

**FSC US Controlled Wood Regional Meeting Report  
APPALACHIAN REGION:  
Asheville, NC – July 19, 2018**

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**Executive Summary**

In Summer 2018, FSC US invited diverse stakeholders to participate in a new and innovative process to collaboratively identify practical actions that companies can take to effectively reduce the risk of procuring wood from forests where important ecological values are threatened. This process included participation through webinars, an online discussion forum and in-person Controlled Wood Regional Meetings. Organizations and individuals who engaged in this process collaboratively developed mitigation options through informed consultation that will be used by FSC certificate holders that wish to mix FSC certified materials and non-certified materials from areas of specified risk (identified in the FSC US Controlled Wood National Risk Assessment) and then make an FSC claim on the resulting products. This document provides further details about: 1) the process, 2) about outputs from the process that are specific to the FSC US Appalachian Region, including from the associated Controlled

Wood Regional Meeting held in Asheville, North Carolina on July 19, 2018, and 3) about how to use these outputs (including mitigation options) to implement the Control Measures in the FSC US Controlled Wood National Risk Assessment. The mitigation options provided herein were endorsed by the FSC US Board of Directors on November 29, 2018.

## Background

### **Function of the Controlled Wood Regional Meetings**

When a company wishes to mix FSC certified and non-certified materials and be able to make an FSC claim about the resulting product, they must 'control' the non-certified materials to reduce the risk of sourcing from places with objectionable forestry practices (such as illegal practices, harvesting that violates workers' or indigenous peoples' rights, or harvesting that threatens high conservation values), from places where the harvest results in the conversion of forests to non-forest uses, or from places where genetically modified trees occur. FSC Chain of Custody certificate holders that have 'Controlled Wood' within the scope of their certificate do this by conforming with the FSC Controlled Wood Standard (FSC-STD-40-005).

The Controlled Wood Standard (V3-1) requires that a certificate holder implement actions to avoid or mitigate risk, prior to using materials from any area with an identified risk level that is greater than 'low.' The FSC US Controlled Wood National Risk Assessment (NRA) will be the primary source of information on risk for certificate holders sourcing non-certified materials from the conterminous US (i.e., 'Lower 48' states; not including Hawaii, Alaska or US territories) and provides specified risk designations for areas where the risk has been identified as being greater than 'low.' The US NRA identifies specified risk areas that are associated with places where harvesting threatens high conservation values (HCVs) and places where materials could come from harvests that result in forest conversion. The actions a certificate holder implements to avoid or mitigate these identified risks are termed Control Measures. The NRA defines the Control Measures that are mandatory when sourcing Controlled Wood from areas of specified risk in the conterminous US.

Generally, the NRA provides one choice for a Control Measure that address risk associated with HCVs – it requires implementation of one or more mitigation options (commensurate with the scale and intensity of the Organization's potential impact on the forests in the region). The NRA provides two choices for Control Measures that address risk associated with Forest conversion, one of which is similar to that for HCVs, but a second one is added by which a certified manufacturer acknowledges the use of materials from limited and legal forest conversions AND implements one or more mitigation options.

During development of the NRA, the FSC US Board of Directors recognized that in the context of the United States, most certificate holders do not have information about the specific sites of origin for all of the non-certified materials that they are using, nor complete details about the supply chains from which they source the materials. This is due to typical procurement practices, extremely complex supply chains, and concerns regarding Antitrust issues, which together make this knowledge almost impossible to acquire for most certificate holders in the US. Therefore, the Board directed the NRA working group to develop an alternative approach for control measures and mitigation in the US. The resulting approach explores options for how a certificate holder can reduce the risk of sourcing from objectionable places by implementing mitigation actions within the landscape of the specified risk area that will either, as needed: a) reduce threats to HCVs from forest management activities; and/or b) reduce the rates of forest conversion across the landscape – thereby reducing the risk of sourcing from places where these objectionable activities are occurring.

However, the Board also recognized that it would be necessary to bring as many perspectives as possible into the development of these mitigation actions to help ensure that they would be as practical and as effective as possible. To address this need, the Board developed the concept of Controlled Wood Regional Meetings that would periodically bring together diverse stakeholders to collaboratively develop a set of mitigation options for each of the specified risk issues identified in the NRA, and then adapt them as needed over time.

## **Mitigation Option Development Process**

During Summer 2018, the Forest Stewardship Council (FSC) US hosted two webinars, three regional meetings and an online discussion forum as part of an informed consultative process to help identify the mitigation options that companies need to implement the Control Measures detailed in the FSC US National Risk Assessment. Participants included companies that are FSC certified and source Controlled Wood, their suppliers, Certification Bodies (auditors) and other stakeholders actively working to advance responsible forest management and enhance local economic development.

The three in-person regional meetings – held in Asheville, North Carolina; Atlanta, Georgia; and Portland, Oregon – focused on regionally specific sets of specified risk topics, and were professionally facilitated to ensure efficiency, fairness, and clarity of stakeholder input.

At the regional meetings and through an online discussion forum, participants provided input on: a) proposed mitigation options for each of the risk topics; and b) shared criteria to be used as a lens for evaluating the mitigation options. With each regional meeting, the attendee input was used to further refine the shared criteria, and the criteria were finalized following the third and final meeting. The input provided on mitigation options was comprehensive enough to allow the development of a final draft set of mitigation options that were shared with the Controlled Wood consultative forum for an additional two-week consultation in October 2018. The resulting mitigation options were endorsed by the FSC US Board of Directors on November 29, 2018. Those mitigation options associated with specified risk in the FSC US Appalachian Region are detailed below and are now available for use by certificate holders.

## **Regional Meeting & Final Consultation Outputs**

### **Mitigation Option Shared Criteria**

Regional meeting participants together developed the following criteria as a shared lens for building alignment on mitigation options. The criteria were refined across the course of the three Controlled Wood Regional Meetings and were finalized following the third and final meeting. They were used by the participants as they provided input during the regional meetings and through the online discussion forum, by FSC US staff as they developed the final draft mitigation options, and by the FSC US Board of Directors as they reviewed and endorsed the final set of mitigation options. These criteria are NOT intended to be used to evaluate the implementation of mitigation options.

Moving forward, these criteria may also be used by certification bodies to help them assess the adequacy of control measures in situations (as allowed by the Controlled Wood Standard) where a company finds that the control measures in the NRA are not adequate to mitigate the identified risk and propose an alternative.

(No priority intended by numbers, just for reference)

1. For each mitigation option, at least one of the following applies:
  - a. Results in decreased negative impact(s) and/or increased positive impacts from forest management activities within the specified risk area
  - b. Improves knowledge about how, and places where, the conservation value is being threatened within the specified risk area so that those places are avoided or mitigated; limited to situations where there is an explicit need for this specific information to improve conservation of and mitigation associated with the value
  - c. Promotes, expands or improves an ongoing initiative/program that is already producing verifiable positive outcomes within the specified risk area
  - d. Implements a new/innovative initiative/program that will fill a gap or address a weakness in the existing network of initiatives/programs associated with forest management impacts on the value in within the specified risk area.
  - e. Promotes, expands or improves implementation of actions within the specified risk area identified through diverse-stakeholder planning processes (e.g., State Wildlife Action Plans, regional conservation plans, Federal recovery plans)
2. For each mitigation option, all of the following apply:
  - a. Proven or a reasonable expectation of effectiveness in maintaining or enhancing the conservation value within the specified risk area
  - b. Passes through topline filters of efficacy, clarity, efficiency, practicality, measurability and auditability
  - c. Doesn't require companies to make extensive investments to infrastructure/resources, but will require engagement across chambers
3. For the set of mitigation options, all of the following apply:
  - a. Provides a workable option for all enterprises, regardless of size or location in the supply chain
  - b. Doesn't require certificate holders to have knowledge of specific sites from which their forest materials originate, in situations where the procurement processes and/or antitrust concerns make this information inaccessible.
  - c. Differentiates requirements between companies that buy directly from the forest, and those that don't

## **Mitigation Options**

As FSC US staff worked through the large amount of feedback that was provided on mitigation options through the Controlled Wood Regional Meetings and online discussion forum, they found that comments and support were typically focused on a relatively small number of themes for each specified risk topic. Additionally, they found that many of these themes were repeated for a number of different specified risk topics. Therefore, with recognition that some certificate holders might wish to create efficiencies by applying the same mitigation option for different specified risk topics and to help maintain consistency throughout the system, FSC US used a standard template for each Central Theme, which was then customized for the specified risk topic at hand, based upon the feedback received from stakeholders. The following table details which Central Themes were identified for each Specified Risk Topic. The resulting mitigation options are detailed in a later section of this document.

**Table 1. Central Themes for mitigation options as identified by stakeholders for each specified risk topic.**

<b>CW REGIONAL MEETING</b>	<b>SPECIFIED RISK TOPIC</b>	<b>CENTRAL THEME</b>	<b>Education &amp; Outreach</b>	<b>Procurement Policy</b>	<b>Research &amp; Mapping</b>	<b>Conservation Initiatives</b>	<b>Planning</b>	<b>Implement Mgmt Activities</b>	<b>Staff/Forester Training</b>	<b>Landowner Incentives</b>	<b>Direct Influence</b>	<b>BMP Monitoring</b>	<b>Cape Fear Arch Cons. Collab.</b>
<b>Asheville</b>	Central Appalachian CBA		X		X	X					X	X	
	Cheoah Bald Salamander		X	X	X	X	X				X		
	Mesophytic Cove Sites		X		X				X				
<b>Atlanta</b>	Cape Fear Arch CBA		X	X		X							X
	Central Florida CBA		X	X		X		X					
	Conversion (Atlanta & Portland)		X	X	X	X	X						
	Dusky Gopher Frog		X	X	X			X					
	Florida Panhandle CBA		X		X	X							
	Houston Toad		X	X	X			X					
	Late-Successional Bot. Hardwoods		X	X	X			X		X			
	Native Longleaf Pine Systems		X	X	X		X	X		X			
	Patch-Nosed Salamander		X	X	X	X	X						
Southern Appalachian CBA		X		X	X					X			
<b>Portland</b>	Central California CBA		X	X	X		X		X				
	Klamath-Siskiyou CBA		X	X	X		X	X					
	Lesser Slender Salamander		X	X	X			X					
	Old Growth Forests		X	X	X		X		X	X			
	Conversion (Atlanta & Portland)		X	X	X	X	X						

## **Mitigation Option Final Consultation Topline Feedback**

During October 2018, FSC US invited Controlled Wood Regional Meeting participants and other stakeholders to provide feedback during a final two-week consultation on the final draft mitigation options for each of the specified risk topics. Commenters focused primarily on over-arching concerns, particularly related to auditability and consistency in auditing. A summary of the comments provided is captured below.

### **Support for the Mitigation Options**

- A number of commenters indicated that they believe that the mitigation options take the Controlled Wood system in the US in the right direction
- One expressed the opinion that “overall the mitigation options looked effective and implementable”
- There was a distinct lack of over-arching concern expressed about the mitigation options as a whole – i.e., FSC US did not receive a flurry of comments from aggravated stakeholders.

