Report on the Second Public Consultation of the FSC US Controlled Wood National Risk Assessment

Beginning in mid-2016, FSC US started working with a new US Controlled Wood National Risk Assessment Working Group and a group of Technical Advisors to address the comments received during the first public consultation in 2015 and develop a second draft. A second public consultation was held from December 15, 2017 to February 28, 2018. FSC US received over 1,000 individual comments from 44 total stakeholders. Of these stakeholders, 38 comments were economic, 5 were environmental, and one was social.

As part of the public consultation, FSC US held two webinars and three in-person meetings, one in Lexington, KY, one in Atlanta, GA, and one in Portland, OR. Over 100 individuals engaged via these meetings with 56 attending the webinars and 57 attending the in-person meetings.

The individual comments on the second draft of the NRA are presented in Annex A. For confidentiality, the names of the individual respondents have been omitted in this report. All comments were analyzed and considered by the Working Group, the Technical Advisory Group, and FSC US when developing the final draft of the NRA.

The following is a summary of the key issues identified during the second consultation and how they were addressed in the final draft:

- **Scale of specified risk areas:** Many commenters felt that the areas of specified risk were too broad. The areas of specified risk need to be reassessed to ensure that they are as fine-scale as possible without being site specific.
    - **FSC US Response:** The identified risk areas and available data were re-evaluated. The geographic area of specified risk was refined when enough information was available.
- **HCV 1 individual species identification & risk assessment:** Comments from all chambers felt that a more appropriate methodology to identify HCV1 species is needed. Environmental and social chamber commenters felt that the methodology for identification of HCV 1 species used wasn't thorough enough and that many more species should have been included in the assessment. The economic chamber expressed concern about the inclusion of the Ivory-billed Woodpecker, which hasn't been conclusively documented in over 20 years. Economic commenters also felt that the legislative process is already effectively protecting those species most at risk.
    - **FSC US Response:** When developing the final draft of the NRA, FSC US ensured that available guidance for assessing HCV1 species was being followed. Experts were consulted to determine an appropriate approach for identifying HCV1 species. The experts recommended expanding the methodology to include species that are G1 and S2 in at least one state. This resulted in 3 additional species, but only one that was forest dependent. To address comments related to species not being documented in the last few decades, an additional criterion to the HCV1 species filtering process was added to limit the results to species that had been formally documented within the last two decades. This resulted in one species no longer meeting the criteria (Ivory-billed Woodpecker). The species ranges for specified risk areas were also refined when additional information was available.
- **Best Management Practices:** Comments suggested that there is a misalignment between identified threats from poor BMP implementation for HCV1 Critical Biodiversity Areas and the low risk designation for HCV4 Critical Ecosystem Services.
    - **FSC US Response:** FSC US consulted with experts and reviewed additional information sources related to the effectiveness of BMP implementation within the CBAs. These threats being assessed are to biodiversity and look at much finer scale

than the HCV 4 assessment. The HCV4 assessment focuses on forests that provide ecosystem services to local communities and as such threats are assessed at a broad scale. Though not perfect everywhere in protecting these ecosystem services, there is evidence of widespread success throughout the assessment area in effective protection through BMP implementation. However, the effectiveness of BMPs in protecting biodiversity is not fully understood.

- **Old Growth:** Comments suggested that a better methodology is needed to determine where old growth is threatened. Economic chamber commenters felt that old growth is adequately protected on public lands. Commenters also noted that the threat expressed in the draft (that there are not enough younger stands being managed to become future Old-Growth) is not a valid threat, as it is not a threat to existing HCVs. Environmental comments expressed support for a specified risk designation and concern that threats directly from harvests of Old-Growth forests were not identified.
    - **FSC US Response:** FSC US worked with experts to review additional information sources and to re-evaluate the threats assessment and the specified risk area extent. Additionally, a GIS consultant worked to implement a new, coarse-scale filtering process for where old growth forests are most likely to occur.
- **Conversion:** There are many sources of evidence that forest area in the United States is stable or increasing, both at national and regional scales. Comments suggested that the specified risk area is too coarse and the drivers of conversion need to be refined. Economic chamber commenters also felt that forest management isn't a driver of conversion and companies don't have any control over population growth.
    - **FSC US Response:** The final draft of the NRA includes additional information sources and analysis related to the drivers of conversion and considered both population growth and residential development in the definition of specified risk areas. The scale of risk was shifted from entire states to counties. The draft recognizes that forest area is stable at very coarse scales, but also provided evidence that forest conversion continues to be a concern at finer scales.
- **Statements required in the Control Measures & blanket requirement for provision of educational materials:** Concerns were raised regarding the requirement for a statement to suppliers that was included in the Control Measures. There was also a perceived misalignment with using a risk mitigation approach while still requiring a statement with an eliminate or no risk message. This could lead to a major reputational risk for a company. Additionally, commenters questioned the validity of requiring educational materials even when there was no evidence that they would be effective in mitigating risk.
    - **FSC US Response:** This Control Measure is no longer included in the final draft NRA. If provision of educational materials is identified as an effective mitigation action, it will be addressed at the Controlled Wood Regional Meetings.

Annex A – Compilation of all comments received

List of all commenters:

Allegheny Wood Products, Inc.	Economic
Alyson Merlin / Barbara Bramble – The National Wildlife Federation / Individual Member	Environmental
American Forest & Paper Association	Economic
American Forest Resource Council	Economic
American Green Consulting Group, LLC	Economic
Andersen Corporation	Economic
Bingaman & Son Lumber, Inc.	Economic
Boise Cascade	Economic
Bright Wood Corporation	Economic
Columbia Forest Products	Economic
Daniel Hall	Environmental
Danzer Services	Economic
Domtar	Economic
Drax Biomass	Economic
Ecotrust	Environmental
Enviva LP	Economic
Evergreen Packaging	Economic
Forest Products Certification Group	Economic
Georgia-Pacific LLC	Economic
Glatfelter	Economic
Hancock Natural Resource Group	Economic
IKEA Purchasing Services (US) Inc.	Economic
International Paper	Economic
KapStone Kraft Paper Corporation	Economic
Mason, Bruce & Girard	Economic
Mendocino Redwood Company, LLC	Economic
Milestone Veneer LLC	Economic
MixedWood LLC	Economic
NCASI	Economic
Packaging Corporation of America	Economic
PotlatchDeltic	Economic
R.S. Berg and Associates	Economic
Rainforest Alliance	Economic
Resolute Forest Products	Economic
SCS Global Services	Economic
Sheoga Hardwood Flooring	Economic
Sierra Club	Environmental
Society of American Foresters	Economic
Sustainable Northwest	Social
The Westervelt Company	Economic
Washington Department of Natural Resources	Economic
WestRock Company	Economic
World Wildlife Fund	Environmental
Zimmfor Management Services Ltd.	Economic

Comment Category Key:

Comment Category	Description
R = Risk Designation	Issue was discussed by the Working Group.
C = Control Measure	Issue was discussed by the Working Group.
E = Editorial comment	Document text was reviewed by FSC US.
I = Information sources or rationale	Further research was carried out, additional sources were included, and/or further rationale was added in the final draft.
A = Agreement	No further action needed.
X = Not relevant (no reference to sources, outside the scope of the NRA, etc.)	No further action was taken because the comment wasn't relevant to the document contents.

Comment Reference Key:

Comment Reference	Consultation Question
CQ 1	Are the FSC Regions an effective coarse-level framework for geographically differentiating risk designations? Or are there other criteria that should be considered to develop better regional boundaries for the purposes of the US National Risk Assessment?
CQ 2	The primary antitrust concern expressed during the first public consultation focused on a requirement for supplier agreements. With the removal of this requirement, proposed landscape scale risk designations (that do not require information about specific origin of materials) and a stated intention to identify multiple potential mitigation actions at Controlled Wood Regional Meetings (leaving certificate holders to decide individually which to implement), have the significant antitrust concerns been resolved?
CQ 3	We've received comments that FSC documents formatted with tables and very small text are difficult to review, understand and use – this is a primary reason we included the Annexes with content for Categories 2, 3 and 4. The annexes also allow us to provide the guidance, definitions, context information and some additional details that we believe will assist readers in understanding our rationale for risk designations. However, having similar content in both the main template document and annexes could be perceived to add unnecessary complexity to the document. Does it make sense to include the Category 2, 3 and 4 Annexes in the way that we have?
CQ 4	Please provide feedback on the methodology used to identify HCV 1 individual species. Specifically:
CQ 4a	Is there a different process that would have resulted in a better alignment of species identified with the definition for HCV 1?
CQ 4b	Are there other available datasets that would provide a better framework for identifying HCV 1 species for this risk assessment?
CQ 4c	Are there different criteria that could be used with the NatureServe dataset which would have resulted in a better alignment of species identified with the definition for HCV 1?
CQ 5	Are there other available datasets that could replace or augment the data used for identification of HCV 2 (Globally, regionally or nationally significant landscape level forests) to better align the areas identified with the definition for HCV 2 in a consistent manner across the assessment area?
CQ 6	Please provide feedback on the methodology used to identify HCV 3 (rare, threatened or endangered ecosystems, habitats or refugia). Specifically:
CQ 6a	Do the HCV 3 identified (Old Growth, Roadless Areas and Priority Forest Types) together address the rare (forested) ecosystems in the US that are significant at

	a global, regional or national scale? If not, please provide rationale and sources of information that support your response.
CQ 6b	Are there other available datasets that could replace or augment the data and information used for identification of HCV 3 to better align the areas identified with the definition for HCV 3 in a consistent manner across the assessment area?
CQ 6c	Are you aware of any additional information sources that can provide information on the threats to public land Old-Growth from forest management activities?
CQ 7	Please provide feedback on the methodology used to identify and assess HCV 4. Specifically:
CQ 7a	Are you aware of any additional datasets or information sources that can provide information regarding the location of HCV 4 (critical ecosystem services) and threats to HCV 4 from forest management activities?
CQ 7b	Are you aware of any additional research that has assessed compliance with and/or effectiveness of forestry Best Management Practices (BMPs)?
CQ 8	Are you aware of any additional datasets or information sources that can provide evidence of the presence of HCV 5 (sites and resources fundamental for satisfying the basic necessities of local communities or indigenous peoples) within the assessment area?
CQ 9	Please provide feedback on the HCV 6 risk assessment. Specifically:
CQ 9a	Are you aware of any evidence from the last 15 years of threats from forest management activities to Native American sacred places or sites within the assessment area?
CQ 9b	Are you aware of any evidence of the existence of cultural values critical to local communities within the assessment area? And if so, is there any evidence of threats to those values from forest management activities?
CQ 10	Are you aware of any research that has assessed the effectiveness of protective designations in the assessment area?
CQ 11	After reading the supplementary document that describes the Controlled Wood Regional Meetings in greater detail, please provide feedback on the Category 3 Control Measures. Specifically:
CQ 11a	Are you supportive of the proposed Category 3 Control Measures? If not, why not?
CQ 11b	Do you support the proposed contingency plan for situations where mitigation actions are not successfully identified at the meetings? Do you have any suggestions to improve the contingency plan?
CQ 11c	Are there specific stakeholders (local, regional, national or global) that you believe will be essential participants for successful Controlled Wood Regional Meetings, and/or that would be valuable participants and should be encouraged to attend?
CQ 12	Do you have suggestions for an alternative proxy (other than urbanization and population growth) that could be used to more accurately identify places where there is a risk (that is higher than low risk) of materials entering the FSC supply chain from places where forests are being converted to plantations or non-forest use?
CQ 13	Are you aware of any additional (and affordable) datasets or information sources that could replace or augment the data used to identify places with a higher likelihood of forest conversion occurring?
CQ 14	After reading the supplementary document that describes the Controlled Wood Regional Meetings in greater detail, please provide feedback on the Category 4 Control Measures. Specifically:
CQ 14a	Do you have suggestions of specific mitigation actions that certificate holders could potentially take, that are not repetitive of what may already be taking

	place, that would help to keep forests from being converted to plantations or non-forest use? These are the kinds of actions that would need to be identified at the Controlled Wood Regional Meetings and then be implemented by certificate holders under the proposed control measures. This information will help assess the potential for effective risk mitigation resulting from implementation of the proposed Category 4 control measures
CQ 14b	Do you believe that the above actions will help to reduce the risk of sourcing materials from areas of forest conversion? In the short-term? In the long-term?
CQ 14c	Are there specific stakeholders (local, regional, national or global) that you believe will be essential participants for successful Controlled Wood Regional Meetings, and/or that would be valuable participants and should be encouraged to attend?
CQ 15a	Do you support the risk designations as proposed in the Draft 2-0 Controlled Wood National Risk Assessment for the Conterminous United States?
CQ 15b	If (b) or (c) is indicated, please identify what specific adjustments or changes are needed
CQ 16a	Do you support the control measures for Category 3 (HCV) as proposed in the Draft 2-0 Controlled Wood National Risk Assessment for the Conterminous United States?
CQ 16b	If (b) or (c) is indicated, please identify what specific adjustments or changes are needed
CQ 17a	Do you support the control measures for Category 4 (Conversion) as proposed in the Draft 2-0 Controlled Wood National Risk Assessment for the Conterminous United States?
CQ 17b	If (b) or (c) is indicated, please identify what specific adjustments or changes are needed
CQ 18	Do you have any additional comments that you would like to share?
CQ 19	Please provide any technical or editorial comments you have using the table below.
CQ 20	Do you support the general concept of using Controlled Wood Regional Meetings (with voluntary in-person participation from certificate holders and other interested and affected stakeholders) to collaboratively identify the mitigation options for companies that wish to source forest materials from areas of specified risk that may be designated for Category 3 (HCV) in the National Risk Assessment?
CQ 21	Do you support the general concept of using Controlled Wood Regional Meetings (with voluntary in-person participation from certificate holders and other interested and affected stakeholders) to collaboratively identify the mitigation options for companies that wish to source forest materials from areas of specified risk that may be designated for Category 4 (Conversion) in the National Risk Assessment?

Annex A - Compilation of all comments received

Comment Category	Reference	Comment	Action(s) by FSC US staff and WG	Chamber
C	Anti-Trust	It appears the FSC and the NRA may be taking a rather inconsistent approach towards the topic of anti-trust, and most importantly, over-reacting to anti-trust claims by forgoing important and reasonable Control Measures. The NRA's discussion of anti-trust concerns does not appear to provide an objective and legally grounded analysis of either the challenges or the FSC's options. I am not necessarily arguing for fully transparent analyses here, given that FSC might not wish to put all of its cards on the table after receiving tacit legal threats from some stakeholders. Rather, I'm noting that the types of more effective Control Measures found in the prior draft NRA appear to have been removed at the behest of those stakeholders, when other information suggests their assertions were overstated. The FSC's Consultation Report for the prior draft NRA indicates (at page 2) that the FSC's attorneys expected that the prior draft NRA would in fact be defensible in court. Likewise, the NRA materials indicate that some stakeholders argued that supplier agreements per se would constitute anti-trust violations – yet supplier agreements and contracts are surely commonly used in other supply chain contexts, suggesting that either they can be shaped in ways that are compliant, or that the anti-trust concerns have been overstated.	Confirm with WG that they wish to continue in the current direction; note that revised CM are not only due to Anti-trust, but other issues as well	Environmental
R, A	BMPs	Effectiveness of Forestry Best Management Practices Keeping forests as forests is key to protecting all the critical ecosystem services that forests provide, including water quality and quantity. The Risk Assessment highlights the connection between well-managed forests and healthy watersheds throughout the discussion of High Conservation Value (HCV) 4 – Critical Ecosystem Services (pg. 211-213). This section also discusses forestry best management practices (BMPs) and their critical role in addressing nonpoint source pollution and protecting water quality. After outlining information and resources related to BMP effectiveness, compliance, and monitoring, this HCV is ultimately designated as "Low Risk for the entire assessment area." Despite this designation and recognition that BMPs are effectively protecting water quality throughout the assessment area, the Risk Assessment suggests that forest management activities are a pervasive threat to water quality in several Critical Biodiversity Areas (CBAs), including Ouachita River Valley, Central Appalachians, Southern Appalachians, and Florida Panhandle. Not only do these statements conflict with the HCV 4 designation, they are also not supported by the scientific literature or surveys cited (pg. 213). Furthermore, these statements included in the Risk Assessment do not acknowledge the continuous improvement of state BMPs to address site-specific challenges detected through inventory, monitoring, and assessment.	Review sources related to BMPs & water quality in CBAs; note that BMPs are designed for water quality alone (which made for a good fit with HCV 4), and may not always be the best match for biodiversity; note that CBA are at a finer scale than the state-scale effectiveness assesments and may represent more localized problems	Economic
R	BMPs	Some of these CBAs cover large and diverse geographical areas and encompass several states. Forest conditions, topology, climate, geology, and other conditions vary by state and regions or even sites within states, which is why BMP programs and manuals are tailored to provide guidelines for site-specific conditions. To say, for instance, that there is "lack of BMP implementation" in the large Central Appalachians CBA (pg. 101) is overly broad and unsubstantiated. With strong scientific evidence that forestry BMPs are being implemented at high rates and are effective at protecting water quality, generic statements like these, perhaps referencing very specific instances, should not be used to influence the risk analysis and ultimate designations. As it does in the HCV 4 section, SAF hopes FSC will acknowledge the effectiveness and high implementation rates of BMPs throughout the updated Risk Assessment. In addition, SAF urges FSC to remove statements related to forest management activities threatening water resources and water quality in CBAs.	Review BMP effectiveness and how this is discussed in the CBA sections. Reach out to local experts as needed.	Economic

I	BMPs	Additional resources on BMPs Cristan, R., W.M. Aust, M.C. Bolding, S. M. Barrett, and J.F. Munsell. 2017. National status of state developed and implemented forestry best management practices for protecting water quality in the United States. Forest Ecology and Management. https://doi.org/10.1016/j.foreco.2017.07.002 Ice, G.G., Schilling, E., and Vowell, J. 2010. Trends for forestry best management practices (BMPs) implementation. Journal of Forestry 108(6):267-273. National Association of State Foresters: Forestry Best Management Practices by State. https://stateforesters.org/action-issues-and-policy/state-forestry-BMPs-map-o-o Warrington, B.M., W.M. Aust, S.M. Barrett, W.M. Ford, C.A. Dolloff, E.B. Schilling, T.B. Wigley, and M. C. Bolding. 2017. Forestry best management practices relationships with aquatic and riparian fauna: A review. Forests 8(9):331. http://www.mdpi.com/1999-4907/8/9/331	Review and consider these sources - both related to CBA and to HCV 4	Economic
R,C	Category 1 - Legality	The draft NRA may also be too quick to dismiss the risk of legal violations in some areas, and reasonable steps companies might take to respond to concerns when they arise. I would agree that the risk of legal violations in the forestry sector in the US is not on par with the risk in some other countries, and is arguably not the largest concern relative to some other topics in the NRA, e.g., HCVs. However, the risk is also not insignificant, and NRAs are supposed to conduct their analyses at scales that can differentiate areas of risk from areas of non-risk. On page 23, the NRA notes that the Forest Service loses about 25% of citizen suit cases and settles another 25%-ish, indicating that the agency had essentially broken the law in about half of the 1,125 times covered by an analysis of cases between 1989 and 2008. While a member of the prior NRA WG, I also submitted information on more current examples of significant legal violations by the Forest Service and BLM that had serious implications for HCVs and other values. The NRA also notes some less frequent, but still significant, patterns of violations on private and state forest lands, at pages 26, 27, 35, and 40. The prior draft NRA provided a reasonable and balanced solution to this situation, albeit one that could have been conveyed in a manner more consistent with the organization of the rest of the document. In a nutshell, the NRA recognized that while there is not a level of risk that merits a nation-wide risk designation, significant legal violations can and do occur in the forestry sector, and that purchaser companies should have due diligence procedures in place that will help them recognize problems that may occur in their source forests, and to take appropriate steps when they do occur. Although we did not explore this aspect of the situation, such a due diligence approach might even be legally required, inasmuch as the Lacey Act appears to apply not just to imported timber, but also forest products transported across state lines. Although this is not highest priority for the NRA, I would still recommend that the FSC consider re-instituting a commensurate version of this approach from the prior draft NRA. Illegality is a serious and visible enough topic that it seems foolhardy to not expect certificate holders to address known problems when they arise. Inasmuch as the FSC CW system already requires certificate holders to have due diligence type systems in place, this presumably gives FSC US a place to locate these provisions, instead of going the risk designation and Control Measure route. However, if designating risk and Control Measures is the only option, then FSC could either designate risk nationwide and specify Control Measures that focus on responding to known problems as they arise, or FSC could designate risk in	Discuss with WG; note that the NRA procedure clarifies that the risk designation determination shall consider the frequency of incidence (isolated versus pervasive), magnitude and severity of violations; note that the risk designation used is 'low risk' not 'no risk' or 'non risk'	Environmental

R	Category 2 - Traditional and Human Rights	The risk assessment for Indigenous and civil rights dates to early 2015, and the findings of low risk may need to be reexamined and updated in light of recent developments. Some of the existing assessment appears to have been predicated on the existence of Obama-era Administrative policies. As is well known, the current Administration has been shrinking and repealing a host of Obama-era policies, including ones potentially relevant to the NRA. For example, the Administration has been drastically reducing protections for some National Monuments, including ones such as Bears Ears that are very important for the preservation of Indigenous cultural resources and, presumably, for Indigenous Peoples' access to and use of those sites. Likewise, the Administration and Congress are also moving forward with initiatives to reduce required impact analyses and protections for federal public lands more generally, which seems likely to further impact Indigenous Peoples' resources and rights related to those lands.	Note that the risk assessment determination is specific to the forest sector (and threats such as those at Bears Ears are due to the oil/mineral/gas sector); note that the Category 2 assessment was developed in 2017 using recent information. Consult with tribes and experts.	Environmental
R	Category 5 - GMOs	The risk assessment for GMOs also dates to 2015 (which means the supporting data may be even older), and definitely should be updated in light of recent developments, including with a possible risk finding. The GMO eucalyptus referenced in the NRA has since been approved for commercial use. The federal government has also given the green light to commercial use of GMO loblolly pine, and in doing so, signaled that it will essentially be abdicating its regulatory role over GMO trees, and will no longer be requiring Environmental Impact Assessments for GMO trees (see for example http://www.centerforfoodsafety.org/press-releases/3713/new-genetically-engineered-tree-to-avoid-federal-oversight-completely#).	Review and revise CNRA for Category 5 as needed to account for any changes.	Environmental
X	Chamber-bal	Perhaps the direction taken in the current draft is unsurprising, inasmuch as economic interests, including some opponents of the FSC and other conservation initiatives, were by far the most vocal participants during the consultation on the prior draft. However, such imbalanced input is itself a challenge needing to be addressed. As in other FSC decision-making processes, the content of the NRA should reflect chamber-balanced perspectives on risk and Control Measures, even if the amount and volume of feedback was not itself balanced. I hope FSC US will make this a goal as the process moves forward. Indeed, I fear that few forest conservation organizations will be commenting on the current draft NRA – though I strongly suspect many would agree with the perspectives outlined above and below.	This has been done, through the actions of the chamber-balanced Technical Advisory Group, the chamber-balanced Working Groups and presentation of comment summaries to the WG by chamber, not by volume.	Environmental
E	CM 3.a NOTE. Pg 220; CM 4.a NOTE	Don't weasel. Either you will or will not provide materials.	N/A - associated requirement has been removed	Economic
R	CNRAs	The draft NRA also continues to rely on the older CNRA content for its approaches to several important CW categories. While that approach is not inappropriate per se, the CNRA is now somewhat dated, and some obvious and important changes in circumstances have developed. Presumably, FSC should update the NRA/CNRA's findings in these areas.	Review CNRA findings to make sure they are still applicable.	Environmental

C	Control Measures	The NRA's Control Measures for HCV forests and conversion risks rely narrowly on supplier education and thus the assumed good will of forest managers. Supplier education is a constructive and important tool, as far as it goes, but it is highly unlikely to be sufficient by itself. Some forest managers may change their practices simply because purchasers ask them to do so. However, others are already quite aware of how they are impacting HCVs and other values, will chose to continue their practices given their perceived self-interest in doing so, and may even provide false assurances to purchasers. Meanwhile, others may have convinced themselves that they are doing no harm, or may believe industry propaganda to that effect, and will thus unknowingly provide false assurances to purchasers. The draft NRA also exacerbates the likely ineffectiveness of supplier education by providing an explicit loophole, whereby suppliers can feign ignorance about the presence of HCVs in their forests or forests they are sourcing from. At CM 3.a (page 119), the draft NRA states that suppliers need only mitigate threats to HCVs "when these areas are known by a supplier." This phrase should be deleted from the Control Measure, and replaced with an expectation that suppliers will determine whether the HCVs are present in their forests or the forests they are sourcing from. Such an expectation is a basic and necessary component of any credible system of Control Measure or sustainable supply chain management. In addition to conveying expectations to suppliers about avoiding conversion and harm to HCVs, it is also crucial that purchasers (i.e., CW certificate holders) be responsible for ensuring there is some basic level of performance outcome, either in terms of adoption of mitigation measures by their specific suppliers and/or in terms of avoiding fiber from non-compliant suppliers. It is understood that different levels of performance and different means of verifying performance may be feasible in the context of different types of forest product supply chains, including as per information previously submitted to FSC, and as explored in prior drafts of the NRA. However, the current draft NRA is completely silent on the topic, meaning it has failed to address what is perhaps the single most important element of a Controlled Wood system. The FSC also needs to provide basic, effective pathways for effectiveness verification. The proposed regional meetings may be useful forums for further exploring options for development of verification systems. However, the meetings are not a substitute for some basic level of performance and effectiveness verification by purchasers that is at least somewhat specific to their own supply chains. If	Discuss with WG	Environmental
R	Control Measures - Regional Meetings	The draft NRA's Control Measures begin to flesh-out an interesting idea from the prior WG's discussions, i.e., to use regional FSC meetings to develop conservation measures tailored to specific forest species or other conservation needs in a given region. I continue to think such meetings could play a very constructive role within a broader system of Control Measures. However, to be effective, these meetings will need to be more carefully defined. For example, the draft NRA does not appear to require that the mitigation measures developed at these meetings be based on the best available science. Instead, the NRA relies solely on an expectation that the meetings be multi-stakeholder, despite the very real risk of uneven participation from environmental, social, and economic interests. Multi-stakeholder participation is important, but is not by itself a sufficient defining characteristic. Moreover, the NRA and its Control Measures should not rely so heavily on regional meetings that might not actually come to pass, or that might not be successful in producing effective and practical mitigation measures/Control Measures. In other words, the regional meetings and their outputs need to support and complement -- rather than replace -- a more performance oriented system of Control Measures, including as noted below.	Discuss with WG	Environmental

R	Conversion	FSC considers materials that come from places where forests (natural or semi-natural) are converted to non-forest use or plantation to be "unacceptable". The NRA (Annex G, pg. 233-241) characterizes risks from conversion based upon a quantitative and qualitative assessment of data and literature. Plantations are defined specifically as "Forest areas lacking most of the principal characteristics and key elements of native ecosystems as defined by FSC-approved national and regional standards of forest stewardship, which result from the human activities of either planting, sowing or intensive silvicultural treatments." Many planted forests in the US, using native species, are therefore not considered plantations in this sense. The NRA completed a quantitative assessment based on available datasets, including USFS Forest Inventory and Analysis (FIA) data, USGS National Land Cover Dataset (NLCD), and USDA National Resources Inventory (NRI). In addition, FSC conducted a literature review examining current and potential threats due to conversion. Several aspects of these assessments deserve attention. Interpretation of Data Uncertainty Two of the data sources used for assessment of conversion risk are based on a thorough, extensive, and robust statistical sampling design (FIA and NRI). These programs provide data that include estimates (such as forest area or timber volume) as well as uncertainty bounds (expressed as sampling errors or confidence intervals). It appears that the explicit estimation of uncertainty for these datasets caused FSC to use undue caution in interpreting results from analyses. In fact, all the datasets used in all portions of the NRA include uncertainty, but only these two datasets provide estimates of that uncertainty. When analyses of FIA data showed that "the rates of forest cover change are so small as to be statistically insignificant" (p. 236), FSC concluded that "it is not possible to quantitatively conclude whether the conversion rates actually exceeded the 0.02% threshold" (p. 237). The NRA also cites a recent NRI report (USDA 2015), stating "The National Resources Inventory has indicated a decline in forest land in the three Pacific Coast states" (p. 238). In fact, the NRI report includes margins of error for these estimates, and the reported forest losses are well below the margin of error (Appendix D), meaning the differences in forest area are not significantly different from zero. When making an assertion such as "forests are being lost to conversion", scientists formulate a hypothesis that can be tested. The null hypothesis here would be "forests are not being lost to conversion", and the alternative hypothesis would be "forests are being lost to conversion". A hypothesis test would specify a level of certainty needed to reject the null hypothesis and accept the alternative	Revise Category 4 to recognize that the analyses at a regional scale reflect no signficant difference from zero, but that there is evidence that must be considered for assessment at a finer scale.	Economic

R,I	Conversion	Literature review: current data versus projections After putting aside the quantitative data due to reported uncertainties, FSC US "subsequently completed a literature review to look at this question and determine if any proxies existed that could be used to assess conversion in a more qualitative manner" (p. 237). From this literature review, "FSC US staff concluded that urbanization and population growth present the best possible proxy for forest conversion in this risk assessment" (p. 237). However, several conclusions from the literature review are supported not by data or analyses of current forest conditions, but from older data or modeling exercises that analyze possible future scenarios. For example, the following statements from the NRA appear to be reporting recent measured changes, but are citing publications that are more than a decade old, or involve models and projections: "This leaves urbanization as the strongest pressure for forest conversion, a conclusion that is supported by numerous sources [Sources: 2, 4, 5, 6, 7]." (p. 237) "the Southeast and Pacific Coast regions are experiencing forest loss and concurrent rapid population growth [Source 2]." (p. 237) "the highest rates of urbanization are occurring in the Piedmont region from northern Georgia through North Carolina into Virginia. Forest loss is also occurring along the Atlantic Coast and in eastern Texas [Source: 4,5,6,7]." (p. 237) "Despite the high rates of urban growth across the Southeast, there are some states that are experiencing lower rates of population growth and forest loss, including Mississippi, Alabama and Arkansas [Source 7]." (p. 237) "The Pacific Coast Region is also experiencing urban growth leading to conversion from forest to non-forest land use, though this growth appears to be concentrated on the western portions of Washington and Oregon [Source 3,11]." (p. 237-238) The brief descriptions of the NRA sources cited (below) illustrates how these are largely older data and/or modeled projections of possible future scenarios.	Look for more recent literature and data, and focus on those that are not projections, or are projections based upon more recent data.	Economic
C	Conversion	The draft NRA raises the threshold for land use conversion risk from 40 acres to 100 acres. Given the scale at which individual occurrences of land use conversion occur, it seems likely that this larger, 100 acre threshold will ignore large percentages of the conversion associated with suburban sprawl, rural residential sprawl, fracking and other mineral extraction sites, and other activities. The NRA does not appear to provide any justification for this increase in the threshold, including an analysis of how much conversion will be recognized versus ignored. Presumably, there should be some analysis of the optimum threshold size, in terms of maximizing the amount of conversion addressed by the threshold while also not being unnecessarily burdensome on certificate holders. The draft NRA also appears to now ignore the risk of plantation conversion (the prior draft set a threshold of 20 acres for plantation conversion risk). It is unclear how this fits with the FSC's requirement for this important risk category to be evaluated and addressed as part of the NRA process.	N/A - the CM no longer includes a reference to a specific number of acres. Review language related to plantations and clarify if needed.	Environmental
R	Conversion	The draft NRA also appears to now ignore the risk of plantation conversion (the prior draft set a threshold of 20 acres for plantation conversion risk). It is unclear how this fits with the FSC's requirement for this important risk category to be evaluated and addressed as part of the NRA process.	Review text and clarify the section that addresses this kind of conversion as needed.	Environmental
E, C	Conversion	See point 6 above. Again, it doesn't really matter about the methodology. If FSC thinks there is a conversion problem, then fine. Just say so. The move to clear, transparent, reliable requirements for the Control Measures.	Review text to ensure clarity; Discuss transparency and riliability of the CM with WG	Economic

R, X	Conversion	1. It is concerning that FSC has chosen to reject the results of a statistical analysis performed by NCASI on a robust FIA dataset. FSC states that "the rates of forest cover change are so small as to be statistically insignificant" but then follows this with a conclusion that it is therefore "impossible to conclusively determine whether any of the forest loss estimates exceed the stated thresholds for this Category 4 indicator". This is counter intuitive because the failure to reject the null hypothesis of "no forest change" provides conclusive evidence that forest loss does not exceed the threshold. 2. The qualitative assessment conducted by FSC specifically cites "urbanization as the strongest pressure for forest conversion". If this is the case, it does not seem appropriate to include it as a specified risk that can be mitigated for through forestry sourcing standards. Designating a risk that is not related to forest management is inconsistent with the methodology FSC used to designate specified risk for HCV1 species. A consistent approach to risk designation, based specifically on risks associated with forest sourcing, would result in a set of HCVs for which meaningful mitigation measures could be effectively developed.	FSC is required to consider conversion that occurs, regardless of the driver. Revise Category 4 to recognize that the analyses at a regional scale reflect no signficant difference from zero, but that there is evidence that must be considered for assessment at a finer scale.	Economic
R, I	Conversion	3. If urbanization does present the strongest pressure for forest conversion, and population growth is a surrogate for urbanization, the inclusion of the entire state of Louisiana is not appropriate. The Southern Forest Futures Project found that population growth is the highest at the periphery of urban centers, and specifically pointed out that Alabama, Arkansas, Louisiana, Mississippi, and Texas are projected to have lower forest losses than the regional average.	Reconsider scale of risk designation and review sources related to conversion in Louisiana. Consider the SFFP as an information source for forest conversion due to urbanization.	Economic
R	Conversion	4. The NRA ignored the fact that many jurisdictions are governed by land use ordinances (i.e. zoning laws). While zoning laws are not consistently applied across all jurisdictions, these ordnances are created by zoning boards that are elected by the citizens of local communities. The members of these local communities are sovereign to decide the destiny of the development of the land in which they have ownership. The NRA should respect the sovereignty of peoples to govern themselves without undue influence from foreign involvement. An individual company and/or government can unilaterally decide when to not conduct business in a political territory due to the risk of the governing structure. However, the collection of companies protesting or "black-balling" a group of peoples is unethical and could be perceived and construed as unlawful. The NRA should not establish a place of global or national policy influence, especially where markets are void of or lacking for non-FSC participants or landowners are unknowingly regulated or prohibited from accessing free markets due to the NRA risk designations.	Zoning was initially considered, but determined to be too fine a scale for the NRA - the assessment would have taken too long and required many additional resources.	Economic
I	Conversion	5. Tax abatement programs and severance tax systems exist in many political jurisdictions. These programs and their benefits were overlooked in the risk designations for conversion. We suggest a comprehensive review of these programs be completed by tax professionals so the influence of these programs to slow forest conversion is considered when establishing risk levels. A comprehensive guide to forest taxation and the influences of these programs can be gleaned from sources such as the Forest Incentive Programs Available from State Sources Database, FS Landowners Tax Guide, Current Status and Trends in Timber Severance Tax Legislation in the South and analysis provided in the Handbook of Global Environmental Politics. (hyperlinks in comment document)	Discuss with the WG whether programs that keep forest as forest are adequate to counter the threat of urbanization.	Economic
X	Conversion	6. Respectfully caution the NRA working group that the perception of Gerrymandering the conversion risk designation by substituting the WWF ecoregions for Baileys ecoregions is apparent. Bailey's Ecoregions: https://www.fs.fed.us/rm/ecoregions/images/maps/ecoregions-united-states.jpg WWF Ecoregions: https://databasin.org/maps/b6344b8c699d4ac383e15611bb3f3a35/active	designated at a regional scale; note that the regions used throughout the Draft 2 NRA are those established for the FM Standard and were not any different for	Economic

