Dense vegetation over majority of area but may have some sparser spots. Walking access may be impeded and in some areas, difficult.

2 PERCENT LIVE CROWN

This evaluation method is accomplished by estimating the percent of green foliage in the stands primary tree canopy, as compared to total tree height (commonly called "Live Crown Ratio"). As a forest stand develops, competition for growing space between individual trees increases and crowns begin to grow together. As a result, lower limbs in the crown die-back and as competition between trees increases over time, the live portion of tree crowns get smaller. Conducting a general estimate of the average percent live crowns within the stand provides an additional tool for determining whether your plantation may be ready to treat.

An assessment of average live crown can be conducted by walking through the stand and estimating overall average percent live crown you observe. When conducting the evaluation, you should only consider trees that make up the stands primary canopy (do not consider small trees growing under the main stand canopy). When estimating percent live crown, you should not consider scattered, individual limbs with sparse green foliage below the trees primary crown (see next panel).

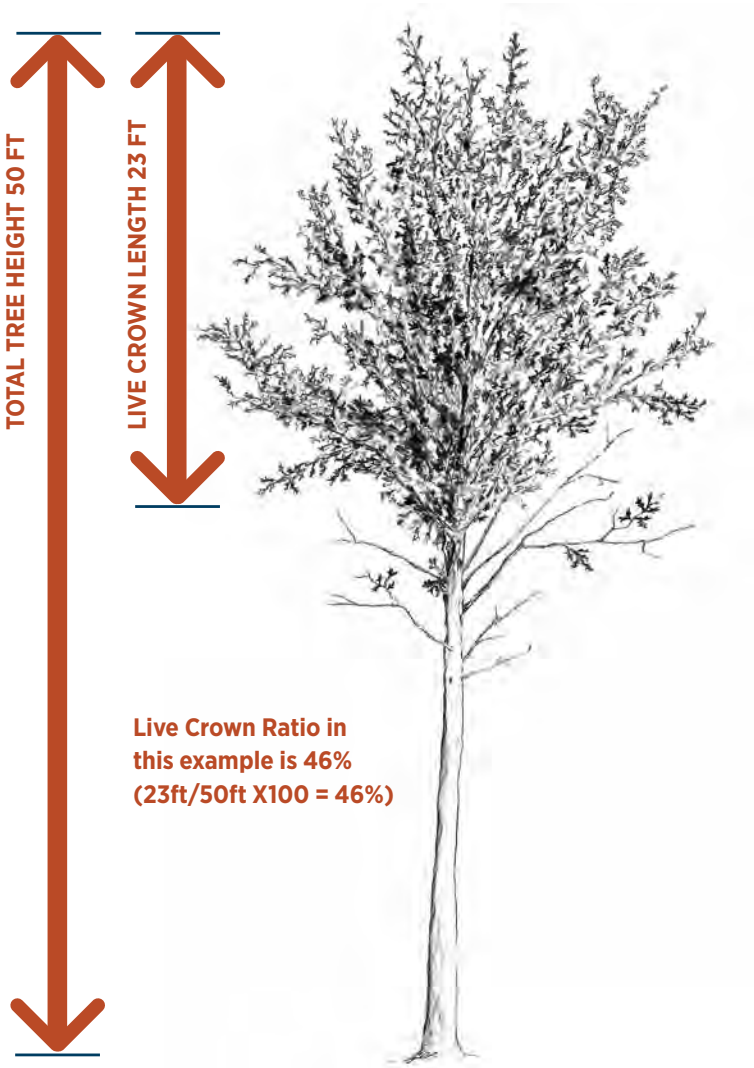
WHAT IT MEANS

If average percent live crowns observed are 40% or less, the stand may benefit from treatment and you should seek further evaluation (see section on How Do I Get Additional Assistance and Approval from NRCS).

If your average estimate is between 40% to 60%, the stand could possibly benefit from treatment. In many cases, an estimate between 40 and 60% may indicate the stand will benefit from additional growth and development before being treated.

If your evaluation of average percent live crowns is 60% or more, then your stand is likely not ready for treatment and should be reevaluated after a few years.

When estimating percent live crown, you should not consider scattered, individual limbs with sparse green foliage below the tree's primary crown



ADDITIONAL CONSIDERATIONS

1 TIMBER MARKETS

As you consider potential treatment needs, be aware that while NRCS may support a request for approval to treat your stand, markets for hardwood may be limited in some areas.