### **Limited Concern Regarding the Mitigation Options**

- One commenter expressed significant concern, describing the mitigation options as “...very similar, vague, and not at all what I was expecting. I expected this process to result in a simple list of actionable choices that a certificate holder could choose between.” This sentiment was not duplicated by any other commenter – in fact, much more feedback received during this process has focused on the need for some flexibility to allow certificate holders to adapt to their unique contexts, while still providing a structure and consistency for mitigation implemented.
- One commenter expressed concern related to the development timeline (too fast) and lack of testing or piloting of the mitigation options.
- A small number of commenters expressed concerns regarding FSC US’s ability to develop metrics by which to reliably monitor the effectiveness of the mitigation implemented.
- One commenter noted concern about certificate holder accountability as part of this approach

### **General Controlled Wood Concerns**

- Potential workload and resource commitment is daunting, particularly for companies that source from many states or regions
- Certificate holders are already fatigued by the continuous change and requirements related to controlled wood over the last few years. Any continuation in the FSC Controlled Wood program will need to require the same or less effort and resources from certificate holders, or these companies will leave the FSC ecosystem altogether.
- Concern regarding increased complexity of audits and therefore cost.

### **Auditability and Calibration**

- Feedback included many concerns about auditability of mitigation option implementation by certification bodies. The effectiveness of this approach will require coordination between FSC and CBs and clear communication with Certificate holders regarding the expectations for being considered in conformance with the overall goal of mitigating risk.
- Comments clearly indicated the need for both additional guidance on how to determine the level of mitigation necessary, and the need for intent statements associated with each mitigation option. The intent statements are now completed, and the guidance is in development (the chamber-balanced NRA Working Group is assisting with this process).
- One commenter indicated that FSC US should not proceed until more detail on auditable criteria are available.

### Collaborative Implementation

- A number of commenters indicated that the ability to work as a group, or link up with organizations is essential and needs to be an option for certificate holders going forward.
- And that FSC US should coordinate these efforts

## Next Steps

### **Guidance for Certificate Holders & Certification Bodies**

FSC US staff are working with the NRA Working Group and Certification Bodies to develop guidance for a baseline of what would be considered adequate when a low level of mitigation is required. Certificate holders that need to implement a higher level of mitigation will be expected to scale up from that baseline. This guidance will be available to certificate holders and other stakeholders before the end of April 2019.

### **Metrics for Effectiveness Verification**

FSC US has taken on the responsibility for completing effectiveness verification, recognizing that since the mitigation will be implemented at a landscape scale, the effectiveness needs to be assessed at a similar scale, not at the scale of individual sourcing areas (i.e., certificate holder by certificate holder). FSC US will be looking for opportunities to build on research, monitoring and evaluation being completed by partners, government agencies and other entities (there are numerous active programs and projects already ongoing related to most of the specified risk topics). We will be requesting information from certificate holders about the actions being implemented. And we will be working to develop methodologies for assessing stakeholder perceptions associated with reduction of threats to HCVs from forest management activities, and rates of forest conversion in specified risk areas. During the coming year, we will be developing a more formal framework for the effectiveness verification – developing metrics to assess some or all of the following: changes in the threats to HCVs from forest management activities; changes in the rates of forest conversion in areas of specified risk; changes in the kinds of on-the-ground forest management activities implemented and the frequency at which the more desirable practices are implemented; over all status of HCVs; and any other metrics identified that could be used to assess the risk of sourcing from places where HCVs are threatened by forest management activities and/or forest is being converted to non-forest.

### **Calibration & Communications with Certification Bodies**

FSC US has already initiated and is committing to continuing to maintain open communications with certification bodies, working together to ensure consistency in auditing, between certificate holders and between certification bodies, with a focus on the effectiveness of mitigation, not just whether a process has been implemented. We will be working to closely monitor potential impacts to the FSC system as certificate holders begin to update their due diligence systems to incorporate the NRA and mitigation options. We are asking certification bodies to alert FSC US quickly in situations where there is a very negative outcome from an audit that is considering mitigation options.

### **Adaptive Management**

The FSC US Board has also committed to closely monitoring the impact of this new and innovative approach. The Board is looking at implementation within an adaptive management framework, where the mitigation options, guidance and even NRA, if needed, will be revised to ensure the effectiveness of

the system in the US. However, the Board has also explicitly recognized the need for stability in the system, particularly given the numerous changes over the last several years. The Board will be working with FSC US staff on system-wide monitoring of both certificate holder loss and effectiveness of mitigation, and development of a plan that includes both thresholds for action, and definition of actions if those thresholds are breached.

## Implementing Control Measures & Mitigation Options

### Decision Tree for Considering Risk Associated with the Origin of Material

1. The certificate holder gathers information about the geographic area(s) from which they source non-certified forest materials ('supply area') and information about risk. The NRA will likely be the primary source for information about risk within the supply area (i.e. overlap with specified risk areas). Maps (PDFs) and a spatial data layer of the specified risk areas are available on the FSC US website (<https://us.fsc.org/en-us/certification/controlled-wood/fsc-us-controlled-wood-national-risk-assessment-us-nra>). The certificate holder must document the rationale and information used to for the following decision and provide it to their auditor during their audit(s).

**DECISION 1: Does the information gathered indicate that the certificate holder is sourcing from an area of specified risk? If yes, continue to #2. If no (and none of the following notes apply), no further action is needed.**

NOTE: If the information gathered by the certificate holder identifies risk in a place that is not defined as a specified risk area in the NRA, they still must implement a control measure to mitigate that risk. They may use one of those in the NRA if appropriate, but they may also develop their own.

NOTE: The certificate holder must also consider the risk of unexpected materials getting mixed in to the materials received within their supply chains. If this assessment identifies a risk greater than 'low' the certificate holder is responsible for implementing control measures to mitigate that risk. They may use one of those in the NRA if appropriate, but they may also develop their own.

2. The certificate holder must identify a control measure for each area of specified risk from which they are sourcing.

**DECISION 2: Which Control Measure will the certificate holder implement? If CM 4.1, go to #3. If CM 3.1 or CM 4.2, go to #4.**

NOTE: The certificate holder must go through the remainder of this decision tree for EACH specified risk area from which they source non-certified forest materials.

NOTE: The certificate holder may replace the control measures provided in the NRA with more effective control measures, as long as all of the conditions laid out in Clause 4.13 of the Controlled Wood Standard (FSC-STD-40-005 V3-1) apply. In which case, the remainder of this decision tree does not apply.

3. CM 4.1 may be applied when the certificate holder has information about the forest conversion(s) occurring within the specified risk area. If the certificate holder does not have this kind of information, CM 4.1 may not be used and CM 4.2 should be used instead. The certificate holder must document their rationale and evidence for why the forest conversion in question meets the criteria of and follows the guidance provided for this control measure. They will need to provide this documentation to their auditor during their audit(s) as part of their compliance verification.

**DECISION 3: Does the forest conversion in question meet the criteria of and follow the guidance for CM 4.1? *If yes, continue to #4. If no, the materials must be avoided. If there is not enough information to make a decision, CM 4.1 is not applicable.***

4. The certificate holder must use the Mitigation Matrix in Table 2 (below) to determine what level of mitigation is required. To do this, the certificate holder must first estimate from what proportion of the specified risk area they are sourcing (the columns of the matrix) – Only a very small part of it? (<25%) A little less than half of the specified risk area? (25-50%) All or almost all of the specified risk area? (>75%). This estimate could be made using GIS or by considering a static map of the specified risk area and asking approximately how much of it is overlapped by the supply area. Then, considering their FSC Annual Administration Fee (AAF), and finding where that row intersects the column identified, the certificate holder can determine their level of mitigation required for that specified risk area. The certificate holder must document their rationale and information used to make this determination as part of their compliance verification.

**DECISION 4: What level of mitigation is required? *Continue to #5.***

NOTE: If the sourcing in question is being completed by a Chain of Custody group member, the level of mitigation required will always be the 'low' category, due to the limit on the size of companies that are allowed to participate in CoC groups.

NOTE: If the certificate holder is able to calculate actual volumes being sourced from the specified risk area this may be used instead of AAF Class for the Mitigation Matrix below. The certificate holder will need to document their calculation and rationale for the level of mitigation required as part of their compliance verification.

5. Finally, the certificate holder must decide which mitigation option(s) they will implement, and how they will implement that option to achieve the level of mitigation required. The considerations following this decision tree should help with this decision, as will the guidance on baseline expectations being developed by FSC US. The certificate holder must document their rationale and any information that supports their decision as part of their compliance verification.

**DECISION 5: Which mitigation option will the certificate holder implement and (if applicable) how will they scale it to the desired level of mitigation? *Continue to #6.***

6. Implement the mitigation option in the manner determined in #5. The certificate holder must document implementation for their compliance verification. ***If the certificate holder must consider another specified risk area, return to #2. If not, no further action is needed.***

## **Considerations for Selecting a Mitigation Option**

- FSC US will provide guidance on what the 'baseline' is for implementation of any of these mitigation options. That is, what is the minimum level of effort (effectiveness) that would be considered adequate for that mitigation option at a low level of mitigation required.
- Some mitigation options are listed as 'scalable for any level of mitigation' – this means it could be used by a certificate holder that falls into any level of mitigation required. A certificate holder with a low level of mitigation required could implement at the baseline level (to be provided in the forthcoming guidance), but others would need to scale up to reach a medium or high level of mitigation, as needed.
- Some mitigation options specify that they are appropriate for situations where a high level of mitigation is required. In these situations, the baseline will be for the high level of mitigation. A certificate holder in any of the categories of mitigation required could implement one of these options, but they would need to achieve at least the baseline. The intention of recognizing

these options in this way is to recognize that they will likely require greater investment and result in greater mitigation than the baseline of implementation for other mitigation options.

- For certificate holders that are in the low category of mitigation required, they should be able to select one option and implement it at the baseline level or greater.
- For certificate holders that are in the medium or high categories, they will have to decide whether they are going to use a scalable option, but do more than the baseline to achieve greater mitigation, or if they are going to implement one of the options identified for ‘high’ levels of mitigation, or if they are going to implement more than one mitigation option, but stick to the baseline level for each, or some combination of these.
- Some mitigation options are listed as being for situations where the certificate holder purchases materials directly from the source forest. Certificate holders in these situations are not required to use these options, but the options are provided in the hopes that they might be easier, but still effective, in these situations. Certificate holders that are not purchasing materials directly from the source forest may use these options, if their circumstances allow.

## **Mitigation Matrix**

The following matrix provides a framework for assisting Certificate Holders and Certification Bodies with determining what level of mitigation is required and then also for assessing the adequacy of mitigation implemented. This is intended to help address the phrase, “commensurate with the scale and intensity of the Organization’s potential impact on the forests in the region” that is used in the Control Measures. It also helps to address the Mitigation Option Shared Criteria requiring options for all companies, regardless of size. It is based upon the general idea that the greater the proportion of a specified risk area from which a company sources (i.e. ‘scale’), and the more material that they source (i.e. ‘intensity’), the higher their risk of receiving materials from places where unacceptable materials are being sourced, and therefore the higher the level of mitigation that should be expected of them. Because volume itself is material and product specific, AAF Class is used as a proxy for volume sourced. However, companies are given the option of calculating their actual volume instead of using their AAF Class, if they wish (see the note under #4 in the decision tree above).