R	Conversion	State-level risk of conversion to non-forest is a reasonable scale to assess and implement control measures to avoid "conversion sources" for states that are predominately naturally forested such as GA, AL, MS, AR. For states with substantial portions that are not naturally forested the conversion assessment should be confined to portions of the state (counties/parishes) that are predominately naturally forested. Portions of states that are not predominantly naturally forested should be excluded since they are by definition low risk. For instance, the western two thirds of Texas and the coastal marsh parishes of Louisiana should be excluded. Both FIA and NRI data can be reliably applied at state and sub-state forested region scales to provide reliable estimates of forest conversion to non-forest.	Refine specified risk area by clipping out non-forested areas.	Economic
I	Conversion	This publication was cited in the NCASI comments, so at least reference to it was made prior to the deadline. I had intended to incorporate some comments on it and then inadvertently left them out. See attached recent FAO report, the most recently published FAO State of the World's Forests Report. This documents increasing forest area in North America, and the US in particular. See: > Page 8, item 3 at bottom. This item indicates "reduced pressure on forests as a result of economic growth" as a factor in increased forest area. > Page 13, figures 2.2 & 2.3 > Page 16, figure 2.7 > Page 18, figure 2.8 > Page 21, figure 2.9, this one shows the primary driver of forest conversion in America is agriculture, not urban expansion. Urban expansion is an extremely small percentage.	when revisiting conversion for the final draft. Need to consider that the scale of the document is national, but there is evidence that conversion needs to be addressed at a finer scale; note that urbanization is identified by many other credible	Economic
R	Conversion	With respect to Controlled Wood Category 4, the NRA completed a quantitative assessment of forest conversion rates based on available datasets, including US Forest Service Forest Inventory and Analysis (FIA) data, US Geological Survey National Land Cover Dataset (NLCD), and US Department of Agriculture National Resources Inventory (NRI). In addition, FSC US conducted a literature review examining current and potential threats due to conversion. The results of the analyses of FIA and NRI data indicate that there is no statistically significant evidence of forest conversion that would constitute a threat. We suggest that it is not appropriate to determine current conversion risk primarily on the basis of data or reports that are more than a decade old, or involve modeled projections of possible future scenarios, when current, spatially comprehensive data (FIA and NRI) are available. The NRA also proposes adopting population or urbanization growth as a proxy for forest conversion, but does not establish a quantitative connection between such growth and forest conversion. We suggest that FSC US rely on FIA and NRI data, which are based on nationwide statistical sampling designs that enable them to report uncertainty bounds (sampling errors or confidence intervals) for their estimates (forest area or biomass), and that FSC US accept the scientifically-sound interpretation of "no significant difference" as determined using these data for what it is: an indication that there is no evidence of risk of conversion.	FSC is required to consider conversion that occurs, regardless of the driver. Revise Category 4 to recognize that the analyses at a regional scale reflect no signficant difference from zero, but that there is evidence that must be considered for assessment at a finer scale.	Economic
R	Conversion	All the datasets used in the NRA (e.g., GAP, NLCD, NatureServe) have inherent uncertainties. Only two of these datasets (FIA and NRI) are based on nationwide statistical sampling designs that enable them to report uncertainty bounds (sampling errors or confidence intervals) for their estimates (forest area or biomass). It appears that the reporting of uncertainty for these datasets caused FSC US to use undue caution in interpreting results from analyses. Analyses of FIA data showed that "the rates of forest cover change are so small as to be statistically insignificant" (p. 236). The NRA notes that a recent NRI report (USDA 2015) "… has indicated a decline in forest land in the three Pacific Coast states" (p. 238). However, that NRI report includes margins of error for their estimates, and the reported forest losses are well below the margin of error (Appendix E), meaning the differences in forest area are not significantly different from zero. From these sources FSC US determined that "it is not possible to quantitatively conclude whether the conversion rates actually exceeded the 0.02% threshold" (p. 237). In fact, though, the analyses of FIA and NRI data are conclusive: there is no statistically significant evidence of forest conversion that would constitute a threat. When making an assertion such as "forests are being lost to conversion", scientists formulate a hypothesis that can be tested. The null hypothesis here would be "forests are not being lost to conversion", and the alternative hypothesis would be "forests are being lost to conversion". A hypothesis test would specify a level of certainty needed to reject the null hypothesis and accept the alternative hypothesis. In the analysis of FIA data, it was demonstrated that measured changes in forest area were not statistically different from zero, meaning that there is insufficient evidence to reject the null hypothesis of no change	FSC is required to consider conversion that occurs, regardless of the driver. Revise Category 4 to recognize that the analyses at a regional scale reflect no signficant difference from zero, but that there is evidence that must be considered for assessment at a finer scale.	Economic

X	Conversion	FSC considers materials that come from places where forests (natural or semi-natural) are converted to non-forest use or plantation to be "unacceptable". The NRA (Annex G, pg. 233-241) characterizes risks from conversion based upon a quantitative and qualitative assessment of data and literature. Plantations are defined specifically as "Forest areas lacking most of the principal characteristics and key elements of native ecosystems as defined by FSC-approved national and regional standards of forest stewardship, which result from the human activities of either planting, sowing or intensive silvicultural treatments." Many planted forests in the US, using native species, are therefore not considered plantations in this sense. The NRA completed a quantitative assessment based on available datasets, including USFS Forest Inventory and Analysis (FIA) data, USGS National Land Cover Dataset (NLCD), and USDA National Resources Inventory (NRI). In addition, FSC US conducted a literature review examining current and potential threats due to conversion. Several aspects of these assessments deserve attention. It appears that FSC US seeks a statistically significant demonstration, or proof that forest conversion rates are less than threshold values. This is akin to requiring proof of the absence of endangered species or biodiversity elements in a landscape before finding low risk of sourcing from areas with HCVs. It is a reversal of the burden of proof from seeking evidence of risk to seeking evidence of the absence of risk. As such, this is fundamentally incompatible with other portions of the NRA. FIA and NRI data has been used in broader assessments of forest area change (Wear and Greis 2002, FAO 2016) that conclude that US forest area is stable, and conversion (when it does occur) is driven by agriculture or development. We suggest that FSC US accept the scientifically-sound interpretation of "no significant difference" for what it is: an indication that there is no evidence of risk of conversion. We recommend that FSC US make a determination of low risk for conversion when there is a lack of statistically significant	FSC is required to consider conversion that occurs, regardless of the driver. Revise Category 4 to recognize that the analyses at a regional scale reflect no signficant difference from zero, but that there is evidence that must be considered for assessment at a finer scale.	Economic
I	Conversion	this question and determine if any proxies existed that could be used to assess conversion in a more qualitative manner" (p. 237). From this literature review, "FSC US staff concluded that urbanization and population growth present the best possible proxy for forest conversion in this risk assessment" (p. 237). However, several conclusions from the literature review are supported not by data or analyses of current forest conditions, but from older data or modeling exercises that analyze possible future scenarios. Older data (more than a decade) are unreliable when conditions are changing rapidly. Conversion of forest, especially to urban uses, is by nature a highly dynamic phenomenon. Furthermore, it has been demonstrated that modeled projections of forest conditions, even from expert modelers, have frequently failed to accurately forecast forest changes. Buchholz et al. (2014) found that all four Resources Planning Act (RPA) projections between 1960 and 2000 were less accurate than a no-change (constant reference) baseline in predicting future forest conditions. Therefore, older data and projections are no substitute for current data such as that collected annually by FIA. The following statements from the NRA appear to be reporting recent measured changes, but are citing publications that are more than a decade old, or involve models and projections: "This leaves urbanization as the strongest pressure for forest conversion, a conclusion that is supported by numerous sources [Sources: 2, 4, 5, 6, 7]." (p. 237) "the Southeast and Pacific Coast regions are experiencing forest loss and concurrent rapid population growth [Source 2]." (p. 237) "the highest rates of urbanization are occurring in the Piedmont region from northern Georgia through North Carolina into Virginia. Forest loss is also occurring along the Atlantic Coast and in eastern Texas [Source: 4,5,6,7]." (p. 237) "Despite the high rates of urban growth across the Southeast, there are some states that are experiencing lower rates of population growth and forest loss, including Mississippi, Alabama and Arkansas [Source 7]." (p. 237) "The Pacific Coast Region is also experiencing urban growth leading to conversion from forest to non-forest land use, though this growth appears to be concentrated on the western portions of Washington and Oregon [Source 3,11]." (p. 237-238)	Review sources used to ensure that they are as recent as possible; look for additional as needed.	Economic

I	Conversion	The brief descriptions of the NRA sources cited (below) illustrate how these are largely older data and/or modeled projections of possible future scenarios. NRA Source 2: Alig, et al. (2003). This publication is based on data only up to 1997. From that point, projections are made based on econometric models up to 2050. NRA Source 3: Conversion Potential, Pacific Northwest (based on Wilson et al., 2014). The website reference used as a source includes a map from Wilson et al. (2014). Wilson et al. (2014) state "Using a state-and-transition simulation model, we modeled spatially explicit (1 km2) land use from 2000 to 2100 under seven alternative land-use and emission scenarios for ecoregions in the Pacific Northwest". NRA Source 4: Southern Forest Futures Project (Wear and Greis, 2013). This report summarizes an extensive modeling effort that defines six alternate futures (termed "Cornerstone Futures"), and projects forest conditions under each one. Econometric models are then used to project land use under the cornerstone futures using projections of population, personal income, and timber price projections. NRA Source 5: Southern Forests for the Future (WRI; Hansen et al. 2010). This publication does not develop new research or data, but summarizes information from other reports, such as RPA assessments. Their discussion of forest cover loss to development is based on data reported in the Southern Forest Assessment published in 2002. NRA Source 6: Terrando, et al. (2014). This article reports on a set of simulations of urban growth in southeastern states (east of the Mississippi), using the SLEUTH urban growth model. The model focuses on spatial patterns, and does not account for economic or demographic drivers. Instead, it is based on (1) barriers to development from topography or water, (2) topographic data, (3) transportation networks, and (4) patterns of historic urban extent. The model projects urban extents from 2009 to 2060. NRA Source 7: Alig, et al. (2010): This report is a synthesis and summary of other publications and studies, but repeatedly cites trend data only up to 1997. The report then cites studies involving econometric projections into the future. NRA Source 11: Bradley, et al. (2007): This report from the Rural Technology Initiative at Washington State University used FIA data from 2001, and published USFS reports from 1997 and 2001, as well as satellite imagery analysis from 2004 and earlier. We suggest that it is not appropriate to determine current conversion risk primarily based on data or reports that are more than a decade old, or involve modeled projections of possible future scenarios, when current, spatially comprehensive data (FIA and NRI) are available.	Review sources used to ensure that they are as recent as possible; look for additional as needed.	Economic
R, I	Conversion	While the NRA notes "FSC US staff concluded that urbanization and population growth present the best possible proxy for forest conversion in this risk assessment" (p. 237), it is unclear what data were used to determine urbanization and population growth rates, or how the analysis was conducted, or what thresholds were used. While many of the risk designations in the NRA have geographic regions defined at the county level, the conversion risk designation is applied at the state level, "because this is the scale of information that is most consistently available across the assessment area" (p. 238). However, the US Census Bureau is the authoritative source for data on US population trends, and these data are available at a variety of scales including at the county level. County-level data should be used when appropriate for compatibility with other portions of the NRA. Before adopting population or urbanization growth as a proxy for forest conversion, it is necessary to establish a quantitative connection between such growth and forest conversion. This has not been documented in the NRA. While we maintain that there is no need for a proxy for conversion (as it is reliably measured by FIA and NRI), there must be clarity, transparency, consistency, and documented association of urban growth with forest conversion in order to establish such a proxy.	Use a county scale for the assessment; note that urbanization is identified by other credible sources as the primary driver for forest conversion and it is not necessary for us to do additional analysis.	Economic
R	CQ 1	We think that when findings for specified risk as opposed to low risk do occur, the specified risk should be limited to strictly to the area where it exists and may have to be more granular than the FSC FM Regions.	Consider a finer scale than region when there is specified risk	Economic
A	CQ 1	FSC Regions will work as an effective coarse-level framework.	n/a	Economic

R	CQ 1	No. Some of the specified risk area borders do not align with defined, scientific-based areas. The boundaries for the FSC Regions should more closely align with WWF Ecoregions to better reflect habitat conditions in various geographies. This will better reflect actual habitat conditions. Grouping of similar ecoregions would be much better than the way it is now. Another concern is that FSC did not draw actual biodiversity areas but rather large non-scientific "blobs" on the maps in the general locations of the areas. Previously, risk designations for individual ecoregions took into account the amount (acreage) of protected lands within that ecoregion. This is apparently not the case with this assessment	Use WWF ecoregions as an additional layer on top of the FSC US regions when it makes sense. Double-check CBAs and protected lands, and clarify in text that the	Economic
A	CQ 1	Yes – I think they are fine. There are multiple ways one could slice the data, but this makes the most sense and fits with a regional scale that most stakeholders and certificate holders are familiar.	n/a	Economic
A, R	CQ 1	The FSC FM Regions are certainly acceptable for low risk designations. However, for findings of specified risk, the smallest possible scale should be used, as many States (and potentially localities) will have programs in place that could mitigate that risk to low in the NRA; certainly something that should be reviewed and determined prior to finalization. This is especially true when looking at conversion.	Consider a finer scale than region when there is specified risk	Economic
A, R	CQ 1	These regions are effective for the first level of analysis. County boundaries are preferred at the finer scale.	Consider a finer scale than region when there is specified risk	Economic
A, R	CQ 1	In general, the FSC Regions are well understood and useful as a course filter approach. Certain aspects of the risk assessment only pertain to specific smaller areas within the regions and should not dictate overall risk designations for the FSC Region. For example, the evaluation of Critical Biodiversity Areas can themselves overly delineate areas of specific concern outside the scope of the intended area. Other references included in the Technical Comments provided by the National Council For Air and Stream Improvement (NCASI) are included as an attachment for your review on this and other pertinent aspects.	Consider a finer scale than region when there is specified risk	Economic
A, R	CQ 1	The FSC FM Regions are acceptable for low risk designations. However, for findings of specified risk, the smallest possible scale should be used, as many states (and potentially localities) will have programs in place that could mitigate that risk to low in the NRA. This is certainly something that should be reviewed and determined prior to finalization.	Consider a finer scale than region when there is specified risk	Economic
X	CQ 1	No Comment NOTE: Many of the Consultation Questions are focused on implementation issues or topics outside our forestry expertise. Where there is no forest science basis for a response, we have answered "No Comment". Throughout our comments we cite scientific publications and data presented in Appendices. These references and appendices can be found in the attached document "NCASI_Technical Comments_FSCUSNRA.pdf"	n/a	Economic
A	CQ 1	The logic behind the regional designation seems well-reasoned. I am somewhat unclear about why some states are entirely excluded from the Southeastern Specified Risk designation.	n/a	Environmental
A	CQ 1	The regions are effective.	n/a	Economic
A, R	CQ 1	The FSC FM Regions are certainly acceptable for low risk designations. However, for findings of specified risk, the smallest possible scale should be used, as many States (and potentially localities) will have programs in place that could mitigate that risk to low in the NRA; certainly something that should be reviewed and determined prior to finalization.	Consider a finer scale than region when there is specified risk	Economic

R	CQ 1	Comment: We have found the "Pacific Coast Region," as FSC-US defines it for the draft CW NRA (Annex B) and the FM standards, to be highly problematic both for ecological and operational reasons. FSC-US's Pacific Coast Region follows state lines, but it would be more appropriate to establish multiple regions in the west based on internationally agreed-upon ecological regions, such as those designated by the EPA. It appears that, for parts of the Southeast and Midwest, FSC-US has done exactly that; regions in those parts of the country seem to at least partly reflect Level II and Level III Ecoregions. However, within the three states that make up the "Pacific Coast Region," there are four Level I Ecoregions with discrete species compositions, management patterns, climates, and natural disturbance patterns. We are unaware of any ecological or administrative benefits to lumping these three states into one homogenous region for the purposes of risk analysis or forest management practices.	Consider a finer scale when developing risk designations, such as EPA Level I Ecoregions or WWF Ecoregions	Economic
A, R	CQ 1	The FSC FM Regions are certainly acceptable for low risk designations. However, for findings of specified risk, the smallest possible scale should be used, as many States (and potentially localities) will have programs in place that could mitigate that risk to low in the NRA; = certainly something that should be reviewed and determined prior to finalization.	Consider a finer scale than region when there is specified risk	Economic
A,R	CQ 1	Yes, the FSC regions are effective. I always thought it was strange that the Appalachian region stretched from the New Jersey Atlantic coast to the western Tennessee border of the Mississippi River. FSC-US could consider extending the Great Lakes region down into the central and western portions of Tennessee and Kentucky as the topography and forest types better align than with the Appalachian Region. Eastern Pennsylvania and New Jersey should be considered with the Northeast Region. The Appalachian Region could also be extended up into western/central New York. US EPA (https://www.epa.gov/eco-research/ecoregions-north-america) and the US Forest Service (https://www.fs.fed.us/rm/ecoregions/products/map-ecoregions-north-america/) have general ecoregion maps that might better correspond to the forest types of America. But I understand it would be difficult to change the FSC regions at this time just for the CW	Consider overlaying EPA or USFS ecoregion maps on the regions for specified risk designations	Economic
R	CQ 1	No, the FSC regions are not effective for differentiating boundaries. The use of State based boundaries are unnatural and overly broad. A better method would be to use counties as this is the approach taken in Bright Wood's company RA. Additionally, it aligns with the scale ticket system, linking origin and final product.	Consider a finer scale than region when there is specified risk	Economic
A, R	CQ 1	For most of the designations, yes. For conversion they are far too large. Conversion needs to be assessed at the finest possible/practical scale.	Use counties for the assessment	Economic
X	CQ 1	Glatfelter incorporates by reference the set of comments submitted by the National Council for Air and Stream Improvement (NCASI) in its entirety. You will also find reference throughout the responses to specific incorporations of comments by NCASI. Glatfelter has no additional comment on this question.	n/a	Economic
A	CQ 1	Yes, but only because of the inclusion of a 'Specified' notation that indicates that there is specified risk designated within the region, but it is usually not the entire region.	n/a	Economic
A	CQ 1	Yes, the coarse-level approach is effective.	n/a	Economic
R	CQ 1	Being that the NRA evaluates risks that change with both political boundaries and boundaries related to natural features, it is understandably difficult to identify one geographic framework for use with this document. Using the FSC Regions however, seems to fail on multiple fronts by imposing unnatural boundaries, particularly where a specified risk has been identified. The current approach used in company risk assessments is to define a supply area by county boundaries. This is a more effective approach for several reasons, but perhaps most importantly because it is easy to track through a scale ticket system; thereby completing the connection between origin, and labeled final product.	Consider a finer scale than region when there is specified risk	Economic

R	CQ 1	Present FSC regions are not an effective designation without taking risk factors into account. The FSC regions don't necessarily match up with risk factors. It would be more accurate to just look at the forested, aquatic or geographical land feature landscapes when determining risk designations. For instance, the NRA designates the entire FSC Appalachian geographic area as at risk for Mesophytic Cove Sites extending to the Mississippi River in west Tennessee. These sites, where they exist, will generally be located at elevations above 2,000 feet on forested land with a northern exposure. The area of risk should be narrowed to the true mountain counties along the spine of the Appalachian Mountains and not include Piedmont or River bottom counties. In Oregon, west side management concerns and risk (Conversion to Doug fir plantations) not typically an issue in forests on east side of the Cascades is another example where one size does not fit all.	Consider WWF ecoregions on top of the FSC regions to better represent the extent of mesophytic cove sites for the specified risk area	Economic
A	CQ 1	Compared to the first draft NRA which was applicable with risks to the entire US regions provide a scale for targeted risk identification and mitigation approaches.	n/a	Economic
A	CQ 1	Yes. It is useful and appropriate that this analysis applies a rather course-filter approach. The existing and well-understood FSC-US Regions provide enough scope for regional variations, while remaining practical and straightforward to use.	n/a	Economic
R	CQ 1	The use of state boundaries would be helpful in terms of regulations and legislation (State level forestry practices acts), and their implementation. This would be particularly informative for organizations who source from multiple states that cross over regional boundaries.	Consider states as boundaries for risk designations when appropriate for	Economic
A	CQ 1	We think these are OK	n/a	Environmental
A	CQ 1	I agree. We should use the same regions as our FM standard. I am open to the FM regions being modified in the upcoming FM revision to reflect the similarities between Eastern WA and OR and forestland the East vs forestlands West of the cascades that have very different caricaturists including species, growth rates, and historical disturbance patterns. Please move PNW boarder to the cascades.	n/a	Social
A	CQ 1	Yes, the current regions are appropriately defined. WestRock incorporates by reference the set of comments submitted by the National Council Air and Stream Improvement (NCASI) in their entirety and the American Forest and Paper Association (AF&PA). You will also find reference throughout the responses to specific incorporations of comments by NCASI.	n/a	Economic
A, R	CQ 1	The FSC Regions are an adequate way of breaking up the US, however, forest management is generally managed at the Federal and State Level, rather than by regions. A state by state approach also aligns well with industry activities. It should be noted that Alaska is conspicuously absent in the RA and will significantly affect any Cert Holders on the West Coast (US + Canada), as there is a fair amount of volume that enters the Pacific Northwest from Alaska. Without a risk designation for Alaska, much of the CW volume on the west coast will be "contaminated" and make eliminate and effectively block FSC volume from the marketplace.	Consider states as boundaries for risk designations when appropriate for information available.	Economic
A	CQ 1	Yes	n/a	Environmental
A, R	CQ 1	FSC regions are acceptable but we would eventually like to see incorporation of county boundaries.	Consider a finer scale than region when there is specified risk	Economic
A	CQ 1	They are an appropriate framework.	n/a	Economic

R	CQ 1	The FSC regions are a useful starting point and FSC has done a good job using the regions as an organizational framework. Also see our comments on sub-regional and sub-state level recommendations for conversion assessments.	when developing risk designations, such as EPA Level I Ecoregions or	Economic
R	CQ 1	The region designations are an adequate starting point for coarse-level framework, though they should be reviewed and refined periodically so that they indeed reflect physiographic homogeneity as much as possible, particularly with respect to control measures and mitigation measures that are yet to be developed. It is not clear in the NRA what criteria were used to determine the region boundaries.	Start with regions and refine when possible.	Economic
X	CQ 1	No strong opinion. Given it has been some time since the boundaries were established, it is worth reevaluating in the FM revision to ensure they are appropriate ecologically, and then informed by governance factors in the respective regions for as consistent as possible an application of the FSC requirements within a region. The FSC Regions are currently appropriate for the NRA's coarse-level framework, however, we expect they may need to be revisited at the next NRA revision and/or to keep the NRA boundaries consistent with FM standard boundaries.	Regions will be reviewed as part of the FM revision.	Environmental
X	CQ 10	No	n/a	Economic
X	CQ 10	No	n/a	Economic
X	CQ 10	I am not	n/a	Environmental
X	CQ 10	No	n/a	Economic
X	CQ 10	No	n/a	Economic
X	CQ 10	No	n/a	Economic
I	CQ 10	World Heritage Forest Programme - http://whc.unesco.org/en/forests/ Most research appears to be international – Europe and Australia.	Consider these sources and use as applicable	Economic
X	CQ 10	This is a fairly open ended question, i.e., what defines effective?	n/a	Economic
I	CQ 10	Management plans for State and Federal Forests should be included in the review. Landscape management plans administered by the American Tree Farm System in conjunction with stakeholders in designated locals should be considered.	Look for these kinds of sources and use when applicable.	Economic

X	CQ 10	Not at this time.	n/a	Environmental
X	CQ 11a	We believe that more emphasis should be placed on the NRA at this time and less on the future development. The completion of this NRA and deep research into those areas stated as specified risk is of utmost importance to manufacturers that would like to continue participating in the FSC program.		Economic
X	CQ 11a	Consensus is not likely in the Pacific Northwest. FSC should not be used to “gain control” over public land management.		Economic
C	CQ 11a	It is inappropriate to be asked to support or oppose "educational information" when we haven't even seen it. We oppose the concept of mandatory education information as this should be more of a mitigation option/activity discussion. That way we can determine the most appropriate information and whether it is an option chosen. With lack of alignment on the identified specified risk areas in the draft NRA and mitigation measures not yet identified to manage risks, it is impractical to solicit support of mandatory avoidance of sourcing from these areas or expect suppliers to implement yet-to-be-determined actions on mitigation.	Discuss with WG	Economic
C	CQ 11a	adoption of the NRA and the collation of regional meeting data (for additional control measures) what can companies do still believe they can safely source in areas of specified risk in addition to the prescribed measures? 2) I would strongly suggest an alternative 3rd control measure to those prescribed in the regional meetings that provides equal or greater protection than those other measures and is approved by either the CB or FSC-US. Providing additional flexibility in the early stages will provide companies that source CW a better level of confidence that they can maintain their supply chain (this may also provide opportunities to see creative methods not thought of in the group meeting). I know the goal is to get everyone to the regional meetings, but it may not happen and by doing this, FSC-US would enable additional creative thinking outside of regional meetings in terms of control measures. Also, I would propose that in the interim between development of CM’s from regional meetings and adopting the NRA; that where supply chain intersects with areas of specified risks; sources be allowed to develop control measures that mitigate or avoid the specific threats posed in specified risk areas (for instance; adoption of specific silvicultures may reduce or totally avoid the risk in the Central California CBA). Like intact forest lands; let’s not lock folks out of managing forests in a positive way in high risk areas.	Discuss with WG; consider 'avoid' as an alternative CM	Economic
C	CQ 11a	The concept of a Regional Meeting to determined mitigation options is sound. However, the reliance solely on a meeting that may not be any more productive than many balanced chamber FSC meetings may be problematic. Are the rules of FSC consensus the same for Regional Meetings? Will it just be an across the board majority vote? These issues need to resolved prior to the meetings. It seems that it would make more sense to implement the contingency plan of a “small goup of CH and other stakeholders” to have an initial meeting to identify and narrow down potential mitigation options and then bring those to the larger group Regional Meetings. This might take more time but we have to get it right from the beginning. There are already many CH that are contemplating dropping CW or the FSC completely and a dysfunctional, non-productive Regional Meeting may be sufficient for them to leave.	Begin engagement on mitigation options prior to the meetings	Economic

C	CQ 11a	CM 3.a: Supportive, depending on the nature and content of the materials developed. CM 3.b: Supportive, depending on the timing of the meetings and quality and usefulness of the discussions and information made available. In framing the meetings an emphasis should be placed on an adaptive management approach, wherein any mitigation measure with at least some chance of being effective is included initially, pending results of effectiveness monitoring over time. The meetings will attract people who want to develop useful information and practical options only if potential meeting participants understand the goal is to advance conservation efforts and advance the practice of forestry, not to designate "no harvest" areas or "monkey-wrench" the practice of forestry. CM 3.c: Supportive, but somewhat skeptical. Advance work is critical, including attracting collegial participants, providing useful advance materials, and having some good, partially-formed mitigation options drafted well in advance so that economic chamber members can pre-assess them. Again, any mitigation option with at least some chance of being effective should be included initially so that a range of options is available for possible implementation. Separate pre-meetings or breakout sessions should be held for species-specific HCVs with limited ranges (Dusky Gopher Frog, Houston Toad, Patch-nosed Salamander)	Begin engagement on mitigation options prior to the meetings	Economic
C	CQ 11a	FSC certificate holders to attend regional meetings that will "identify a focused set of actions to reduce risk of sourcing materials…" from specified lands. The identification and implementation of these actions may continue to raise antitrust concerns and adds another resource burden to companies attempting to comply with the Controlled Wood Standard. The additional activities required by certified companies along with the complexity of this issue will likely result in many companies (especially smaller organizations without available resources) that will decide to give up their FSC certifications. Several topics have ambiguity and a strong potential for the lack of consensus to determine mitigation actions. It is disingenuous to ask companies to agree to distribute promotional materials that have not yet been produced. Will companies be offered the opportunity to review & comment on drafts? Will companies be allowed to edit or amend the material? Even assuming good faith on all sides, there may be sincere disagreements about content, style, and messaging. Will materials actively promote FSC, or simply address the specific topics associated with HCV/conversion risk? This initiative looks suspiciously like the SFI program which has required outreach to suppliers and landowners on similar and related topics since its inception. Distribution systems and program support are fully established, funded, and stable. Will current publications of similar information satisfy the proposed mitigation actions? If so, shouldn't they also be considered as established practices that would support a low risk designation for the appropriate categories? The simple requirement to engage (attend or follow) in a program of regional CW dialogs is likely to be healthy for the program over time. The proposed format, however, appears to be excessively aspirational, and raises some vexing questions. Stated objectives are extremely broad and potentially contradictory. Success of some objectives appears essential for program implementation while other are merely desirable. This model has the added concern of companies, including companies not present, being required to "provide information requested in the report." This is vague and may raise concerns of shared privileged business information. A lack of detail on what types of actions would have to be taken by a company attempting to comply with the NRA add additional concerns for companies attempting to review and provide useful input. The meeting format includes some key decision-making in order to agree on the required "set of actions" that will be mandatory for companies to complete. No format or protocol for this decision-making is proposed however. Given the likely diversity of stakeholders at these meetings, consensus may be challenging. Will the decisions be subject to voting? Will companies unable to attend be	Contract with a professional facilitator to ensure effective decision-making	Economic
C	CQ 11a	While we are supportive of the control measures in theory, pending determination of their final content, we believe that too much emphasis is being placed on a future development, via regional meetings, rather than addressing issues at the most basic level in the draft NRA. The more areas of specified risk that can be reduced to low risk, through research at the NRA level, the more likely the success of the future regional meetings.	Discuss with WG	Economic
A	CQ 11a	Yes	n/a	Environmental
X	CQ 11a	The control measures are likely supportable, but without knowing the extent of the mitigation measures, I do not have complete information to answer.		Economic

C	CQ 11a	While we are supportive of the control measures in theory, there is also concern that the regional meetings may not be as productive as participants may hope, and that they could just devolve into chamber bickering. We believe that too much emphasis is being placed on a future development (regional meetings) rather than addressing issues at the most basic level (the NRA). The more areas of specified risk that can be reduced to low risk, through research at the NRA level, the more likely the regional meetings are to be successful.	Discuss with WG	Economic
C	CQ 11a	While we are supportive of the control measures in theory, there is also concern that the regional meetings may not be as productive as participants may hope, and that they could just devolve into chamber bickering. We believe that too much emphasis is being placed on a future development (regional meetings) rather than addressing issues at the most basic level (the NRA). The more areas of specified risk that can be reduced to low risk, through research at the NRA level, the more likely the regional meetings are to be successful.	Discuss with WG	Economic
C	CQ 11a	Yes, but the requirements for the contingency plan should be placed for the regional meeting participants as well. 'The participants must have demonstrated an ability to represent the perspective of the change with which they are most aligned, and ability to be open to other perspectives and new ideas, and a willingness to compromise.' These should be required for all participants and not just the contingency group. The issuing/providing of educational materials would be easy to implement but the purpose is unclear. FSC CW certificate holders should be required to attend or be aware of the CW Regional Meeting reports.	Communicate expectations for meeting participants. N/A - educational materials CM removed	Economic
C	CQ 11a	No, I am not supportive. The concept is overly vague and unaccountable…contingent on meetings that haven't yet taken place. Specifically CM3a: I am concerned at the potential cost and administrative burden of creating our own educational materials if FSC fails to do so. FSC runs a significant risk of pricing companies like ourselves out of the FSC Controlled Wood program. How do we communicate the reason for the specified risk to a supplier such that it will influence their behavior? As a secondary manufacturer we have very little influence over the procurement activities of our suppliers. CM3c: Overly vague and reliant on outcomes of the regional meetings. I have no idea what is meant by the statement "organization's required action will be scaled to its potential impact on HCVs" What scale, How?	Discuss with WG	Economic
C	CQ 11a	I am opposed to a mandatory statement about sourcing from any FSC risk designation. Portions of the supply chain are not able to be known to the FMU, therefore any statements that indicate otherwise are not acceptable.	Discuss with WG	Economic
C	CQ 11a	Enviva specific comment Not with the current version of the NRA. Given the current condition of the NRA draft the process may be cumbersome. Once some resolution is met to reduce the size of some of the CBA's, address various errors in fact and incorrect interpretation of certain definitions.	Refine specified risk where possible	Economic
X	CQ 11a	See Response to Question 2 regarding antitrust issues.		Economic
A	CQ 11a	The general CMs make sense, but the details of implementation are not well-defined. Is it a requirement to use the FSC-developed educational materials? When will these be developed? When and how can CHs review and comment on the materials?	n/a	Economic