2 INVASIVE PLANTS

Another critical consideration in managing and developing healthy forests on your WRP/WRE easement is presence and potential impact of non-native invasive plants. Many invasive plants have become common within forests of the South and have potential to cause dramatic long-term negative effects on forest stands.

Forest treatment activities will often proliferate the growth of invasive plants. In many cases, invasive species should be controlled prior to implementing any timber treatments.

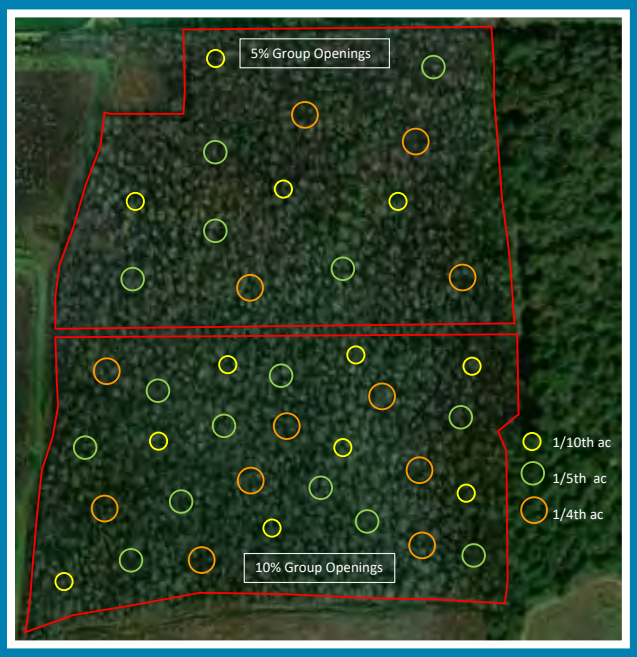
Any invasive plants identified within your stand(s) should be noted in your proposed treatment plan/prescription. The pictures on the right represent some common invasive plants that you and your natural resource professional should look for, control, and monitor if identified within stands proposed for treatment.

Chinese Privet — Karan A. Rawlins, Univ. of Georgia, Bugwood.org

Trifoliate Orange — John D. Byrd, Mississippi State University, Bugwood.org

Chinese Tallowtree — James H. Miller, USDA Forest Service, Bugwood.org

ADDITIONAL CONSIDERATIONS



3 NON-COMMERCIAL & OTHER TREATMENT ALTERNATIVES

Some stands may benefit from treatment prior to reaching an age, size, or condition that will support a commercial harvest. For example, stands with extremely high tree densities or homogeneous plantations containing very few tree species. In cases where non-commercial treatment is identified as a possible alternative, cost to implement treatment may be the responsibility of the landowner.

Two examples of non-commercial treatment methods prescribed in these circumstances are Group Removal (depicted above) and Patch Cuts. Group Removals, as described in NRCS's plantation treatment document (see next panel), are intended to create openings in the stand large enough to allow development of understory vegetation that generally could not develop under a uniformly thinned stand. These group openings would generally be 1/10 to 1/4 acre in size.

Patch Cuts are larger than Group Removals, for example 1/2 to four acres in size. Establishing patch cuts helps diversify forest stand structure by creating more substantial areas of ground cover, promoting the growth of younger trees, and allowing development of additional tree species.

HOW DO I GET

ADDITIONAL ASSISTANCE AND APPROVAL FROM NRCS?

If you conduct the Ground Vegetation and Percent Live Crown assessments and feel your WRP/WRE stand may be ready for treatment, you should seek a more detailed evaluation by contacting your local NRCS office. NRCS staff can answer questions and assist with technical guidance in evaluating your timber and potential treatment alternatives, if warranted.

Once you have coordinated with your local NRCS office, you should work with a forester or wildlife biologist to conduct a timber evaluation, utilizing a more in-depth stand assessment process as outlined in the NRCS document "Tools for Assessment and Treatment of Reforested Bottomland Hardwood Stands on Wetland Reserve Easements". If treatment is warranted, a simple forest management plan or treatment prescription, compatible with the objectives of the WRP/WRE program, can be developed and provided to the NRCS for consideration and issuance of a Compatible Use Authorization (CUA). NRCS policy requires an approved CUA for any management or maintenance activity on the easement. If you have questions, your local NRCS District Conservationist can provide more specific information.

CONTACT YOUR LOCAL NRCS OFFICE

WEBSITE: https://offices.sc.egov.usda.gov/locator/app?agency=nrcs

PHONE: Arkansas (501) 301-3100
Louisiana (318) 473-7751
Mississippi (601) 863-3947