**Table 2. Framework for determining level of mitigation required**

AAF Class	% of Specified Risk Area from Which Materials are Sourced			
	<25%	25-50%	50-75%	>75%
Class 1	LOW LEVEL OF MITIGATION			
Class 2				
Class 3				
Class 4	MEDIUM LEVEL OF MITIGATION			
Class 5				
Class 6				
Class 7	HIGH LEVEL OF MITIGATION			
Class 8				
Class 9				
Class 10				
Class 10+				

## Regional Meeting Outcomes: Specified Risk Topics & Final Mitigation Options

This section presents a summary of feedback received at the 2018 Controlled Wood Regional Meeting for the Appalachian Region and feedback received during consultation opportunities that followed the meeting, as well as the outcomes from that feedback (for both proposed mitigation options that were included in the final set, and those that were not). Annex 2 provides the final set of mitigation options, without the feedback and excluding initially proposed options that were not included in the final set.

*NOTE 1: Almost any of the mitigation options may be done individually or in collaboration with other certificate holders, or other entities that have similar desired outcomes. Collaboration is encouraged to scale up potential mitigation impact, and FSC US will seek to assist with that collaboration when feasible.*

*NOTE 2: Active engagement will be evaluated to be two-way engagement such as providing support through participation in meetings.*

### **HCV 1: Central Appalachian Critical Biodiversity Area**

- Concentration of biodiversity in this area is driven by the extremely diverse forest types and one of the richest temperate freshwater ecosystems in the world
- Historically, forest management was a threat to the forests, however the highest priority current threats to the forests overall are from other sources (Cove sites excluded).
- Forest management is identified as a threat to the aquatic biodiversity, through hydrologic alteration following conversion from hardwood forests to non-native pine, and forestry practices that result in loss of near-stream forested habitat, sedimentation, and severe erosion of riverbanks.

***The following mitigation options are available to certificate holders so that they may implement Control Measure CM 3.1 when sourcing from areas of specified risk designated for HCV 1 Central Appalachian Critical Biodiversity Area (CBA).***

### **CENTRAL THEME: Education & Outreach**

<u>Original Proposed Option</u>	<u>Topline Input</u>
(#4) Improve logger education to increase the implementation of forestry BMPs	<ul style="list-style-type: none"> <li>• Across the board support for this mitigation approach</li> <li>• Doesn't have to be direct outreach, could be support of others who do it</li> <li>• Not just loggers, should also include forest managers and landowners, particularly small ones</li> <li>• Continue existing logger education, and need to build on it to improve</li> <li>• Not just steep slopes, also preventing siltation and other practices needed to conserve aquatic biodiversity</li> <li>• Some questions regarding sufficiency of this as a mitigation option</li> <li>• Not a 'one-off' option, must be ongoing</li> <li>• Include information on appropriate equipment/techniques to use in areas important for aquatic biodiversity conservation</li> </ul>

*Consultation Insights: This was, by far, the most supported option from all perspectives. Some input expressed concern that as originally written, it would not be sufficient as a mitigation action. Comments suggested that there is a need to be specific and focus the revised option on practices that will conserve aquatic biodiversity, including but not limited to practices for steep slopes and for reducing siltation. Input consistently noted that audiences should include not just loggers, but also forest managers and landowners, particularly smaller family forest owners, and that collaborative approaches and partnerships may be particularly effective on this front. Specifically regarding logger education, comments suggested that there is a need to recognize that the mitigation implemented should be about continuing the education and improving existing programs. Several comments also noted that the focus should be not just on increasing implementation of BMPs, but also improving implementation of practices for the conservation of aquatic biodiversity.*

The following is offered as an option that could be scaled for any level of mitigation:

Using materials as described below, communicate to audiences (also described below) the conservation values of aquatic biodiversity, threats from poorly implemented forest management activities (as described in the FSC US National Risk Assessment), and opportunities for conservation through management practices that reduce or eliminate these threats, including but not limited to forest management activities on steep slopes, and practices that will prevent siltation. The desired outcome of these communications is engaging landowners, foresters, and loggers in increasing and improving Best Management Practice (BMP) implementation that focuses on aquatic biodiversity conservation within the specified risk area and the Organization’s supply area.

- **Materials:** Materials are developed by or developed in cooperation with organizations/individuals with expertise in aquatic biodiversity conservation, or developed in collaboration with FSC US. Materials are delivered in a manner that has a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Materials may already exist or may need to be created.
- **Audiences:** Communications are directed toward audiences where there is a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Depending upon the Organization’s location in the supply chain, communications may be directly with landowners, foresters, or loggers, or through intermediaries such as community members, forest managers, suppliers, forestry associations or landowner associations, or through collaboration with organizations/individuals already working for conservation of aquatic biodiversity.

**INTENT:** The intent of this mitigation option is to implement education and outreach-related actions that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of aquatic biodiversity, and thereby mitigate the risk of sourcing materials from sites where the aquatic biodiversity in the specified risk area is threatened by forest management activities.

## CENTRAL THEME: Research & Mapping

<u>Original Proposed Options</u>	<u>Topline Input</u>
(#3) Use of Blue Ridge Forever conservation value viewer to identify areas of greater risk, and establish a mitigation bank in those areas with ‘forest conservation credits’	<ul style="list-style-type: none"> <li>• Mixed responses to options as written, but support for research generally</li> <li>• Should not be specifically focused on one source of information</li> </ul>

<p>(#6) Support research into the effectiveness of forestry BMPs related to steep slope logging techniques; followed by efforts to adapt the BMPs if/as indicated by the results</p>	<ul style="list-style-type: none"> <li>• Develop criteria and assess landscape scale high priority sites, not necessarily with the Blue Ridge Forever tool; could use keystone species or other proxies</li> <li>• Good to get new/better information about risk, but there must be an action associated with it</li> <li>• Assess effectiveness of BMPs for conserving aquatic biodiversity, not limited to steep slope techniques</li> <li>• BMPs already shown to be effective for water quality</li> </ul>
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*Consultation Insights: Responses indicate that there is a perception that the risk is not consistent throughout the specified risk area as currently defined, and that the mitigation options would be most effective if implemented in areas where the risk is greater. There were a lot of comments that noted that the effectiveness of BMPs has already been established, and this is true for the purpose for which they were originally developed – to comply with the Clean Water Act, but this does not necessarily mean that they are effective for protecting biodiversity. There was one suggestion that some research on this question has already been done in Vermont, and should be used as a starting point. Both original options are identified as being too narrow, that the Blue Ridge Forever tool is not the only source of information that could be used for mapping, and that research into effectiveness of BMPs should not be limited to steep slope techniques. Neither of these forms of research on their own effectively mitigates the risk of sourcing from places where the forest management activities are threatening aquatic biodiversity, and therefore there must be another action linked with the research option.*

The following is offered as a two-part option for when a ‘High’ level of mitigation is required:

1. Engage with and/or provide monetary or in-kind resources to an entity or alliance that is currently conducting, or has the capacity to initiate, research on effectiveness of water quality Best Management Practices (BMPs) for conserving aquatic biodiversity, or on identifying specific landscapes within the specified risk area that include forests where there is higher level of the identified risk; and
2. If research on effectiveness of BMPs is completed, then advocate for changes to state BMPs that reflect the results of the research. If mapping of higher risk areas is completed, then use the results of the mapping to improve implementation of another mitigation option or demonstrate that the results of the research are being used in some other way to improve maintenance or enhancement of aquatic biodiversity.

**INTENT:** The intent of this mitigation option is to implement research-related actions and then use the research outputs to increase the effectiveness of another implemented mitigation option that, in turn, will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of aquatic biodiversity, and thereby mitigate the risk of sourcing materials from sites where the aquatic biodiversity in the specified risk area is threatened by forest management activities.

**CENTRAL THEME: Conservation Initiatives**

<p><u>Original Proposed Options</u></p> <p>(#1) Contribute to a local land trust</p> <p>(#2) Establishment of a fund that will help to defray the cost of conservation easements that include increased width buffers</p>	<p><u>Topline Input</u></p> <ul style="list-style-type: none"> <li>• Concern around easements, and generally reducing the land base of working forests</li> <li>• Focus on monetary donations and funds is not practical or feasible</li> </ul>
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<p>and harvest/ management plan review prior to forest harvest (could be set up to target specific landowners as desired by the company)</p>	<ul style="list-style-type: none"> <li>• Build on existing initiatives that are conserving aquatic biodiversity</li> <li>• Not just buffer widths</li> <li>• Mitigation should focus on places where there is highest risk</li> <li>• There need to be strings attached to any donations</li> <li>• Consider focusing resource support through FSC, or creating coalitions with other organizations to foster action on biodiversity</li> </ul>
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*Consultation Insights: There was mixed support for these two options, but much of it was direct to the lack of specificity in the first option and the overly specific action (establish a fund) in the second. However, a lot of written comments suggested different methods for supporting organizations and activities that are effectively conserving aquatic biodiversity (including economic incentives and other conservation initiatives). And while limited, there was also some support for working forest easements that include specific requirements for practices that will protect aquatic biodiversity. Many suggestions focused on the need to try and work collaboratively to increase the impact of implemented mitigation.*

The following is offered as an option that could be scaled for any level of mitigation:

Engage with and/or provide monetary or in-kind resources to conservation partnerships, organizations or similar entities that are supporting or promoting programs/projects to develop new or augment existing programs within the specified risk area and the Organization’s supply area that will: a) result in increased and improved implementation of Best Management Practices (BMPs) with a focus on aquatic biodiversity conservation; and/or b) result in increased access to incentive programs for landowners who restore, maintain or enhance forests in a way that will conserve aquatic biodiversity. A particular focus should be paid to forests identified as having higher risk. These entities may include: 1) partnerships (government and/or non-government organizations), or non-governmental organizations working alone, that have active programs/projects to conserve aquatic biodiversity or the forests important for doing so; and/or 2) federal, state and/or local governmental organizations.

**INTENT:** The intent of this mitigation option is to implement actions through conservation programs/projects that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of aquatic biodiversity, and thereby mitigate the risk of sourcing materials from sites where the aquatic biodiversity in the specified risk area is threatened by forest management activities.

### **CENTRAL THEME: Direct Influence**

*Consultation Insights: Throughout the discussions at the Regional Meeting and in written comments, there were a number of suggestions for mitigation options that aligned with the Shared Criteria, if implemented by Organizations near the beginning of the supply chain. Organizations who are close to the forest are in a unique situation that may allow for greater influence on the forest management activities that occur at the supply sites of their materials. The following represent these suggestions.*

The following are offered as options for Organizations that purchase directly from the source forest:

- A. Engage with a conservation organization or similar entities, or collaborate with FSC US, to identify landscapes of particular concern related to the risk of receiving non-certified supplies from areas where aquatic biodiversity are threatened by forest management activities, and then communicate this information to suppliers, along with: 1) recommended Best Management Practices that will conserve aquatic biodiversity; 2) contact information for organizations that

may be interested in working with the landowner on conserving the forest in question in a manner that will continue to conserve the aquatic biodiversity; and 3) a requirement that the landowner/forester/logger at the source forest either will not provide materials from the landscapes identified, or will document that the forest management practices implemented in the source forest did not threaten aquatic biodiversity.