C	CQ 11a	Because they have all been proposed as mandatory, I am not supportive of the control measures as a whole. They are largely unactionable, and contingent upon outcomes of Regional Meetings which have yet to take place. Some areas of concern or questions about the individual control measures would be: CM 3.a •The Draft NRA states that FSC will generate educational materials, but if not, the organization will create their own; I believe we really need to know who will vet information, create, and approve the educational materials before this measure can be adopted • If the organization is to create materials themselves, this is yet another cost incurred by that organization; the more you increase the cost of participation in the CW program, the more you risk losing participants • As it stands now, there are some inconsistent and vague statements in the threats analysis used to arrive at risk ratings in NRA; I believe organizations would find great challenges in communicating the reason for the specified risk to a supplier • This measure could be completely ineffective for secondary manufacturers, who may have very little influence over procurement activities of their suppliers CM 3.b •This is the most reasonable control measure, I have no real questions or concerns here CM 3.c • This control measure is extremely vague and open-ended • The control measure again places too much expectation on outcomes of the Regional Meetings • The statement that an organization's required action will be scaled to its potential impact on HCVs is strange; actions have not been identified yet, and this statement would seem to make the assumption that the actions will be scalable	Discuss with WG	Economic
C	CQ 11a	As stated above, there is a great deal of uncertainty that has been added to the control measures by requiring FSC certificate holders to attend regional meetings that will "identify a focused set of actions to reduce risk of sourcing materials…" from specified lands. The identification and implementation of these actions may continue to raise antitrust concerns and adds another resource burden to companies attempting to comply with the Controlled Wood Standard. This model has the added concern of companies, including companies not present, being required to "provide information requested in the report." This is vague and may raise concerns of shared privileged business information. A lack of detail on what types of actions would have to be taken by a company attempting to comply with the NRA add additional concerns for companies attempting to review and provide useful input.	Discuss with WG	Economic
C	CQ 11a	As stated above, there is a great deal of uncertainty that has been added to the control measures by requiring FSC certificate holders to attend regional meetings that will "identify a focused set of actions to reduce risk of sourcing materials…" from specified lands. The identification and implementation of these actions may continue to raise antitrust concerns and adds another resource burden to companies attempting to comply with the Controlled Wood Standard. This model has the added concern of companies, including companies not present, being required to "provide information requested in the report." This is vague and may raise concerns of shared privileged business information. A lack of detail on what types of actions would have to be taken by a company attempting to comply with the NRA add additional concerns for companies attempting to review and provide useful input.	Discuss with WG	Economic
C	CQ 11a	See Sarah Billings remarks (MRC shared its response with Columbia with permission), we support her remarks she made to this question. We are concerned about the "Gap" between implemented Risk Assessments during the changeover…we do not want to see any interruption of our supplies with its attendant hassles (downstream notification, sucession of sales of FSC materials) due to unforeseen technicalities related to CW implementation.	Discuss with WG; consider 'avoid' as an alternative CM	Economic

A	CQ 11a	Providing that there is good moderation and that we are able to get a mix of stakeholders and non-members present this approach makes sense. Given the turnout at initial gatherings on this standard there is concern that certain unengaged stakeholders may not engage. Also there is concern that this standard is so large.	n/a	Economic
C	CQ 11a	Supportive, yes, but disappointed and frustrated, on several topics: • "educational materials" – it is disingenuous to ask Certificate Holders (CH) to agree to distribute promotional materials that have not yet been produced. Will CH's be accorded the opportunity to review & comment on drafts? Will CH's be allowed to edit or amend the material? Even assuming good faith on all sides, there may be sincere disagreements about content, style, and messaging. Will materials actively promote FSC, or simply address the specific topics associated with HCV/conversion risk? • "educational materials" – the SFI program has required outreach to suppliers and landowners on similar and related topics since its inception. Distribution systems and program support are fully established, funded, and stable. This initiative looks suspiciously like "re-inventing the wheel". • "clear statements" – untold 10's of thousands of "statements", declaring an agreement to respect and avoid the 5 FSC CW categories, have been circulated, co-signed, filed, and audited for over 15 years – with no discernable effect on sustainability. Is it not time to try something new? • Regional Meetings – the simple requirement to engage (attend or follow) in a program of regional CW dialogs is likely to be healthy for the program over time. The proposed format, however, appears to be excessively aspirational, and raises some vexing questions (see below). • Regional Meetings – stated objectives are extremely broad and potentially contradictory (list below). Success of some objectives appears essential for program implementation. Others are merely desirable. o information sharing o relationship building o interactive dialog o work together to identify effective and practical mitigation actions o not…asked to agree or decide on one specific mitigation action o working toward a set of multiple potential actions o provide information and feedback o assess the effectiveness of control measure implementation • Regional Meetings – the meeting format includes some key decision-making in order to agree on the required "set of actions" that	Discuss CM concerns with WG; contract with a professional facilitator for meetings	Economic
C	CQ 11a	We support the concept of the proposed Category 3 control measures. It appears that the idea is to keep it simple for both the certificate holder and certification body. There is concern that the frequency of planned meetings is not given and timing of such may make it difficult for a certificate holder to attend/review meeting notes within the timeline given for a NCR. What if no one attends? Additionally, meetings might not include diverse stakeholders that are most negatively impacted by the decisions. Suggest recorded webinars or alternatives in addition to regional meetings.	Provide alternative engagement for individuals and organizations that cannot attend the meetings	Economic

	CQ 11a	We are generally supportive of using regional FSC meetings to develop conservation measures tailored to specific forest species or other conservation needs in a given region, but emphasize the importance of appropriate representation from all three chambers at these meetings – particularly representatives in the environmental community who have specific expertise in at-risk HCVs. However, to be effective, these meetings should be more carefully defined. For example, the draft NRA does not appear to require that the mitigation measures developed at these meetings be based on the best available science. Instead, the NRA relies solely on an expectation that the meetings be multi-stakeholder, despite the likelihood of uneven participation from environmental, social, and economic interests. Multi-stakeholder participation is important, but is not by itself a sufficient defining characteristic. Moreover, the NRA and its Control Measures should not rely so heavily on regional meetings that might not actually come to pass, or that might not be successful in producing effective and practical mitigation measures/Control Measures. In other words, the regional meetings and their outputs need to support and complement -- rather than replace -- a more performance oriented system of Control Measures, including as noted below. The Control Measures for HCV forest risks rely narrowly on supplier education and thus the assumed good will of forest managers. Supplier education is a constructive and important tool, as far as it goes, but it is highly unlikely to be sufficient by itself. The draft NRA also exacerbates the likely ineffectiveness of supplier education by providing an explicit loophole, whereby suppliers can feign ignorance about the presence of HCVs in their forests or forests they are sourcing from. At CM 3.a (page 119), the draft NRA states that suppliers need only mitigate threats to HCVs "when these areas are known by a supplier." This phrase should be deleted from the Control Measure, and replaced with an expectation that suppliers will determine whether the HCVs are present in their forests or the forests they are sourcing from. In addition to conveying expectations to suppliers about avoiding conversion and harm to HCVs, it is also crucial that purchasers (i.e., CW certificate holders) be responsible for ensuring there is some basic level of performance outcome, either in terms of adoption of mitigation measures by their specific suppliers and/or in terms of avoiding fiber from non-compliant suppliers. It is understood that	Discuss with WG	Environmental
A	CQ 11a	implementation has been 100% on certified companies. It has created inconsistency between mill assessments and a combative relationship between environmental members who want more protections and mills who have to take on the "cost" of additional requirements. The new approach has the promise of: 1: Bring the environmental chamber on as partners in solving the forest management issues confronted by CW, build relationships between stakeholders, and share the cost of CW between chambers via creation of the mitigation steps and monitoring. 2: Find solutions that deal with forest management caused issues vs simply having a tool to avoid wood, which by my measure has had very little impact on forest management if any in North America. We must be intentional how we start the mitigation steps conversation. Do we create a straw-dog, create example shared with others in advance of the meetings, or intentionally leave the slate clean for free thought during the beginning of the meetings.	n/a	Social

C	CQ 11a	This validity and success of this approach to developing/implementing Control Measures will depend heavily on the mix of participants in the Regional Meetings. We believe there must be a high percentage of certificate holders present who operate within the FSC Region in question – those who will actually be required to implement the control measures that are proposed. It is not enough to have "stakeholders" present – there must be significant certificate holder participation. Meetings must be planned and publicized well in advance if participation in and/or knowledge of meeting outcomes is going to become a part of CW audit requirements. FSC should consider implementing some type of acknowledgement system to ensure that certificate holders have received adequate advance notice of their applicable regional meeting. According to the 2/20/18 CW NRA Public Consultation Webinar, the proposed timetable for the first round of CW Regional Meetings at which Control Measures will be discussed is "Early May" of 2018. As we are now entering March, these meeting dates, locations, accommodations, etc should already be established and alerts sent out to certificate holders. Companies will have a difficult time arranging attendance on short notice. Gaining group consensus on approved list of mitigation actions may be difficult depending on mix of meeting participants and number of mitigation actions proposed.	Conduct outreach to try and achieve a diversity of CH and stakeholders at meetings	Economic
C	CQ 11a	As stated above, there is a great deal of uncertainty that has been added to the control measures by requiring FSC certificate holders to attend regional meetings that will "identify a focused set of actions to reduce risk of sourcing materials…" from specified lands. The identification and implementation of these actions may continue to raise antitrust concerns and adds another resource burden to companies attempting to comply with the Controlled Wood Standard. Neither in the full body of the NRA or the regional meeting guidance document has there been any level of detail on the governance of the meetings themselves. It is WestRock's recommendation that the regional meetings function as below. • The schedule for each regional meeting will be posted on the FSC US website. • Within 30 days of each regional meeting, proposed risk mitigation actions will be posted on the FSC US website. • Attendance at the regional meetings will be open to members, certificate holders and interested stakeholders. • Attendees must register for each meeting a week prior to the scheduled meeting date. o Attendance can be in person or via phone • Meetings take place regardless of the number of registered participants or chamber representation. • Meetings follow Parliamentary procedures. o Agenda o Presentation of risk mitigation actions o Discussion and recommendation for revisions 🚗 All meeting attendees can provide input o Vote for acceptance or rejection of proposed action 🚗 Only FSC members can vote o Risk mitigation actions pass with a majority vote Following the regional meetings individual companies will be able to develop their own risk mitigation measures proposed to and approved by their certifying bodies. These company developed risk mitigation actions can be used in conjunction with or in place of those risk mitigation actions developed at the regional meetings.	Discuss with WG, Board and facilitator	Economic
C	CQ 11a	So far, the level of detail around the Control Measures is fairly lacking, which is troubling. All that has been made known is that there will be a meeting about a Control Measure Working Group (WG), and the Cert Holders will need to provide info packages to suppliers. The details of the WG and how the final Control Measures will be implemented is what is most important. What Cert Holders need are clear C that they can consistent implement on a large scale (i.e., across multiple states, simultaneously). FSC needs to get away from a continuously evolving/ changing set of rules and interpretations on all things CW. Cert Holders need certainty from year to year on CW, otherwise, they cannot operate within the US.	Discuss with WG	Economic

C	CQ 11a	We are supportive of FSC using regional meetings to develop conservation measures specific to different forested areas but emphasize the importance of representation from all three chambers at these meetings. We appreciate the move toward a collaborative dialogue approach where all stakeholders understand how the mitigation options were identified and what data was used to develop them. This proposed approach should shift the system to a more pro-active approach to addressing threats, rather than simple avoidance. We also see the potential in this more collaborative approach to effect threats region-wide, rather than individual actions taken in isolation of the broader FSC stakeholder community.	Conduct outreach to try and achieve a diversity of CH and stakeholders at meetings	Environmental
A, C	CQ 11a	CM 3.a: Supportive CM 3.b: Supportive, depending on the advance notice, timing, quality, and usefulness of the meetings and information made available. The meetings should focus on an adaptive management approach, wherein any mitigation measure with at least some chance of being effective is included initially, pending results of effectiveness monitoring over time. The meetings will attract people who want to develop useful information and practical options only if potential meeting participants understand the goal is to advance conservation efforts and advance the practice of forestry, not to designate "no harvest" areas. CM 3.c: Supportive. Advance work is critical, including attracting collegial participants, providing useful advance materials, and having some good, partially-formed mitigation options drafted well in advance so that economic chamber members can pre-assess them. Again, any mitigation option with at least some chance of being effective should be included initially so that a range of options is available for possible implementation. Separate pre-meetings or breakout sessions should be held for species-specific HCVs with limited ranges (Dusky Gopher Frog, Houston Toad, Patch-nosed Salamander)	Begin engagement on mitigation options prior to the meetings	Economic
A	CQ 11a	They seem reasonable, but effectiveness will depend on the outcome CW Regional Meetings.	n/a	Economic
A	CQ 11a	Generally, yes. However, we must note that we are asked to comment on something that is very much an unknown at this point. It will very much depend on how the regional meetings go, whether there can be productive discussion and consensus, and whether the resulting mitigation measures are reasonable and able to be practically implemented.	n/a	Economic
A, C	CQ 11a	We are supportive of the collaborative model that targets the category of risk with intent of alleviating the threats/negative impacts in addition to avoiding controversial material as has been the historical approach for CW. The credibility of this approach depends on the success of the meetings; meetings will therefore need to have adequate participation of relevant experts across chambers/interest groups. Actions by stakeholders should be performance-based with stakeholders aiming for the same ultimate goal. We welcome the contingency plan for added credibility.	Begin engagement on mitigation options prior to the meetings; strive for practical and effective mitigation options	Environmental
C	CQ 11b	I don't think a handful of individuals should be responsible for such a significant decision.	Discuss with WG	Economic
C	CQ 11b	It is important that FSC clarify that the contingency plan of having a small group of stakeholders work on mitigation measures is to be considered feedback and that FSC is the final decision maker. While FSC is correct in stating that it is unlikely there will be 100% alignment on all mitigation measures, a better contingency plan is to take adequate time to thoroughly consider and meaningfully respond to the feedback provided during this comment period. The approach of rushing the process through rather than taking time to get it right calls the credibility of the entire process into question.	Discuss with WG & Board	Economic
A	CQ 11b	Contingency plan looks good – fingers crossed it doesn't come to that.	n/a	Economic
A	CQ 11b	The contingency plan is fine as outlined with the note above of developing options prior to the regional meetings.	n/a	Economic
C	CQ 11b	The meetings may achieve good results and some degree of consensus, but they are very, very unlikely to complete the work. The contingency plan should consider the range of possibilities, from meetings with considerable useful output (but still incomplete) to meetings that accomplish little. Breakout sessions for different specified risk issues are important. For example these three issues should probably have 3 different sessions: Longleaf pine, Bottomland Hardwoods, Cove Hardwoods.	Be prepared for a range of outcomes in implementation of the contingency plan	Economic

C	CQ 11b	The contingency plan appears only in the accompanying Regional Meeting document and not referred to at all in the NRA. Given the practical difficulty of achieving consensus on realistic mitigation actions at the Regional Meetings, it appears likely that final decisions will be determined through such an approach. Therefore, details of this mechanism should be included in the NRA. It will be essential to ensure the contingency working group represents the wide array of companies who will ultimately face the challenge of implementing the actions once they are identified. This group should NOT rely primarily on technical staff from large paper companies and national NGO's. These folks are unlikely to have the practical appreciation of implementation challenges and ongoing work that should be given first consideration. Other potential issues may arise from the selection of a small group that can result in competitive issues amongst economic participants of the stakeholder group. For instance, if the contingency group may not have participation from a company (or companies) whose wood basket includes part or all of the "Cape Fear Arch CBA" those unique perspectives will not be reflected within the "small group."	Include the contingency plan steps with the CM	Economic
A	CQ 11b	Yes we support it.	n/a	Economic
A, C	CQ 11b	Yes, although I would like clarification on the time frame for the original meeting participant to identify mitigation actions. I assume "within the timeframe of the scheduled meeting" refers to an obligation to report a plan, which they had a reasonable amount of time to create, during the time of the meeting. However, I am unclear as to how long the original actor has to develop this plan? Does this vary based on certain situations or is it a set limit, such as a month?		Environmental
C	CQ 11b	The small meetings must have a balanced and representative membership for the region in question. Mitigation measures developed at the contingency meetings should be open for comment before incorporated in the normative documents.	Discuss with WG	Economic
A	CQ 11b	The contingency plan is fine, though we're of the opinion that it's not a contingency at all, but rather the likely outcome of the regional meetings. However, we are prepared to be pleasantly surprised.	n/a	Economic
A	CQ 11b	The contingency plan is fine, though we're of the opinion that it's not a contingency at all, but rather the likely outcome of the regional meetings. However, we are prepared to be pleasantly surprised.	n/a	Economic
A	CQ 11b	Yes, I support the contingency plan.	n/a	Economic
C	CQ 11b	No. I can't comment on an unknown eventuality. I feel that if I wasn't selected to participate in the smaller group I would be shut out of the decision-making process. FSC staff should develop mitigation actions based on discussion held at the regional meetings.	Discuss with WG	Economic
C	CQ 11b	Limited support. This method allows for a group to be obstructionist and potentially force a CM when none is needed in the interest of "we have to do something". When looked at through a global lens, the US operates at a very high level. We need not ratchet the bar up arbitrarily. Any CM needs to be outcome based and rooted in firm science that it will be impactful.	Agree	Economic

C	CQ 11b	Enviva specific comment Possibly. It will depend on the makeup of the small group but there are a few uncertain terms in the description of the process. Words such as "preferably" do not drive confidence. Who determines if a participant "demonstrates an ability to represent a perspective"? "Ability to be open to other perspectives, ideas and willing to comprise"? Members of their chamber? The meeting moderator? Both? Will FSC US solicit participants form the same group? Others in the respective chambers?	Discuss with WG	Economic
C	CQ 11b	The proposed contingency plan could result in additional antitrust issues by having a “small group” develop mitigation actions for all certificate holders participating in a given wood supply area designated as “specified risk.”	Discuss with WG	Economic
A	CQ 11b	Yes, it’s wise to have this plan in place as it may be needed.	n/a	Economic
C	CQ 11b	The contingency plan seems well-intentioned, but again leaves too many unknowns at this point for me to be certain of its potential effectiveness. In essence, the plan suggests that if no mitigation actions can be agreed upon at a Regional Meeting, then a smaller group will convene to determine a path forward. What’s to say that participation at the Regional Meeting would even offer the opportunity for selecting a smaller group? Would selecting a smaller group have the effect of cutting some stakeholders out of the decision-making process? If so, this would seem to have the potential to reflect negatively on the standard altogether. The most workable plan proposed here is to have FSC US staff develop actions based on discussions at the Regional Meetings. Either way however, it seems that the contingency plan is dependent upon the type and quality of participation at the Regional Meeting.	Discuss with WG	Economic
C	CQ 11b	Selection of a small group may result in competitive issues among economic participants of the stakeholder group. For instance, if the contingency group did not have participation from a company (or companies) whose wood basket includes part or all of the “Cape Fear Arch CBA” those unique perspectives may not be reflected within the “small group.” The published report should be transparent regarding who has developed the mitigation actions.	Discuss with WG	Economic
C	CQ 11b	Selection of a small group may result in competitive issues amongst economic participants of the stakeholder group. For instance, if the contingency group did not have participation from a company (or companies) whose wood basket includes part or all of the “Cape Fear Arch CBA” those unique perspectives may not be reflected within the “small group.” The published report should be transparent in who has developed the mitigation actions.	Discuss with WG	Economic
A	CQ 11b	Yes, we need contingency plans with so much in motion and not clearly understood. More flexibility is better at initial stages of implementation.	n/a	Economic

C	CQ 11b	Timelines for when this plan is enacted should be present so that there is an understanding in advance of the meetings that if consensus does not occur by a certain point that the contingency plan will be used. Slight concerns that stakeholders will not engage until the last minute is present. Complaints if this process is used should be noted back to if complaints are coming from stakeholders that were present initially.	Discuss with WG	Economic
A, C	CQ 11b	Yes. Given the practical difficulty of achieving practical and focused output from the poorly-scoped Regional Meetings, it appears likely that final decisions will need to be delegated to another body. This mechanism appears only in the accompanying Regional Meeting document, not referred to at all in the NRA. This seems unwise and likely to generate uncertainty about normative requirements. The proposal to form a focused working group (Contingency Plan – 1.a) is preferred. But it will be essential to ensure that this group represents the wide array of companies who will ultimately face the challenge of implementing the actions once they are identified. This group should NOT rely primarily on technical staff from large paper companies and national NGO's. These folks are unlikely to have the practical appreciation of implementation challenges and ongoing work that should be given first consideration. The FSC-US Board of Directors are correctly identified as final decision-makers for all the NRA content. It seems more likely than not that final decisions on mitigation actions will eventually fall to them again.	Discuss with WG	Economic
A, C	CQ 11b	We support the proposed contingency plan so long as discussions of mitigation actions are restricted to species or habitats discussed in the NRA draft. The introduction of new issues at this level need to be prevented.	specified risk issues to be discussed at the meetings are those in the	Economic
A	CQ 11b	We support the proposed contingency plan with the caveats expressed above. We have no suggestions for improving the contingency plan.	n/a	Environmental
A, C	CQ 11b	The contingency plan is a critical safeguard to avoid unintentional consequences of FSC US and members taking this outside the box risk. FSC US may want to build-in a plan for the FSC US policy and standards committee to evaluate the approved mitigation steps 1 or 2 years after approval as a place holder to make changes without having to go out for full revision if something is clearly going wrong.	Plan to revisit NRA in 18-24 months	Social
C	CQ 11b	Contingency plan should only be necessary if meetings are poorly attended or are an improper mix of CH/SH attendees, in which case FSC should consider a second meeting rather than delegating this important aspect of compliance to a small group.	Discuss with WG	Economic
C	CQ 11b	If the regional meeting governance proposed above Is put in place there will be no need for a contingency plan. In the event no risk mitigation actions are approved at the regional meetings individual certificate holders will have to develop their own CB approved measures.	Discuss with WG	Economic
C	CQ 11b	No. The contingency plan is not reasonable. FSC continues to pursue a consensus approach on the Risk Assessments and associated Control Measures. To date, this has not been achieved (example, the CW Strategy is still unfinished after how many years of work?), and it should be obvious by now that it won't work going forward. FSC will have to make some decisions on direction and stand by them, one way or another. Continuously deferring decision making to unknown groups won't work. Cert Holders can adjust to changes, but the recent rate of change and the continuous changes are wearing many Cert Holders down to the point of exiting FSC. Cert Holders need stability and continuity for a few years at least.	Discuss with WG	Economic

A	CQ 11b	Yes, we support the contingency plan and do not have any suggestions to improve it.	n/a	Environmental
C	CQ 11b	The meetings may achieve good results and some degree of consensus, but will unlikely complete the work. The contingency plan should consider the range of possibilities, from meetings with considerable useful output (but still incomplete) to meetings that accomplish little. Breakout sessions for different specified risk issues are important. For example these three issues should probably have 3 different sessions: Longleaf pine, Bottomland Hardwoods, Cove Hardwoods.	Be prepared for a range of outcomes in implementation of the contingency plan	Economic
C	CQ 11b	Concern is that selection of "a small group of certificate holders" will exclude participants that are genuinely interested in an active role in the development of mitigation measures. Suggestion is that FSC be sensitive to this, even if it means holding another open forum that builds on the learnings from session 1. A calculated approach to addressing the key disagreements, or areas of indecision, identified in the first session may be more valuable than simply limiting the voting members. Consider asking stakeholders to submit suggestions, concerns, and references supporting their views in writing as a pre-requisite for joining the second meeting. This may be helpful for steering the next conversation and limit the group to those who have serious interest in the matter. Suggest all custodians and/or leaders of the meetings receive training provided by the Natural Resources Leadership Development Institute to properly guide the dialogue.	Discuss with WG & Board	Economic
A	CQ 11b	Generally, yes. Again, it is difficult to comment without having the experience of having this actually played out. It is something that could work very well, or very poorly.	n/a	Economic
A	CQ 11b	Yes.	n/a	Environmental
I	CQ 11c	We believe that regional research scientists that are experts in forestry should be consulted on all aspects related to this NRA. Research scientists are a neutral party that have a reputation at stake when consulting on these matters and can make sure the existing science is considered in all deliberations.	Work to identify these kinds of participants, and engage in the regional	Economic
I	CQ 11c	Certificate holders, major TIMOs and REITs, scientific experts.	Work to identify these kinds of participants, and	Economic
I	CQ 11c	Any mills that are sourcing and providing controlled wood or wood to be controlled – specifically their log buyers. I will most definitely invite the log buyers from the two mills in Oregon that we source controlled material from. Scientists working on identified species with specified risk or the regions identified as specified risk, etc.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Research scientists at the Federal and State level with expertise in the identified geographic and topical areas of specified risk. NGOs should be encouraged from the Social and Environmental Chambers. They should be offered travel expenses as required to encourage participation.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	The ENGOs that have knowledge of working forestry and FSC certification, notably The Conservation Fund, The Nature Conservancy, and The Longleaf Alliance. Forestry Association representatives. Biologists with understanding of habitat needs and sensitivity to forest management for each of the species-specific HCVs (Dusky Gopher Frog, Houston Toad, Patch-nosed Salamander, Longleaf Pine). For cove hardwoods, ecologists/biologists/foresters with understanding of status of cove hardwoods on public lands across the breadth of the area mapped as specified risk for cove hardwoods. For Bottomland Hardwoods ecologists/biologists/foresters who understand the dynamics of these systems.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic

I	CQ 11c	Controlled Wood stakeholders, state Forestry Associations, American Tree Farm System state committees, State Foresters, Forest Landowner Associations, Forestry Consultants, Logging Professionals/Associations, and private landowners will all be impacted by decisions from these meetings. Recruiting significant representation from the small and medium-sized companies who will be implementing the NRA and Control Measures is essential for the success of this program. This will be challenging to recruit their input and participation due to their lack of resources and added complexity of these topics. However, consensus from this group of practitioners may be the single best way to be successful.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Include more research scientists. A strong effort should be made to recruit and include, a significant amount of time prior to the meetings, local and regional university academics or other professional researchers (state DNRs, USFS, etc.) to provide insight into the actual science of any given situation. The regional meetings will be more successful if science can be brought back to the forefront of the conversation and drive the decision-making process.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Ensure normal FSC member and public notifications	kinds of participants, and engage in the regional	Environmental
I	CQ 11c	Non-certified small landowners should have a voice, as they will be most impacted by the CW mitigation measures. Organizations such as Dovetail Partners, NCASI, AFRC (West Coast regions).	kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Research scientists. Strong effort should be made to recruit and include, a significant amount of time prior to the meetings, local and regional university academics or other professional researchers (DNR, USFS, etc.) to provide insight into the actual science (or lack of, if that is the case) of any given situation. We have a strong concern that the CW NRA has devolved into a political horse trade (I'll give you low risk here, if you give me specified risk there) rather than an actual review of all available research on the five indicators. If that is in fact the case, then the regional meetings will not be successful unless science is brought back to the forefront of the conversation, and drives the decision making process.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Pacific Coast Region: Olympic Forest Coalition (http://olympicforest.org/contact-us/) Washington Environmental Council (https://wecprotects.org/programs/evergreen-forests/) American Forest Resource Council (http://amforest.org/about/)	Engage these participants in the regional meeting process.	Economic
I	CQ 11c	Research scientists. Strong effort should be made to recruit and include, a significant amount of time prior to the meetings, local and regional university academics or other professional researchers (DNR, USFS, etc.) to provide insight into the actual science (or lack of, if that is the case) of any given situation. We have a strong concern that the CW NRA has devolved into a political horse trade (I'll give you low risk here, if you give me specified risk there) rather than an actual review of all available research on the five indicators. If that is in fact the case, then the regional meetings will not be successful unless science is brought back to the forefront of the conversation, and drives the decision making process.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Forestry associations should be contacted in the specific regions. These organizations should include the local forest industry and landowner associations. All states for a region should be contact but FSC should explicitly reach out to landowners in the state the meetings will be held for the greatest chance local landowners/industry might attend. Getting not FSC affiliated stakeholders will be key as the CW is relevant to them as well. Control measures could limit harvesting on specific private landownership and having these potential landowners involved is critical.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Participation by large forest products industry groups such as the WWPA as their constituent companies may benefit by understanding the concept of CW and selling it to secondary manufacturers like ourselves	Work to identify these kinds of participants, and engage in the regional	Economic
I	CQ 11c	Non-certified landowners. It will be difficult for the process to have legitimacy if they are not involved. The stand to be the most impacted by the decisions of FSC and they do not currently have a seat at the table. We cannot assume that a current FSC member is a suitable proxy for small private landowners that legally harvest their timber outside of any stewardship program. They need a seat at the table as do the TIMOs, REIT, state agencies, etc.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic

I	CQ 11c	Enviva specific comment State Forestry Commissions, State Forestry Associations, NCASI, National Association of State Foresters, Southern Group of State Foresters, The Nature Conservancy	kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Stakeholders would include Controlled Wood certificate holders, landowners, members of SFI and American Tree Farm state committees and state foresters. Whether or not these groups have available resources to participate in the process puts them at a disadvantage.	Work to identify these kinds of participants, and engage in the regional	Economic
I	CQ 11c	Yes, forest landowners, Certificate Holders (both current and former), professionals within the forestry industry (e.g. foresters, wood dealers, consultants), forest product facilities that are not certificate holders (considered secondary and tertiary suppliers) that are directly affected by these policies and designations.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Given the specified risk associated with old growth on public lands in the west, I would like to see public land managers be specifically invited/encouraged to attend the Regional Meeting. Non-certificate-holder wood products manufacturers would also be good parties to bring to the table; while they might prove to be the least inclined to join in the process, these organizations may reap direct benefits of CW by selling to secondary manufacturers who are enrolled in the program One issue with bringing new parties in to the discussion is adequately filling them in on the background and context. Having only started dealing with Controlled Wood just over a year ago myself, I can say that there is a seemingly endless amount of information to consume before you begin to have an understanding of the nuances and intricacies of the program – and I came into it with previous experience in forest certification. Perhaps a stakeholder outreach program could be put together (if there is not one already), or points of contact could be offered to new attendees to help fill them in prior to a meeting.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Controlled Wood stakeholders, members of the state Sustainable Forest Initiative committees, members of the American Tree Farm System state committees, State foresters, and landowners are likely to be affected by decisions from these meetings.	Work to identify these kinds of participants, and engage in the regional	Economic
I	CQ 11c	Controlled Wood stakeholders, purchasers of timber from State or Federal land management agencies, members of the state Sustainable Forest Initiative committees, members of the American Tree Farm System state committees, State foresters, and landowners are likely to be impacted by decisions from these meetings.	kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Yes, some of our major round wood suppliers. Major TIMOs, landowners, representation from AF&PA (who can help to report out proceedings to Economic Chamber, paper segment in particular.) USFS Wisconsin, Yale School of Forestry, Oregon State, NC State, others in academia (Purdue.)	Work to identify these kinds of participants, and engage in the regional	Economic
C	CQ 11c	A concentration on meeting agenda, facilitation and outcomes needs to take place to keep people that do come to regional meetings engaged and move unengaged participants into the engaged class.	Begin preparations well in advance	Economic
I	CQ 11c	Yes. Recruiting significant representation from the small and medium-sized companies who will be implementing the NRA and CM's is essential for the success of this program. This will be challenging to achieve and maintain, but consensus from this group of practitioners may be the single best way to be successful.	kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Members of working groups from professional membership bodies such as the Society of American Foresters (Certification and compliance working group in particular).	kinds of participants, and engage in the regional	Economic
X	CQ 11c	We are willing to make suggestions at a later date for specific regional meetings.		Environmental
I	CQ 11c	Scientists, USFS, and folks familiar with environmental protections currently in place. They can anchor the conversation as a neutral none economic none environmental member. They can help flag what science exists and what is missing in relation to the decisions we are making and what we might do for mitigation steps to help resolve the issue over time.	Work to identify these kinds of participants, and engage in the regional meeting process.	Social
I	CQ 11c	Certificate holders based/operating within each region.	Work to identify these kinds of participants, and	Economic

I	CQ 11c	Controlled Wood stakeholders, members of the state Sustainable Forest Initiative committees, State forestry and landowner associations, members of the American Tree Farm System state committees, State foresters, and landowners are likely to be impacted by decisions from these meetings.	Work to identify these kinds of participants, and engage in the regional	Economic
X	CQ 11c	We will provide a specific list of regional stakeholders for the West prior to the meeting.		Environmental
I	CQ 11c	The ENGOs that have knowledge of working forestry and FSC certification, i.e., The Conservation Fund, The Nature Conservancy, and The Longleaf Alliance. Forestry Association representatives. Biologists with understanding of habitat needs and sensitivity to forest management for each of the species-specific HCVs (Dusky Gopher Frog, Houston Toad, Patch-nosed Salamander, Longleaf Pine). For cove hardwoods, ecologists/biologists/foresters with understanding of status of cove hardwoods on public lands across the breadth of the area mapped as specified risk for cove hardwoods. For Bottomland Hardwoods ecologists/biologists/foresters who understand the dynamics of these systems.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	The assessment of the current knowledge and threats related to the Late Successional Bottomland Hardwood Priority Forest Type could be improved. In addition to a more comprehensive review on available research, regional forums would greatly benefit from an expert in the field. It may be worth contacting Dr. Bob Kellison (Director, Hardwood Research Cooperative, NC State University (retired) and Mike Aust, Forestry professor at Virginia. Both have an in-depth knowledge of these systems and have agreed to assist with the FSC NRA process. They would be very valuable resources for developing mitigation measures. Dr. Bob Kellison - bobkellison6@gmail.com Dr. Mike Aust - waust@vt.edu FSC Participants should be encouraged to invite a couple suppliers, landowners and other designated stakeholders to attend each regional meeting to gain a deeper perspective and representation to develop well thought out mitigation measures.	Contact these individuals	Economic
I	CQ 11c	Obviously, all CW certificate holders, which is mainly made up of wood products manufacturers that source virgin wood directly. Additionally, from economic stakeholders, there should be representation from forestland owners, such as American Forest Foundation (AFF), state forestry associations, state forestry agencies, and the Nation Organization for Forestland Owners (NAFO), along with NAFO member organizations.	Work to identify these kinds of participants, and engage in the regional meeting process.	Economic
I	CQ 11c	Not at this time. We will consult fellow FSC members and other stakeholders to make suggestions as the meetings are planned. A successful meeting will have stakeholders relevant to both the FSC system and to the nature of the risk being addressed. This may include local government, local NGOs, landowners, certificate holders, NatureServe representatives, USFS, among others.	Work to identify these kinds of participants, and engage in the regional meeting process.	Environmental

