FSC US CONTROLLED WOOD REGIONAL MEETINGS

LATE SUCCESSIONAL BOTTOMLAND HARDWOODS

FSC REGIONS
Southeast and Mississippi Alluvial Valley

HCVS IN FSC
A High Conservation Value (HCV) is a biological, ecological, social or cultural value of outstanding significance or critical importance. FSC is working to ensure that our system helps to maintain and enhance the special places that support these values. For more information on HCVs, see the Common Guidance for the Identification of High Conservation Values.[1]

WHY ARE LATE SUCCESIONAL BOTTOMLAND HARDWOODS CONSIDERED AN HCV?
It's rarity - much of the original bottomland hardwood in the US was cleared for agriculture, particularly in the Mississippi valley, and much of the remainder was mismanaged – leaving very few intact examples. These types of HCVs were identified using guidance associated with the FSC US Forest Management Standard, with support from other information sources and expert consultation.

SUMMARY OF LATE SUCCESSIONAL BOTTOMLAND HARDWOODS
Bottomland Hardwoods are periodically inundated, floodplain forests, where the entire ecosystem is driven by hydrology. Even small changes to the hydrology can result in very significant effects on the system. These forests include a number of different species associations that vary depending upon the extent of flooding, soil characteristics, decomposition rates, soil and water pH, nutrient availability and turnover rates, flood depth and water velocity, light intensity, and disturbance. Late successional stands are not defined by the species, as much as by the structural composition (e.g., more stratification) and existence of large wood debris, including standing hollow trees – these changes occur at about 80 years in most Bottomland Hardwood types and perhaps a little later in cypress swamps. While old Bottomland Hardwood stands are not particularly rare, the late successional stands, with characteristics as previously described, are quite rare, due to a history of selective clear-cutting and high-grading. The extremely diverse stand conditions of these forests and the biodiversity they support make them particularly important. Woody species diversity can be comparable to the most diverse upland forests in the US. They tend to have structurally complex vegetation and a deep litter layer. The dense vegetation and the landscape connectivity they provide make them important travel corridors for wildlife.

Bottomland hardwoods in the Coastal Plain and Mississippi Alluvial Valley have some similarities, but also differ in some significant ways. In the Coastal Plain areas, bottomland hardwoods tend to occur in more narrow bands that follow a river or stream, whereas in the Mississippi Alluvial Valley, they extend much greater distances from the river/stream, resulting in much larger areas of the forest type.

For the purposes of this assessment, 'late successional' refers to bottomland hardwoods that are at least 80 years old and have the complex structural characteristics associated with late successional stands, but are not necessarily Old Growth (as defined in the FSC US Forest Management Standard).

[1]Common Guidance for the Identification of High Conservation Values (https://ic.fsc.org/en/what-is-fsc-certification/consultations/archive/hcv-common-guidance)

IDENTIFIED THREATS TO LATE SUCCESSIONAL BOTTOMLAND HARDWOODS

Significant threats include development, hydrologic changes (droughts, water withdraws, ditching), **incompatible forest management (results in changes to canopy age and structure, hydrology, and available dead and down woody debris),** pollution, fragmentation, climate change, **invasive species (including spread that is exacerbated by logging activities), and economic drivers that alter forest management goals (i.e., economic drivers result in pressure for inappropriate harvests).** Changes to the vegetative cover in these systems can significantly affect hydrologic flow, and therefore the entire system.

Forest management occurring within bottomland hardwoods is not necessarily in itself a threat, but how the management is applied in the context of the local landscape is important. Size and location of openings, which species are retained, harvest method (equipment and techniques), past disturbance of hydrology and availability of red maple/sweet gum seed in the surrounding landscape may have an impact on successful development of stands with the desired species composition and habitat elements. Silviculture decisions should emphasize the geomorphic setting and hydrologic conditions of the site, while restoring or maintaining the species and structural diversity.

Threats can differ between the Coastal Plains of the Southeast Region and Mississippi Alluvial Valley Region:

Mississippi Alluvial Valley	Coastal Plains of the Southeast
The demand for forest products can promote **silviculture that does not achieve forest conditions desired for biodiversity and ecological function.**	Without dependable, seasonable dry periods, these forests are more often treated under challenging (wet) conditions, resulting in more frequent use of **clearcut silviculture and significant changes to the vegetative cover**. In this region, the systems are still not fully understood, with gaps in knowledge regarding best situation-specific silvicultural techniques and interactions between forest management threats and other threats.

WHAT ARE MITIGATION ACTIONS AND WHAT WOULD WE LIKE TO ACHIEVE?

Companies that mix FSC-certified forest materials and non-certified materials to make products with an 'FSC Mix' claim/logo are required to address certain risks before using the non-certified forest materials. One of these is the risk that their forest materials come from areas where HCVs are threatened by forest management activities. FSC has completed a US National Risk Assessment to identify where this risk is greater than 'low' and late successional bottomland hardwood forests are one of these places - specifically, within the extent of Bottomland Hardwoods in the above-mentioned regions. Companies that wish to use non-certified materials from the identified places are required to either avoid sourcing from specific sites where the threats are occurring, or to implement mitigation actions that reduce the risk of sourcing from those sites. For this rare ecosystem, any mitigation actions will need to address the threats identified above in **bold**.

The FSC US National Risk Assessment also introduces the concept of holding regional meetings to bring stakeholders together to collaboratively identify effective and practical mitigation actions. We are asking participants to consider landscape-scale mitigation actions, that will help to reduce risks across the landscape in which the companies source forest materials. An effective way to do this may be to build on existing programs and projects that are already tackling these issues. The companies implementing mitigation actions are required to select one or more from the options identified at the regional meetings.

Please help us to determine what these mitigation actions should be, by visiting engage.fsc.us.org and joining the virtual discussion, or attending a regional meeting.

SOME SOURCES THAT CAN HELP GENERATE MITIGATION OPTION IDEAS

- The Forest Stewards Guild
- Mississippi State University Extension
- Lower Mississippi Valley Joint Venture
- Bottomland & Swamp Forest Symposium