- B. Document acceptable implementation of Best Management Practices that conserve aquatic biodiversity for harvests that produce non-certified materials that will be controlled by the Organization.
- C. Include Best Management Practices that will conserve aquatic biodiversity in harvest plans and/or in contracts made with loggers for harvests that produce non-certified materials that will be controlled by the Organization and require in those harvest plans and/or contracts that the Best Management Practices are implemented.

**INTENT:** The intent of this mitigation option is to implement supplier-engagement actions that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of aquatic biodiversity, and thereby mitigate the risk of sourcing materials from sites where the aquatic biodiversity in the specified risk area is threatened by forest management activities.

**CENTRAL THEME: BMP Monitoring**

<p><u>Original Proposed Option</u>          (#5) Influence state policy to introduce more severe consequences for lack of BMP implementation, in states with lower implementation rates</p>	<p><u>Topline Input</u></p> <ul style="list-style-type: none"> <li>• There are already consequences for those who adversely affect water quality</li> <li>• Better to support increased funding of state agencies so they can increase their enforcement and/or monitoring activities</li> <li>• Focus on increasing monitoring instead of enforcement</li> <li>• States already have a valid system of notification of BMP implementation and outcomes</li> <li>• Time consuming with limited effectiveness</li> </ul>
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*Consultation Insights: Input indicates minimal support for the action as written, with numerous recommended edits that suggest a preference for actions that represent ‘carrots’ over ‘sticks.’ While there was a willingness indicated to consider advocacy for increasing state funding for monitoring in particular, some comments questioned the effectiveness of this approach. There were, however, a number of suggestions for how Organizations could assist with increasing reporting of Best Management Practice (BMP) implementation outside of a state agency’s own efforts, and one of these is provided as a revised option below.*

The following is offered as an option for when a ‘High’ level of mitigation is required:

The Organization, either individually or in collaboration with other Organizations, or through an intermediary entity, establishes and implements a program or process that results in voluntary submission of harvest and BMP implementation data from loggers/landowners within the specified risk area and the Organization’s supply area to the State agency responsible for this data collection in a way that is usable by the agency to supplement its established monitoring system. An emphasis should be placed on those BMPs that address practices for steep slopes and prevention of siltation. This program or process would require independent auditing or sufficient auditing by the state to confirm accuracy of voluntary data regarding BMP implementation.

**INTENT:** The intent of this mitigation option is to implement monitoring-related actions that will result in the State being able to demonstrate a very high level of compliance with BMPs, with an emphasis on those most likely to help conserve aquatic biodiversity, throughout the specified risk area, and, thereby, allow the Organization to demonstrate a low risk of sourcing materials from sites where the aquatic biodiversity in the specified risk area is threatened by forest management activities.

**The following originally proposed mitigation option was not maintained in the final set of options due to the feedback received through the Controlled Wood Regional Meeting.**

### Harvest Equipment

Original Proposed Options	Topline Input
(#7) Invest in harvesting equipment that is more appropriate for harvesting on steep slopes (e.g. aerial cable yarding)	<ul style="list-style-type: none"> <li>• Not supported</li> <li>• Anything that is focused on money is generally negative</li> <li>• Unaffordable and impractical</li> <li>• Increasing access to equipment that will facilitate creek crossings not a bad idea, but this is not the way</li> <li>• Could be an ethical issue – could be seen as bribery by international companies</li> </ul>
(#8) Create a fund that provides capital assistance for contractors to purchase more advanced technology	

*Consultation Insights:* There was some recognition that improving access to bridge mats and portable bridges for loggers would be positive, but overall feedback was consistently negative on both of these options, from all perspectives. Therefore, neither option is included in the revised set of mitigation options.

### HCV 1: Cheoah Bald Salamander

- Distribution is limited to an area around the Cheoah Bald, mostly within the Nantahala National Forest and along the Appalachian and Bartram Trails; associated national forest management areas emphasize management considerations related to the salamander and/or recreation associated with the trails
- Most of range is within mesic second growth forests, but the species is very slow to recover following clear-cut harvests; providing areas for refuge may help with recovery
- North Carolina Wildlife Action Plan indicates that there is a need to better define the distribution

**The following mitigation options are available to certificate holders so that they may implement Control Measure CM 3.1 when sourcing from areas of specified risk designated for HCV 1 Cheoah Bald Salamander.**

### CENTRAL THEME: Education & Outreach

Original Proposed Options	Topline Input
(#2) Influence forest management practices to leave scattered down woody debris (not piles) and nearby areas of	<ul style="list-style-type: none"> <li>• Do not need to wait for new information, can communicate what is known now</li> <li>• This is about getting the information into the hands of those who are harvesting trees</li> </ul>

<p>refuge, and to limit large canopy gaps</p> <p>(#4) Invest in education to improve forest management practices in the species range</p>	<ul style="list-style-type: none"> <li>• Must focus on continuous improvement – incorporate new information as available</li> <li>• Need to clarify who receives this information – loggers, landowners, suppliers, state agencies and others who can influence management practices on the ground</li> <li>• ‘Influence’ is not auditable</li> <li>• ‘Support,’ ‘Provide’ or ‘Participate’ instead of ‘invest’</li> <li>• Emphasize small landowners/family forests</li> </ul>
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*Consultation Insights: As with other risk topics, feedback indicates that communicating information about harvesting techniques (e.g., size of canopy openings, scattering slash, etc.) and other best management practices is widely supported as a mitigation approach. Comments indicate that Organizations need to be able to demonstrate how they are contributing to the ultimate goal of getting these practices implemented on the ground. However, some input suggests that the original mitigation options are not auditable. As with the research option, comments emphasize the importance of this mitigation being part of an adaptive management cycle, with the information that gets shared being updated as new information becomes available.*

The following is offered as an option that could be scaled for any level of mitigation:

Using materials as described below, communicate to audiences (also described below) the conservation values of Cheoah Bald Salamander (CBS), potential threats from forest management activities (as described in the FSC US National Risk Assessment), and opportunities for conservation through management that maintains, enhances, or restores CBS populations and reduces or eliminates these threats. The desired outcome of these communications is engaging landowners, foresters, and loggers in conservation of CBS populations within the specified risk area and the Organization’s supply area.

- **Materials:** Materials are developed by or developed in cooperation with organizations/individuals with expertise in CBS, or developed in collaboration with FSC US. Materials are delivered in a manner that has a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Materials may already exist or may need to be created. Materials are updated as appropriate to incorporate new information when it becomes available.
- **Audiences:** Communications are directed toward audiences where there is a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Depending upon the Organization’s location in the supply chain, communications may be directly with landowners, foresters, or loggers, or through intermediaries such as community members, forest managers, suppliers, forestry associations or landowner associations, or through collaboration with organizations/individuals already working conservation of CBS.

**INTENT:** The intent of this mitigation option is to implement education and outreach-related actions that will result in changes to on-the-ground forest management activities that improve maintenance, enhancement, or restoration of CBS populations, and thereby mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

## **CENTRAL THEME: Procurement Policy**

*Consultation Insights: Comments associated with a number of specified risk topics recognized that companies that are closer to the beginning of the supply chain are in a unique position to have a greater influence on the forest management activities within the source forest. Several commenters observed that this kind of influence could be achieved through a procurement policy that is linked to the*

education and outreach information themes.

The following is offered as an option for Organizations that purchase directly from the source forest:

Develop/adapt a procurement policy that reflects the above Education & Outreach communications themes and clearly states the requirement that the landowner/forester/logger at the source forest will not supply materials from forests where Cheoah Bald Salamanders (CBS) are threatened as a result of the forest management activities that produced the forest materials. This will require providing a description of the forest type in which CBS populations occur, potential threats to CBS from forest management activities (as described in the FSC US National Risk Assessment), and the kinds of activities that would maintain or enhance CBS populations in the specified risk area.

*NOTE: Actions to demonstrate policy enforcement and communicate policies on sourcing to suppliers should be audited under the Due Diligence system requirements within the 40-005V3-1 standard section 1.1*

**INTENT:** The intent of this mitigation option is to implement a procurement policy that will either result in avoidance of materials from sites where CBS are threatened by forest management activities, or result in changes to on-the-ground forest management activities that mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

**CENTRAL THEME: Research**

Original Proposed Option	Topline Input
(#3) Invest in student research to improve knowledge of distribution and other population characteristics	<ul style="list-style-type: none"> <li>• Need more info on population characteristics other than range</li> <li>• Have basic management guidance for salamanders, but need species specific</li> <li>• Not just students</li> <li>• Auditability concerns with original mitigation option</li> <li>• Combine with other options so that new information is used in an adaptive management cycle</li> <li>• Find out what USFS knows first about extent, habitat &amp; disturbance regimes and then determine needs for research and outreach</li> </ul>

*Consultation Insights: Feedback from all perspectives supports research as a mitigation approach, but recognizes that it needs to build on partnerships and work that has already been done. Comments consistently emphasized that it should not be just student research, but that there are many other entities that might be able to work on research to better define the species range, if needed, establish other important species characteristics and evaluate acceptable forest management practices. Input also recognizes that research on its own is not enough, forest management activities need to use new information as it becomes available in an adaptive management approach. Additionally, input on other risk topics recognized that research on its own doesn't mitigate the identified risk, there needs to be another action that goes with it.*

The following is offered as a two-part option for when a 'High' level of mitigation is required:

1. Engage with and/or provide monetary or in-kind resources to an entity or alliance that is currently conducting, or has the capacity to initiate, research on species characteristics, on clarifying positive and negative impacts of forest management activities on Cheoah Bald Salamander (CBS) populations and/or on management practices for CBS conservation, where

the research builds on knowledge already acquired by the USFS within the specified risk area; and

2. Use the results of the research to improve implementation of another mitigation option or demonstrate that the results of the research are being used in some other way to improve maintenance, enhancement, or restoration of CBS populations.

**INTENT:** The intent of this mitigation option is to implement research-related actions and then use the research outputs to increase the effectiveness of another implemented mitigation option that, in turn, will result in changes to on-the-ground forest management activities that improve maintenance, enhancement, or restoration of CBS populations, and thereby mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

## CENTRAL THEME: Conservation Initiatives

Original Proposed Options	Topline Input
(#1) Help to provide matching funds for conservation land acquisition (establish a fund?)  (#5) Develop partnerships with universities and other NGOs (trails?) that can influence land management within the species range	<ul style="list-style-type: none"> <li>• Don't use the word 'influence'</li> <li>• Must include state agencies</li> <li>• Partnerships need to include diverse groups</li> <li>• Protection of habitat doesn't require acquisition</li> <li>• Conservation, not preservation</li> <li>• Working forestland easements a consideration, but only if the emphasis is on 'working' and 'as an option'</li> <li>• Identify who can become champions for the salamanders</li> </ul>

*Consultation Insights:* Feedback from certificate holders and their suppliers was very opposed to land acquisition as a mitigation approach. The comments from CBs and environmental/social perspectives was more mixed. However, there was more support for concepts around partnerships, and building on existing assets in the region who are already working in this arena.