R	CQ 12	We are very concerned with the current proxy identified by FSC for conversion (population growth). Using population trend data that has no direct correlation to forest cover loss is not a valid measure. FIA and NRI data are widely accepted and scientifically valid estimators of forest cover loss in the US. To not rely on these data simply because they have standard error ranges that fall outside of FSC's upper limit for conversion is arbitrary and unjustifiable from a statistical and scientific standpoint. In addition, under control measures, an arbitrary acreage figure of 100 acres was chosen as the de minimis standard. There is no scientific basis with this number either. We believe a better process is that which was used in the risk assessment process under the previous controlled wood standard, which realistically treated very small levels of conversion that ultimately do not harm the overall ecoregion habitats at any large scale level. This will serve as a better proxy..... The process of determining risk in the category of conversion is via analysis of data assessing forest cover over time. Once an appropriate geographic scope for an "area" has been chosen by the user, the area is investigated for natural forest cover trends at the ecoregional level. Data are available at the national level for nearly every country and at the sub-national level for many. Issues may arise in terms of both spatial and temporal variation in interpretation. For example, one may argue that the United Kingdom has a negative trend in natural forest cover since the 1800s, but, since 1990 there may be no negative trend in forest cover. Identifying a state or a county as having rates of conversion above 0.5% per year does not necessarily define a region as high risk. The Controlled Wood risk criteria identify an area as high risk if the rate of loss of forests exceeded this rate in the ecoregion. There are in the neighborhood of 30-70 terrestrial ecoregions in the continental U.S.—the number varies depending on the source and definition used for ecoregion. The scale, source, and definition of ecoregion are not specified explicitly in the standard, so users are allowed to choose the delineation. Among the sources that can be used to assist in identifying ecoregions, the most prominent include the U.S. Forest Service (USFS), WWF, and the Nature Conservancy (TNC). USFS ecoregions can be used to assess risk for conversion due to the availability of data on forest cover change over time. The standard defines ecoregion as: "A large area of land or water that contains a geographically distinct assemblage of natural communities that 1. Share a large majority of their species and ecological dynamics; 2. Share similar environmental conditions, and; 3. Interact ecologically in ways that are critical for their long-term persistence." USFS ecosystem districts or provinces meet the elements of this definition. A risk assessment at the district level would be valid to	Discuss with WG; note that the threshold is 0.02% or 5000 hectares, whichever is smaller; Also note that the procedures states, "The default scale should be the ecoregion level, or at the broadest scale at which administrative control of land-use planning is undertaken - in the US, land-us planning is rarely undertaken at a scale as broad as an ecoregion, it is almost always undertaken at a local scale. Investigate alternative proxies for urban conversion	Economic
R	CQ 12	This one is the toughest. I'm not sure how I feel about the qualitative analysis; for the Pacific Northwest it was based on two non peer reviewed studies which makes me nervous about the conclusions that were drawn. One risk assessment I have reviewed that I think did a fantastic job of assessing conversion risk (completed in 2012) was Weyerheusers controlled wood risk assessment. They dug deep and even commissioned a study on conversion in the Puget Trough to refine the conversion estimates. How about using US census data at a county scale? I also find the FSC assessment level (0.02%) to be exceedingly difficult to assess statistically; nonetheless, if the studies found that conversion rates according to the best country level data sets were not statistically different than 0; that's all you need. Yes, the confidence intervals might overlap with 0.2%; it is extremely unlikely and probably nearly impossible to be able to gain precision within a tenth of a percent on any study. It makes no sense to this reviewer that the risk threshold for conversion is 5% net conversion rate for company risk assessments and 0.02% for the national risk assessment framework.	Consider the data and information sources suggested.	Economic

R	CQ 12	For Category 4, Indicator 4.1, the NRA and supporting documents do not fully contemplate or address the actual drivers of growth and conversion. Or the fact that growth it is not uniform across the region. It is recommended that FSC look further into the specific mechanisms and patterns that drive forest conversion and reconsider the blanket Specified Risk designation. At a minimum specific resources and information available at state levels, including actual growth modeling results related to urbanization, should be used to inform decisions about appropriate control measures to address Category 4. The USFS FIA has done extensive research on conversion thoughout the US and have many datasets and publications available. They should be consulted. In addition, satellite photography that is available over many years can be compared and used within regions where it appears there has been conversion to determine if in fact there has been excessive forest loss.	Consider the data and information sources suggested to develop finer scale risk designations.	Economic
R	CQ 12	As suggested at the regional meetings and detailed by other commenters (NCASI) the data for urbanization and population growth can be parsed at the county scale. The draft maps are clearly not in alignment with reality. Many portions of designated significant risk states (Georgia, Louisiana, South Carolina, North Carolina, Virginia) are clearly losing population and gaining forest cover.	Consider a county-scale assessment	Economic
R	CQ 12	It is not clear why population growth has been the chosen metric for risk of forest conversion. There are several types of land use including forested, range, and farmland. Land can move back and forth in time across various types of land, and based on FIA data U.S. forest area is stable. Using a proxy to determine risk in this case is unnecessary and should be removed. Data directly related to forest land cover exists and should be used to determine risk. The NRA correctly notes that forest loss through conversion – broadly speaking – is not a significant problem in the US. The decision to focus on the vexing and complex issues of urban sprawl in specific regions is outside the scope of affect by certificate holders. The NRA fails to convincingly link forest loss through conversion to anything that is within the influence of commercial land managers or wood procurement organizations. Without this link, the FSC network is left searching for ways to influence the growth of urban centers that is neither useful nor practical. As a NCASI member, we rely heavily on their scientific expertise and evaluation of the draft NRA. We therefore will also incorporate NCASI comments on this question. Interpretation of Data Uncertainty All the datasets used in the NRA (e.g., GAP, NLCD, NatureServe) have inherent uncertainties. Only two of these datasets (FIA and NRI) are based on nationwide statistical sampling designs that enable them to report uncertainty bounds (sampling errors or confidence intervals) for their estimates (forest area or biomass). It appears that the reporting of uncertainty for these datasets caused FSC US to use undue caution in interpreting results from analyses. Analyses of FIA data showed that "the rates of forest cover change are so small as to be statistically insignificant" (p. 236). The NRA notes that a recent NRI report (USDA 2015) "… has indicated a decline in forest land in the three Pacific Coast states" (p. 238). However, that NRI report includes margins of error for their estimates, and the reported forest losses are well below the margin of error (Appendix E in the NCASI technical comments), meaning the differences in forest area are not significantly different from zero. From these sources FSC US determined that "it is not possible to quantitatively conclude whether the conversion rates actually exceeded the 0.02% threshold" (p. 237). In fact, though, the analyses of FIA and NRI data are conclusive: there is no statistically significant evidence of forest conversion that would constitute a threat. When making an assertion such as "forests are being lost to conversion", scientists formulate a hypothesis that can be tested. The null hypothesis here would be "forests are not being lost to conversion", and the alternative hypothesis would be "forests are being lost to conversion". A hypothesis test would specify a level of certainty needed to reject the null hypothesis and accept the alternative	FSC is required to consider conversion that occurs, regardless of the driver. Revise Category 4 to recognize that the analyses at a regional scale reflect no signficant difference from zero, but that there is evidence that must be considered for assessment at a finer scale. Note that numerous credible sources have identified urbanization as a driver of forest conversion and it is not necessary for FSC US to do additional analyses.	Economic

R	CQ 12	The NRA admits, "while the urbanization that is occurring within a state may be concentrated in certain parts of the state, the scale of entire states (within FSC US regions) is used for risk determinations, because this is the scale of information that is most consistently available across the assessment area". Land use changes from a forested condition occur for a variety of reason, and conversion to plantations or conversion for the sake of tree harvest alone are not necessarily the predominant reasons. The NRA and supporting documents do not fully contemplate or address the actual drivers of growth and conversion in the SE. Or the fact that growth it is not uniform across the region. Urban growth leading to loss of forested acreage in some areas is listed as primary factor for including the SE as Specified Risk. The NRA (main body of document and Annex G) discussed urbanization as a main factor of forest loss in the SE. However, urbanization doesn't occur in the same manner throughout the SE or even within a single state. It is recommended that FSC look further into the specific mechanisms and patterns that drive forest conversion and reconsider the blanket Specified Risk designation for the SE. This most likely holds true across the country as well. At a minimum, specific resources and information available at state levels, including actual growth modeling results related to urbanization, should be used to inform decisions about appropriate control measures to address Category 4.	Move to a finer scale assessment for conversion	Economic
R	CQ 12	Interpretation of Data Uncertainty All the datasets used in the NRA (e.g., GAP, NLCD, NatureServe) have inherent uncertainties. Only two of these datasets (FIA and NRI) are based on nationwide statistical sampling designs that enable them to report uncertainty bounds (sampling errors or confidence intervals) for their estimates (forest area or biomass). It appears that the reporting of uncertainty for these datasets caused FSC US to use undue caution in interpreting results from analyses. Analyses of FIA data showed that "the rates of forest cover change are so small as to be statistically insignificant" (p. 236). The NRA notes that a recent NRI report (USDA 2015) "… has indicated a decline in forest land in the three Pacific Coast states" (p. 238). However, that NRI report includes margins of error for their estimates, and the reported forest losses are well below the margin of error (Appendix E in the NCASI technical comments), meaning the differences in forest area are not significantly different from zero. From these sources FSC US determined that "it is not possible to quantitatively conclude whether the conversion rates actually exceeded the 0.02% threshold" (p. 237). In fact, though, the analyses of FIA and NRI data are conclusive: there is no statistically significant evidence of forest conversion that would constitute a threat. When making an assertion such as "forests are being lost to conversion", scientists formulate a hypothesis that can be tested. The null hypothesis here would be "forests are not being lost to conversion", and the alternative hypothesis would be "forests are being lost to conversion". A hypothesis test would specify a level of certainty needed to reject the null hypothesis and accept the alternative hypothesis. In the analysis of FIA data, it was demonstrated that measured changes in forest area were not statistically different from zero, meaning that there is insufficient evidence to reject the null hypothesis of no change. It appears that FSC US seeks a statistically significant demonstration, or proof that forest conversion rates are less than threshold values. This is akin to requiring proof of the absence of endangered species or biodiversity elements in a landscape before finding low risk of sourcing from areas with HCVs. It is a reversal of the burden of proof from seeking evidence of risk to seeking evidence of the absence of risk. As such, this is fundamentally incompatible with other portions of the NRA. FIA and NRI data has been used in broader assessments of forest area change (Wear and Greis 2002, FAO 2016) that conclude that US forest area is stable, and conversion (when it does occur) is driven by agriculture or development. We suggest that FSC US accept the scientifically-sound interpretation of "no significant difference" for what it is: an indication that there is no evidence of risk of conversion. We recommend that FSC US make a determination of low risk for conversion when there is a lack of statistically significant	FSC is required to consider conversion that occurs, regardless of the driver. Revise Category 4 to recognize that the analyses at a regional scale reflect no signficant difference from zero, but that there is evidence that must be considered for assessment at a finer scale. Note that while the default scale identified in the NRA procedure is ecoregion-scale, it also indicates that the scale should be the broadest scale at which administrative contol of land-use planning is undertaken - and in the US this is almost always a local scale. Look for and use more recent information sources. Note that	Economic
R	CQ 12	We understand that FSC US does not have access to appropriate datasets and analysis of satellite imagery, but FSC as a whole needs to begin providing the information that is needed to track forest loss. Meanwhile, it may be useful to consider wildlife-oriented proxies (see the next box) as well as land use proxies. This gives information on the health of the ecosystem, which can be a more practical measure of whether something has been converted from a functioning forest than can say, % tree loss which would not catch conversion to a plantation.	Look for and use these kinds of data and information if available.	Environmental

R	CQ 12	Conversion should not be identified at a state level. The states with specified risk have many areas that are not at risk for conversion, and it seems unreasonable to implement mitigation in areas where there is clearly no threat.	Move to a finer scale assessment for conversion	Economic
R	CQ 12	For Category 4, Indicator 4.1, the NRA and supporting documents do not fully contemplate or address the actual drivers of growth and conversion in the SE. Or the fact that growth it is not uniform across the region. The NRA admits, "while the urbanization that is occurring within a state may be concentrated in certain parts of the state, the scale of entire states (within FSC US regions) is used for risk determinations, because this is the scale of information that is most consistently available across the assessment area". Land use changes from a forested condition occur for a variety of reason, and conversion to plantations or conversion for the sake of tree harvest alone are not necessarily the predominant reasons. Urban growth leading to loss of forested acreage in some areas is listed as primary factor for including the SE as Specified Risk. The NRA (main body of document and Annex G) discussed urbanization as a main factor of forest loss in the SE. However, urbanization doesn't occur in the same manner throughout the SE or even within a single state. Our example State, Georgia, has invested time and money in trying to better understand and model growth patterns and the effect of growth and urbanization on natural resources. As part of statewide water resource planning they contracted for growth modeling work to be done looking at a 50-year planning horizon. SLEUTH models were used as the basis for this analysis. The use of SLEUTH models has become widespread in recent years and they have been applied to many areas of the US precisely to look at growth and urbanization in sensitive or vulnerable environments. Reference to look at: Chaudhuri, Gargi & Clarke, Keith. (2013). The SLEUTH land use change model: A review. International Journal Of Environmental Resource Research. 1. 88. It is recommended that FSC look further into the specific mechanisms and patterns that drive forest conversion and reconsider the blanket Specified Risk designation for the SE. This most likely holds true across the country as well. At a minimum specific resources and information available at state levels, including actual growth modeling results related to urbanization, should be used to inform decisions about appropriate control measures to address Category 4.	Consider information sources and move to a finer scale assessment for conversion	Economic
R	CQ 12	For Category 4, Indicator 4.1, the NRA and supporting documents do not fully contemplate or address the actual drivers of growth and conversion in the SE. Or the fact that growth it is not uniform across the region. The NRA admits, "while the urbanization that is occurring within a state may be concentrated in certain parts of the state, the scale of entire states (within FSC US regions) is used for risk determinations, because this is the scale of information that is most consistently available across the assessment area". Land use changes from a forested condition occur for a variety of reason, and conversion to plantations or conversion for the sake of tree harvest alone are not necessarily the predominant reasons. Urban growth leading to loss of forested acreage in some areas is listed as primary factor for including the SE as Specified Risk. The NRA (main body of document and Annex G) discussed urbanization as a main factor of forest loss in the SE. However, urbanization doesn't occur in the same manner throughout the SE or even within a single state. Our example State, Georgia, has invested time and money in trying to better understand and model growth patterns and the effect of growth and urbanization on natural resources. As part of statewide water resource planning they contracted for growth modeling work to be done looking at a 50- year planning horizon. SLEUTH models were used as the basis for this analysis. The use of SLEUTH models has become widespread in recent years and they have been applied to many areas of the US precisely to look at growth and urbanization in sensitive or vulnerable environments. Reference to look at: Chaudhuri, Gargi & Clarke, Keith. (2013). The SLEUTH land use change model: A review. International Journal Of Environmental Resource Research. 1. 88. It is recommended that FSC look further into the specific mechanisms and patterns that drive forest conversion and reconsider the blanket Specified Risk designation for the SE. This most likely holds true across the country as well. At a minimum specific resources and information available at state levels, including actual growth modeling results related to urbanization, should be used to inform decisions about appropriate control measures to address Category 4.	Consider information sources and move to a finer scale assessment for conversion	Economic
R	CQ 12	No, urbanization is the main driver of deforestation in the US. Satellite images do not have the fine detail to account for temporary deforestation from harvesting with eventual replanting. However, the scale of determining risk areas should be finer. The webinar I attended said that census tracts will be considered instead of states. I believe this will be at the appropriate scale.	Move to a finer scale assessment for conversion	Economic

R	CQ 12	I feel that your methodology of using urbanization and population growth to determine risk areas is misguided and overly simplistic. There are many thousands of sustainably managed forested land within 20 miles of large urban areas. Why should these forests be flagged as specified risk simply because they lie near urban centers? How, as a secondary processor, could we possibly mitigate a risk that is so vague? I honestly don't see a path forward to maintaining our CW certification if every county in the West with high population must be excluded or mitigated.	Reconsider the methodology used to define specified risk for conversion; discuss with WG	Economic
R	CQ 12	The vast majority of the US should be viewed as low risk for conversion. The localized conversions that do occur are not related to forestry and are not significant at an ecoregional level. Conversion of HCVs should not be permitted.	FSC is required to consider conversion that occurs, regardless of the driver.	Economic
R, I	CQ 12	Enviva supported NCASI comments Interpretation of Data Uncertainty All the datasets used in the NRA (e.g., GAP, NLCD, NatureServe) have inherent uncertainties. Only two of these datasets (FIA and NRI) are based on nationwide statistical sampling designs that enable them to report uncertainty bounds (sampling errors or confidence intervals) for their estimates (forest area or biomass). It appears that the reporting of uncertainty for these datasets caused FSC US to use undue caution in interpreting results from analyses. Analyses of FIA data showed that "the rates of forest cover change are so small as to be statistically insignificant" (p. 236). The NRA notes that a recent NRI report (USDA 2015) "… has indicated a decline in forest land in the three Pacific Coast states" (p. 238). However, that NRI report includes margins of error for their estimates, and the reported forest losses are well below the margin of error (Appendix E in the NCASI technical comments), meaning the differences in forest area are not significantly different from zero. From these sources FSC US determined that "it is not possible to quantitatively conclude whether the conversion rates actually exceeded the 0.02% threshold" (p. 237). In fact, though, the analyses of FIA and NRI data are conclusive: there is no statistically significant evidence of forest conversion that would constitute a threat. When making an assertion such as "forests are being lost to conversion", scientists formulate a hypothesis that can be tested. The null hypothesis here would be "forests are not being lost to conversion", and the alternative hypothesis would be "forests are being lost to conversion". A hypothesis test would specify a level of certainty needed to reject the null hypothesis and accept the alternative hypothesis. In the analysis of FIA data, it was demonstrated that measured changes in forest area were not statistically different from zero, meaning that there is insufficient evidence to reject the null hypothesis of no change. It appears that FSC US seeks a statistically significant demonstration, or proof that forest conversion rates are less than threshold values. This is akin to requiring proof of the absence of endangered species or biodiversity elements in a landscape before finding low risk of sourcing from areas with HCVs. It is a reversal of the burden of proof from seeking evidence of risk to seeking evidence of the absence of risk. As such, this is fundamentally incompatible with other portions of the NRA. FIA and NRI data has been used in broader assessments of forest area change (Wear and Greis 2002, FAO 2016) that conclude that US forest area is stable, and conversion (when it does occur) is driven by agriculture or development. We suggest that FSC US accept the scientifically-sound interpretation of "no significant difference" for what it is: an indication that there is no evidence of risk of conversion. We recommend that FSC US make a determination of low risk for conversion when there is a lack of statistically significant	FSC is required to consider conversion that occurs, regardless of the driver. Revise Category 4 to recognize that the analyses at a regional scale reflect no signficant difference from zero, but that there is evidence that must be considered for assessment at a finer scale. Note that while the default scale identified in the NRA procedure is ecoregion-scale, it also indicates that the scale should be the broadest scale at which administrative contol of land-use planning is undertaken - and in the US this is almost always a local scale. Look for and use more recent information sources.	Economic
R, I	CQ 12	Glatfelter incorporates by reference the set of comments submitted by the National Council for Air and Stream Improvement (NCASI) on this question.	See actions associated with NCASI comments	Economic

R, I	CQ 12	Interpretation of Data Uncertainty All the datasets used in the NRA (e.g., GAP, NLCD, NatureServe) have inherent uncertainties. Only two of these datasets (FIA and NRI) are based on nationwide statistical sampling designs that enable them to report uncertainty bounds (sampling errors or confidence intervals) for their estimates (forest area or biomass). It appears that the reporting of uncertainty for these datasets caused FSC US to use undue caution in interpreting results from analyses. Analyses of FIA data showed that "the rates of forest cover change are so small as to be statistically insignificant" (p. 236). The NRA notes that a recent NRI report (USDA 2015) "… has indicated a decline in forest land in the three Pacific Coast states" (p. 238). However, that NRI report includes margins of error for their estimates, and the reported forest losses are well below the margin of error (Appendix E in the NCASI technical comments), meaning the differences in forest area are not significantly different from zero. From these sources FSC US determined that "it is not possible to quantitatively conclude whether the conversion rates actually exceeded the 0.02% threshold" (p. 237). In fact, though, the analyses of FIA and NRI data are conclusive: there is no statistically significant evidence of forest conversion that would constitute a threat. When making an assertion such as "forests are being lost to conversion", scientists formulate a hypothesis that can be tested. The null hypothesis here would be "forests are not being lost to conversion", and the alternative hypothesis would be "forests are being lost to conversion". A hypothesis test would specify a level of certainty needed to reject the null hypothesis and accept the alternative hypothesis. In the analysis of FIA data, it was demonstrated that measured changes in forest area were not statistically different from zero, meaning that there is insufficient evidence to reject the null hypothesis of no change. It appears that FSC US seeks a statistically significant demonstration, or proof that forest conversion rates are less than threshold values. This is akin to requiring proof of the absence of endangered species or biodiversity elements in a landscape before finding low risk of sourcing from areas with HCVs. It is a reversal of the burden of proof from seeking evidence of risk to seeking evidence of the absence of risk. As such, this is fundamentally incompatible with other portions of the NRA. FIA and NRI data has been used in broader assessments of forest area change (Wear and Greis 2002, FAO 2016) that conclude that US forest area is stable, and conversion (when it does occur) is driven by agriculture or development. We suggest that FSC US accept the scientifically-sound interpretation of "no significant difference" for what it is: an indication that there is no evidence of risk of conversion. We recommend that FSC US make a determination of low risk for conversion when there is a lack of statistically significant	FSC is required to consider conversion that occurs, regardless of the driver. Revise Category 4 to recognize that the analyses at a regional scale reflect no signficant difference from zero, but that there is evidence that must be considered for assessment at a finer scale. Note that while the default scale identified in the NRA procedure is ecoregion-scale, it also indicates that the scale should be the broadest scale at which administrative contol of land-use planning is undertaken - and in the US this is almost always a local scale. Look for and use more recent information sources.	Economic

R, I	CQ 12	After putting aside the quantitative data due to reported uncertainties, FSC US "subsequently completed a literature review to look at this question and determine if any proxies existed that could be used to assess conversion in a more qualitative manner" (p. 237). From this literature review, "FSC US staff concluded that urbanization and population growth present the best possible proxy for forest conversion in this risk assessment" (p. 237). However, several conclusions from the literature review are supported not by data or analyses of current forest conditions, but from older data or modeling exercises that analyze possible future scenarios. For example, the following statements from the NRA appear to be reporting recent measured changes, but are citing publications that are more than a decade old, or involve models and projections: "This leaves urbanization as the strongest pressure for forest conversion, a conclusion that is supported by numerous sources [Sources: 2, 4, 5, 6, 7]." (p. 237) "the Southeast and Pacific Coast regions are experiencing forest loss and concurrent rapid population growth [Source 2]." (p. 237) "the highest rates of urbanization are occurring in the Piedmont region from northern Georgia through North Carolina into Virginia. Forest loss is also occurring along the Atlantic Coast and in eastern Texas [Source: 4,5,6,7]." (p. 237) "Despite the high rates of urban growth across the Southeast, there are some states that are experiencing lower rates of population growth and forest loss, including Mississippi, Alabama and Arkansas [Source 7]." (p. 237) "The Pacific Coast Region is also experiencing urban growth leading to conversion from forest to non-forest land use, though this growth appears to be concentrated on the western portions of Washington and Oregon [Source 3,11]." (p. 237-238) The brief descriptions of the NRA sources cited (below) illustrates how these are largely older data and/or modeled projections of possible future scenarios.	Numerous credible information sources identify urbanization as a driver of forest loss. Review sources to ensure they adequately support findings. Look for and use more recent information sources.	Economic
R	CQ 12	Using a proxy seems to be a dangerous and potentially unfair approach altogether, particularly at the scale it is currently being applied. Even going to the county level around urban centers – for example Portland or Seattle, could be misleading. Some of the counties with the highest growth rates also have thousands of acres of sustainably-managed forest land. It seems to me in this case, that FSC has used broad strokes to define something that can be examined at a much finer scale, and put the onus of mitigating a poorly-defined risk on certificate holders.	Discuss with WG; move to a finer scale for risk designations	Economic
R, I	CQ 12	AF&PA incorporates by reference the comments submitted by NCASI on this question. Conversion should be designated as Low Risk for the entire U.S. NCASI describes the appropriate approach in its comments, which has been used for many years by companies relying upon the 2008 American Hardwood Export Council report. It is not clear why population growth has been the chosen metric for risk of forest conversion. There are several types of land use including forested, range, and farmland. Land can move back and forth in time across various types of land, and based on FIA data U.S. forest area is stable. In short, using a proxy to determine risk in this case is unnecessary and should be removed. Data directly related to forest land cover exists and should be used to determine risk.	See actions associated with NCASI comments	Economic
R, I	CQ 12	AFRC incorporates by reference the comments submitted by NCASI on this question. It is not clear why population growth has been the chosen metric for risk of forest conversion. FIA data show U.S. forest area is stable in spite of population growth. Using a proxy to determine risk in this case is unnecessary and should be removed. Data directly related to forest land cover exists and should be used to determine risk.	See actions associated with NCASI comments	Economic

R	CQ 12	No. However, in the Southeast it appears that the FSC regional boundary was primarily used to delineate the area most at risk for conversion in the states of Virginia, North Carolina, South Carolina and Georgia while leaving out the states of Mississippi and Alabama. If higher rates of urban growth is the primary reason for this determination it seems that it would be more accurate to designate only the counties were this high rate of urbanization is occurring rather than to designate the entire region as at risk when most of the counties within the regional boundaries are not exhibiting significant urban growth. Why place all of the Piedmont and Coastal Plains of Virginia, North Carolina, South Carolina and Georgia at risk for conversion when the only real risk for conversion is occurring in proximity to the larger metropolitian areas such as Richmond, Raleigh/Durham, Winston-Salem/Greensboro, Charlotte, Columbia, Greenville/Spartenburg and Atlanta. Conversely It is likely that there is also a higher rate of urban growth around the cities of Jackson, Mississippi and Birmingham, Alabama yet these states are entirely designated as low risk for conversion. The same reasoning would hold true for the Pacific Coast and it is our belief that outside of the major metropolitan areas in the region there is little risk of conversion.	Move to a finer scale assessment for conversion	Economic
R	CQ 12	No. The practical assumption that forest conversion is linked primarily to urbanization is not likely to be contested. The practical implications, however, are less than clear. The NRA correctly notes that forest loss through conversion – broadly speaking – is not a significant problem in the US. The decision to focus on the vexing and complex issues of urban sprawl in specific regions is likely to prove a mistake. The NRA fails to convincingly link forest loss through conversion to anything that is within the influence of commercial land managers or wood procurement organizations. Without this link, the FSC network is left searching for ways to influence the growth of urban centers like Atlanta, Durham, and Los Angeles. This is neither useful nor practical.	FSC is required to consider conversion that occurs, regardless of the driver, or CH's ability to influence the driver.	Economic
R	CQ 12	Does urbanization and population growth account for large scale industrial developments in regional areas? This generally requires a change in land-use zoning and so is covered by the standard – Data centers etc. Does the urbanization and population growth dataset account for sites of OGM (Oil, Gas and mineral extraction).	Discuss with WG	Economic
X	CQ 12	I am strongly against the change from a conversion threshold of .05 to .02%. We cannot have a limit that is within a normal margin of error. It makes it impossible to designate low risk. We should commission a study to evaluate where conversion is occurring and what the most relevant actions we can take to help stem the tide. Solutions to conversation (long-term avoidance) vs avoidance (short-term solution): Sustainable Northwest is involved in state lands stewardship planning and community forest work. We support communities' buy the forests near their communities to protect drinking water and avoid conversion. Actions like these are net positive and tangible. They must be part of the solution as we think outside the box. We cannot simply make them additive to the "avoidance" work required prior to the new CW standard and NRA.	The threshold is given in the NRA procedure and we do not have control over it. This kind of study would provide valuable information in the future, but is not going to affect the outcomes of the current assessment	Social
R, I	CQ 12	WestRock incorporates by reference the comments submitted by NCASI on this question. It should be noted that land conversions are not controlled by the forest products industry. Existing control measures listed in the FSC Controlled Wood Standard Std-40-005-V3.1 should be consulted and recognized.	See actions associated with NCASI comments. Discuss example CM with WG.	Economic
I	CQ 12	The research shows that on balance, there is no conversion issue, so why are we looking for another way to find a conversion problem?? If there are concerns with conversion, then just say so, and don't bother looking for datasets to support the point of view. Just make the statement and implement Control Measures.	Review/revise language to ensure transparency.	Economic
R	CQ 12	As suggested at the regional meetings and detailed by other commenters (NCASI) the data for urbanization and population growth can be parsed at the county scale. The draft maps do not seem to align with current population trends. Many portions of designated significant risk states (Georgia, Louisiana, South Carolina, North Carolina, Virginia) are clearly losing population and gaining forest cover.	Move to a finer scale assessment for conversion	Economic

R, I	CQ 12	Firstly, why seek only resources that identify places of higher than low risk? A comprehensive review of all resources regardless of the outcome should be the desire of the NRA process. For example… The Cornerstone project employed by the Southern Forest Futures Project. The results of this model and predicted outcome for land use was captured and analyzed. "By model construction, urban forecasts are driven exclusively by population and income forecasts and are not influenced by the future trajectory of timber or agricultural prices." Why is the model not influenced by timber and agricultural prices? Answer is simply because these factors do not and will not stop or slow urban growth. Specifically, the SFFP concludes "Cornerstones C and D, gains in urban uses are widespread with the exception of the few areas expected to experience population declines (such as the Mississippi Alluvial Valley and southwestern Alabama)." How can identified population decline result in the designation of Louisiana as an area of unspecified risk for forest conversion in the 2nd draft of the NRA? The SFFP also concluded that "Although the net area of forest land is projected to decrease, the area of some forest types is expected to increase. The area of planted pine could increase between 20 percent and 72 percent to as much as 33 percent of total forest area over the 50-year projection period. Increases in planted pine are expected across all ownership groups, but the greatest acreage gains are on private forest lands. Modeling restrictions preclude disaggregation of changes into specific private ownership groups. But planted pine requires an upfront investment, which in the South at least, is a general indicator of owner intent—commercial production of timber." Researchers are unable to predict if the planting of pine is due to afforestation or forest replacement following rotational harvest because the models do not take into account timber pricing.	FSC is required to consider conversion that occurs, regardless of the driver, or CH's ability to influence the driver. Consider the SFFP information source which does indicate predictions for forest loss.	Economic
	CQ 12	There is reliable information in the FIA and NRI datasets that is useful for directly analyzing the risk of conversion sources at the state and sub-state (forested regions) level and this data diminishes the need for a proxy. The FIA and NRI data is not statistically reliable at the county level. If additional information is needed to supplement the FIA and NRI data, then FSC should develop a direct, consistent and reliable relationship between the selected metric and conversion. Many urban areas with significantly increasing populations are not experiencing land use conversion at historical rates related to increased density.	Consider other data that could be used alone or in combination with population growth.	Economic

R	CQ 12	See NCASI comments. Conversion should be designated Low Risk for the entire US. The FIA data and analysis is more than adequate to justify a low risk designation for conversion. There is not a need for a proxy, and the idea of going to a proxy should be dropped. The criterion of having to "prove" that the 0.02% or 5,000 hectare threshold is not exceeded (using the reverse null hypothesis setup) is an unreasonable and unscientific approach, as is well documented in the NCASI comments. The appropriate approach, as described in the NCASI comments, is what has been employed to designate low risk for conversion in the US for many years (up until now), and as such, it has precedent as being valid. It was the approach taken in the 2008 American Hardwood Export Council (AHEC) report, which is the primary source and basis for most US company risk assessments (we note that Dr. Gary Dodge, formerly on the FSC-US staff, co-authored the AHEC report). If the reverse null hypothesis approach had been used in the AHEC analysis, then proof of not exceeding the thresholds under 40-005 V2-1 (zero net loss and 0.5% per year rate of loss) could not have been met. We also note that, in FSC-PRO-60-002a, table on page 40, the criteria to designate specified risk is stated the same way as the criteria to designate low risk, that is, it must be "proven" that the threshold is exceeded in order to designate specified risk. This, of course, cannot be done with the FIA data either. Another point regarding the table on page 40 of 60-002a relates to consideration of economic drivers for conversion. We note that there are many federal and state programs for family forestland owners that provide cost sharing or cost subsidies for reforestation and other forest management activities, and these programs are a significant economic driver that counters conversion. Examples of federal programs are, Conservation Reserve Program (CRP), Environmental Quality Incentives Program (EQIP), Wildlife Habitat Incentive Program (WHIP), Conservation Stewardship Program (CSP), Regional Conservation Partnership Program (RCPP), Healthy Forest Reserve Program (HFRP), and Forest Stewardship Program. The simple and plain fact is that forestland area in the US has been, and continues to be, very stable over long periods of time, and this is solidly corroborated by the FIA data. The approach perhaps that should be taken is that, if not exceeding the threshold cannot be proven otherwise, then the FIA data is used as the "proxy." Using population growth as the proxy has several pitfalls that make it inappropriate and arbitrary, as outlined in the NCASI comments. We suggest that a logical and legitimate way to arrive at a low risk designation is the following: 1. FIA data indicate that, over long periods of time, net forestland area in the US has remained, and continues to remain, stable (not statistically different from zero).	Discuss the proposed methodology with the WG	Economic
X	CQ 12	Not at this time.		Environmental
I	CQ 13	See commentary in #12 above and: [1] Homer, C. C. Huang, L. Yang, B. Wylie and M. Coan. 2004. "Development of a 2001 National Landcover Database for the United States." Photogrammetric Engineering and Remote Sensing, Vol. 70, No. 7, July 2004, pp. 829-840. [2] Jin, S., Yang, L., Danielson, P., Homer, C., Fry, J., and Xian, G. 2013. A comprehensive change detection method for updating the National Land Cover Database to circa 2011. Remote Sensing of Environment, 132: 159 – 175. [3] Multi-Resolution Land Characteristics Consortium. "NLCD 2001 Land Cover Class Definitions." Available from: http://www.mrlc.gov/nlcd_definitions.php [4] FIA Research Foresters [5] WWF "Living Forests Report: Chapter 5 – Saving Forests at Risk" Published in 2015 by WWF - World Wide Fund for Nature (formerly World Wildlife Fund), Gland, Switzerland	Consider these sources when revisiting conversion for the final draft.	Economic
I	CQ 13	Have you tried compiling existing documentation from various companies risk assessments? Some have spent a good deal of time and effort reviewing this topic and provide a rich source of additional data.	Consider methodologies and information sources in company risk assessments	Economic