The following is offered as an option that could be scaled for any level of mitigation:

Engage with and/or provide monetary or in-kind resources to conservation partnerships, organizations or similar entities that are supporting or promoting programs/projects to develop new or augment existing programs that will enhance or conserve Cheoah Bald Salamander (CBS) populations, with a particular focus on increasing and improving implementation of forest management practices for conservation of CBS populations within areas of the specified risk area and the Organization's supply area. These entities may include: 1) partnerships (government and/or non-government organizations), or non-governmental organizations working alone, that have active programs/projects to conserve CBS or amphibians in general; and/or 2) federal, state and/or local governmental organizations.

**INTENT:** The intent of this mitigation option is to implement actions through conservation programs/projects that will result in changes to on-the-ground forest management activities that improve maintenance, enhancement, or restoration of CBS populations, and thereby mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

## CENTRAL THEME: Planning

Original Proposed Options	Topline Input
<p>(#2) Influence forest management practices to leave scattered down woody debris (not piles) and nearby areas of refuge, and to limit large canopy gaps</p> <p>(#5) Develop partnerships with universities and other NGOs (trails?) that can influence land management within the species range</p>	<ul style="list-style-type: none"> <li>• Many proposed mitigation options will only work for those Organizations close to the beginning of the supply chain and forest</li> <li>• Will need to work through partnerships to influence actions on the ground</li> <li>• Participate in planning for lands within the species' range to influence land management and maintain or enhance salamander populations</li> <li>• USFS National Forest plan revision process is just getting started</li> <li>• Other planning processes too – industry lands, government lands, state management plans, recovery plan, landscape-scale plans, landscape-level HCP</li> </ul>

*Consultation Insights:* While feedback was mixed on the original proposed options (concern about auditability of the term 'influence' and the need for greater specificity on how influence would be achieved), there was very strong support for the participant introduced idea of getting involved with the National Forest Plan revision process. However, other input recognized that the entire salamander population does not occur on Federal lands, so other management planning processes would also be pertinent.

The following is offered as an option that could be scaled for any level of mitigation:

Engage in and/or provide monetary or in-kind resources to conservation planning processes, and, when possible, the implementation of conservation plans, that include, or could potentially include, goals, objectives and/or actions that will likely have an impact on Cheoah Bald Salamander (CBS) populations within the specified risk area and the Organization's supply area. This may include: federal, state and/or local resource planning and plans; industry land plans; regional planning and plans directly for CBS; and/or broad-spectrum regional conservation planning and plans that include some or all of the specified risk area. The desired outcome of this engagement or provision of resources is to increase and improve forest management practices that conserve CBS populations.

*NOTE: There are some situations where engagement/support by the Organization may not be possible for both the planning process and the plan implementation (e.g., when the relevant plan has already been developed, or when there is an opportunity to participate in a planning process where implementation of the plan will be the complete responsibility of a public agency and there is no opportunity to engage or support implementation).*

**INTENT:** The intent of this mitigation option is to implement planning-related actions that will result in changes to on-the-ground forest management activities that improve maintenance, enhancement, or restoration of CBS populations, and thereby mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

## CENTRAL THEME: Direct Influence

*Consultation Insights:* There were a number of suggestions for mitigation actions specific to Organizations that are near the beginning of the supply chain and that have a unique opportunity to directly influence the forest management activities that are implemented at supply sites.

The following are offered as options for Organizations that purchase directly from the source forest:

- A. Document acceptable implementation of best management practices that conserve Cheoah Bald Salamander (CBS) populations during harvests that produce non-certified materials that will be controlled by the Organization.
- B. Include best management practices that will conserve CBS populations in harvest plans and/or in contracts made with loggers for harvests that produce non-certified materials and that will be controlled by the Organization and require in those harvest plans and/or contracts that the best management practices are implemented.

NOTE: In these situations, 'best management practices' are not intended to specifically reference State-established BMPs for water quality, but instead established practices that are effective in restoring, maintaining or enhancing CBS populations.

**INTENT:** The intent of this mitigation option is to implement supplier-engagement actions that will result in changes to on-the-ground forest management activities that improve maintenance, enhancement, or restoration of CBS populations, and thereby mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

### **HCV 3: Mesophytic Cove Sites**

- Highly diverse, closed-canopy hardwood forests that occur in large patches on concave slopes that accumulate nutrients and moisture – including both rich and acidic types.
- The geologic formations that support this forest type are not rare, but examples that retain a high diversity of species in both the canopy and the forest floor and a complex forest structure are very rare; the high productivity of these sites has meant that they are highly valued for timber production and typically have seen repeated harvests
- Incompatible forest management can threaten remaining examples through alterations to the structure and composition of the forest, through conversion to other forest types, and through introduction of invasives, or vegetative changes that promote their spread.

***The following mitigation options are available to certificate holders so that they may implement Control Measure CM 3.1 when sourcing from areas of specified risk designated for HCV 3 Mesophytic Cove Sites.***

### **CENTRAL THEME: Education & Outreach**

<u>Original Proposed Options</u>	<u>Topline Input</u>
(#4) Encourage treatment of invasives pre- and post-harvest, thereby reducing potential for spread	<ul style="list-style-type: none"> <li>• Broad support for educational efforts to improve information flow</li> <li>• Target audience for education may include landowner, foresters, loggers, etc.</li> <li>• Materials should provide tools to help identify where MCS might occur on the landscape, a definition of MCS (checklist of site characteristics), communicate their conservation value, and best management practices and invasive species management.</li> <li>• Stepwise approach as research becomes available</li> <li>• Outcomes focused on increased awareness and appreciation for MCS</li> <li>• Identification tools are key – need to develop a defined set of criteria to allow landowners, foresters, and loggers to be able to identify sites.</li> </ul>
(#5) Encourage forest treatments that emulate natural disturbance through small openings	
(#6) Improve information flow (when available) with those planning/managing cove sites	

*Consultation Insights: Stakeholders from all perspectives widely supported the use of education and outreach to improve the flow of information to landowners, loggers, and foresters. Feedback during the meeting identified key components that would be required of the education materials, including identification tools to assist people on the ground with identifying the MCS, information about the significance of these rare communities on the landscape, and information about where these sites might occur and best practices for management. Additional mapping and research may also be needed to improve information about where these sites are located and how best to manage them, particularly in light of the potential impacts for invasive species. Mapping and research are addressed through other mitigation options, and the should be to have those findings incorporated into this mitigation option as well.*

The following is offered as an option that could be scaled for any level of mitigation:

Using materials as described below, communicate to audiences (also described below) the social benefits and values of Mesophytic Cove Sites (MCS), how to identify them in the field, threats from incompatible forest management activities (as described in the FSC US National Risk Assessment), and opportunities for conservation through management that enhances MCS and reduces or eliminates these threats. The desired outcome of these communications is engaging landowners, foresters, and loggers in conservation of MCS within the specified risk area and the Organization’s supply area.

- **Materials:** Materials are developed by or developed in cooperation with organizations/individuals with expertise in MSC conservation, or developed in collaboration with FSC US. Materials are delivered in a manner that has a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Materials may already exist or may need to be created.
- **Audiences:** Communications are directed toward audiences where there is a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Depending upon the Organization’s location in the supply chain, communications may be directly with landowners, foresters, or loggers, or through intermediaries such as community members, forest managers, suppliers, forestry associations or landowner associations, or through collaboration with organizations/individuals already working for conservation of MCS.

**INTENT:** The intent of this mitigation option is to implement education and outreach-related actions that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of MCS, and thereby mitigate the risk of sourcing materials from sites where MCS in the specified risk area are threatened by forest management activities.

**CENTRAL THEME: Research**

<u>Original Proposed Options</u>	<u>Topline Input</u>
(#2) Actions that result in reduced introduction of invasives during forest operations  (#4) Encourage treatment of invasives pre- and post- harvest, thereby reducing potential for spread  (#5) Encourage forest treatments that emulate natural disturbance through small openings	<ul style="list-style-type: none"> <li>• Broad feedback that more information and research is needed on the characteristics/definition of MCS, management practices that conserve MCS, and invasive species management</li> <li>• Some suggestions that research on management practices is already available, but potentially lacking for invasive species</li> <li>• Explore where additional research is needed to fill knowledge gaps, focus on identification, management practices, and invasive species</li> <li>• Use findings from research to influence education and trainings for landowners, loggers, and forest managers</li> </ul>

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| <ul style="list-style-type: none"> <li>• Create a databank/information clearing house of research</li> </ul> |
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*Consultation Insights: A mitigation option related to researching the best identification methods, management practices that are compatible with MCS, and invasive species management was supported by stakeholders. Feedback was mixed regarding what research was already available, but some suggested that research on management practices to conserve MCS may already exist (Fernow Experimental Forest), and research could focus on filling knowledge gaps such as with improving the management and prevention of invasive species. Research findings should become publicly available and incorporated into the implementation of other mitigation options to support the stepwise approach to addressing the conservation of MCS in the Appalachian region.*

The following is offered as a two-part option for when a 'High' level of mitigation is required:

1. Engage with and/or provide monetary or in-kind resources to an entity or alliance that is currently conducting, or has the capacity to initiate, research on management practices for conservation of Mesophytic Cove Sites (MCS), on invasive species management, including treatment and prevention, and/or on development of improved identification tools for MCS within the specified risk area; and
2. Use the results of the research to improve implementation of another mitigation option or demonstrate that the results of the research are being used in some other way to improve maintenance or enhancement of MCS.

**INTENT:** The intent of this mitigation option is to implement research-related actions and then use the research outputs to increase the effectiveness of another implemented mitigation option that, in turn, will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of MCS, and thereby mitigate the risk of sourcing materials from sites where MCS in the specified risk area are threatened by forest management activities.

### CENTRAL THEME: Mapping

<u>Original Proposed Options</u>	<u>Topline Input</u>
(#3) Create a collaborative process whereas stakeholders could contribute accurate field data/information as discovered and begin building such an educational state/county/stand location style of mapping	<ul style="list-style-type: none"> <li>• Broad support for a collaborative effort to better map locations of MCS</li> <li>• Some concerns regarding information sharing of mapped locations and potential risk to MCS</li> <li>• Explore what models and maps already exist, perhaps through state heritage programs</li> <li>• Collective effort could be modeled after Longleaf Pine Initiative</li> <li>• Use findings from mapping to influence education and trainings for landowners, loggers, and forest managers</li> </ul>

*Consultation Insights: There is generally broad support from stakeholders for better mapping of MCS locations. However, some suggested that this effort may be duplicative in some regions as there are models and maps that currently exist such as the NC State Natural Heritage Program. Additionally, some concerns were expressed that sharing MCS location information publicly may put these ecosystems at risk for increased degradation. A collaborative effort will need to explore what models and maps currently exist while also addressing the challenges associated with mapping MCS locations while protecting the ecosystem.*

The following is offered as a two-part option for when a 'High' level of mitigation is required:

1. Engage with and/or provide monetary or in-kind resources to an entity or alliance that is currently conducting, or has the capacity to initiate, research to map or refine existing maps of Mesophytic Cove Sites (MCS) within the specified risk area, where the research complements other MCS mapping efforts in the region, and the entity or alliance is working to address the challenge of providing this information about MCS locations while ensuring protection of the ecosystem; and
2. Use the results of the research to improve implementation of another mitigation option or demonstrate that the results of the research are being used in some other way to improve maintenance or enhancement of MCS.