I	CQ 13	State and locality specific growth models. Contacting USFS FIA staff in Portland, OR and elseshere that have been conducting conversion research for many years and have multiple datasets. Both the USFS and State agencies have created State level assessments of forest resources many of which address conversion. Consult state and county laws and regulations that be in place to mitigate conversion. Some area have requirements of tree removal over a certain diameter for example.	Consider growth models, USFS and State agency assessments of forest resources, and finer scale laws and regulations.	Economic
I	CQ 13	See above. FIA data is sufficient to show broad trends; census data allows for interpretation at a finer scale.	Consider census data to refine the specified risk areas	Economic
I	CQ 13	Seek out and consult state and locality-specific growth models.	Consider available growth models	Economic
I	CQ 13	There is a Bobwhite Quail dataset available https://www.quailcount.org; this is especially relevant because these quail are an indicator species and can give a robust understanding of ecosystem health.	Consider the Bobwhite Quail data and whether it provides information about the types of forests that are being lost to urbanization	Environmental
I	CQ 13	U.S. Census Bureau has county level data to narrow the risk of conversion to specific areas within a state. This would be a better alternative to the state-wide approach.	Consider county-scale census data	Economic
I	CQ 13	State and locality specific growth models	Consider available growth models	Economic
I	CQ 13	State and locality specific growth models	Consdier available growth models	Economic
X	CQ 13	No, all of my known sources are mentioned in the assessment		Economic

R	CQ 13	We strongly suggest that FSC US take the following into account about that datasets that they are currently using: Two of the data sources used for assessment of conversion risk are based on a thorough, extensive, and robust statistical sampling design (FIA and NRI). These programs provide data that include estimates (such as forest area or timber volume) as well as uncertainty bounds (expressed as sampling errors or confidence intervals). It appears that the explicit estimation of uncertainty for these datasets caused FSC to use undue caution in interpreting results from analyses. In fact, all the datasets used in all portions of the NRA include uncertainty, but only these two datasets provide estimates of that uncertainty. When analyses of FIA data showed that "the rates of forest cover change are so small as to be statistically insignificant" (p. 236), FSC concluded that "it is not possible to quantitatively conclude whether the conversion rates actually exceeded the 0.02% threshold" (p. 237). The NRA also cites a recent NRI report (USDA 2015), stating "The National Resources Inventory has indicated a decline in forest land in the three Pacific Coast states" (p. 238). In fact, the NRI report includes margins of error for these estimates, and the reported forest losses are well below the margin of error (Appendix D), meaning the differences in forest area are not significantly different from zero. When making an assertion such as "forests are being lost to conversion", scientists formulate a hypothesis that can be tested. The null hypothesis here would be "forests are not being lost to conversion", and the alternative hypothesis would be "forests are being lost to conversion". A hypothesis test would specify a level of certainty needed to reject the null hypothesis and accept the alternative hypothesis. The certainty threshold would indicate the chance of incorrectly rejecting a true null hypothesis based on random chance in sampling. In the analysis of FIA data for FSC, it was demonstrated that measured changes in forest area were not statistically different from zero, meaning that there is insufficient evidence to reject the null hypothesis of no change. In fact, then, the analyses of FIA and NRI data are conclusive: there is no statistically significant evidence of forest conversion that would constitute a threat. It appears that FSC seeks a statistically significant demonstration, or "proof" that forest conversion rates are less than threshold values. This is essentially a reversal of the burden of proof and the framework of the hypothesis test in a way that is fundamentally inconsistent with other portions of the NRA. For example, consider the assessment of risk for Category 3 (HCV). Evidence of a risk is taken from data that indicate the presence of an	FSC is required to consider conversion that occurs, regardless of the driver, or CH's ability to influence the driver. Note in the comments summary that while the default scale identified in the NRA procedure is ecoregion-scale, it also indicates that the scale should be the broadest scale at which administrative contol of land-use planning is undertaken - and in the US this is almost always a local scale.	Economic
I	CQ 13	I find that Global Forest Watch and the University of Maryland Global Forest Loss maps provide excellent information – with one caveat. Both of these sources make it challenging to understand how long it takes for forest 'gain' to be recognized. The U of M site states that a tree is anything greater than 5m tall – which does not take into account any reforestation or aforestation. This creates a gap in the assessment, where an area can be considered as "deforested," for a period of time, even if it has been replanted. Even if a stand has been recently replanted, but not yet fully established, it would seem to indicate that no conversion is taking place. If we could figure out a way to use these data sources and also include some assumption about how much ground is replanted, we could get closer to understanding just how much conversion is taking place. Ultimately, conversion is a sad necessity of a growing population, but in an area where the timber economy is strong, it would seem reasonable to assume that conversion and sustainable management will find an equilibrium. Counties in Oregon such as Washington, Multnomah, Clackamas, Marion, and Lane, might be good studies of how this is playing out in real time.	Consider Global Forest Watch and University of Maryland data sets, but be aware of limitations.	Economic
R, I	CQ 13	FIA data is the only credible source. If FSC-US continues to use population growth (and clarifies how it is tied to a decline in forest land use) sources such as the U.S. Census Bureau have county level data on population trends.	Move to a finer scale assessment for conversion	Economic
R, I	CQ 13	If FSC-US continues to use population growth (and clarifies how it is tied to a decline in forest land use) sources such as the U.S. Census Bureau have county level data on population trends.	Move to a finer scale assessment for conversion	Economic

I	CQ 13	Refer to FSC Bonn, DE remote sensing initiative. More satellites going up every day, cost of data they relay will fall along Moore's Law (get a lot cheaper) as IT capabilities, cloud computing continue to advance. ARC View data sets, overlays available for sale to support the NRA. FSC needs spatial analyst to manage centrally the content which will come from public shareholder commentary, new research, efficacy of documented mitigation efforts. Also suggest delving into the Risk Assessments from the major producers like Potlatch, Weyco, etc…Weyerhaeuser in particular as they own so much land and can afford the resources needed to put best minds on topic.	Consider methodologies and information sources in company risk assessments	Economic
I	CQ 13	Global Forest Change – University of Maryland. http://earthenginepartners.appspot.com/science-2013-global-forest?hl=en&llbox=83.7%2C-77.2%2C-179.4%2C-177&t=ROADMAP&layers=layer1%3A100%2Clayer9%3A100%2C6%2Clayer12%2C12%3A100%2C11	Consider global Forest Watch and University of Maryland data sets	Economic
I	CQ 13	I suggest compiling the existing CW risk assessment to mine the valuable source information each copy was able to find. These reports represent thousands of hours of work on the subject.	Consider methodologies and information sources in company risk assessments	Social
R, I	CQ 13	If FSC-US continues to use population growth (and clarifies how it is tied to a decline in forest land use) sources such as the U.S. Census Bureau, which have county level data on population trends, should be used to lessen specified risk areas.	Move to a finer scale assessment for conversion	Economic
I	CQ 13	FIA data is sufficient to show broad trends; census data allows for interpretation of population dynamics at a finer scale.	Consider census data at a finer scale for specified risk	Economic
X	CQ 13	Suggest restating the question to eliminate the inference of "affordable." Datasets and models will need to be invested in by all stakeholders to best predict the movement of land conversion. Information gleaned from FIA analysis serves as a defensible dataset accepted by various sustainability certification schemes.		Economic
X	CQ 13	No, FIA is the only definitive and credible source.		Economic
I	CQ 13	GFW is a resource for monitoring.	Consider Global Forest Watch datasets	Environmental
C	CQ 14a	Procurement policies in conjunction with origin sourcing data will allow procurement organizations to manage conversion fiber.	Discuss with WG	Economic

C	CQ 14a	Typically, forestry is not the primary economic driver of conversion to other uses (e.g. development, agriculture). Therefore, we reiterate that FSC mitigation actions are not appropriate nor will they be effective. It is inappropriate to be asked to support or oppose "educational information" when we haven't even seen it. We oppose the concept of mandatory education information as this should be more of a mitigation option/activity discussion. That way we can determine the most appropriate information and whether it is an option chosen. With lack of alignment on the identified specified risk areas in the draft NRA and mitigation measures not yet identified to manage risks, it is impractical to solicit support of mandatory avoidance of sourcing from these areas or expect suppliers to implement yet-to-be-determined actions on mitigation. Additionally, lack of evidence has been provided that conversion of forestland always results in "adverse impacts." Despite development in the United Stated, there is more forestland today than there was 100 years ago. The draft statement provided as a required statement to suppliers regarding conversion is not something that is supportable given the comments above. Generally, dictating the contract terms between independent suppliers and purchasers is not an acceptable approach.	Discuss with WG	Economic
C	CQ 14a	One thing that immediately comes to mind – in California, many different types of harvest are called "exemptions" or even "conversions" – but they may not be true conversions based on the FSC definition. One easy control measure would be to not buy true forest conversion harvests (i.e. removing forest to plant a vineyard or removing forest to make a parking lot). Versus a conversion that is clearing a group of trees near a house in order to get a better viewshed (not a forest to be converted). Even if it's greater than 100 acres but not truly a conversion of forest land – it should be allowed. Also in the FSC risk assessments procedures for businesses conducting their own risk assessments there is something called "socially acceptable conversion" this should be included in the National Risk Assessment and I do think the first public draft included some allowance for conversion for something that was for the public good – i.e. removing switchbacks on a road; converting an area for public water storage; etc). This should be included in the NRA.	Discuss with WG	Economic
C	CQ 14a	Defining "acceptable levels of conversion" and determining if a state or county has requirements in-place for removal of trees.	Discuss with WG	Economic

C, A	CQ 14a	CM 4.a: Not supportive. The statement regarding 100-acre or larger conversion requires further explanation. Most people who read it assume that wood from conversion of tracts smaller than 100 acres would be accepted. I think it should be, but I don't know whether that is the intent. More broadly, if FSC persists in attempting to prohibit the use of conversion wood from large-scale wood-consuming mills in the eastern United States the chaos and confusion regarding FSC Controlled Wood programs in this region will continue and intensify. The path you are on at this time doesn't seem likely to improve the situation. There seem to be three paths, depending on intent: 1. Clearly state a reasonable amount of conversion wood that is allowed in the FSC system; Outcome: This should work for some and perhaps most CW certificate holders, but you'll have some unhappy FSC stakeholders; or 2. State that no conversion wood is acceptable in the FSC system, and then create a system that quietly tolerates a considerable volume of conversion wood in FSC products (status quo); Outcome: This will result in continued erosion of the system's credibility; or 3. State that no conversion wood is acceptable, and then implement a system that is intended to drive conversion wood out, other than very small volumes that might enter the system unintentionally or through fraud; Outcome: This is also credible, but some major organizations will drop their FSC certification. It would be more efficient if we knew sooner rather than later which of these three approaches is intended. Some participants believe that path 2 is the preferred direction at this time. It is difficult for FSC to officially advocate this path, so we'll assume this is the chosen path unless there is a clear statement of intent to pursue #1 or #3. CM 4.b: Supportive, depending on resolution of intended outcomes (path 1, 2, or 3) and on the timing of the meetings and quality and usefulness of the discussions and information made available. In framing the meetings an emphasis should be placed on an adaptive management approach, wherein any approach with at least some chance of being effective is included initially, pending results of effectiveness monitoring over time. The meetings will attract people who want to develop useful information and practical options only if potential meeting participants understand the goal is to advance conservation efforts and advance the practice of forestry, not to designate "no harvest" areas or "monkey-wrentch" the practice of forestry.	Discuss with WG	Economic
C	CQ 14a	Healthy, unrestrictive markets of forest products for forest landowners are the best mitigation action for conversion. Landowners are more likely keep forests as forests when fewer and less cumbersome restrictions are placed upon them. With healthy competitive markets, landowners are motivated to actively manage their forests and keep them healthy in ways that benefit the environment, wildlife, and the general public.	Discuss with WG	Economic
R, X	CQ 14a	In addition to the general topic of conversion, related issues such as fragmentation and parcelization of forested lands should be considered when looking at the bigger picture issue of driving positive change in the management of forested lands in areas with rapidly expanding and extensive land use changes. The SE region is noted in the NRA as Specified Risk for conversion. Where fragmentation is occurring, canopy cover may not be lost, but issues arise because resources on these smaller tracts (less than 50 acres) may become unavailable to markets. Both fragmentation and parcelization lead to smaller and less efficient units, which contribute to cost increases and resource management difficulties. Wholesale categorization of the SE as Specified Risk for conversion may actually prove to be a barrier to increasing the amount of forested land managed in a sustainable manner for inclusion as controlled wood. This is something that should be considered in the NRA.	Consider a finer scale when developing risk designations; note that CM are required to mitigate the risk identified - expanding to address other issues would be out of scope.	Economic
C	CQ 14a	This question is unclear, even with additional online material. Distinguishing between forest management certificates and certificate holders farther along the supply chain would help. Forest managers must not deforest. Certificate holders further down the supply chain need to have a clear policy of not buying from suppliers who have deforested (whether FSC or not).	Discuss with WG	Environmental

C	CQ 14a	Urban growth is the source of conversion in the US. Certificate holders are unable to mitigate or control growth. STD-40-005 v3-1 Annex E, Section 7, Table B example control measure states "or shall assure that material originates from acceptable sources of conversion (e.g. conversion that results in conservation benefits, SLIMF sources with maximum size, publicly approved changes in zoning in urban areas, etc.)." Allowing "acceptable sources" should be discussed as potential mitigation measure.	Discuss with WG	Economic
R, X	CQ 14a	In addition to the general topic of conversion, related issues such as fragmentation and parcelization of forested lands should be considered when looking at the bigger picture issue of driving positive change in the management of forested lands in areas with rapidly expanding and extensive land use changes. The SE region is noted in the NRA as Specified Risk for conversion. Keeping Georgia as our example, many States have concerns over land use changes impacting forested areas. Some are due to outright permanent conversion but some involves fragmentation and parcelization. In the Georgia Forestry Commission's 2010 Statewide Assessment of Forest Resources (as an example) there is some discussion about problems related to fragmentation, where canopy cover may not be lost, but where issues arise because resources on these smaller tracts (less than 50 acres) may become unavailable to markets. Both fragmentation and parcelization lead to smaller and less efficient units, which contribute to cost increases and resource management difficulties. Wholesale categorization of the SE as Specified Risk for conversion may actually prove to be a barrier to increasing the amount of forested land managed in a sustainable manner for inclusion as controlled wood.	Consider a finer scale when developing risk designations; note that CM are required to mitigate the risk identified - expanding to address other issues would be out of scope.	Economic
R, X	CQ 14a	In addition to the general topic of conversion, related issues such as fragmentation and parcelization of forested lands should be considered when looking at the bigger picture issue of driving positive change in the management of forested lands in areas with rapidly expanding and extensive land use changes. The SE region is noted in the NRA as Specified Risk for conversion. Keeping Georgia as our example, many States have concerns over land use changes impacting forested areas. Some are due to outright permanent conversion but some involves fragmentation and parcelization. In the Georgia Forestry Commission's 2010 Statewide Assessment of Forest Resources (as an example) there is some discussion about problems related to fragmentation, where canopy cover may not be lost, but where issues arise because resources on these smaller tracts (less than 50 acres) may become unavailable to markets. Both fragmentation and parcelization lead to smaller and less efficient units, which contribute to cost increases and resource management difficulties. Wholesale categorization of the SE as Specified Risk for conversion may actually prove to be a barrier to increasing the amount of forested land managed in a sustainable manner for inclusion as controlled wood.	Consider a finer scale when developing risk designations; note that CM are required to mitigate the risk identified - expanding to address other issues would be out of scope.	Economic
C	CQ 14a	The purpose of the educational materials is unclear. It is difficult to determine control measures for urbanization as most material from these conversions is not utilized in traditional forest industry anyway. The material is usually burned on site.	N/A - associated requirement has been removed	Economic
C	CQ 14a	I don't see how my company, through any possible mitigation could possibly alter patterns of conversion. I will be happy to attend Regional Meeting but to expect something to come out of those meetings that will change patterns of conversion is highly unlikely. This issue needs to be addressed at a macro level by states, BLM, Forest Service, conservation groups, etc.	Discuss with WG	Economic
C	CQ 14a	No, the US forest products supply chain will not stop forest conversion from happening in isolated development projects. This is not the economic driver for the conversion in the first place. Any unreasonable control measure will put the CH at an economic disadvantage to non-certified companies.	Discuss with WG	Economic

R, C	CQ 14a	Enviva specific comment Conversion to non-forest use is not an effect of timber harvesting. Timber harvesting or clearing operations are not the reason conversion occurs, it is just the means used to open the space. Control of conversion needs to be addressed in the proper venues with the proper audience.	Discuss with WG	Economic
R, C	CQ 14a	Forest product companies have little control over a landowner's plans for land use. However, efficient utilization of conversion wood is of paramount importance. If this wood is not allowed within the FSC Controlled Wood system, it will be likely be burned or landfilled.	Discuss with WG	Economic
R, C	CQ 14a	We suggest that you refer to our answers for questions 12 and 13 above and re-assess the need for Category 4 Control Measures. We would be willing to suggest potential control and risk mitigation measures once FSC US revisits the data that it uses to support its argument that these measures are needed in the first place.	Discuss with WG	Economic
C	CQ 14a	My feeling is that it is unrealistic to think that certificate holders have the ability to alter patterns of conversion. The greatest drivers of conversion, as stated in the draft NRA, are growing population and urbanization. Policies that would affect change in the rates of conversion that arise as a result of these drivers would need to go far beyond anything a certificate holder would be capable of on their own. Here in the Pacific Coast region, plenty of work is being done around some rapidly-growing major metropolitan areas to minimize the impact of urbanization on forested and agricultural land. Certificate holders could find ways to actively participate in regional planning processes to support policies aimed at limiting conversion, although this could be challenging or even unrealistic for certificate holders located far from any center of urban growth.	Discuss with WG and incorporate idea in mitigation discussion	Economic
C, E	CQ 14a	Stumpage fees for wood that is cleared for the development of a "big box store" is not the driver for conversion, and it is unlikely that it is taken into account by the developer of a property. It is also unclear why the 100 acre threshold was included in this draft as a control measure. Under the process laid out by FSC-US, it appears it should be treated as a mitigation measure. The definition of "plantations" also remains unclear in the CW documents.	Discuss CM with WG and review plantation definition to ensure consistent with FM standard.	Economic
X, E	CQ 14a	2. Stumpage fees for wood that is cleared for the development of a "big box store" is not the driver for conversion, and it is unlikely that it is taken into account by the developer of a property. 3. The definition of "plantations" also remains unclear in the CW documents.	Review plantation definition to ensure consistent with FM standard.	Economic

C	CQ 14a	Columbia remains concerned about what constitutes "conversion" in FSC. If Columbia is to eliminate 100 acre plus conversion clearcut wood, this would need to be stipulated in contract to a log supplier. How does mountaintop removal mining play into this? It is eventually reclaimed but does it meet the definition? The term "socially acceptable conversion" should also be factored into the NRA with roads, drinking water, carbon neutral power (windmills, solar farms.) With respect to specific mitigation action, it appears to steer clear of anti trust concerns to fund, support organizations which strive to mitigate conversion where it exists rather than black list clearcuts. The FSC US will have to help us all identify organizations to support which address conversion but who do not permanently lock up conservation easements, rather promise to maintain and manage the forest as working forests. Bigger firms can donate funds to these organizations, or perhaps we can all belong to FSC US which does this (but that is a conflict for FSC as a standards-setting organization.) Is there a role for a separate trust? Is FSC ready to endow itself like Yale to address these types of missions? Does it have the capacity? Within the Appalachian Woodland Alliance, we are touching these topic areas lightly. If there are specific actions to take, we might try to collectively execute them within AWA, potentially and prototype certain types of activities a national initiative might contemplate as an incubator.	Incorporate idea in mitigation discussion	Economic
X	CQ 14a	No. See notes above.		Economic
C	CQ 14a	One potential mitigation action could be that should changes to a site occur, and the site will be replanted/rehabilitated within an acceptable time-frame, full plans and procedures on replanting could be required prior to harvest approval.	Incorporate idea in mitigation discussion	Economic
C	CQ 14a	I suggest looking at risk mitigation as solving the problem on a long-term scale vs risk mitigation related to avoiding "bad" wood from forests that have already been lost. In this way, are there projects or efforts in regions and communities that companies can plug into and support vs running a mitigation program to avoid wood at the facility? Take the community forest model. Communities would benefit from pro-bono work related to harvest planning, or purchase commitments for wood when restoration or commercial harvests occur. Are mills willing to invest in community forests or support them with human resources or preferred sourcing contracts? For HCV I would suggest that fire is a major disturbance causing loss of HCVs. Are there things CoC and FM companies can do to help reduce fire risk and reduce these disturbances vs simply avoiding wood in their FSC system in the short term?	Incorporate ideas in mitigation discussion	Social
C	CQ 14a	It should be noted that land conversions are not controlled by the forest products industry. Existing control measures listed in the FSC Controlled Wood Standard Std-40-005-V3.1 should be consulted and recognized.	Incorporate ideas in mitigation discussion	Economic
X	CQ 14a	Conversion is not something that FSC will have control or input on. Conversion is an ownership decision (for private land) or tenure obligation for public land, where sovereign control rests. FSC needs to stay away from trying to become a Regulatory Agency, and stick with voluntary certification of sustainable forest management.		Economic

C, A	CQ 14a	CM 4.a: Not supportive. The statement regarding 100-acre or larger conversion requires further explanation. Most people who read it assume that wood from conversion of tracts smaller than 100 acres would be accepted. We think this should be the intent. If FSC persists in attempting to prohibit the use of conversion wood (to non-forest use due to population growth) by large-scale wood-consuming mills in the eastern United States the chaos and confusion regarding FSC Controlled Wood programs in this region will continue and intensify. Our company is concerned with the direction of this situation. Population growth and potential conversion of forests to non-forest use is not driven by wood demand from forest products companies. The path you are on at this time doesn't seem likely to improve the situation. There seem to be three paths, depending on intent: 1. Clearly state a reasonable amount of conversion wood that is allowed in the FSC system; Outcome: This should work for some and perhaps most CW certificate holders, but you'll have some unhappy FSC stakeholders; or 2. State that no conversion wood is acceptable in the FSC system, and then create a system that quietly tolerates a considerable volume of conversion wood in FSC products (status quo); Outcome: This will result in continued erosion of the system's credibility; or 3. State that no conversion wood is acceptable, and then implement a system that is intended to drive conversion wood out, other than very small volumes that might enter the system unintentionally or through fraud; Outcome: This is also credible, but some major organizations will drop their FSC certification. It would be helpful to know sooner rather than later which of these three approaches FSC plans to take. CM 4.b: Supportive, depending on resolution of intended outcomes (path 1, 2, or 3) and on the timing of the meetings and quality and usefulness of the discussions and information made available. In framing the meetings an emphasis should be placed on an adaptive management approach, wherein any approach with at least some chance of being effective is included initially, pending results of effectiveness monitoring over time. The meetings will attract people who want to develop useful information and practical options only if potential meeting participants understand the goal is to advance conservation efforts and advance the practice of forestry, not to designate "no harvest" areas. CM 4.c: Supportive. Advance work is critical, including attracting collegial participants, providing useful advance materials, and having	Discuss with WG	Economic
C	CQ 14a	As stated in the main body of our comments, if urbanization is the strongest pressure for forest conversion, then it does not seem appropriate to include it as a specified risk that forestry sourcing standards can mitigate for. However, it is worth noting that a strong forest products market, and the ability to actively manage forests, in itself prevents conversion of forestland. If landowners view timberlands as profitable investment, and they do not find it too difficult to navigate regulations (and certifications), they will be more likely to replant a forest than convert the land to "higher and better uses". Mitigation measures including participation in pooled advocacy programs promoting wood and fiber markets such as the USDA check-offs would serve as a way to ensure participants are seeking to establish rewards for owning forests.	Incorporate ideas in mitigation discussion	Economic
C	CQ 14a	The consideration of control measures (preventing unacceptable sources from entering the supply chain) and mitigation measures that contribute to threat alleviation should be distinct. Realistically the application of control measures and/or mitigation actions by certificate holders is not going to have a significant impact on the threat to forests from conversion. Certificate holders can reasonably implement measures to prevent the mixing of conversion sources into mixed label certified content, but it is not reasonable to expect control wood to contribute substantively to threat alleviation from conversion.	Discuss with WG	Economic

C	CQ 14a	We do not have any suggestions for mitigation measures. As to the proposed control measures, we comment that the 100-acre threshold is not appropriate to include as a control measure. First, this is a mitigation measure, not a control measure, and if such a threshold is to be established as a mitigation measure, it should be the result of the regional meetings. Second, establishing such a threshold, of any size, is quite problematic from a practical implementation standpoint. Certificate holders will ultimately be forced to keep up with and document, on a site basis, that they are meeting the requirement. As we have commented numerous times for various public consultations in the past, this would introduce an extremely onerous administrative burden relative to an extremely small percentage of the wood that is sourced. Furthermore, we would be relying on the representation of suppliers and landowners. That will put us in the awkward position of, once the timber is removed, the landowner could change his mind and decide to convert the property, or to sell it to a developer. We, the certificate holder, then get called to task and have a complaint filed against us, and, if we don't have documentation that the landowner originally represented that he would not convert it, we risk being judged as not in compliance. We can't read landowners' minds nor predict the future.	Discuss with WG	Economic
C	CQ 14a	Not at this time, though note that although some activities may already be taking place, opportunities to augment or amplify those activities should not be disregarded given the scale of the issue.	Incorporate ideas in mitigation discussion	Environmental
A	CQ 14b	Yes, in both short and long-term.	n/a	Economic
C	CQ 14b	No, because the current criteria are un-manageable for forest products companies both in the short term and the long term: (i) in many instances, there is no way to know if wood is coming from home or business developments until well after the fact;(ii) forest industry lacks the expertise and resources to "police" development clearing, as this is well outside of their line of business. Furthermore, even to the extent that actions reduce risk of sourcing from areas of forest conversion, they will not materially affect the risk of forest conversion occurring for the reasons above. Instead, FSC will drive developers to use much less environmentally desirable practices such as burning the wood on site or taking it to a landfill, which is a social loss.	Discuss with WG	Economic
C	CQ 14b	Yes absolutely. The above measures are actually stating don't buy forest conversions! Maybe as opposed to the measure above; there could be a limit on how many acres of forest conversions under 100 acres could be purchased?	Discuss with WG	Economic
X	CQ 14b	Unknown		Economic
A	CQ 14b	The risk will be reduced. The extent of the reduction will depend on the intent; see comments above. Clarity is essential if credibility is desired.	n/a	Economic
A	CQ 14b	Yes, in the short-term and long-term.	n/a	Economic

C	CQ 14b	Nothing can reduce the risk without spot-checking suppliers	Incorporate ideas in mitigation discussion	Environmental
A	CQ 14b	The above actions will reduce risk of sourcing material from areas that are not considered “acceptable sources” of conversion.	n/a	Economic
X	CQ 14b	Unknown		Economic
C	CQ 14b	No.	Discuss with WG	Economic
R	CQ 14b	Enviva specific comment Nothing useful can be accomplished until the authors of the NRA recognize the true drivers of conversion. Drive by most any mountain top removal site, right of way construction, development, etc. If the timber cannot be sold it is burned. This is economic proof timber harvesting does not drive conversion. In the US, it will occur if the owners desire it, one way or another. Secondarily, an absolute ban on the use of wood from operations intended on clearing away forests for non-forest use will not stop the conversion. It is just a poor utilization of resource. The wood will just be piled and burned on site.	FSC is required to consider conversion that occurs, regardless of the driver, or CH's ability to influence the driver. And discuss CM with WG.	Economic
R	CQ 14b	Glatfelter will need to re-evaluate its continued participation in the FSC Chain of Custody and Controlled Wood program if the risk of sourcing conversion wood remains a specified risk in its wood supply area. A voluntary set of standards should not cause a certificate holder’s wood procurement costs to increase substantially in order to comply. This will also create a ripple effect down the supply chain when land clearers and tree trimmers are required to find other outlets for their wood (burning, landfill, etc.) resulting in poor utilization of this natural resource.	Discuss with WG	Economic
X	CQ 14b	Refer to answer above		Economic
C	CQ 14b	Some degree of forest conversion will always be taking place. I think the aim should not be to avoid materials from conversion – as this might be nearly impossible for some certificate holders, particularly secondary manufacturers – but rather to identify ways by which the rates of conversion can be held within acceptable levels. Over the long term, I do believe that policies can be put into place in the Pacific Coast region that would maintain an acceptable level of conversion, and additional support from wood products manufacturers would aid in this. As a stop-gap solution over the short-term, I believe further analysis of the nature of this issue is the only was to determine appropriate mitigation actions – if any are needed at all.	Incorporate ideas in mitigation discussion	Economic
X	CQ 14b	If forest product mills are unable to utilize this wood it will be piled and burned or landfilled.		Economic

C, R	CQ 14b	They would reduce the risk if stipulated in contract after we understand and reconcile a better approximation of conversion we seek to control. Believe deforestation, conversion lies outside of Columbia's ability to control at the scale FSC has traditionally operated at for previous risk assessment activity.	Incorporate ideas in mitigation discussion	Economic
X	CQ 14b	No. See notes above.		Economic
A	CQ 14b	Yes in the long-term. Not in the short-term.	n/a	Social
X	CQ 14b	If forest product mills are unable to utilize wood from conversion wood, it will be piled and burned or landfilled. This would not stop conversion and wood fiber would be wasted.		Economic
A	CQ 14b	The risk will be reduced. The extent of the reduction will depend on the intent; see comments above. Clarity is essential if credibility is desired.	n/a	Economic
C	CQ 14b	In the short term, the above actions would not reduce the risk of material coming from areas of forest conversion but would rather encourage consumers to use more locally sourced wood and fiber products to support the value of forest ownership and management. In the long term, the consistent revenue provided by these markets would indirectly spur the conservation of forestland and help slow the progress of forest conversion to other uses. Nothing will stop the urbanization and communities are free to shape their own destiny.	Incorporate ideas in mitigation discussion	Economic
A	CQ 14b	Control measures can reduce the risk of sourcing from conversion sources. Not likely to alleviate threats to forests from conversion.	n/a	Economic
R	CQ 14b	Conversion is not driven by our industry; we have no control over it and cannot stop it. Nothing has changed materially in the requirements under 40-005 V2-1 to V3-1. FSC-US in the NRA should recognize and affirm how this issue has been treated in the past. Forestland is very stable in the US. There are significant unintended adverse social, environmental, and economic consequences of not accepting wood from conversion sources, for example, material is piled and burned or goes into landfills. This constitutes a de minimis amount of the total wood sourced and utilized by the forest products industry. Therefore, low risk for conversion is designated, and the de minimis amount sourced from conversion is acceptable.	FSC is required to consider conversion that occurs, regardless of the driver, or CH's ability to influence the driver. And discuss CM with WG.	Economic
C	CQ 14b	Yes, this is a large-scale problem that requires building an active forest constituency and over time can have very positive effects by joining existing momentum to maintain US forests. It is also a threat driven by factors outside the forest sector, and these control measures will likely not stop this trend in the short term but can ideally inform and engage stakeholders for avoiding converted material and mobilizing changes for longer term impact..	Discuss with WG	Environmental

I	CQ 14c	We believe that regional research scientists that are experts in forestry should be consulted on all aspects related to this NRA. Research scientists are a neutral party that have a reputation at stake when consulting on these matters and can make sure the existing science is considered in all deliberations.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Certificate holders, major TIMOs and REITs, scientific experts.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Urban planners; NGOs; conservation groups are a key; local and state government officials;	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	USFS FIA personnel.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	The Standards Unit of FSC International should be represented. Ultimately this group is deciding the fate of FSC's program in the U.S. They should be present so that they can clearly understand the situation before making their decision.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Controlled Wood stakeholders, state Forestry Associations, American Tree Farm System state committees, State Foresters, Forest Landowner Associations, Forestry Consultants, Logging Professionals/Associations, and private landowners will all be impacted by decisions from these meetings. Recruiting significant representation from the small and medium-sized companies who will be implementing the NRA and Control Measures is essential for the success of this program. This will be challenging to recruit their input and participation due to their lack of resources and added complexity of these topics. However, consensus from this group of practitioners may be the single best way to be successful.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Include more research scientists. A strong effort should be made to recruit and include, a significant amount of time prior to the meetings, local and regional university academics or other professional researchers (Census Bureau, USGS, etc.) to provide insight into the actual science of any given situation. The regional meetings will be more successful if science can be brought back to the forefront of the conversation and drives the decision-making process.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic

I	CQ 14c	State level foresters	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Environmental
I	CQ 14c	Non-certified small landowners. Government representatives from urban areas.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Research scientists. Strong effort should be made to recruit and include, a significant amount of time prior to the meetings, local and regional university academics or other professional researchers (Census Bureau, USGS, etc.) to provide insight into the actual science (or lack of, if that is the case) of any given situation. We have a mild concern, solely based on the lack of specificity in specific areas of the draft document, that the CW NRA has devolved into a political horse trade (I'll give you low risk here, if you give me specified risk there) rather than an actual review of all available research on the five indicators. If that is in fact the case, then the regional meetings will not be successful unless science is brought back to the forefront of the conversation, and drives the decision making process.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Research scientists. Strong effort should be made to recruit and include, a significant amount of time prior to the meetings, local and regional university academics or other professional researchers (Census Bureau, USGS, etc.) to provide insight into the actual science (or lack of, if that is the case) of any given situation. We have a mild concern, solely based on the lack of specificity in specific areas of the draft document, that the CW NRA has devolved into a political horse trade (I'll give you low risk here, if you give me specified risk there) rather than an actual review of all available research on the five indicators. If that is in fact the case, then the regional meetings will not be successful unless science is brought back to the forefront of the conversation, and drives the decision making process.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Forest landowner associations, university extension faculty/staff, need to continually stress they do not have to be an FSC certificate holder to be impacted by the FSC CW RA	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Participation by large forest products industry groups such as the WWPA as their constituent companies may benefit by understanding the concept of CW and selling it to secondary manufacturers like ourselves	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	I would suggest the regional/local chambers of commerce in the areas that you deem high risk. Perhaps a look at the regional development planning process will alleviate some of the concern that this is done without forethought.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic

I	CQ 14c	Enviva specific comment State Forestry Commissions, State Forestry Associations, NCASI, National Association of State Foresters, Southern Group of State Foresters, The Nature Conservancy	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Stakeholders would include Controlled Wood certificate holders, landowners, members of SFI and American Tree Farm state committees and state foresters. Whether or not these groups have available resources to participate in the process puts them at a disadvantage.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Landowners, Certificate Holders (both current and former), professionals within the forestry industry (e.g. foresters, wood dealers, consultants), forest product facilities that are not certificate holders (considered secondary and tertiary suppliers) that are directly affected by these policies and designations.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Representatives from local municipal government or regional planning committees should also be invited/encouraged to attend, as they might be best positioned to speak towards the threats assessment for Category 4 in the Southeast and Pacific Coast regions Large landowners who might be FSC certificate holders, but not necessarily manufacturers, should definitely be invited/encouraged to attend.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Controlled Wood stakeholders, members of the state Sustainable Forest Initiative committees, members of the American Tree Farm System state committees, State foresters, and landowners are likely to be affected by decisions from these meetings.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Controlled Wood stakeholders, members of the state Sustainable Forest Initiative committees, members of the American Tree Farm System state committees, State foresters, and landowners are likely to be impacted by decisions from these meetings.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Population specialists, urban growth planners…seems to me concentrations in urban areas with a generally aging population are going to trend higher, leaving rural areas more and more empty, devoid of pressures to deforest, aside from food. Climate change, food, entomologists with specialization in tree disease. Dendrologists specialized in effect of climate change on forested landscape. Climate change likely to be responsible for more forest cover loss over time…does this mean we switch to green power to address the forest cover issue? Gets pretty disconnected in terms of cause and effect but arguably does have a basis in science.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Yes (repeated from Cat. 3). Recruiting significant representation from the small and mediumsized companies who will be implementing the NRA and CM's is essential for the success of this program. This will be challenging to achieve and maintain, but consensus from this group of practitioners may be the single best way to be successful.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic

I	CQ 14c	Land use planners from local government to explain the process of zone conversion, temporal land use changes, and demonstrate types of evidence that are readily accessible to organizations and therefore certification bodies to demonstrate conformance.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Controlled Wood stakeholders, members of the state Sustainable Forest Initiative committees, State forestry and landowner associations, members of the American Tree Farm System state committees, State foresters, and landowners are likely to be impacted by decisions from these meetings.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	The Standards Unit of FSC International should be represented. Ultimately this group is deciding the fate of FSC's program in the U.S. They should be present so that they can clearly understand the situation before making their decision.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Dr. Bob Kellison - bobkellison6@gmail.com Dr. Mike Aust - waust@vt.edu (See details in Q. 11 above)	Contact these individuals	Economic
I	CQ 14c	Obviously, all CW certificate holders, which is mainly made up of wood products manufacturers that source virgin wood directly. Additionally, from economic stakeholders, there should be representation from forestland owners, such as American Forest Foundation (AFF), state forestry associations, state forestry agencies, and the Nation Organization for Forestland Owners (NAFO), along with NAFO member organizations.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Economic
I	CQ 14c	Potentially those involved in the Keeping Forests As Forests initiative. Depends on region.	Identify these kinds of participants, and attempt to engage in the regional meeting process.	Environmental
A	CQ 15a	B. Yes, with minor adjustments	n/a	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
A	CQ 15a	Yes, with minor adjustments	n/a	Economic
A	CQ 15a	Yes, with minor adjustments	n/a	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic

R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
A	CQ 15a	Yes, with additional supporting research	n/a	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
A	CQ 15a	Yes, with minor adjustments	n/a	Environmental
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
A	CQ 15a	Yes, with additional supporting research	n/a	Economic
A	CQ 15a	Yes, with minor adjustments	n/a	Economic
A	CQ 15a	Yes, with additional supporting research	n/a	Economic
A	CQ 15a	Yes, with minor adjustments	n/a	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
A,R	CQ 15a	Yes, with minor adjustments No, major changes are needed	Discuss with WG	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic

R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
A	CQ 15a	Yes, with minor adjustments	n/a	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
A	CQ 15a	Yes, with minor adjustments	n/a	Economic
A	CQ 15a	Yes, with minor adjustments	n/a	Economic
A	CQ 15a	Yes, with minor adjustments	n/a	Economic
A	CQ 15a	Yes, with minor adjustments	n/a	Economic
A	CQ 15a	Yes, with minor adjustments	n/a	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Environmental
A	CQ 15a	Yes, with adjustments	n/a	Social
R	CQ 15a	No, changes are needed	Discuss with WG	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Environmental
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic
R	CQ 15a	No, major changes are needed	Discuss with WG	Economic

A	CQ 15a	Yes, with minor adjustments	n/a	Environmental
R	CQ 15b	While we recognize that putting together this research was a heavy lift for those involved, we believe there is still work to be done to narrow in on the areas of specified risk with more specific research. This document will ultimately decide whether manufacturers of wood products can continue to be part of the CW program, and making sure this NRA is complete with the most up-to-date, complete, and defendable science is of utmost importance.	Discuss with WG	Economic
R	CQ 15b	Old growth risk needs significant improvement. Including all public forest lands that are not protected is not an acceptable classification. Conversion risk should not be set at statewide levels. It isn't believable. High conversion areas were excluded and low risk areas were included.	Discuss with WG	Economic
X	CQ 15b	See comments above		Economic
R, C	CQ 15b	They are noted above: 1) In the interim between adoption of the NRA and the collation of regional meeting data (for additional control measures) what can companies do still believe they can safely source in areas of specified risk in addition to the prescribed measures? 2) I would strongly suggest an alternative 3rd control measure to those prescribed in the regional meetings that provides equal or greater protection than those other measures and is approved by either the CB or FSC-US. Providing additional flexibility in the early stages will provide companies that source CW a better level of confidence that they can maintain their supply chain (this may also provide opportunities to see creative methods not thought of in the group meeting). 3) Probably need more work to refine the conversion specified risk area. It seems a bit ridiculous to lock down the entire Pacific Coast as specified risk. There must be some data to better assess this. 4) If the control measures sharing of information applies to providing that information to log buyers and mills sourcing controlled material I'm ok with it. I don't think it adds anything to log sellers – who are typically going to find the most optimal method for selling their logs or managing their property in the way they want to. I would suggest limiting the information/education campaign to log buyers and mills selling lumber or logs – this is where it will make the most impact.	Discuss with WG	Economic
R	CQ 15b	Further refinement is needed especially broadening the research scope beyond the reliance on NatureServe.	Discuss with WG	Economic
R	CQ 15b	Risk designations for HCV 4 should be changed to reflect a finer-grained assessment of population growth. Risk designations for Cove Hardwoods should be reassessed. Risk designations for Late-seral Bottomland Hardwoods should be reassessed.	Discuss with WG	Economic
R	CQ 15b	Risk designations would have a firmer scientific basis if comments and recommendations were adopted as presented here.	Discuss with WG	Economic

R	CQ 15b	We recognize and appreciate the amount of effort that many volunteers devoted to creating the 2nd draft NRA. The work completed is a good base from which to build a full-fledged research document, one that is able to support the conclusions contained within the NRA. For this to successfully happen for the NRA, a critical resource for the entire U.S., there really needs to be a significantly deeper exploration of the existing research in all of the categories noted.	Discuss with WG	Economic
X	CQ 15b	NCASI suggests that risk designations would have a firmer scientific basis if comments and recommendations herein were adopted.		Economic
X	CQ 15b	Described in detail in the sections above		Environmental
R	CQ 15b	Conversion should not be identified at a state level. The states with specified risk have many areas that are not at risk for conversion, and it seems unreasonable to implement mitigation in areas where there is clearly no threat. Species that have not been seen in decades should not be included as a risk needing mitigation. Consider adding a timeframe that species must have a confirmed sighting in order to be included as a specified risk.	Discuss with WG	Economic
R	CQ 15b	We fully recognize and thank the volunteers who undoubtedly have put many hours into creating the 2nd draft NRA. The work that has been done is an excellent base from which to build a full-fledged research document that supports the conclusions within. However, the current level of included research simply does not do that. For such a key document, one that will have far reaching and long term consequences for the entire US certification industry, there really needs to be a significantly deeper dive into the research that exists out there.	Discuss with WG	Economic
R	CQ 15b	We believe the FSC Pacific Coast Region should be broken into multiple smaller ecoregions. Once that happens, the risk designations proposed in the Draft 2-0 Controlled Wood National Risk Assessment should be assigned to those ecoregions as appropriate. We do not agree that “lack of managing younger forests with a goal of creating old growth” represents a risk to existing old growth forests. We also do not agree with the assertions that all wood sourced from public lands in the Pacific Northwest represents a specified risk to old growth forests and that no wood from private lands in the pacific northwest represents a specified risk to old growth forests. Instead of using public ownership as a threshold, a more accurate indicator for assessing risk across the landscape is whether the lands in question are managed using an HCP, SHA, or other legally binding agreement that supports the protection, enhancement, and/or development of old growth forests.	Discuss with WG	Economic

R	CQ 15b	We fully recognize and thank the volunteers who undoubtedly have put many hours into creating the 2nd draft NRA. The work that has been done is an excellent base from which to build a full-fledged research document that supports the conclusions within. However, the current level of included research simply does not do that. For such a key document, one that will have far reaching and long term consequences for the entire US certification industry, there really needs to be a significantly deeper dive into the research that exists out there.	Discuss with WG	Economic
R	CQ 15b	Question if urbanization is the main driver of deforestation and most of that material is not entering the forest industry (disposed on site), why high risk? My understanding of the material is disposed on site is completely anecdotal and I have no studies/evidence to back it up. No issues with category 1, 2, or 5. In general, minor problems with 3 or 4.	Discuss with WG	Economic
R	CQ 15b	The risk designations are at too large of areas to be effective…they need to be moved down to the county level. The Category 4 Conversion use of a proxy of urbanization to declare the entire West Coast Region as specific risk is dangerous and wholly unfair. It is not science based but merely a proxy methodology stating that urbanization is causing conversion. The cause and effect is not remotely that simple for conversion. Additionally I believe it will be nearly impossible to mitigate a risk as vague as urbanization causing conversion.	Discuss with WG	Economic
R	CQ 15b	The areas for HCVs need to be definitively and clearly mapped. As they currently stand, they are not usable. Species lists should be limited to G1 and G2 speices with already accepted conservation measures. Conversion should be limited if at all.	Discuss with WG	Economic
X	CQ 15b	Enviva supported NCASI comment NCASI suggests that risk designations would have a firmer scientific basis if comments and recommendations herein were adopted.		Economic
R	CQ 15b	Glatfelter recommends accepting the comments and recommendations provided by NCASI.	Discuss with WG	Economic
X	CQ 15b	Risk designations would have a firmer scientific basis if comments and recommendations herein were adopted.		Economic

R	CQ 15b	As mentioned in the above sections, the processes, data, and rationale used to make risk designations have systemic issues. In particular FSC US needs to re-evaluate the risk designations as it pertains to HCV1: Species Diversity and HCV3: Rare Ecosystems. Please refer to our responses to questions 4 and 6 for detailed explanations and suggestions of what specific changes that we feel are needed. Including but not limited to: - Re-evaluating methods for delineating CBAs - Incorporation of additional experts from stakeholders and organizations that have been disregarded. - Re-evaluation of BMP implementation into various risk designations based on the high implementation rates and the effectiveness of BMPs at protecting water quality. - Removal of Specified Risk to Mississippi Alluvial region based on designation of Ivory Billed Woodpecker as a Priority Species - Re-evaluation of Mesophytic Cove Sites, Late Successional Bottomland Hardwoods, and Native Longleaf Pine Ecosystems based on information provided.	Look for suggestions for additional stakeholders and organizations and contact them.	Economic
R	CQ 15b	I believe there needs to be further review of the specified risks associated with HCV 3, and Category 4	Discuss with WG	Economic
R	CQ 15b	AF&PA recommends accepting the recommendations of NCASI> Conversion should be designated as low risk, and FSC-US should reconsider designations made in HCV1 and HCV3 based on comments from NCASI.	Discuss with WG	Economic
R	CQ 15b	AFRC recommends accepting the recommendations of NCASI.		Economic
R	CQ 15b	1. If the NRA is going to use population growth and urbanization as the criteria to determine risk of conversion, this risk should be identified on a county level rather than a wide spread regional level. This would hold true for both the Pacific Coast and the Southeast Coast. 2. The NRA presents no hard data demonstrating that Mesophytic Cove sites are at real risk of conversion or invasive species. In fact, the NRA has labeled the Appalachian region as low risk for conversion so it seems contradictory that these coves that are located in the same region would be at risk.	Consider finer scale specified risk; review Mesophyic cove evidence.	Economic
R, C	CQ 15b	The ivory Billed Woodpecker being listed does not make sense as communicating to suppliers on this will not have an outcome. Communications on bottomland hardwoods should be sufficient.	Consider additional criteria that would filter out species not documented in 20+ years, discuss LSBH CM with WG	Economic
A,R	CQ 15b	Category 1, 2, & 5: appropriate and not controversial. Category 3: Conclusion for HCV3 in the west is ill-conceived and unnecessary. Category 4: Conclusion is reasonable and well documented. Consequence is poorly aligned with FSC objectives and unlikely to result in positive results.	Discuss with WG	Economic

A,R, I	CQ 15b	We support the risk designations presented. However, justifications for low risk for Category 2 Freedom of Association & Collective Bargaining (pp.72) are week. Being part of ILO doesn't mean that there is low risk. The ITUC 2017 report highlights systemic violation of rights.	Consider ITUC report, and then review/revise as appropriate.	Economic
R	CQ 15b	Risk designations for HCV at the coarse/regional level may not take into enough consideration the local or state level legislation that are currently providing protection, particularly in the western regions. The impact of these regulations could potentially change the risk designation to low or otherwise for specific species.	Identify and consider state and local legislation when possible	Economic
R	CQ 15b	major changes are still needed within Category 3, per the above	Discuss with WG	Environmental
X, R	CQ 15b	Thank you for all the work that has gone into the CW NRA. I know it has been considerable. I believe a few adjustments are critical. If any room exists for modification to these elements: The threshold for conversation needs to be .05. As a system we have, no impact on non-forest caused issued. The NRA and mitigation steps need to look at only forest caused issued. Old growth should not be flagged as specified risk in WA, OR, and CA. Of all three of these, Oregon specifically has seen increases in old growth conditions based on the USFS research station northwest forest plan monitoring.	Threshold is out of scope - defined in the normative procedure. Required to consider all conversion, regardless of driver. Revisit OG risk designation.	Social
R	CQ 15b	Areas of specified risk may be more appropriately assessed at smaller scale. Example – the entire state of PA is identified as a Mesophytic Cove Site on the HCV #3 map, while only small, select areas of the state fit the formal definition.	Discuss with WG	Economic
R, I	CQ 15b	Below is a summary of significant areas of change. • Accept NCASI statistical analysis of conversion rates and change category 4 conversions to low risk • Change west coast Category 3 HCV-1 to low risk due to state forest practice acts in effect	Discuss conversion with WG. Look into Forest Practice Acts & HCV 1 implications	Economic
R, X	CQ 15b	HCVFs are either too narrowly defined (linked to individual species), or too vague (open ended definition of Old Growth). The fact that Alaska has been excluded from the NRA will have significant impact on Cert Holders throughout the Pacific Northwest, and their customers.	Move to finer scale risk desigantions when possible; review/revise rationale for risk designations; note that the scope of the NRA was aligned with the FM standard so that the existing HCV framework could be used	Economic
R	CQ 15b	As described above, we feel it is important to consider State and Federal RTE species, particularly in the West where numerous forest-dependent species are at risk, and where Pacific salmonids could be used as an indicator species.	Discuss with WG	Environmental

R	CQ 15b	Risk designations for HCV 4 should be changed to reflect a finer-grained assessment of population growth. Risk designations for Cove Hardwoods should be reassessed. Risk designations for Late-seral Bottomland Hardwoods should be reassessed.	Discuss with WG	Economic
X	CQ 15b	Please see our detailed comments. We believe that there does need to be some material adjustment to several of the proposed HCVs. As they stand now it may be difficult to develop mitigation measures (i.e. if the risks are perceived rather than real).		Economic
R	CQ 15b	The standardized NRA with supporting tools is a valuable approach to certificate holders and the credibility of the standard. Improvements and refinements through time will continue to improve the utility of the NRA. Changes that are critical before implementation are those related HCVs/CBAs – definition of the HCV and validation of threats from forestry.	Revisit CBA with previous comments and provide better clarity on identificaiton of CBA.	Economic
R	CQ 15b	See various comments above. 1. Conversion should be designated low risk for entire US. 2. HCV 1 and HCV 3 risk designations and area delineations should be re-evaluated per comments above.	Discuss conversion with WG. Review previous comments.	Economic
R	CQ 15b	The roadless areas designation requires thorough consultation with relevant experts in every region and those experts included in the public NRA 'experts consulted' list. The HCV individual species designations, because dependent on a data source with its limitations, should be considered in conjunction with expert opinion.	Clarify the experts in regions who were consulted on roadless. Assess species with weaker rationale/evidence and do additional consultation as needed.	Environmental
A	CQ 16a	B. Yes, with minor adjustments	n/a	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic

A	CQ 16a	Yes, with caveats	n/a	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Environmental
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
A	CQ 16a	Yes, with caveats	n/a	Economic
A	CQ 16a	Yes, completely	n/a	Economic
A	CQ 16a	Yes, with caveats	n/a	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic

A	CQ 16a	Yes, with minor adjustments	n/a	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Environmental
C	CQ 16a	No, major changes are needed	Discuss with WG	Social
C	CQ 16a	No, changes are needed	Discuss with WG	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Economic
C	CQ 16a	No, major changes are needed	Discuss with WG	Environmental
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Economic
A	CQ 16a	Yes, with minor adjustments	n/a	Environmental
C	CQ 16b	When reading the control measures, we are not able to determine what the result will be of implementation because of what we read as vague language.	Discuss with WG	Economic
C	CQ 16b	Avoidance language should be removed.	Discuss with WG	Economic

X	CQ 16b	See comments above		Economic
C	CQ 16b	They are noted above: 1) In the interim between adoption of the NRA and the collation of regional meeting data (for additional control measures) what can companies do still believe they can safely source in areas of specified risk in addition to the prescribed measures? 2) I would strongly suggest an alternative 3rd control measure to those prescribed in the regional meetings that provides equal or greater protection than those other measures and is approved by either the CB or FSC-US. Providing additional flexibility in the early stages will provide companies that source CW a better level of confidence that they can maintain their supply chain (this may also provide opportunities to see creative methods not thought of in the group meeting).	1) N/A - interim period no longer will occur; 2) discuss an alternative CM with the WG	Economic
C	CQ 16b	The FSC GA suffers from an approach that relies on a single meeting once every three years without a proper and thorough vetting of motions months before the meeting and providing the details of the vetted motions with an adequate lead-time. My concern is that the Regional Meetings will suffer the same fate. Chamber disputes will devolve into an immediate fallback to the contingency. Better to have a small group (as in the contingency) to do focused work prior to the meeting and be able to present mitigation options rather than trying to create mitigation options solely at the meetings. Also in the East another meeting in the NE is warranted as most NE mills draw wood from Appalachia and parts of the SE and they did not attend the Lexington meeting. Only one mill made it to Atlanta.	Provide for engagement on mitigation opions in advance of meetings; note that for the proposed process to work, it is not poosible to have more than one meeting for a region	Economic
C	CQ 16b	The 3-step structure is reasonable. The regional stakeholder meetings should be structured for success, based on an understanding by the participants of the adaptive management approach: develop flexible mitigation options, test them, evaluate, review and adjust in 3 to 5 years.	Communicate that the NRA and mitigation options will be reivewed and considered periodically in light of new information	Economic
X	CQ 16b	See comments submitted in question 6.		Economic
A,C	CQ 16b	We support the control measures with the caveat that the control measures, as described, are imprecise to the point that there is currently no estimating what may come out of their implementation.	Discuss with WG	Economic

X	CQ 16b	Described in detail in the sections above		Environmental
A, X	CQ 16b	The control measures are likely supportable, but without knowing the extent of the mitigation measures, I do not have complete information to answer.		Economic
A,C	CQ 16b	We support the control measures with the caveat that the control measures as described are so imprecise an instrument that there is simply no estimating what may come out of their implementation. They very much appear to be a "kick the can down the road" response to approaching deadlines, in the hope that something will end up working out at the end. As long as everyone is cognizant of that going in, then the process itself is satisfactory.	Discuss with WG	Economic
A,C	CQ 16b	We support the control measures with the caveat that the control measures as described are so imprecise an instrument that there is simply no estimating what may come out of their implementation. They very much appear to be a "kick the can down the road" response to approaching deadlines, in the hope that something will end up working out at the end. As long as everyone is cognizant of that going in, then the process itself is satisfactory.	Discuss with WG	Economic
R,C	CQ 16b	Further discussion and details for old-growth on public lands in the west; open mind/consensus building required for regional meeting not just the contingency group	Revisit the OG assessment; communicate expectations of participations for regional meetings	Economic
C	CQ 16b	I cannot support these control measures. As a certificate holder I need to know whether I'm going to be responsible for the development of educational materials. Creating educational material on our own would be highly costly and not likely to have any impact on improving conversation values. I would want to see more mitigation options, specifically options that are not going to be costly or excessively time consuming to implement.	Discuss with WG	Economic
C	CQ 16b	Statements of avoidance cannot be required of companies. My only concern with the rest of the control measure is the possibility for a constant ratcheting up of requirements rendering the system unusable.	Discuss with WG	Economic
R	CQ 16b	Enviva specific comment Not with the current version of the NRA. Given the current condition of the NRA draft the process may be cumbersome. Once some resolution is met to reduce the size of some of the CBA's, address various errors in fact and incorrect interpretation of certain definitions.	Discuss with WG and review assessments	Economic
C	CQ 16b	Glatfelter recommends accepting the comments and recommendations provided by NCASI.	Discuss with WG	Economic
C	CQ 16b	Mandating attendance at or adherence to FSC Controlled Wood Regional Meetings is not appropriate. Risks can be controlled by a variety of means once risks are identified. Requiring participation in one type of control measure is exclusive whereas adoption of the need to implement control measures would be enhanced if an inclusive approach were taken	Do not mandate attendance at meetings, provide an alternative; discuss CM with WG	Economic

C	CQ 16b	Details of implementation need to be clarified.	Discuss with WG	Economic
C	CQ 16b	Control measures are unactionable at present. Certificate holders need to know prior to adoption of the NRA, whether or not they will be responsible for development of educational materials. A fourth control measure that is immediately actionable, and the option to choose a subset of actions, would be desirable. With so much being left up to the outcomes of the Regional Meetings, certificate holders need to know that they have options.	N/A - associated requirement for educational materials removed; Discuss alternate CM with WG	Economic
C	CQ 16b	AF&PA recommends accepting the recommendations of NCASI.	Discuss with WG	Economic
C	CQ 16b	AFRC recommends accepting the recommendations of NCASI.	Discuss with WG	Economic
C	CQ 16b	Present definitions are too broad as indicated in Appalachia with respect to Mesophytic Cove site conversion, need to isolate to mountain counties where these sites occur.	Improve the Mesophytic cove site definition; discuss elevation refinement with WG	Economic
X	CQ 16b	See notes regarding HCV3 in questions 6 & 15 above.		Economic
C	CQ 16b	Regarding CM 3.b.i. how will CBs assess whether Certificate Holder (CH) representatives adequately participated in learning sessions and collaborative dialogues? Is attendance an adequate measure of participation e.g. sign-in sheet as evidence? Regarding CM 3.b.ii. similar to above, how will CBs confirm CH understanding? Will CBs need to effectively develop a quiz? Regarding CM 3.c. is implementation of any one mitigation action adequate to demonstrate conformance? One per designated risk? A guidance document for CBs should be created to aid in consistent evaluation of control measures. Is it possible that CHs could be incentivized to choose the one mitigation action that's less onerous than others, and then become locked in a disagreement with their CB over whether they chose the most effective measure? Or is 'most effective' even an appropriate filter, as opposed to adequately effective? Will some CHs be more successful than others at presenting their rationale for adopting a less onerous measure than other CHs? Seems like opportunity for ambiguity and inconsistent implementation/interpretation between CHs and CBs. Ultimately, it's difficult to envision how this will work without also seeing the mitigation actions. CM 3.b should be removed. The ratio of level of effort versus results of this CM is drastic. It will be expensive in resources for FSC US and not desired by CHs. It will slightly complexify the audit process as well. Also, the efficiency assessment of CMs will be substantially heavy on FSC US resources.	Work on auditability of the CM with the WG	Economic
X	CQ 16b	No comment until regional meetings are underway.		Economic
X	CQ 16b	significant changes are needed, per the above		Environmental
R	CQ 16b	HCV 3 should be low risk in OR, WA, and CA. Research done by USFS based on the northwest forest plan shows improvement and increased recruitment of old trees. Additionally, the majority of attrition found in the studies is caused from fire disturbance not harvest.	Additional assessment for NWFP protections and threats from fire vs forest management	Social

R,C	CQ 16b	It is unclear whether the Regional Meeting approach will be a successful tool for the adoption of approved risk mitigation options. Proposed control measures call for CH's to share educational materials with procurement and suppliers. For this to be effective, FSC will need to be very proactive in terms of developing and supplying educational materials and outreach tools for CH's. A great deal of confusion has arisen in the area of HCVF identification over the last 2 years in anticipation of the US CW NRA release. There are numerous maps in circulation at this time, incorrectly identifying HCVF areas based on the "example" maps that are referenced in the current version of the FSC CW standard. And using the a regional scale rather than site specific to identify areas of specified risk on these maps (examples and the proposed final NRA) has lead to the belief that entire areas of states or regions should be considered "no buy zones", or overarching areas to avoid.	Discuss with WG	Economic
R	CQ 16b	Change west coast Category 3 HCV-1 to low risk due to state forest practice acts in effect	Discuss with WG	Economic
C	CQ 16b	There needs to be clarity on what the end Control Measures are going to be, and transparency on how that process will work. At present, the details are buried and there is little clarity on how the process is envisioned to work.	Provide additional information about the regional meeting process in advance of the meetings	Economic
X	CQ 16b	Same comment as above		Environmental
A,C	CQ 16b	The 3-step structure is reasonable. The regional stakeholder meetings should be structured for success, based on an understanding by the participants of the adaptive management approach: develop flexible mitigation options, test them, evaluate, review and adjust in 3 to 5 years.	Contract with a professional facilitator to ensure effective decision-making	Economic
C	CQ 16b	The Control Measures seem appropriate as long as scientifically based mitigation measures are developed and are realistic to implement. Participation of a diverse stakeholder group will not necessarily result in mitigation measures which are scientifically sound or which are reasonably implemented. While FSC's NRA and associated mitigation measures may be a genuine effort to effect conservation on the landscape, there is danger in being too prescriptive. FSC should not underestimate the ability of certificate holders to develop their own site/supply base specific mitigation measures. Professional biologists and foresters can and do develop very effective conservation measures, often in concert with state and federal biologists. This direct interaction and collaboration should not be undervalued. Although it is very likely that effective and reasonable mitigation measures will be developed in the Regional Controlled Wood Meetings, FSC should be sensitive and receptive to the capabilities of certificate holders to develop their own mitigation measures (currently still allowable in the FSC CW Standard).	Discuss with WG	Economic
A	CQ 16b	We support them tentatively, as there is still a significant unknown relative to the proposed regional meetings and whether the resulting mitigation measures are realistic, meaningful, and practical.	n/a	Economic
X	CQ 16b	B, see Question 15.		Environmental
A	CQ 17a	B. Yes, with minor adjustments	n/a	Economic
A	CQ 17a	Yes, completely	n/a	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
A	CQ 17a	Yes, with minor adjustments	n/a	Economic

A	CQ 17a	Yes, with minor adjustments	n/a	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
A	CQ 17a	Yes, with caveats	n/a	Economic
A	CQ 17a	Yes, with minor adjustments	n/a	Environmental
A	CQ 17a	Yes, with minor adjustments	n/a	Economic
A	CQ 17a	Yes, with caveats	n/a	Economic
A	CQ 17a	Yes, completely	n/a	Economic
A	CQ 17a	Yes, with caveats	n/a	Economic
A	CQ 17a	Yes, with minor adjustments	n/a	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic

C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
C	CQ 17a	Yes, with minor adjustments	Discuss with WG	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
C	CQ 17a	Yes, with major adjustments	Discuss with WG	Social
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
A	CQ 17a	Yes, with minor adjustments	n/a	Economic
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
Z	CQ 17a	Yes, completely		Environmental
C	CQ 17a	No, major changes are needed	Discuss with WG	Economic
C	CQ 17b	Same comment as above. We are not sure what the result will be of implementation because the language seems imprecise and vague.	Discuss with WG	Economic
X	CQ 17b	See comments above		Economic

C	CQ 17b	1) In the interim between adoption of the NRA and the collation of regional meeting data (for additional control measures) what can companies do still believe they can safely source in areas of specified risk in addition to the prescribed measures? 2) I would strongly suggest an alternative 3rd control measure to those prescribed in the regional meetings that provides equal or greater protection than those other measures and is approved by either the CB or FSC-US. Providing additional flexibility in the early stages will provide companies that source CW a better level of confidence that they can maintain their supply chain (this may also provide opportunities to see creative methods not thought of in the group meeting). 3) Probably need more work to refine the conversion specified risk area. It seems a bit ridiculous to lock down the entire Pacific Coast as specified risk. There must be some data to better assess this. 4) If the control measures sharing of information applies to providing that information to log buyers and mills sourcing controlled material I'm ok with it. I don't think it adds anything to log sellers – who are typically going to find the most optimal method for selling their logs or managing their property in the way they want to. I would suggest limiting the information/education campaign to log buyers and mills selling lumber or logs – this is where it will make the most impact.	N/A - the interim period no longer exists, as the NRA will be approved at about the same time as the mitigation options are available; Discuss an alternative CM, specified risk area and ed materials CM with the WG	Economic
X	CQ 17b	See above		Economic
C	CQ 17b	Clarity of purpose is needed before I can accept the approach to control measures. Can Conversion Wood be openly allowed into the system? If not, per the current official stated policy, do you want to continue the current system of telling suppliers that it isn't allowed and then tolerating a system where anyone who cares to find out can know that it is in fact in the supply chain? I call this "Tell, but don't know." CM 4.a: The statement regarding the 100 acres works well if you want to have a system of "Tell, but don't know". As written, if I was asked the obvious follow up question: "Sir, can we allow conversion wood from less than 100-acre projects?" I'd have to answer: "Yes, provided you can demonstrate plausible ignorance." Clearly I do not like this approach. I prefer allowing conversion wood from planned development in all cases. I could understand if conversion of forest to farmland was not allowed, but this raises issues of how to know. CM 4.b: The meetings are pointless without clarity regarding purpose. CM 4.c: Mitigation measures can't be developed without clarity regarding purpose.	Discuss with WG	Economic
C	CQ 17b	See comments submitted in question 7. The required statement in CM 4a is illogical and unnecessary. The premise that big clearings cause more forest loss than small clearings is unsupported and suspicious. Circulating such unsupported declaratory statements is likely to undermine, rather than support, more broad based education efforts.	Discuss with WG	Economic
A,C	CQ 17b	We support the control measures with the caveat that the control measures, as described, are imprecise to the point that there is currently no estimating what may come out of their implementation.	Discuss with WG	Economic

X	CQ 17b	Described in detail in the sections above		Environmental
X	CQ 17b	The control measures are likely supportable, but without knowing the extent of the mitigation measures, I do not have complete information to answer.		Economic
A,C	CQ 17b	We support the control measures with the caveat that the control measures as described are so imprecise an instrument that there is simply no estimating what may come out of their implementation. They very much appear to be a "kick the can down the road" response to approaching deadlines, in the hope that something will end up working out at the end. As long as everyone is cognizant of that going in, then the process itself is satisfactory.	Discuss with WG	Economic
A,C	CQ 17b	We support the control measures with the caveat that the control measures as described are so imprecise an instrument that there is simply no estimating what may come out of their implementation. They very much appear to be a "kick the can down the road" response to approaching deadlines, in the hope that something will end up working out at the end. As long as everyone is cognizant of that going in, then the process itself is satisfactory.	Discuss with WG	Economic
C	CQ 17b	Conversion analysis changed to census tract level and not state; open mind/consensus building required for regional meeting not just the contingency group	Discuss with WG	Economic
X	CQ 17b	I honestly don't see any control measures that an individual certificate holder or even the FSC could create that would alter the course of conversion in any meaningful way.		Economic
C	CQ 17b	Statements of avoidance cannot be required of companies. My only concern with the rest of the control measure is the possibility for a constant ratcheting up of requirements rendering the system unusable.	Discuss with WG	Economic
C	CQ 17b	Glatfelter recommends accepting the comments and recommendations provided by NCASI.	Discuss with WG	Economic
C	CQ 17b	Mandating attendance at or adherence to FSC Controlled Wood Regional Meetings is not appropriate. Risks can be controlled by a variety of means once risks are identified. Requiring participation in one type of control measure is exclusive whereas adoption of the need to implement control measures would be enhanced if an inclusive approach were taken	Discuss with WG	Economic

R	CQ 17b	We recommend that FSC US re-evaluate the ways in which it draws conclusions from the cited materials (FIA and NRI) that it uses as evidence for Specified Risk within Category 4. We suggest that FSC accept the scientifically-sound interpretation of "no significant difference" from the referenced FIA and NRI databases for what it is: an indication that there is no evidence of risk of conversion. Also, FSC should re-evaluate the conclusions that have been drawn from the literature review. As mentioned above, many of these articles are based on older data and modeled projections of future scenarios. We suggest that it is not appropriate to determine current conversion risk primarily on the basis of data or reports that are more than a decade old, or involve modeled projections of possible future scenarios. Additionally, Before adopting the use of population or urbanization growth as a proxy for forest conversion, it is necessary to establish a quantitative connection between such growth and forest conversion. This has not been documented in the NRA. While we maintain that there is no need for a proxy for conversion (as it is reliably measured by FIA and NRI), there must be clarity, transparency, consistency, and documented association of urban growth with forest conversion in order to establish such a proxy.	Discuss with WG	Economic
X	CQ 17b	Same comments as Category 3		Economic
C	CQ 17b	AF&PA recommends accepting the recommendations of NCASI. Acreage thresholds should be removed from the NRA and conversion should be designated as low risk.	Discuss with WG	Economic
C	CQ 17b	AFRC recommends accepting the recommendations of NCASI.		Economic
C	CQ 17b	If the control measures require (like SFI) sharing information with log sellers and mills sourcing material, Columbia is ok with proviso we do not precisely understand what we are committing to in terms of audited indicators. If we provide pamphlet or attached pdf on conversion with each log supply analysis form, this could be done (by printing the information on the reverse of each, possibly?) again we support the broad concept of education, but not sure about how this will look as an audit item to have met the indicator, criteria.	Discuss with WG	Economic
C	CQ 17b	Part of the original issue of the NRA was concerning antitrust concerns and requirements forcing all companies not to purchase specific items. The NRA needs to allow flexibility specific to conversion where certificate holders are not all required not to buy a specific item to stay out of antitrust concerns. Multiple mitigation options are needed for category 4 as a method to move forward.	Discuss with WG	Economic
C	CQ 17b	The required statement in CM 4a is ill-conceived and unnecessary. Its premise (that big clearings cause more forest loss than small clearings) is unsupported and suspicious. Circulating unsupported declaratory statements is likely to undermine, rather than support, more broadbased education efforts.	Discuss with WG	Economic
X	CQ 17b	See above for Category 3 control measures.		Economic
X	CQ 17b	At a high level the regional meetings could be very useful control measure, however until regional meetings are held, and actual mitigation options are discussed and delineated, it is difficult to provide feedback on the open-ended process.		Economic
X	CQ 17b	Undecided		Environmental