**INTENT:** The intent of this mitigation option is to implement education and outreach-related actions that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of MCS, and thereby mitigate the risk of sourcing materials from sites where MCS in the specified risk area are threatened by forest management activities.

### CENTRAL THEME: Staff/Forester Training

<u>Original Proposed Option</u>	<u>Topline Input</u>
None	<ul style="list-style-type: none"> <li>• Suggestions for direct staff and logger training for those Organizations at the beginning of the supply chain</li> <li>• Training topics should include: identification of MCS (practice using checklist of site characteristics), conservation and social value, management techniques, and treatment and prevention of invasive species (power washing equipment)</li> </ul>

*Consultation Insights:* The desired outcome for this training would need to be similar to the education/outreach option above, and the information communicated would also need to be similar. This option is applicable to only a very small portion of the Organizations (those closest to the forest), since the staff of organizations further from the forest have little ability to mitigate risks based simply upon increased knowledge about MCS and associated management activities. Need to recognize that once is not enough, but that annual training may not be necessary if the information has not changed, and also that there may be alternatives to Organization-provided training.

The following is offered as an option for Organizations that purchase directly from the source forest:

Ensure staff and contract foresters receive training or the equivalent, with periodic refreshers that include any new information, on identification of Mesophytic Cove Sites (MCS), MCS conservation and social values, management techniques, and treatment and prevention of invasive species. The training or equivalent shall be: a) customized for MCS that occur within the Organization's supply area; b) developed by or developed in cooperation with organizations/individuals with expertise in conservation of MCS, or developed in collaboration with FSC US; and c) result in staff having knowledge on these subjects to the extent that they are able to communicate the same content to the landowners, loggers and forest managers with whom they are working.

**INTENT:** The intent of this mitigation option is to train staff and contract foresters so that they are able to implement education and outreach-related actions that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of MCS, and

thereby mitigate the risk of sourcing materials from sites where MCS in the specified risk area are threatened by forest management activities.

## Annex 1 – Participants

### **Organizations Represented at the Asheville Meeting**

Allegheny Wood Products Inc.	International paper
American Green Consulting Group, LLC	KapStone Kraft Paper Corporation
Amphibian and Reptile Conservancy	Mars Hill University
Appalachian Hardwood Manufacturers, Inc.	Milliken Forestry Company
Arauco	National Council for Air & Stream Improvement, Inc.
Baillie Lumber Co.	Packaging Corporation of America
Bingaman & Son Lumber, Inc	PH Glatfelter
Blue Ridge Forever	PricewaterhouseCoopers
Boise Cascade Company	R.S. Berg and Associates
Boise White Paper	Rainforest Alliance
BPM Lumber, LLC	Renewable Strategies
Columbia Forest Products	Resolute Forest Products
Conserving Carolina	SCS Global Services
Domtar Paper Company, LLC	Southern Appalachian Highlands Conservancy
DS Smith	Superior Hardwoods of Ohio
EBI, LLC	The Forest Stewards Guild
Enviva LP	Unaka Forest Products
Evergreen Packaging	University of Kentucky
Foothills Conservancy of North Carolina	WestRock Company
Glatfelter	Weyerhaeuser Company
Global Wood Company, LLC	Zimmfor Management Services Ltd.
Greener Options Inc.	

### **Organizations that Provided Comments During the Final Consultation**

American Green Consulting Group, LLC	NEPCon
Bingaman & Son Lumber, Inc.	Packaging Corporation of America
Boise Cascade Company	Rayonier Advanced Materials
Columbia Forest Products	Resolute Forest Products
Conserving Carolina	SCS Global Services, Inc.
Georgia-Pacific LLC	Sierra Club
International Paper	University of Kentucky
KapStone Kraft Paper Corporation	Zimmfor Management Services Ltd.
Mendocino Redwood Company	

Additional input was provided by Certification Bodies during a 10/08/18 meeting on this topic.

## Annex 2 – Mitigation Options by Specified Risk Topic

This annex presents the same final set of mitigation options, as above, for specified risk topics in the Appalachian Region, but without the Controlled Wood Regional Meeting feedback or initially proposed options that were not included in the final set.

*NOTE 1: Almost any of the mitigation options may be done individually or in collaboration with other certificate holders, or other entities that have similar desired outcomes. Collaboration is encouraged to scale up potential mitigation impact, and FSC US will seek to assist with that collaboration when feasible.*

*NOTE 2: Active engagement will be evaluated to be two-way engagement such as providing support through participation in meetings.*

### **HCV 1: Central Appalachian Critical Biodiversity Area**

***The following mitigation options are available to certificate holders so that they may implement Control Measure CM 3.1 when sourcing from areas of specified risk designated for HCV 1 Central Appalachian Critical Biodiversity Area (CBA).***

#### **CENTRAL THEME: Education & Outreach**

The following is offered as an option that could be scaled for any level of mitigation:

Using materials as described below, communicate to audiences (also described below) the conservation values of aquatic biodiversity, threats from poorly implemented forest management activities (as described in the FSC US National Risk Assessment), and opportunities for conservation through management practices that reduce or eliminate these threats, including but not limited to forest management activities on steep slopes, and practices that will prevent siltation. The desired outcome of these communications is engaging landowners, foresters, and loggers in increasing and improving Best Management Practice (BMP) implementation that focuses on aquatic biodiversity conservation within the specified risk area and the Organization's supply area.

- **Materials**: Materials are developed by or developed in cooperation with organizations/individuals with expertise in aquatic biodiversity conservation, or developed in collaboration with FSC US. Materials are delivered in a manner that has a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Materials may already exist or may need to be created.
- **Audiences**: Communications are directed toward audiences where there is a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Depending upon the Organization's location in the supply chain, communications may be directly with landowners, foresters, or loggers, or through intermediaries such as community members, forest managers, suppliers, forestry associations or landowner associations, or through collaboration with organizations/individuals already working for conservation of aquatic biodiversity.

**INTENT**: The intent of this mitigation option is to implement education and outreach-related actions that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of aquatic biodiversity, and thereby mitigate the risk of sourcing materials from sites where the aquatic biodiversity in the specified risk area is threatened by forest management activities.

## CENTRAL THEME: Research & Mapping

The following is offered as a two-part option for when a 'High' level of mitigation is required:

1. Engage with and/or provide monetary or in-kind resources to an entity or alliance that is currently conducting, or has the capacity to initiate, research on effectiveness of water quality Best Management Practices (BMPs) for conserving aquatic biodiversity, or on identifying specific landscapes within the specified risk area that include forests where there is higher level of the identified risk; and
2. If research on effectiveness of BMPs is completed, then advocate for changes to state BMPs that reflect the results of the research. If mapping of higher risk areas is completed, then use the results of the mapping to improve implementation of another mitigation option or demonstrate that the results of the research are being used in some other way to improve maintenance or enhancement of aquatic biodiversity.

**INTENT:** The intent of this mitigation option is to implement research-related actions and then use the research outputs to increase the effectiveness of another implemented mitigation option that, in turn, will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of aquatic biodiversity, and thereby mitigate the risk of sourcing materials from sites where the aquatic biodiversity in the specified risk area is threatened by forest management activities.

## CENTRAL THEME: Conservation Initiatives

The following is offered as an option that could be scaled for any level of mitigation:

Engage with and/or provide monetary or in-kind resources to conservation partnerships, organizations or similar entities that are supporting or promoting programs/projects to develop new or augment existing programs within the specified risk area and the Organization's supply area that will: a) result in increased and improved implementation of Best Management Practices (BMPs) with a focus on aquatic biodiversity conservation; and/or b) result in increased access to incentive programs for landowners who restore, maintain or enhance forests in a way that will conserve aquatic biodiversity. A particular focus should be paid to forests identified as having higher risk. These entities may include: 1) partnerships (government and/or non-government organizations), or non-governmental organizations working alone, that have active programs/projects to conserve aquatic biodiversity or the forests important for doing so; and/or 2) federal, state and/or local governmental organizations.

**INTENT:** The intent of this mitigation option is to implement actions through conservation programs/projects that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of aquatic biodiversity, and thereby mitigate the risk of sourcing materials from sites where the aquatic biodiversity in the specified risk area is threatened by forest management activities.

## CENTRAL THEME: Direct Influence

The following are offered as options for Organizations that purchase directly from the source forest:

- A. Engage with a conservation organization or similar entities, or collaborate with FSC US, to identify landscapes of particular concern related to the risk of receiving non-certified supplies from areas where aquatic biodiversity are threatened by forest management activities, and then communicate this information to suppliers, along with: 1) recommended Best Management Practices that will conserve aquatic biodiversity; 2) contact information for organizations that

may be interested in working with the landowner on conserving the forest in question in a manner that will continue to conserve the aquatic biodiversity; and 3) a requirement that the landowner/forester/logger at the source forest either will not provide materials from the landscapes identified, or will document that the forest management practices implemented in the source forest did not threaten aquatic biodiversity.

- B. Document acceptable implementation of Best Management Practices that conserve aquatic biodiversity for harvests that produce non-certified materials that will be controlled by the Organization.
- C. Include Best Management Practices that will conserve aquatic biodiversity in harvest plans and/or in contracts made with loggers for harvests that produce non-certified materials that will be controlled by the Organization and require in those harvest plans and/or contracts that the Best Management Practices are implemented.

**INTENT:** The intent of this mitigation option is to implement supplier-engagement actions that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of aquatic biodiversity, and thereby mitigate the risk of sourcing materials from sites where the aquatic biodiversity in the specified risk area is threatened by forest management activities.

### **CENTRAL THEME: BMP Monitoring**

The following is offered as an option for when a 'High' level of mitigation is required:

The Organization, either individually or in collaboration with other Organizations, or through an intermediary entity, establishes and implements a program or process that results in voluntary submission of harvest and BMP implementation data from loggers/landowners within the specified risk area and the Organization's supply area to the State agency responsible for this data collection in a way that is usable by the agency to supplement its established monitoring system. An emphasis should be placed on those BMPs that address practices for steep slopes and prevention of siltation. This program or process would require independent auditing or sufficient auditing by the state to confirm accuracy of voluntary data regarding BMP implementation.