R	CQ 17b	If we accept conversion as an issue when it is not caused by forest management than the Puget Trough is experiencing +.05% loss due to urbanization and that should be specified risk. Calling out all of WA, CA, and OR is a mistake. The research for the rest of WA, OR, and CA is not sufficient to designate specified risk. The precautionary approach should be moved from defaulting to specified risk to "requires additional review" or low risk to protect HCV 5.	Discuss with WG	Social
R	CQ 17b	Accept NCASI statistical analysis of conversion rates and change category 4 conversions to low risk	Discuss with WG	Economic
R	CQ 17b	No, the rationale and data used to make the conversion case don't seem to make sense. However, there seems to be an over-riding desire to make conversion an issue, so it would be better to simply state that conversion is a problem from the FSC's perspective, and move on with CMs, rather that argue over datasets to support an opinion.	Review arguments and edit text to reflect that while the regional data assessments show no-net loss of forest, there is evidence of forest converstion at finer scales	Economic
X	CQ 17b	This is a very difficult issue and one we are not sure how FSC can reasonably be expected to address and therefore cannot answer this question.		Environmental
C	CQ 17b	Clarity of purpose is needed before we would be comfortable with the approach to control measures. Can Conversion Wood be openly allowed into the system? If not, per the current official stated policy, do you want to continue the current system of telling suppliers that it isn't allowed and then tolerating a system where anyone who cares to find out can know that it is in fact in the supply chain? CM 4.a: We prefer allowing conversion wood from planned development in all cases and understand if conversion of forest to farmland was not allowed, but this raises issues of how to know. CM 4.b: Meetings should have clarity regarding purpose. CM 4.c: Mitigation measures can't be developed without clarity regarding purpose.	Discuss with WG	Economic
A	CQ 17b	The Control Measures seem reasonable but the issue is our inability to directly influence conversion which is the result of urban development. The utility of this HCV is questionable.	n/a	Economic
R,C	CQ 17b	Category 4 should be designated low risk for entire US. There should not be an acreage threshold for not accepting wood from conversion sites.	Discuss with WG	Economic
A	CQ 17b	At this time, yes.	n/a	Environmental
A	CQ 18	I would like to commend the folks who worked on this NRA (and the previous draft). This is the most well-thought out FSC standard I have seen to date. Very much appreciate the deep dive into available data and literature on the topics at hand. Well done – I very much support this NRA with a few minor changes.	n/a	Economic
X	CQ 18	HCV 4 and the reality of U.S. forestry combine to provide an extremely difficult situation. I sympathize with leaders and stakeholders on all sides. Best wishes!		Economic

C	CQ 18	There is great concern with the proposed NRA and associated "mitigation actions" to be identified at future Regional meetings. The limited availability of FSC 100% certified fiber in the U.S. requires a cost-effective and usable CW standard and accompanying NRA. Companies continually weigh the benefits of certification against implementation costs. Companies that maintain FSC certifications may decide that the NRA, associated regional meetings, and mitigation actions are overly burdensome. Maintaining FSC CW certifications, particularly given the limited FSC fiber availability, which would erode the value of FSC certification for landowners. The requirements of the "mitigation actions" must provide benefits to consumers and be economically achievable. It is unclear whether the system that has been proposed by FSC-US in the NRA will result in actions that are reasonable for a company to achieve and may still prove unworkable in the U.S. There is a great deal of overlap between the programing described in this proposal and the longstanding operations of the SFI program. Regional collaboration and promotion of sustainable forest procurement practices have always been an SFI strength. A great deal of effort and energy might be saved by finding a way to recognize, collaborate, and coordinate efforts. Please also refer to the attached Technical Comments submitted by the National Council For Air and Stream Improvement (NCASI) for consideration in various aspects as they relate to the draft NRA. (NCASI_Technical Comments_FSCUSNRA-Final.pdf)	Discuss with WG	Economic
X	CQ 18	With all our respect to the FSC organization: FSC is creating too much trouble with all the changes to Controlled Wood. The whole system collapses if it is too difficult to source any wood. FSC needs to concentrate on getting their FM certificates increased, and spend less time tinkering with CW.		Economic
R	CQ 18	In commenting on High Conservation Values (HCVs), the NRA offers many statements about species and population trends, threats to HCVs, and impacts of forestry practices to HCVs. There is a tendency for the NRA to support such statements with references to unpublished reports or individuals which/who in turn do not provide any data or citations to authoritative sources of information (e.g., peer-reviewed publications or reports by agencies or science-based organizations that present actual data regarding trends, threats, and impacts). For example, the NRA (pg. 100) indicates that, for HCVs in the Ouachita River Valley Critical Biodiversity Area (CBA), "Stresses caused by incompatible forestry practices include non-point source pollution (erosion & sedimentation) from operations that are not using best management practices, heavy use of biocides and fertilizers associated with plantations, and extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation [32]." The cited authority for this statement, however, presents no supporting information to document the extent to which these factors are actually affecting HCVs. Rather, it describes factors that have historically affected forests in the Ouachita River Valley CBA and the opinion of the authors about relationships between those factors and HCVs (unsupported by references to data or peer-reviewed publications). The NRA often treats rare events and events that can have short-term influences on forest structure or other aspects of forest ecosystems qualitatively on par with factors that can have long-term consequences such as conversion of forest to other land uses. While rare events can influence forests, the possibility that they can occur does not support the conclusion that widespread or major impacts exist. Likewise, the potential for short-term influences on forest structure at the stand scale from activities such as forest harvesting does not indicate that forest harvesting is having significant, landscape scale impacts on HCVs. In the FSC US webinar on January 18, 2018, the presenter indicated that, to be considered in the NRA, risks should be frequent, systemic, and pervasive. However, the NRA appears to consider ephemeral, rare, and even hypothetical events as serious, ongoing threats.	Improve rationale for specified risk designations when possible	Economic

R	CQ 18	1. What is the unit of measurement described on page 97 (10x10-3 species/km3)? 2. Note 1 on page 31 references conversion. Why? 3. More information on 'experts' needs to be provided. For example (and we're certainly not picking on Andrew exclusively with this comment, we like Andrew…), why is Andrew Goldberg a legal expert? Does he have a JD in environmental law? Significant experience in the law? He reads a lot of John Grisham? Defining the referenced experts qualifications that make them an expert is standard practice in documents of this nature. 4. As a smaller company on the solid wood side, there is concern on the increased due diligence that will be required in the areas that have been identified as higher risk. 5. Dependent on the outcome of NRA it will not justify to continue with our FSC products.	Edit text as appropriate	Economic
R	CQ 18	1. What is the unit of measurement described on page 97 (10x10-3 species/km3)? 2. Note 1 on page 31 references conversion. Why? 3. More information on 'experts' needs to be provided. For example (and we're certainly not picking on Andrew exclusively with this comment, we like Andrew…), why is Andrew Goldberg a legal expert? Does he have a JD in environmental law? Significant experience in the law? He reads a lot of John Grisham? Defining the referenced experts qualifications that make them an expert is standard practice in documents of this nature.	Edit text as appropriate	Economic
C	CQ 18	This is a dramatic improvement over the first draft. It is imperative that FSC fully understand the complexity of the forest products supply chain. This draft does not completely recognize that and will cause problems because of it. A very high level decision concerning the role of this risk assessment needs reached before any further progress is made. Are you going to work within the current, efficient structure of the US supply chain or are you using this to try to force significant change? In the interest of transparency, all stakeholders deserve the answer to this before we can build the trust needed for this to succeed.	Discuss with WG	Economic
R	CQ 18	Enviva supported NCASI comments In commenting on High Conservation Values (HCVs), the NRA offers many statements about species and population trends, threats to HCVs, and impacts of forestry practices to HCVs. There is a tendency for the NRA to support such statements with references to unpublished reports or individuals which/who in turn do not provide any data or citations to authoritative sources of information (e.g., peer-reviewed publications or reports by agencies or science-based organizations that present actual data regarding trends, threats, and impacts). For example, the NRA (pg. 100) indicates that, for HCVs in the Ouachita River Valley Critical Biodiversity Area (CBA), "Stresses caused by incompatible forestry practices include non-point source pollution (erosion & sedimentation) from operations that are not using best management practices, heavy use of biocides and fertilizers associated with plantations, and extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation [32]." The cited authority for this statement, however, presents no supporting information to document the extent to which these factors are actually affecting HCVs. Rather, it describes factors that have historically affected forests in the Ouachita River Valley CBA and the opinion of the authors about relationships between those factors and HCVs (unsupported by references to data or peer-reviewed publications). The NRA often treats rare events and events that can have short-term influences on forest structure or other aspects of forest ecosystems qualitatively on par with factors that can have long-term consequences such as conversion of forest to other land uses. While rare events can influence forests, the possibility that they can occur does not support the conclusion that widespread or major impacts exist. Likewise, the potential for short-term influences on forest structure at the stand scale from activities such as forest harvesting does not indicate that forest harvesting is having significant, landscape scale impacts on HCVs. In the FSC US webinar on January 18, 2018, the presenter indicated that, to be considered in the NRA, risks should be frequent, systemic, and pervasive. However, the NRA appears to consider ephemeral, rare, and even hypothetical events as serious, ongoing threats.	Improve rationale for specified risk designations when possible	Economic

C	CQ 18	Glatfelter is concerned with the direction of the proposed NRA and associated "mitigation actions" to be identified at future Regional meetings. The limited availability of FSC 100% certified fiber in the U.S. requires a cost-effective and usable CW standard and accompanying NRA. Companies like Glatfelter continually weigh the benefits of certification against implementation costs and may ultimately decide that the proposed NRA, associated regional meetings, and mitigation actions are overly burdensome and a strain on available resources. It is unclear whether the system that has been proposed by FSC-US in the NRA will result in actions that are reasonable for a company to achieve.	Discuss with WG	Economic
R	CQ 18	In commenting on High Conservation Values (HCVs), the NRA offers many statements about species and population trends, threats to HCVs, and impacts of forestry practices to HCVs. There is a tendency for the NRA to support such statements with references to unpublished reports or individuals which/who in turn do not provide any data or citations to authoritative sources of information (e.g., peer-reviewed publications or reports by agencies or science-based organizations that present actual data regarding trends, threats, and impacts). For example, the NRA (pg. 100) indicates that, for HCVs in the Ouachita River Valley Critical Biodiversity Area (CBA), "Stresses caused by incompatible forestry practices include non-point source pollution (erosion & sedimentation) from operations that are not using best management practices, heavy use of biocides and fertilizers associated with plantations, and extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation [32]." The cited authority for this statement, however, presents no supporting information to document the extent to which these factors are actually affecting HCVs. Rather, it describes factors that have historically affected forests in the Ouachita River Valley CBA and the opinion of the authors about relationships between those factors and HCVs (unsupported by references to data or peer-reviewed publications). The NRA often treats rare events and events that can have short-term influences on forest structure or other aspects of forest ecosystems qualitatively on par with factors that can have long-term consequences such as conversion of forest to other land uses. While rare events can influence forests, the possibility that they can occur does not support the conclusion that widespread or major impacts exist. Likewise, the potential for short-term influences on forest structure at the stand scale from activities such as forest harvesting does not indicate that forest harvesting is having significant, landscape scale impacts on HCVs. In the FSC US webinar on January 18, 2018, the presenter indicated that, to be considered in the NRA, risks should be frequent, systemic, and pervasive. However, the NRA appears to consider ephemeral, rare, and even hypothetical events as serious, ongoing threats.	Improve rationale for specified risk designations when possible	Economic
X	CQ 18	Thank you for the opportunity to provide feedback.		Economic
C	CQ 18	AF&PA remains concerned with the proposed NRA and associated "mitigation actions" to be identified at future Regional meetings. The limited availability of FSC 100% certified fiber in the U.S. requires a cost-effective and usable CW standard and accompanying NRA. Companies continually weigh the benefits of certification against implementation costs. Companies that maintain FSC certifications may decide that the NRA, associated regional meetings, and mitigation actions are overly burdensome. Maintaining FSC CW certifications, particularly given the limited FSC fiber availability, erode the value of FSC certification for landowners. The requirements of the "mitigation actions" must provide benefits to consumers and be economically achievable. It is unclear whether the system that has been proposed by FSC-US in the NRA will result in actions that are reasonable for a company to achieve and may still prove unworkable in the U.S.	Discuss with WG	Economic
X	CQ 18	Columbia understands first hand through participation in the early Controlled Wood NRA how challenging this work is. The present team which has brought this effort to present date is to be commended. FSC US as an organization together with its sister initiatives will have extend further into the supply chain and from this a better understanding of wood resource will improve as will standing to comment and strike leadership stance for benefit of each chamber of membership. Onward, Upward!		Economic
C	CQ 18	Allowing companies to use policy, education, outreach, offsets, excision (FM standard requirements) need to be present to allow companies to take different approaches.	Discuss with WG	Economic

C	CQ 18	There is a great deal of overlap between the programing described in this proposal and the longstanding operations of the SFI program. Regional collaboration and promotion of sustainable forest procurement practices have always been an SFI strength. A great deal of effort and energy might be saved by finding a way to recognize, collaborate, and coordinate efforts.	Discuss with WG	Economic
R,C	CQ 18	1. In the NRA, FSC US typically refers generically to "forest management activities" as a potential threat to HCVs. Did they consider how specific elements of forest management may impact specific values? This more refined approach could potentially change some risk designations. For example, the HCVs in the Ouachita River valley are associated with aquatic systems. Would implementation of BMPs (say at >90%) reduce the risk of impairment? Similarly, when "mitigation options" are identified for areas of specified risk like the Ouachita Valley, could, for example, implementation of BMPs be identified as a mitigation measure, and then could CHs cite state level data of high BMP compliance as evidence of mitigation? How many of the identified risks are affected by implementation of BMPs? And then for any remaining threats, how significant are they (e.g. could they be considered low risk?). e.g. what sort of quantitative evaluation was completed to determine actual likelihood of impact to values? Note: this type of refined evaluation could evolve either through the regional stakeholder meetings designed to identify mitigation options, or after the approval of the NRA when companies are able to develop their own mitigation options (and convince CBs they are more effective than the ones in the NRA). 2. Will there be opportunity to develop 'combined' mitigation options that address multiple HCVs in the same landscape (e.g. overlapping areas of specified risk) when appropriate rather than having to implement multiple mitigation options for multiple values on the same area? Like a 'highest common denominator'. 3. BMPs are used as a proxy for a low risk determination for HCV4 – compliance rates high, effectiveness high – but not used for example in the Ouachita River valley. Is there an opportunity to revisit the approach taken in the Ouachita River Valley CBA? 4. The use of population growth is not a good proxy for conversion resulting from development pressures. It has resulted in large areas being designated for specified risk – for example nearly all of GA and LA – which doesn't accurately reflect the reality. Alternatively, would the combination of FIA data along with data that demonstrates the amount of forest converted for development that takes place under community approved municipal zoning/municipal approval, more accurately depict what's happening and lead to a larger area designated as low risk. 5. FSC will take responsibility for monitoring effectiveness of control measure. How will this effectiveness monitoring be conducted? For example, will FSC develop agreed upon KPIs in advance to make sure there is clarity on when they are met/not met? Will FSC be asking CHs to collect and provide data? FSC should consider developing the monitoring framework as part of the NRA development process. 6. Using the FIA data resulted in statistic margin of error greater than the FSC threshold for conversion (0.02%). It would appear this result would demonstrate there is no evidence that the FSC threshold has been exceeded, yet FSC concluded they could not demonstrate	Improve rationale for specified risk designations when possible; N/A - Ouachita CBA no longer identified as an HCV; consider alternative approaches to Category 4 proxy; review and revise as appropriate the definition and threats for Mixed Mesophytic Forest & discuss remainder with WG	Economic
C	CQ 18	Our biggest area of concern is how restricting access to material from conversion will affect certificate holders and the FSC system. Clarity must be provided about what is allowed and acceptable versus what will not be accepted within the system. Furthermore, parity needs to be achieved across both certificate holders and CBs.	Discuss control measure language with WG	Economic
C	CQ 18	Regional meetings and mitigation steps MUST replace, instead of being additive, the work that was required prior to the NRA. While I have great concerns about CW and the NRA I want to thank and comment staff that have worked on this process. It takes leadership to take the risk outlined in our process. Regional meetings have the opportunity to strength the FSC system, unit stakeholders, and do good. The standard and process has been well thought out. Thank you.	Discuss with WG	Social

R,C	CQ 18	• Accept WestRock's recommendations for the regional meeting governance structure and process. • Accept NCASI recommendations.	Discuss with WG & FSC US Board	Economic
R,C	CQ 18	The NRA needs to come to a close, one way or another, and Alaska needs to be included. There ongoing uncertainty and continuous change and release of official Interpretations is degrading Cert Holder confidence in the FSC as a whole. FSC focus seems to have shifted from sustainable forest management to ethical forest management, which are very different things, and involve different metrics. Using CW, the NRA and any associated C to address sustainability and ethics is making the whole process a challenge. This process is consuming huge amounts of resources and energy, both within FSC and industry (i.e., Cert Holders). What is proposed going forward will take even more time, energy and cost. A the end of all of this process Cert Holders still have nothing. All they will have is CW, no certified fiber, no credits, nothing that they can advertise or label. Nothing. This fact is weighing heavily with Cert Holders and will be a decision driver to stick with FSC going forward. Cert Holders have options when it comes to certification, just like anything else. FSC needs to be mindful of this fact.	Discuss with WG & FSC US Board	Economic
X	CQ 18	See comments presented in the main body of our document.		Economic
R,C	CQ 18	We appreciate the effort and resources that FSC has invested in the NRA process and products. Our supplemental comments provide significant additional content to what we were able to communicate through the comment form. Our intent with both was to provide as much depth of information and constructive suggestions as possible. Where we have indicated No Comment (NC) we are not endorsing or taking issue with the question, process or product. Thank you. Kit and Mike	Review supplemental comments for additional information resources and for topics to discuss with the WG	Economic
R	CQ 18	See NCASI comments. The question and definitions of exactly what constitutes "plantation" vs. "semi-natural" forest types in the context of US operations is highly important and has significant implications. Yet, in the NRA and other FSC documents, the distinction is still very vague and subjective for practitioners. FSC-US must provide clear operating definitions for these in the NRA. In general, FSC-US should consider and affirm that certification to the SFI Fiber Sourcing Standard could be considered a significant mitigation measure that would address a number of the Category 3 items that are designated with specified risk.	Note that plantation definition will be reviewed/revised as part fo the FM standard revision prococess; Discuss recognition of SFI with WG	Economic
C	CQ 18	We strongly encourage a collaborative approach that assesses risk not just at an individual certificate holder scale, but that considers the landscape-level threats, drivers, and key stakeholders, and focuses control measures on meaningful, targeted action to alleviate those threats. Given the complexities in the US forest sector supply chain, the prevalence of indirect sourcing, and the limited data and resources available for many of the challenges facing HCVs, a collaborative approach is not only a new opportunity to address risks at a different scale, it is indeed necessary if we hope to stir positive change for the conservation values and forest trends in the US, which contains some of the most biodiverse ecological communities on the planet outside the tropics. If FSC US is in a position to engage key stakeholders and build the bridges necessary to address the larger pie of forest threats, it and its members have a responsibility to do so. The proposed NRA Control Measures are a positive step in this direction. This coarse-scale framework and approach will also require diligence and multi-stakeholder participation across all three FSC chambers to ensure the end result is credible.	Discuss with WG	Environmental
C	CQ 2	Not entirely. Supplier agreements have been removed from the NRA document, but not from the CoC standard. Risk mitigation options should not include avoidance or any language that can be construed as making a market restriction.	Discuss with WG	Economic

C	CQ 2	Yes. FSC should continue the practices of having open public meetings with published agendas that include an antitrust reminder. The development of multiple mitigation action options will all be essential to ensure autonomy in certificate holders' supply chain strategies.	Continue to plan for a set of mitigation options	Economic
C	CQ 2	Is it possible to add what was included in the first NRA draft – that alternative CM's may be proposed if they are deemed equal or better in protective value than the existing CMs? I'm not a lawyer so I can't comment on whether the antitrust concerns have been adequately addressed; but I do think it's worthwhile to leave options for some creativity outside of the meetings. Perhaps one additional requirement to an allowance like this would be to report the use of alternative measures to the Director of Science at FSC-US?	Note that 40-005 allows a company to develop their own CM if they can show that it will be more effective and efficient than the mandatory one.	Economic
X	CQ 2	The main issues with antitrust has to do with 40-005V3 requiring getting subsupplier documentation to verify district of origin. This is an FSC IC issue.		Economic
X	CQ 2	Yes, partially. Mitigation options will ultimately determine antitrust concerns. Preventing otherwise legal harvests based on unrealistic mitigation options will increase the risk.		Economic
C	CQ 2	The removal of the supplier agreement requirements is a major improvement. However, there is a great deal of uncertainty that has been added to the control measures by requiring FSC certificate holders to attend regional meetings that will "identify a focused set of actions to reduce risk of sourcing materials…" from specified lands. The identification and implementation of these actions may continue to raise antitrust concerns and adds another resource burden to companies attempting to comply with the Controlled Wood Standard. This model has the added concern of companies, including companies not present, and being required to "provide information requested in the report." These requirements are vague and may raise concerns of shared privileged business information. A lack of detail on what types of actions would have to be taken by a company attempting to comply with the NRA add additional concerns for companies attempting to review and provide useful input. As a result, it remains unclear as to whether the antitrust concerns have been resolved.	Discuss with WG	Economic
X	CQ 2	Antitrust concerns are potentially met through multiple other processes and responding to them should not be a priority for the NRA process.		Economic
C	CQ 2	Removing the requirement for supplier agreements is a step in the right direction. There may still be anti-trust issues with the yet undeveloped mitigation measures. There must be multiple viable mitigation measures for certificate holders to choose from in order to reduce risk of anti-trust claims.	Continue to plan for a set of mitigation options	Economic
E	CQ 2	Antitrust concerns are easily met through multiple other processes and responding to them should not be a priority for the NRA process. With that being said, the processes as described certainly should alleviate any concerns of anyone that has legitimate anti-trust concerns. One question comes up as a reader though, are "supplier agreements" the same as "supplier declarations" that are in current and common usage? Whether they are or are not, the definition should be added to the glossary.	Add Supplier Agreements and Supplier Declarations terms to the glossary, if used in the document	Economic

E	CQ 2	Antitrust concerns are easily met through multiple other processes and responding to them should not be a priority for the NRA process. With that being said, the processes as described certainly should alleviate any concerns of anyone that has legitimate anti-trust concerns. One question comes up as a reader though, are "supplier agreements" the same as "supplier declarations" that are in current and common usage? Whether they are or are not, the definition should be added to the glossary.	Add Supplier Agreements and Supplier Declarations terms to the glossary, if used in the document	Economic
C	CQ 2	In general, the antitrust concerns have been resolved. The next step is to ensure a large array of stakeholders is present at the CW Regional Meetings. The meetings cannot be attended or dominated by a few groups or companies. Multiple control measures must also be identified at each meeting to give certificate holders multiple methods to mitigate risk.	Continue to plan for a set of mitigation options	Economic
A	CQ 2	Yes	n/a	Economic
C	CQ 2	Honestly, I remain skeptical. The concern is more about perception from the aggrieved landowners. If a CH finds themselves in a position of having to defend themselves over price fixing or other practices, the outcome of the case may not be significant. The damage is done on the front end. It is imperative that the reputational risk associated with this be removed or borne by FSC-US.	Discuss with WG	Economic
C	CQ 2	The removal of the requirement for supplier agreements is an improvement to the FSC US NRA document, however, uncertainty still exists with the control measure requiring FSC certificate holders to attend regional meetings. Companies unable to provide a resource to attend the meetings will miss out on the opportunity to provide meaningful and useful input into the development of the mitigation actions. Those companies that are able to attend may establish mitigation actions that potentially prevent a competitor from procuring wood from areas of specified risk.	Provide engagement opportunities for individuals and organizations unable to attend the meetings	Economic
A	CQ 2	Yes.	n/a	Economic
C	CQ 2	No, there is still ambiguity in the risk assessment as it pertains to secondary and tertiary suppliers. We feel the need for there to be clarification in regards to whom the informational packets outlined in the control measures will be dispersed to and to what extent the mitigation measure will have to be implemented and tracked (if necessary) by secondary and tertiary suppliers. The ambiguity of the control and mitigation measures at the moment leaves the door open for future antitrust activity to take place. For example, if secondary and tertiary suppliers of residual products must send out information packets and track the implementation of mitigation measures, this may break antitrust laws by forcing the companies that operate in competing markets to provide information to one another that otherwise would be proprietary.	Discuss with WG	Economic
A	CQ 2	Not having been present for the discussion, I may not be able to accurately comment on this. Given the explanation of the issue provided in the 1st Draft Consultation however, the removal of the requirement would seem more than adequate.	n/a	Economic

C	CQ 2	It remains unclear as to whether the antitrust concerns have been alleviated. Certainly, the removal of the requirement for supplier agreements is a major improvement in the document; however, there is a great deal of uncertainty that has been added to the control measures by requiring FSC certificate holders to attend regional meetings that will "identify a focused set of actions to reduce risk of sourcing materials…" from specified lands. The identification and implementation of these actions may continue to raise antitrust concerns and adds another resource burden to companies attempting to comply with the Controlled Wood Standard. This model has the added concern of companies, including companies not present, and being required to "provide information requested in the report." These requirements are vague and may raise concerns of shared privileged business information. A lack of detail on what types of actions would have to be taken by a company attempting to comply with the NRA add additional concerns for companies attempting to review and provide useful input.	Discuss with WG	Economic
C	CQ 2	Yes. However, the presence of a sentence required by FSC controlled wood standard still stands related to an agreement to contact, update downstream supplier discovers credentials not what were originally communicated in terms of species or legality. This sentence is now built into log origination forms used in combination with harvest radius rationale to attribute suppliers to Columbia's risk assessment (national risk assessment, once finalized and accepted.) Columbia also remains concern about the fact the mitigation actions are not formalized as part of the review of the CW NRA.	Discuss with WG	Economic
X	CQ 2	Antitrust concerns have been alleviated provided that multiple options are allowed by FSCUS, Auditing Bodies, and ASI during implementation. Guidance from FSCUS to help assist auditing bodies should be considered to help provide transparency. Additionally if guidance is provided to certification bodies it should be public what that guidance is so that certificate holders and membership has an understanding of what the standards will mean.	Consider developing guidance once the NRA is final and the mitigation options have been identifiedd	Economic
A	CQ 2	Maybe. It is not realistic to describe antitrust concerns as being "resolved". A better objective is to effectively manage and mitigate the legal risks of participation. The framework proposed here appears likely to achieve this objective. Its success will depend largely upon the output of the proposed Regional Meetings and the specifics of the Mitigation menu options.	n/a	Economic
X	CQ 2	It would be better served to ask this question of an antitrust attorney.		Economic
C	CQ 2	Leaving the option for a company to create their own CMs is a viable solution to mitigate any real or perceived antitrust concern.	Discuss with WG	Social
C	CQ 2	Yes, but FSC needs to provide clarification on this topic. Many companies have been getting CW documentation in place over the last 2 years in anticipation of expected need to comply with US CW NRA, and are already requiring supplier agreements for CW asking for declarations of specific origin.	Discuss with WG	Economic
C	CQ 2	Keeping the discussion and requirement away from contracts and formal agreements removes anti-trust concerns. There is a word of caution related to the regional meetings. The recommended mitigation measure cannot be allowed to limit or restrict the sales of virgin fiber based on location. That would be viewed as anticompetitive.	Discuss with WG	Economic
C	CQ 2	This will largely depend on what the mitigation action (i.e., Control Measures) end up being. At present, there is no clarity on what the end CMs will look like, and that is where the clarity is required. If there continues to be a need to identify all players in the supply chain and connect to forest managers, you will continue to have anti-trust issues. It is worth noting that there is currently a fairly large volume of wood in the US market that comes from South America (radiata and taeda pine), so there is no easy way to say all wood in the US is low risk (much of it is actually from outside the US).	Emphsize that the mitigation options should be both practical and effective	Economic

R	CQ 2	In the Atlanta meeting we discussed the importance of developing mitigation actions to assure HCV designations would not be considered a boycott on forest products, whether from a specific region or a specific forest type. This is a reasonable approach, with the exception of the Late Successional Bottomland Hardwoods. In this case, the designation of a seral stage infers that there can be no harvest of this type (possibly perceived as a boycott) because a harvest would inherently alter the age-structure of the stand. It might be argued that some form of uneven-aged management could be used on a limited basis (i.e. single-tree selection) which might maintain the predominant late-successional age structure of a stand, however, this could lead to degradation of the forest from both an economic and ecological standpoint. In fact, according to Kellison et al. 1997 (Kellison and Young 1997), the majority of southern bottomland stands in private ownership contain a degraded mixture of species, the result of repeated incomplete harvests. If the development and maintenance of "old-growth" bottomland hardwood forests on the landscape is what this HCV designation is driving at, a recognition and protection of federal, state, and private conservation areas should be the primary mitigation action. It is not appropriate to expect private landowners to forgo the ability to responsibly harvest and manage bottomland hardwood systems, which do not reach financial maturity until this later seral stage. To fully address the anti-trust concerns, mitigation measures as proposed would have to be reviewed by legal experts to ensure little perception of anti-trust emerge from the process.	Discuss with WG	Economic
A	CQ 2	Yes	n/a	Economic
A, C	CQ 2	Certainly, the removal of supplier agreements is a major step. The antitrust issues in the first consultation really focused on the potential requirements related to supplier on-site audits, including access to suppliers' books, files, and records. So long as this type of thing is off the table, that goes a long way toward addressing antitrust concerns related to suppliers. Another antitrust concern is the potential for on-site or field audits of landowners from whom suppliers source wood. If yet to be determined mitigation measures result from the regional meetings involve this sort of thing, there will still be antitrust concerns. Another antitrust concern relates to forest products manufacturers collectively excluding and refusing wood from certain landowners, when the wood otherwise meets all legal requirements in the marketplace. A major example is excluding wood from conversion sites.	Discuss with WG	Economic
A	CQ 2	No concern. We are confident ecological and social risk can be addressed in a meaningful way that does not violate antitrust.	n/a	Environmental
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Environmental
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic

A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
	CQ 20	Yes		Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Environmental
C	CQ 20	No	Discuss with WG	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Environmental

A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes, but believe risk designations should be low risk so shouldn't be necessary	n/a	Economic
R	CQ 20	Before we can respond to the concept and specifics of regional meetings and collaborative development of control/mitigation measures we feel like we need more clarity on the NRA's final specified risks and the threats driving the risks for Category 3 and 4. This is why we did not respond to the questions in the comment form on control measures/mitigation measures. Our sense is once the risk assessment is finalized that certificate holders will be able to develop control measures for specified risks within their unique procurement basins, specific to their procurement systems and certification bodies will be able to objectively evaluate the effectiveness of control actions during CoC/CW audits. We are not conceptually against regional meetings and collaborative control measure development, however, without the benefit of the final NRA it is hard to provide a yes or no answer.	Discuss with WG	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Social
C	CQ 20	No	Discuss with WG	Economic
A	CQ 20	Yes	n/a	Economic
A	CQ 20	Yes	n/a	Environmental
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Environmental
A	CQ 21	Yes	n/a	Economic
A	Cq 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic

A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
C	CQ 21	No	Discuss with WG	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Environmental
C	CQ 21	No	Discuss with WG	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Environmental
A	CQ 21	Yes	n/a	Economic
R	CQ 21	Yes, but believe risk designations should be low risk so shouldn't be necessary	Discuss with WG	Economic

R	CQ 21	Before we can respond to the concept and specifics of regional meetings and collaborative development of control/mitigation measures we feel like we need more clarity on the NRA's final specified risks and the threats driving the risks for Category 3 and 4. This is why we did not respond to the questions in the comment form on control measures/mitigation measures. Our sense is once the risk assessment is finalized that certificate holders will be able to develop control measures for specified risks within their unique procurement basins, specific to their procurement systems and certification bodies will be able to objectively evaluate the effectiveness of control actions during CoC/CW audits. We are not conceptually against regional meetings and collaborative control measure development, however, without the benefit of the final NRA it is hard to provide a yes or no answer.	Discuss with WG	Economic
A	CQ 21	Yes	n/a	Economic
A	CQ 21	Yes	n/a	Social
C	CQ 21	No	Discuss with WG	Economic
A	CQ 21	Tentatively Yes	n/a	Economic
A	CQ 21	Yes	n/a	Environmental
E	CQ 3	We suggest streamlining the NRA wherever possible to remove duplication of language and also to adopt a structure more resembling a research paper. Some of the citations were difficult to follow as there were multiple citations with the same number in some places.	Note that we are required to follow the FSC International template for the main document. Edit citations to use unique numbers.	Economic
A	CQ 3	Yes, it is very helpful.	n/a	Economic
A	CQ 3	Ugh. Six and a half dozen I think. I don't think anyone will ever be completely satisfied and it is fine the way it is. Alternatively, you could have two separate documents (one with the template required by international and another with the annexes). I'm usually a fan of everything in one place, but this is quite overwhelming when first approaching it.	Provide access to annexes as separate documents	Economic
E	CQ 3	A table of contents would certainly simplify things. It is understandable that to some extent the format is what FSC IC is requiring.	There is already a TOC in the template document and each Annex has its own. No additional changes necessary.	Economic
E	CQ 3	Yes, I have limited concerns finding information, but I have much experience working with long, complex documents and with FSC. It would be easier to navigate your document if you changed the footers to provide additional details regarding which part of the document the reader is in. For example instead of lumping "FSC-NRA-USA V2-0 DRAFT, ANNEX E" for much of the document I suggest at least splitting out the 5 categories of CW, for example "Annex E, HCV 3 - Ecosystems and Habitats".	Edit footers	Economic
A	CQ 3	Yes. Full detail provided in annexes is appropriate and provides additional detail on the decision-making process of FSC-US.	n/a	Economic