**INTENT:** The intent of this mitigation option is to implement monitoring-related actions that will result in the State being able to demonstrate a very high level of compliance with BMPs, with an emphasis on those most likely to help conserve aquatic biodiversity, throughout the specified risk area, and, thereby, allow the Organization to demonstrate a low risk of sourcing materials from sites where the aquatic biodiversity in the specified risk area is threatened by forest management activities.

### **HCV 1: Cheoah Bald Salamander**

***The following mitigation options are available to certificate holders so that they may implement Control Measure CM 3.1 when sourcing from areas of specified risk designated for HCV 1 Cheoah Bald Salamander.***

### **CENTRAL THEME: Education & Outreach**

The following is offered as an option that could be scaled for any level of mitigation:

Using materials as described below, communicate to audiences (also described below) the conservation values of Cheoah Bald Salamander (CBS), potential threats from forest management activities (as described in the FSC US National Risk Assessment), and opportunities for

conservation through management that maintains, enhances, or restores CBS populations and reduces or eliminates these threats. The desired outcome of these communications is engaging landowners, foresters, and loggers in conservation of CBS populations within the specified risk area and the Organization's supply area.

- **Materials:** Materials are developed by or developed in cooperation with organizations/individuals with expertise in CBS, or developed in collaboration with FSC US. Materials are delivered in a manner that has a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Materials may already exist or may need to be created. Materials are updated as appropriate to incorporate new information when it becomes available.
- **Audiences:** Communications are directed toward audiences where there is a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Depending upon the Organization's location in the supply chain, communications may be directly with landowners, foresters, or loggers, or through intermediaries such as community members, forest managers, suppliers, forestry associations or landowner associations, or through collaboration with organizations/individuals already working conservation of CBS.

**INTENT:** The intent of this mitigation option is to implement education and outreach-related actions that will result in changes to on-the-ground forest management activities that improve maintenance, enhancement, or restoration of CBS populations, and thereby mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

## CENTRAL THEME: Procurement Policy

The following is offered as an option for Organizations that purchase directly from the source forest:

Develop/adapt a procurement policy that reflects the above Education & Outreach communications themes and clearly states the requirement that the landowner/forester/logger at the source forest will not supply materials from forests where Cheoah Bald Salamanders (CBS) are threatened as a result of the forest management activities that produced the forest materials. This will require providing a description of the forest type in which CBS populations occur, potential threats to CBS from forest management activities (as described in the FSC US National Risk Assessment), and the kinds of activities that would maintain or enhance CBS populations in the specified risk area.

*NOTE: Actions to demonstrate policy enforcement and communicate policies on sourcing to suppliers should be audited under the Due Diligence system requirements within the 40-005V3-1 standard section 1.1*

**INTENT:** The intent of this mitigation option is to implement a procurement policy that will either result in avoidance of materials from sites where CBS are threatened by forest management activities, or result in changes to on-the-ground forest management activities that mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

## CENTRAL THEME: Research

The following is offered as a two-part option for when a 'High' level of mitigation is required:

1. Engage with and/or provide monetary or in-kind resources to an entity or alliance that is currently conducting, or has the capacity to initiate, research on species characteristics, on clarifying positive and negative impacts of forest management activities on Cheoah Bald Salamander (CBS) populations and/or on management practices for CBS conservation, where

the research builds on knowledge already acquired by the USFS within the specified risk area; and

2. Use the results of the research to improve implementation of another mitigation option or demonstrate that the results of the research are being used in some other way to improve maintenance, enhancement, or restoration of CBS populations.

**INTENT:** The intent of this mitigation option is to implement research-related actions and then use the research outputs to increase the effectiveness of another implemented mitigation option that, in turn, will result in changes to on-the-ground forest management activities that improve maintenance, enhancement, or restoration of CBS populations, and thereby mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

### **CENTRAL THEME: Conservation Initiatives**

The following is offered as an option that could be scaled for any level of mitigation:

Engage with and/or provide monetary or in-kind resources to conservation partnerships, organizations or similar entities that are supporting or promoting programs/projects to develop new or augment existing programs that will enhance or conserve Cheoah Bald Salamander (CBS) populations, with a particular focus on increasing and improving implementation of forest management practices for conservation of CBS populations within areas of the specified risk area and the Organization's supply area. These entities may include: 1) partnerships (government and/or non-government organizations), or non-governmental organizations working alone, that have active programs/projects to conserve CBS or amphibians in general; and/or 2) federal, state and/or local governmental organizations.

**INTENT:** The intent of this mitigation option is to implement actions through conservation programs/projects that will result in changes to on-the-ground forest management activities that improve maintenance, enhancement, or restoration of CBS populations, and thereby mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

### **CENTRAL THEME: Planning**

The following is offered as an option that could be scaled for any level of mitigation:

Engage in and/or provide monetary or in-kind resources to conservation planning processes, and, when possible, the implementation of conservation plans, that include, or could potentially include, goals, objectives and/or actions that will likely have an impact on Cheoah Bald Salamander (CBS) populations within the specified risk area and the Organization's supply area. This may include: federal, state and/or local resource planning and plans; industry land plans; regional planning and plans directly for CBS; and/or broad-spectrum regional conservation planning and plans that include some or all of the specified risk area. The desired outcome of this engagement or provision of resources is to increase and improve forest management practices that conserve CBS populations.

*NOTE: There are some situations where engagement/support by the Organization may not be possible for both the planning process and the plan implementation (e.g., when the relevant plan has already been developed, or when there is an opportunity to participate in a planning process where implementation of the plan will be the complete responsibility of a public agency and there is no opportunity to engage or support implementation).*

**INTENT:** The intent of this mitigation option is to implement planning-related actions that will result in changes to on-the-ground forest management activities that improve maintenance, enhancement, or

restoration of CBS populations, and thereby mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

### **CENTRAL THEME: Direct Influence**

The following are offered as options for Organizations that purchase directly from the source forest:

- A. Document acceptable implementation of best management practices that conserve Cheoah Bald Salamander (CBS) populations during harvests that produce non-certified materials that will be controlled by the Organization.
- B. Include best management practices that will conserve CBS populations in harvest plans and/or in contracts made with loggers for harvests that produce non-certified materials and that will be controlled by the Organization and require in those harvest plans and/or contracts that the best management practices are implemented.

NOTE: In these situations, 'best management practices' are not intended to specifically reference State-established BMPs for water quality, but instead established practices that are effective in restoring, maintaining or enhancing CBS populations.

**INTENT:** The intent of this mitigation option is to implement supplier-engagement actions that will result in changes to on-the-ground forest management activities that improve maintenance, enhancement, or restoration of CBS populations, and thereby mitigate the risk of sourcing materials from sites where CBS in the specified risk area are threatened by forest management activities.

### **HCV 3: Mesophytic Cove Sites**

***The following mitigation options are available to certificate holders so that they may implement Control Measure CM 3.1 when sourcing from areas of specified risk designated for HCV 3 Mesophytic Cove Sites.***

### **CENTRAL THEME: Education & Outreach**

The following is offered as an option that could be scaled for any level of mitigation:

Using materials as described below, communicate to audiences (also described below) the social benefits and values of Mesophytic Cove Sites (MCS), how to identify them in the field, threats from incompatible forest management activities (as described in the FSC US National Risk Assessment), and opportunities for conservation through management that enhances MCS and reduces or eliminates these threats. The desired outcome of these communications is engaging landowners, foresters, and loggers in conservation of MCS within the specified risk area and the Organization's supply area.

- **Materials:** Materials are developed by or developed in cooperation with organizations/individuals with expertise in MSC conservation, or developed in collaboration with FSC US. Materials are delivered in a manner that has a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Materials may already exist or may need to be created.
- **Audiences:** Communications are directed toward audiences where there is a proven or reasonable expectation of effectiveness in achieving the above defined desired outcome. Depending upon the Organization's location in the supply chain, communications may be directly with landowners, foresters, or loggers, or through intermediaries such as community members, forest managers, suppliers, forestry associations or landowner associations, or through collaboration with organizations/individuals already working for conservation of MCS.

**INTENT:** The intent of this mitigation option is to implement education and outreach-related actions that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of MCS, and thereby mitigate the risk of sourcing materials from sites where MCS in the specified risk area are threatened by forest management activities.

### **CENTRAL THEME: Research**

The following is offered as a two-part option for when a 'High' level of mitigation is required:

1. Engage with and/or provide monetary or in-kind resources to an entity or alliance that is currently conducting, or has the capacity to initiate, research on management practices for conservation of Mesophytic Cove Sites (MCS), on invasive species management, including treatment and prevention, and/or on development of improved identification tools for MCS within the specified risk area; and
2. Use the results of the research to improve implementation of another mitigation option or demonstrate that the results of the research are being used in some other way to improve maintenance or enhancement of MCS.

**INTENT:** The intent of this mitigation option is to implement research-related actions and then use the research outputs to increase the effectiveness of another implemented mitigation option that, in turn, will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of MCS, and thereby mitigate the risk of sourcing materials from sites where MCS in the specified risk area are threatened by forest management activities.

### **CENTRAL THEME: Mapping**

The following is offered as a two-part option for when a 'High' level of mitigation is required:

1. Engage with and/or provide monetary or in-kind resources to an entity or alliance that is currently conducting, or has the capacity to initiate, research to map or refine existing maps of Mesophytic Cove Sites (MCS) within the specified risk area, where the research complements other MCS mapping efforts in the region, and the entity or alliance is working to address the challenge of providing this information about MCS locations while ensuring protection of the ecosystem; and
2. Use the results of the research to improve implementation of another mitigation option or demonstrate that the results of the research are being used in some other way to improve maintenance or enhancement of MCS.

**INTENT:** The intent of this mitigation option is to implement education and outreach-related actions that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of MCS, and thereby mitigate the risk of sourcing materials from sites where MCS in the specified risk area are threatened by forest management activities.

### **CENTRAL THEME: Staff/Forester Training**

The following is offered as an option for Organizations that purchase directly from the source forest:

Ensure staff and contract foresters receive training or the equivalent, with periodic refreshers that include any new information, on identification of Mesophytic Cove Sites (MCS), MCS conservation and social values, management techniques, and treatment and prevention of invasive species. The training or equivalent shall be: a) customized for MCS that occur within the Organization's supply

area; b) developed by or developed in cooperation with organizations/individuals with expertise in conservation of MCS, or developed in collaboration with FSC US; and c) result in staff having knowledge on these subjects to the extent that they are able to communicate the same content to the landowners, loggers and forest managers with whom they are working.

**INTENT**: The intent of this mitigation option is to train staff and contract foresters so that they are able to implement education and outreach-related actions that will result in changes to on-the-ground forest management activities that improve maintenance or enhancement of MCS, and thereby mitigate the risk of sourcing materials from sites where MCS in the specified risk area are threatened by forest management activities.

## Annex 3 – Specified Risk Overview Documents

The following documents were made available to interested stakeholders in advance of the Controlled Wood Regional Meeting in Asheville. Individuals and organizations were encouraged to review the information that they provide about the specified risk designations in the Appalachian Region and then propose mitigation actions to address the identified risk either through the online discussion forum (<https://www.engage.us.fsc.org>) or at the Regional Meeting itself.

# FSC US CONTROLLED WOOD REGIONAL MEETINGS CENTRAL APPALACHIAN CBA



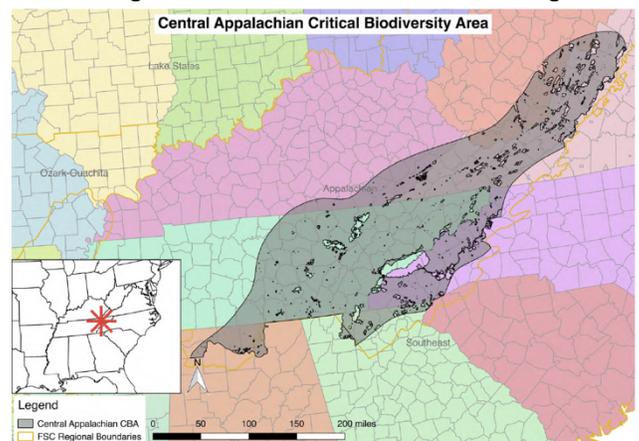
**FSC REGION** Appalachian (this Critical Biodiversity Area (CBA) is an extension of the Southern Appalachian CBA, but for the purposes of this assessment, they are being separated at the regional boundary)

**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.<sup>1</sup>

**WHY IS THE CENTRAL APPALACHIAN CBA CONSIDERED AN HCV?** This CBA is considered an HCV because it contains a high overall species richness, diversity, or uniqueness within a defined area compared to other sites within the same biogeographic area. The CBA was identified using a species richness index originally published by NatureServe and The Nature Conservancy that identifies areas with high concentrations of rare species. This index preferences species that have limited ranges by applying additional weighting. The results identify areas with concentrations of high biological diversity and spaces with an increased conservation significance.

**SUMMARY OF THE CENTRAL APPALACHIAN CBA** This CBA corresponds with the higher elevation portions of WWF's 'Appalachian Mixed Mesophytic Forest' area, one of their Global 200 biodiversity areas. The broadleaf forests and aquatic habitats drive the region's biodiversity. The forests are significant in the diversity of different forest types that occur and within them the large number of different tree species that occur, along with incredibly diverse understories and associated wildlife species. The geologic history, change in elevation, and diverse topography and climate have resulted in a very large number of microhabitats within the region – each with a unique biodiversity. Additionally, the mountains served as a refuge for northern species during the last ice age, and due to the changes in elevation that reflect changes in the climates at different latitudes, the area can harbor a mix of both traditionally more northern and more southern species within the same broad geographic area. The area is particularly diverse in songbirds, salamanders, land snails, amphibians and herbaceous plants. It also represents one of two regions left in the world where relics of ancient mesic forest still exist.

The region's freshwater systems are together considered to be the richest temperate freshwater ecosystem in the world – representing the highest richness and endemism in mussels, fish, crayfish and other invertebrates for the entire world. The southern running riverine systems allowed many aquatic species to escape the glaciers of the last ice age and then re-establish afterward.



<sup>1</sup>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 CENTRAL APPALACHIAN CBA HABITATS

### Mixed Mesophytic Forests

Historically, forest management activities threatened and had significant negative impacts on the Mixed Mesophytic Forests of this CBA and there are lasting impacts from these activities today. Currently, however, widespread threats from forest management activities are not identified. Instead, the priority threats to the forests as a whole include: climate change, pollution from mining, new highways and utility rights-of-way, ORV recreation and overpopulation of deer.

### Aquatic Habitats

In addition to threats associated with agriculture, development, and mining, the following threats were associated with forest management: **Hydrologic alteration partially due to forestry practices and conversion from hardwood forests to non-native planted pine (which may include ditching as a practice in wetter areas), reduced water quality partially due to loss of near-stream forested habitat and sedimentation associated with forestry practices and lack of BMP implementation, and severe erosion of river banks.**

## 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 the Central Appalachians CBA is one of these places - specifically, the portions of the CBA that occur within the FSC US Appalachian Region and are not effectively protected<sup>2</sup>. Companies that wish to use non-certified materials from the identified places (like this CBA) 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 CBA, 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](https://engage.fsc.us.org) and joining the virtual discussion, or attending a regional meeting.**

## INFORMATION SOURCES THAT MAY HELP GENERATE MITIGATION IDEAS

- [Southeast Aquatic Resources Partnership](#)
- [The World Wildlife Fund's Global 200 – Appalachian mixed mesophytic forests](#)
- The Nature Conservancy
- [Greater Appalachian Conservation Partnership](#)

<sup>2</sup>Effective protection is demonstrated by GAP Status 1 & 2 areas in the PAD-US dataset (<https://gapanalysis.usgs.gov/padus/data/download/>) and USFS Inventoried Roadless Areas (<https://www.fs.usda.gov/detail/roadless/2001roadlessrule/maps/?cid=stelprdb5382437>).



# FSC US CONTROLLED WOOD REGIONAL MEETINGS

## CHEOAH BALD SALAMANDER



### FSC REGION Appalachian

**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.<sup>1</sup>

**WHY ARE CHEOAH BALD SALAMANDERS CONSIDERED AN HCV?** The Cheoah Bald Salamander is considered an HCV because it is a rare species population with very limited distribution. The species was identified through an analysis of the NatureServe dataset, considering criteria including level of imperilment (both global and state scales), taxa (e.g., vertebrate species), forest habitat dependency, and recency of confirmed occurrences.

**SUMMARY OF CHEOAH BALD SALAMANDERS** The Cheoah Bald Salamander's range is not yet well defined but is believed to be limited a portion of the Appalachian Mountains at the very western extent of North Carolina within the elevational range of 975-1,524 meters, associated with the Cheoah Bald. The salamander's primary habitat is the mesic forests and the species may be common in areas with suitable habitat. It appears that much of the species' range may occur within the Nantahala National Forests and it is identified as a Federal Species of Concern. For more information, contact the North Carolina Natural Heritage Program or the Nantahala National Forest.

**IDENTIFIED THREATS TO CHEOAH BALD SALAMANDERS** These salamanders depend on forest & woodland habitats and it is believed that clearcut harvests can threaten local populations. Though some populations have been found in second growth forests, literature suggests it takes decades for the species to re-populate following timber harvests. Therefore, these kinds of forest disruption could have a significant effect on the species as a whole.

**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 the Cheoah Bald Salamander's range is one of these places - specifically, Graham and Swain Counties, NC. 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.



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

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](https://engage.fsc.us.org) and joining the virtual discussion, or attending a regional meeting.**

## INFORMATION SOURCES THAT MAY HELP GENERATE MITIGATION IDEAS

- [NatureServe Explorer](#)
- The Nantahala National Forest
- [The North Carolina Wildlife Action Plan](#)



# FSC US CONTROLLED WOOD REGIONAL MEETINGS MESOPHYTIC COVE SITES



## FSC REGION Appalachian

**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.<sup>1</sup>

**WHY ARE MESOPHYTIC COVE SITES CONSIDERED AN HCV?** Mesophytic cove sites are considered an HCV because they are a rare ecosystem that is at risk at a national or regional scale. These types of HCVs were identified using guidance associated with the FSC US Forest Management Standard and are supported by other information sources and through expert consultation.

**SUMMARY OF MESOPHYTIC COVE SITES** Mesophytic cove sites are highly diverse, closed-canopy hardwood forest occurring on sheltered sites at low- to moderate-elevation (1000-3600 ft), and sometimes higher. They tend to occur in large patches on concave slopes that accumulate nutrients and moisture. They are characterized by high species diversity and a complex forest structure. The ground level flora in particular has high species richness, often with abundant spring ephemerals. Rich cove forests have very fertile soils with a diverse herb layer containing few shrubs. Acidic cove forests are less fertile than rich coves, but otherwise similar.

While the sheltered, mesic sites that support Cove Forests are not particularly rare, examples that retain structural components like the dense canopy and high species diversity (both in the overstory and understory) are very rare. These characteristics may take 200 years to develop. These sites will not have evidence of having been previously clear-cut or farmed (followed by regrowth of the forest). Typically, they will include basswood, buckeye, cucumber, walnut, and magnolias in the mid-story and yellow-poplar, beech, sugar maple, northern red oak, white oak, ash, and hickories in the overstory.

## IDENTIFIED THREATS TO MESOPHYTIC COVE SITES

The most significant current threats to this forest type are invasive species and conversion to other uses. Threats also include **incompatible forest management that results in alterations to the structure and composition of the forest or conversion to other forest types (white pine)**, climate change, chronic deer herbivory, harvesting of herbs and pollution. Cove forest sites can be managed in a compatible way using methods that do not disturb soil productivity, hydrology or the understory, that maintain the diversity of the overstory without losing oak or moving toward monocultures of maple or poplar, that limit openings and that don't result in 'high-grading' the forest (removing all trees of high commercial value and leaving the remainder). Incompatible forest management occurs when these guidelines are not followed and remains a threat to these systems in the Appalachian region.

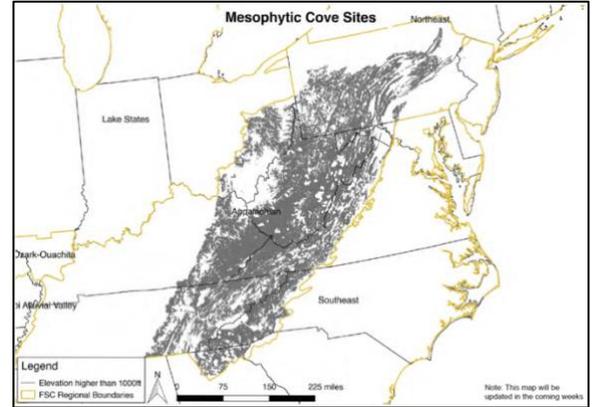
While less severe disturbances, such as logging and fire, may not reduce herbaceous species richness or diversity to the same extent as more severe disturbances like mining and agriculture, they can still affect herbaceous species composition or abundance and therefore the quality and functioning of the system.

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

Overall, the magnitude of impact on the herbaceous species from activities that occur within these sites is directly proportional to the severity of disturbance.

## 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 mesophytic cove forests are one of these places - specifically, the areas that occur within the portions of the FSC US Appalachian Region that are also within the WWF Global 200 Appalachian & Mixed Mesophytic Forests ecoregion, are above 300m elevation, and are not effectively protected<sup>2</sup>. 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](https://engage.fsc.us.org) and joining the virtual discussion, or attending a regional meeting.**

## HERE ARE SOME SOURCES THAT CAN HELP GENERATE MITIGATION OPTION IDEAS

- [NatureServe Explorer](#)
- [The North Carolina Wildlife Resources Commission](#)
- The Nature Conservancy
- [The Virginia Department of Conservation and Recreation](#)

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<sup>2</sup> Effective protection is demonstrated by GAP Status 1 & 2 areas in the PAD-US dataset (<https://gapanalysis.usgs.gov/padus/data/download/>) and USFS Inventoried Roadless Areas (<https://www.fs.usda.gov/detail/roadless/2001roadlessrule/maps/?cid=stelprdb5382437>).