E	CQ 3	Having the same/similar content in two different places is significantly more complex, and makes the entire document less usable rather than more. As much of the document appears to be an extensive literature review, the NRA should be structured according to standardly accepted research paper structures. The numbering of references should be standardized throughout the entire document. Confusion for the reader is created by not using the same reference numbers between the summary section and the Annex. It would be helpful to use a page linked TOC, so the reader can go directly to sections of interest. It would also be useful if the TOC extended one more level (to include HCV1, HCV2, etc.).	Note that we are required to follow the FSC International template for the main document. Edit citations to use unique numbers, and keep those numbers consistent between the template and annexes	Economic
A	CQ 3	Yes	n/a	Economic
A	CQ 3	Category 2- Annex D was certainly easier to read and more clearly laid out than the table included in the body of the text. I wonder what the purpose is of including a format within the paper that the authors themselves deem hard to follow. Should not the charts and tables be an annex instead, as is customary with many scientific papers, and the explanatory text be part of the paper itself? Additionally, it may be more easily navigable should the sources be sectioned off by category at the end of the paper, instead of including several pages of source information within the body of the text. This is, of course, simply personal preference. Category 3 & 4- After seeing the greatly improved structure of Annex D compared with the table summary of Category 2 information, I did not bother with the in-text tables and skipped straight to Annex E and Annex G. I agree with your conclusion that these supplementary pages are indeed more natural to read, but again raise the question of why the existing structure is being utilized.	n/a	Environmental
A	CQ 3	The annexes are helpful. Please leave them in the final document.	n/a	Economic
E	CQ 3	Having the same/similar content in two different places is significantly more complex, and makes the entire document less usable rather than more. While it would be nice if the NRA rose to the level of a systematic review, it appears to be a simple literature review. Regardless, it should be structured according to standardly accepted research paper structures. Also, having multiple reference numbers per section, e.g. [33] in cat 2 is different than [33] in cat 3, makes it very difficult to connect the dots between sources. Not using the same reference numbers between the summary section and the Annex is ridiculous, e.g. Roanoke River Conservation Action Plan is [33] on page 122, but 3. on page 176. Additionally, some of the cut/paste/summarization is not very clean, leading the reader to try to figure out which is more accurate, the summary or the annex. For example, page 102, Florida Panhandle CBA states, "The Florida Wildlife Action Plan [54] identified forestry practices as a threat to one of the longleaf pine habitat types that occurs in the CBA and regional experts have confirmed that conversion to other managed forest types continues to be a threat. [57]. Reported threats to steephead ravine habitat include altered hydrologic regimes, conversion to other land uses, fire suppression. Forestry practices were identified as a low source of stress to the habitat in the Florida Wildlife Action Plan." Which is it? Does the Florida SWAP identify forestry as a threat, or does it say it is a low source of stress? Only when you go to the Annex, does it become clear that a crucial portion of the paragraph is simply missing from the summary text. Removing the duplicative sections would alleviate this issue and avoid future trouble with interpretation. It would be helpful to use a page linked TOC, so the reader can jump directly to the section they want to read. It would also be nice if the TOC extended one more level (to include HCV1, HCV2, etc.) Lastly, if the goal of the NRA is to be more available to the average reader, words like "usufructuary" should be removed from the document, and some more basic definitions should be added to the glossary, such as "Forest Management Activities".	Note that we are required to follow the FSC International template for the main document. Edit citations to use unique numbers, and keep those numbers consistent between the template and annexes. Note that a TOC with hyperlinks already exists in the main document and at the beginning of each category annex. Review for uncommon/highly technical words and replace.	Economic

E	CQ 3	Having the same/similar content in two different places is significantly more complex, and makes the entire document less usable rather than more. While it would be nice if the NRA rose to the level of a systematic review, it appears to be a simple literature review. Regardless, it should be structured according to standardly accepted research paper structures. Also, having multiple reference numbers per section, e.g. [33] in cat 2 is different than [33] in cat 3, makes it very difficult to connect the dots between sources. Not using the same reference numbers between the summary section and the Annex is ridiculous, e.g. Roanoke River Conservation Action Plan is [33] on page 122, but 3. on page 176. Additionally, some of the cut/paste/summarization is not very clean, leading the reader to try to figure out which is more accurate, the summary or the annex. For example, page 102, Florida Panhandle CBA states, "The Florida Wildlife Action Plan [54] identified forestry practices as a threat to one of the longleaf pine habitat types that occurs in the CBA and regional experts have confirmed that conversion to other managed forest types continues to be a threat. [57]. Reported threats to steephead ravine habitat include altered hydrologic regimes, conversion to other land uses, fire suppression. Forestry practices were identified as a low source of stress to the habitat in the Florida Wildlife Action Plan." Which is it? Does the Florida SWAP identify forestry as a threat, or does it say it is a low source of stress? Only when you go to the Annex, does it become clear that a crucial portion of the paragraph is simply missing from the summary text. Removing the duplicative sections would alleviate this issue and avoid future trouble with interpretation. It would be helpful to use a page linked TOC, so the reader can jump directly to the section they want to read. It would also be nice if the TOC extended one more level (to include HCV1, HCV2, etc.) Lastly, if the goal of the NRA is to be more available to the average reader, words like "usufructuary" should be removed from the document, and some more basic definitions should be added to the glossary, such as "Forest Management Activities".	Note that we are required to follow the FSC International template for the main document. Edit citations to use unique numbers, and keep those numbers consistent between the template and annexes. Note that a TOC with hyperlinks already exists in the main document and at the beginning of each category annex. Review for uncommon/highly technical words and replace or define	Economic
A	CQ 3	Yes, it makes since to include the Annexes. FSC CW Risk Assessments are long and detailed just by their construction. A large and complex company makes the document even longer. The Annexes provide summaries of the decisions/analysis and are easier to read/comprehend than the tables. They are very long and detailed but necessary.	n/a	Economic
A	CQ 3	The format is fine.	n/a	Economic
A	CQ 3	Yes.	n/a	Economic
A	CQ 3	Yes.	n/a	Economic
A	CQ 3	Yes, the additional detail provided in the Annexes is useful and appropriate.	n/a	Economic
A	CQ 3	Yes.	n/a	Economic
A	CQ 3	Yes, this makes sense.	n/a	Economic
A	CQ 3	I appreciate the format as it is. The main document provides step-by-step structure needed to understand how everything ties together, while the Annexes provide additional context that can be read as a memo or report would read.	n/a	Economic
A	CQ 3	Yes. Full detail provided in annexes is appropriate and provides additional detail on the decision-making process of FSC-US.	n/a	Economic
A	CQ 3	Yes. Full detail provided in annexes is appropriate and provides additional detail on the decision-making process of FSC-US.	n/a	Economic

E	CQ 3	Columbia has no objection to the draft standard inclusion of Category 2,3 and 4 Annexes as suggested. That said, FSC has used a separate document for CW, COC entitled "interpretations of the normative framework" which might be a better fit. Have to remember ISO requirements at audit require each indicator to be checked off…if we are out of conformance, want the reference to "out of conformance with what" to be clear. Understood this is a CW NRA and not a COC or CW standard, but perhaps best to fall in with how those document types are deployed.	Consider revising Annexes to replicate how the 'Interpretations' documents are structured and reference requirements	Economic
A	CQ 3	Because the bulk of the work is going to be within regional meetings this issue should not have any major time spend on it. Whatever is easiest for FSCUS and the staff working on this document is fine providing that the document is searchable and easy to copy and paste from.	n/a	Economic
A	CQ 3	Yes. It is probably unrealistic to expect the US-NRA to be a general interest publication. Rather, it is a narrowly focused policy document; designed for a specific purpose by a rather limited group of users. In this context, the use of Annexes is helpful in maintaining a practical limit to the central text.	n/a	Economic
E	CQ 3	Breaking out the information into the Annexes aided in the reading and understanding of the material. A suggestion would be to create an executive summary for this document along with general maps with risk designations for all categories. This would simplify the work of certificate holders trying to figure out how to update their DDS to the NRA.	Consider developing an executive summary including maps by category after the NRA is approved.	Economic
E	CQ 3	I prefer to have everything in one document. As this means the document long and hard to sort through can we use a page linked TOC, so the reader can jump directly to the section they want to read.	Consider structural changes; Expand existing linked TOC to include Annexes if combined into one document	Social
A	CQ 3	Yes, the additional of the Category 2, 3 and 4 annexes are helpful.	n/a	Economic
A	CQ 3	Provided there no conflict in info between the actual RA and the supporting info, it shouldn't really matter.	n/a	Economic
A	CQ 3	This seems fine	n/a	Environmental
A	CQ 3	Yes	n/a	Economic
E	CQ 3	Yes, it makes complete sense if the reader is clearly directed to the details provided in the annexes. There is already a very good note at the very front of the section. Consider adding an additional reminder at the top of the risk review table to further prevent confusion.	Insert a reminder of the annexes at the top of the risk review table.	Economic
A	CQ 3	The annex format makes sense and is a good way to expand on and clarify information in the body tables.	n/a	Economic
E	CQ 3	No strong opinion. We agree that presentation and organization of information is important to ensure user-friendliness and effectiveness. However, given previous confusion among certificate holders and stakeholder regarding annexes being normative and/or required, it should be very clear when and if there are requirements embedded in the annexes. There should generally not be requirements in the annexes that are not in the primary normative document.	Ensure that all requirments in the annex and main body are identical	Environmental

R	CQ 4a	To identify Critical Biodiversity Areas, FSC used a species richness index published by NatureServe and The Nature Conservancy (TNC) that identifies areas with high concentrations of rare species based on element occurrence data from NatureServe. The spatial unit of analysis was a grid of hexagons, each about 160,000 acres in size. Areas that had an index of 10 x 10^{-3} species per km^2 or greater were considered Critical Biodiversity Areas, based on an analysis by The Nature Conservancy. The NRA indicates that this threshold was selected to ensure known areas of high biodiversity were included. Some of the Critical Biodiversity Areas (CBAs) are quite large including, for example, approximately three-fourths of California, ≈35% of Florida, and a large area in the Appalachians. It is possible that the very large grid squares used for classification followed by the smoothing step to create regions led to these large CBAs. While it would be difficult to use maps with highly patchy areas of conservation priority, it is possible that the methods used went too far in the other direction. Thus, we encourage FSC to re-evaluate their methods for delineating CBAs. We also encourage FSC US to consider whether there are opportunities to address two additional aspects of their methods. First, as acknowledged in the NRA (pg. 169), "One limitation of the NatureServe dataset is that it is driven by survey effort". In other words, surveys for species have not been conducted uniformly across the landscape. Therefore, areas may appear to have a high level of species richness relative to other areas in the landscape simply because of survey effort. We encourage FSC US to consider whether there are opportunities to weight the index based on survey effort. Second, the NRA (pg. 169) acknowledges that "this index is influenced by non-forest species." In other words, all species are included in the richness index including those associated with non-forest land covers. The NRA (pg. 169) assumes that "in areas that are predominately forested or forest matrix (and where forest management activities are more likely occurring) it should be representative of biodiversity in those areas." However, when selecting Priority Species for assessment in the NRA, the authors of the NRA appear to have filtered species based on their association with forests. Taking a similar approach for the analysis of the species	Note that we are unable to manipulate the dataset in the ways suggested, because we only have the index number for each data cell with which to work. Review analysis to ensure smoothing doesn't inflate areas.	Economic
R	CQ 4a	Yes. Identifying areas of concern on a map based on science-based evidence is only the first step in a credible analysis of specified risk areas. Given the gravity of assessing the risk for all certificate holders in the US, FSC should ground-truth the map areas to determine a higher level of accuracy for the areas identified as specified risk as a next step. Publishing specified risk areas for HCV 1 that have not been ground-truthed weakens the credibility of the FSC NRA. In addition, having to essentially treat large acreages of unoccupied range as specified risk adds to unnecessary work. For example, the gopher frog has very precise known locations on USFS lands. These are well known protected areas. However, two counties are shown as the specified risk area. Another troubling designation is the Ivory billed woodpecker area--- One or more Ivory billed woodpecker were seen in the big woods of Arkansas about a dozen years ago and they have not been seen since, so realistically they do not inhabit this area with any certainty. Most of the habitat is in two National Wildlife Refuges, White River and Cache River. These refuges conduct timber harvesting because they are trying to manage the habitat in a way that mimics natural processes thus working towards maintaining the needed habitat. Identifying this as a specified risk will make it more difficult for the wildlife refuges to manage for the exact habitat FSC seeks to protect. FSC should also know that the management in these refuges is complicated by extreme water management regime of levies and dams which has altered the natural processes of the Mississippi River system over the last 100 years.	Note that FSC US does not have the resources nor staff available to ground truth, and must depend upon the information available; look for species ranges that are finer scale than county; filter species for those who have been documented in the last 20 years	Economic
X	CQ 4a	None that I know of…		Economic

R	CQ 4a	Why is the 'comprehensive legal structure' adequate for illegality (cat 1) and traditional rights (cat 2), but not for HCV1 species (see page 93). The reliance on NatureServe as a single-source of information is somewhat problematic. The reference to "lack of BMP implementation" when there does not seem to have been any interaction with the State level SIC SFI committees seems odd since they are conducting monitoring of BMPs in most States. The Endangered Species Act, Clean Water Act, and individual State SWAP programs could all be used to mitigate the conclusions of NatureServe. The use of the "precautionary approach" is a valid starting point and it may be reasonable for FSC FM certification, but it is not reasonable for a CW NRA. The NRA should be very clear; there is either a known problem, in which case there is specified risk, or there is not a known problem, in which case the risk is low. The Ivory-billed Woodpecker is a perfect example of going overboard on the precautionary approach.	Category 1 is about whether laws are followed, whereas the Category 3 assessment was required to consider whether those laws are effective in protecting the HCV in question; evidence suggests that the ESA does not protect all species in need; use other sources of information beyond NatureServe when available; review BMP implementation data; note that use of the 'precautionary approach' is required, but discuss criteria for filtering HCV 1 species with WG	Economic
R	CQ 4a	As a NCASI member, we rely heavily on their scientific expertise and evaluation of the draft NRA. We therefore will incorporate NCASI comments on this question. Designation of Critical Biodiversity Areas To identify Critical Biodiversity Areas, FSC US used a species richness index published by NatureServe and The Nature Conservancy (TNC) that identifies areas with high concentrations of rare species based on element occurrence data from NatureServe. The spatial unit of analysis was a grid of hexagons, each about 160,000 acres in size. Areas that had an index of 10 x 10-3 species per km2 or greater were considered Critical Biodiversity Areas, based on an analysis by The Nature Conservancy. The NRA indicates that this threshold was selected to ensure known areas of high biodiversity were included. Some of the Critical Biodiversity Areas (CBAs) are quite large including, for example, approximately three-fourths of California, ≈35% of Florida, and a large area in the Appalachians. It is possible that the very large grid squares used for classification followed by the smoothing step to create regions led to these large CBAs. While it would be difficult to use maps with highly patchy areas of conservation priority, it is possible that the methods used went too far in the other direction. Thus, we encourage FSC US to re-evaluate their methods for delineating CBAs (e.g., evaluate implications of different grid sizes) to ensure that they encompass only areas with high endemism of forest-associated species. We also encourage FSC US to consider whether there are opportunities to address two additional aspects of their methods. First, as acknowledged in the NRA (pg. 169), "One limitation of the NatureServe dataset is that it is driven by survey effort". In other words, surveys for species have not been conducted uniformly across the landscape. Therefore, areas may appear to have a high level of species richness relative to other areas in the landscape simply because of survey effort. We encourage FSC US to consider whether there are opportunities to weight the index based on survey effort. Second, the NRA (pg. 169) acknowledges that "this index is influenced by non-forest species." In other words, all species are included in the richness index including those associated with non-forest land covers. The NRA (pg. 169) assumes that "in areas that are predominately forested or forest matrix (and where forest management activities are more likely occurring) it should be representative of biodiversity in those areas." However, when selecting Priority Species for assessment in the NRA, the authors of the NRA appear to have filtered species based on their association with forests. Basing the species richness index only on forest-associated species would strengthen the NRA. Herbicide Application The NRA identifies "herbicide application[s] that have the potential to inhibit native understory communities" as a threat to longleaf	Note that we are unable to manipulate the dataset in the ways suggested, because we only have the index number by data cell with which to work. Work with WG to find a scale for smoothing doesn't over inflate areas; revisit information sources regarding herbicide use as a threat to biodiversity; note that just becuase a forest system can be managed sustainably, doesn't mean that it is consistently; Note that biodiversity includes many more species that vertibrates, and many of these species are affected when forest systems change; discuss with WG potential	Economic

R	CQ 4a	There appears to be differing degrees of importance given to the adequacy of existing legal structures in the U.S. The following is stated on page 93, “As detailed in Category 1, the US has a broad and comprehensive legal structure that addresses the protection of socially and ecologically important sites, administered at both the federal and state level. The risks of non-compliance with these laws on public lands is generally low. The risk on private lands is also low, but attention should be given to areas known to be important to listed species.” Why is the ‘comprehensive legal structure’ adequate for addressing illegality (Category 1) and traditional rights (Category 2), but they are not considered adequate for protection of HCV1 species? Specifically, between the Endangered Species Act, Clean Water Act, and individual state programs (like State Wildlife Action Plans or SWAPs), there should be more than enough protections in place for a low risk determination across the U.S. Other publicly available resources, like state 303d lists which contain assessed water quality impairments, should be consulted for information on the actual impacts of various activities on natural habitats. In areas of specified risk, every bit of research that could support a low risk designation should be reviewed and explicitly addressed on a document by document basis. It is not reasonable to make a specified risk determination based on one source, such as the NatureServ database as an example, no matter the breadth of the index. Regarding the determination of specified vs. low risk, applicable to this section and throughout the document, there are many instances where “the precautionary approach should be taken”, or where “may”, “likely”, “potentially”, etc. are used in the description of a possible issue. The precautionary approach is a stopgap measure to be used by companies when they are approached with a potential issue, but have not had adequate time to research the reality of that issue yet. The NRA is supposed to be the final word on these issues, not a stopgap measure. Furthermore, using the “precautionary approach” may be reasonable for FSC FM certification, but it is not reasonable for a CW NRA. The NRA should be very clear; there is either a known problem, in which case there is specified risk, or there is not a known problem, in which case the risk is low.	Category 1 is about whether laws are followed, whereas the Category 3 assessment was required to consider whether those laws are effective in protecting the HCV in question; evidence suggests that the ESA does not protect all species in need; use other sources of information beyond NatureServe when available; review BMP implementation data; note that use of the 'precautionary approach' is required	Economic

R	CQ 4a	Designation of Critical Biodiversity Areas To identify Critical Biodiversity Areas, FSC US used a species richness index published by NatureServe and The Nature Conservancy (TNC) that identifies areas with high concentrations of rare species based on element occurrence data from NatureServe. The spatial unit of analysis was a grid of hexagons, each about 160,000 acres in size. Areas that had an index of 10 x 10-3 species per km2 or greater were considered Critical Biodiversity Areas, based on an analysis by The Nature Conservancy. The NRA indicates that this threshold was selected to ensure known areas of high biodiversity were included. Some of the Critical Biodiversity Areas (CBAs) are quite large including, for example, approximately three-fourths of California, ≈35% of Florida, and a large area in the Appalachians. It is possible that the very large grid squares used for classification followed by the smoothing step to create regions led to these large CBAs. While it would be difficult to use maps with highly patchy areas of conservation priority, it is possible that the methods used went too far in the other direction. Thus, we encourage FSC US to re-evaluate their methods for delineating CBAs (e.g., evaluate implications of different grid sizes) to ensure that they encompass only areas with high endemism of forest-associated species. We also encourage FSC US to consider whether there are opportunities to address two additional aspects of their methods. First, as acknowledged in the NRA (pg. 169), "One limitation of the NatureServe dataset is that it is driven by survey effort". In other words, surveys for species have not been conducted uniformly across the landscape. Therefore, areas may appear to have a high level of species richness relative to other areas in the landscape simply because of survey effort. We encourage FSC US to consider whether there are opportunities to weight the index based on survey effort. Second, the NRA (pg. 169) acknowledges that "this index is influenced by non-forest species." In other words, all species are included in the richness index including those associated with non-forest land covers. The NRA (pg. 169) assumes that "in areas that are predominately forested or forest matrix (and where forest management activities are more likely occurring) it should be representative of biodiversity in those areas." However, when selecting Priority Species for assessment in the NRA, the authors of the NRA appear to have filtered species based on their association with forests. Basing the species richness index only on forest-associated species would strengthen the NRA. Herbicide Application The NRA identifies "herbicide application[s] that have the potential to inhibit native understory communities" as a threat to longleaf biodiversity values in the Southern Appalachians CBA (pg. 101), the Cape Fear Arch CBA (pg. 102), and the Florida Panhandle CBA (pg. 102).	Category 1 is about whether laws are followed, whereas the Category 3 assessment was required to consider whether those laws are effective in protecting the HCV in question. Evidence suggests that the ESA does not protect all species in need; while there is broad use of BMPs in the US, there is some evidence that there places where they are not implemented as effectively and effectiveness for protection of biodiversity is not fully understood; use other sources of information beyond NatureServe when available; note that use of the 'precautionary approach' is required	Economic
E	CQ 4a	Based on my limited knowledge, I cannot suggest an alternative process of determining HCV 1 determination for species under consideration. However, I would be interested in more information on the process of determining significance within the existing framework. Specifically, I would like insight into how NatureServe determines the abundance cutoff for what is and is not a "great abundance" of a species within a potential CBA. I felt the explanation for how rarity and dependency were calculated was clear and well-reasoned.	Review text and clarify the thresthold if possible	Environmental
R	CQ 4a	Please reference comments made by NCASI.	Discuss with WG	Economic

R	CQ 4a	Page 93 states "As detailed in Category 1, the US has a broad and comprehensive legal structure that addresses the protection of socially and ecologically important sites, administered at both the federal and state level. The risks of non-compliance with these laws on public lands is generally low. The risk on private lands is also low, but attention should be given to areas known to be important to listed species." Why is the 'comprehensive legal structure' adequate for illegality (cat 1) and traditional rights (cat 2), but not for HCV1 species? To expand upon that, between the Endangered Species Act, Clean Water Act, and individual State SWAP programs, there should be more than enough protections for a low risk determination across the board. For example, the document references SWAPs (pg 97), and then decides to ignore them when looking at CBAs. That is not reasonable. Also for SBAs, the 303d lists for each state should be referenced to determine if actual impairments exist (based on water quality assessments and habitat/fish or macroinvertebrate community assessments). These are public records required by the Clean Water Act, but aren't referenced in this NRA. In areas of specified risk, every bit of research that could support a low risk designation should be reviewed and explicitly addressed on a document by document basis. It is not reasonable to make a specified risk determination based on one source, no matter the breadth of the index. This is especially true because NatureServe, while broad in scope, is predominantly filled with research from non-game/heritage sources that are disconnected from forest management activities. Regarding the determination of specified vs. low risk, and this comment applies here, but also throughout the document; there are so many instances of "the precautionary approach should be taken", or where "may", "likely", "potentially", etc. are used in the description of a possible issue. The precautionary approach is a stopgap measure to be used by companies when they are approached with a potential issue, but have not had adequate time to research the reality of that issue yet. The NRA is supposed to be the final word on these issues, not a stopgap measure. Furthermore, using the "precautionary approach" may be reasonable for FSC FM certification, but it is not reasonable for a CW NRA. The NRA should be very clear; there is either a known problem, in which case there is specified risk, or there is not a known problem, in which case the risk is low. This drive by certain members of FSC to turn CW from a 'minimum level for mixing' standard into "FSC FM lite" has become untenable. If those members spent as much time trying to build a consumer base for FSC material as they spent screwing around with what constitutes CW, perhaps we could actually be discussing a post CW market right now.	Category 1 is about whether laws are followed, whereas the Category 3 assessment was required to consider whether those laws are effective in protecting the HCV in question. Evidence suggests that the ESA does not protect all species in need; note that while there is broad use of BMPs in the US, there is some evidence that there places where they are not implemented as effectively and their effectiveness for protection of biodiversity is not fully understood; use other sources of information beyond NatureServe when available; note that use of the 'precautionary	Economic

R	CQ 4a	Page 93 states "As detailed in Category 1, the US has a broad and comprehensive legal structure that addresses the protection of socially and ecologically important sites, administered at both the federal and state level. The risks of non-compliance with these laws on public lands is generally low. The risk on private lands is also low, but attention should be given to areas known to be important to listed species." Why is the 'comprehensive legal structure' adequate for illegality (cat 1) and traditional rights (cat 2), but not for HCV1 species? To expand upon that, between the Endangered Species Act, Clean Water Act, and individual State SWAP programs, there should be more than enough protections for a low risk determination across the board. For example, the document references SWAPs (pg 97), and then decides to ignore them when looking at CBAs. That is not reasonable. Also for SBAs, the 303d lists for each state should be referenced to determine if actual impairments exist (based on water quality assessments and habitat/fish or macroinvertebrate community assessments). These are public records required by the Clean Water Act, but aren't referenced in this NRA. In areas of specified risk, every bit of research that could support a low risk designation should be reviewed and explicitly addressed on a document by document basis. It is not reasonable to make a specified risk determination based on one source, no matter the breadth of the index. This is especially true because NatureServe, while broad in scope, is predominantly filled with research from non-game/heritage sources that are disconnected from forest management activities. Regarding the determination of specified vs. low risk, and this comment applies here, but also throughout the document; there are so many instances of "the precautionary approach should be taken", or where "may", "likely", "potentially", etc. are used in the description of a possible issue. The precautionary approach is a stopgap measure to be used by companies when they are approached with a potential issue, but have not had adequate time to research the reality of that issue yet. The NRA is supposed to be the final word on these issues, not a stopgap measure. Furthermore, using the "precautionary approach" may be reasonable for FSC FM certification, but it is not reasonable for a CW NRA. The NRA should be very clear; there is either a known problem, in which case there is specified risk, or there is not a known problem, in which case the risk is low. This drive by certain members of FSC to turn CW from a 'minimum level for mixing' standard into "FSC FM lite" has become untenable. If those members spent as much time trying to build a consumer base for FSC material as they spent screwing around with what constitutes CW, perhaps we could actually be discussing a post CW market right now.	Need to reflect in response to comments that Category 1 is about whether laws are followed, whereas the Category 3 assessment was required to consider whether those laws are effective in protecting the HCV in question. Emphasize text that notes that the ESA does not protect all species in need and that while there is broad use of BMPs in the US, there is some evidence that there places where they are not implemented as effectively; use other sources of information beyond NatureServe when available; note that use of the 'precautionary approach' is required	Economic
A	CQ 4a	No, NatureServe has the best source of data.	n/a	Economic
R	CQ 4a	This should be limited to G1 and G2 species and commonly accepted practices for their protection. Some of this goes beyond that.	Reach out to experts regarding identification of HCV 1 species; *Unsure what is meant by the second part of the comment.*	Economic

R	CQ 4a	Enviva specific comments Central Appalachian CBA The process used to determine the location of Appalachian Mixed Mesophytic Forests seems a bit heavy handed. I am aware NatureServe provided a new data set but was apparently missing some refinement. The use onmost recent data is commendable but if this new data is actually less useful because it is missing critical additional analysis then it is actually less valuable. The location on mesic cove sites have been established by WWF being pretty much the same region defined in the last NatureServe dataset. Some things are for certain; - Mesic sites do not move or change. They were created by shifting tectonic plates. The established maps such as WWF's should suffice for this risk assessment. - Threats to this forest type list forest fragmentation driven by logging. A definition of forest fragmentation; " is the breaking of large, contiguous, forested areas into smaller pieces of forest; typically these pieces are separated by roads, agriculture, utility corridors, subdivisions, or other human development". Timber harvesting does not meet the definition of forest fragmentation. We can find a point of agree on the location of Appalachian Mixed Hardwood Forests but we cannot agree with the assessment timber harvesting is a cause of forest fragmentation. - Using an unrefined data set does not benefit users of the risk assessment with the promise to revisit in the next revision. FSC should wait until NatureServe completes the refinement of the data set before using it in the NRA - Once a president is set it is much more difficult to turn back. If FSC uses this data set in the NRA it is unlikely it will be revised down to a more succinct area in subsequent reviews and more likely a broad brush will be used in future assessments to define other potential forest concerns in a "its in there somewhere approach". The current data set and definition of mesophytic cove sites has not been fully developed to at least the same quality as previous data sets and definitions. FSC CW Risk Assessment requires CH to use WWF information and maps. http://www.cas.vanderbilt.edu/bioimages/ecoregions/50517frame.htm Southern Appalachian CBA A lack of forest BMP implementation is cited as one of the reasons for forming this CBA. The National Association of State Foresters (NASF) website includes link to eac states forest management plan and information regarding forestry BMP implementation. Other	Discuss use of Revised NatureServe dataset with WG; review and improve as possible the definition for Cove sites; consider additional BMP data	Economic
R	CQ 4a	Glatfelter incorporates by reference the set of comments submitted by the National Council for Air and Stream Improvement (NCASI) on this question.	Discuss with WG	Economic

R	CQ 4a	Designation of Critical Biodiversity Areas To identify Critical Biodiversity Areas, FSC US used a species richness index published by NatureServe and The Nature Conservancy (TNC) that identifies areas with high concentrations of rare species based on element occurrence data from NatureServe. The spatial unit of analysis was a grid of hexagons, each about 160,000 acres in size. Areas that had an index of 10 x 10-3 species per km2 or greater were considered Critical Biodiversity Areas, based on an analysis by The Nature Conservancy. The NRA indicates that this threshold was selected to ensure known areas of high biodiversity were included. Some of the Critical Biodiversity Areas (CBAs) are quite large including, for example, approximately three-fourths of California, ≈35% of Florida, and a large area in the Appalachians. It is possible that the very large grid squares used for classification followed by the smoothing step to create regions led to these large CBAs. While it would be difficult to use maps with highly patchy areas of conservation priority, it is possible that the methods used went too far in the other direction. Thus, we encourage FSC US to re-evaluate their methods for delineating CBAs (e.g., evaluate implications of different grid sizes) to ensure that they encompass only areas with high endemism of forest-associated species. We also encourage FSC US to consider whether there are opportunities to address two additional aspects of their methods. First, as acknowledged in the NRA (pg. 169), "One limitation of the NatureServe dataset is that it is driven by survey effort". In other words, surveys for species have not been conducted uniformly across the landscape. Therefore, areas may appear to have a high level of species richness relative to other areas in the landscape simply because of survey effort. We encourage FSC US to consider whether there are opportunities to weight the index based on survey effort. Second, the NRA (pg. 169) acknowledges that "this index is influenced by non-forest species." In other words, all species are included in the richness index including those associated with non-forest land covers. The NRA (pg. 169) assumes that "in areas that are predominately forested or forest matrix (and where forest management activities are more likely occurring) it should be representative of biodiversity in those areas." However, when selecting Priority Species for assessment in the NRA, the authors of the NRA appear to have filtered species based on their association with forests. Basing the species richness index only on forest-associated species would strengthen the NRA. Herbicide Application The NRA identifies "herbicide application[s] that have the potential to inhibit native understory communities" as a threat to longleaf biodiversity values in the Southern Appalachians CBA (pg. 101), the Cape Fear Arch CBA (pg. 102), and the Florida Panhandle CBA (pg. 102).	Note that we are unable to manipulate the dataset in the ways suggested, because we only have the index number per data cell with which to work. Work with WG to ensure that smoothing doesn't over-inflate areas; revisit information sources regarding herbicide use as a threat to biodiversity; note that just becuase a forest system can be managed sustainably, doesn't mean that it is consistently; Note that biodiversity includes many more species that vertibrates, and many of these species are affected when forest systems change; discuss with WG potential	Economic
R	CQ 4a	Some of the Critical Biodiversity Areas (CBAs) are quite large including, for example, approximately three-fourths of California, ≈35% of Florida, and a large area in the Appalachians. It is possible that the very large grid squares used for classification followed by the smoothing step to create regions led to these large CBAs. While it would be difficult to use maps with highly patchy areas of conservation priority, it is possible that the methods used went too far in the other direction. Thus, we encourage FSC to re-evaluate their methods for delineating CBAs by using a tighter grid sample.	Consider using TEOW to refine specified risk regions based upon the assessed drivers of biodiversity	Economic
R	CQ 4a	I wonder whether or not a process based on indicator species would lend itself to a more wholistic approach, instead of the current focus on habitat, rarity, and imperilment. The result produced under the current approach appears to leave large gaps, and identifies species that may not even be relevant. The population size and health of an indicator species on the other hand provides us with far greater information about the ecosystem as a whole, as opposed to taking some measure that might consist of avoiding sourcing from a county where a species of concern is known to exist. Further, even where a specified risk is identified, we need to acknowledge how forest management activities may benefit the species of concern. For example, restoration efforts in longleaf pine ecosystems in the south may effectively increase habitat for some species. In some cases, forest products harvested during restoration must be merchandized to pay for the effort itself. Avoiding an area where this type of activity is taking place could ultimately impact the market value of those forest products, making it more challenging to fund future restoration efforts.	Discuss with WG	Economic
R	CQ 4a	AF&PA incorporates by reference the comments submitted by NCASI on this question.	Discuss with WG	Economic
R	CQ 4a	AFRC incorporates by reference the comments submitted by NCASI on this question.	Discuss with WG	Economic

X	CQ 4a	None for which Columbia has secured substantiated third-party support as required in NRA comment preamble.		Economic
A	CQ 4a	The methodology used to identify HCV1 species commensurate with the scale or regions makes sense.		Economic
A	CQ 4a	No. CBA's are an appropriate – if imperfect – mechanism for assessing HV1 risks.		Economic
R	CQ 4a	The methodology used for HCV1 individual species was sound. However, the inclusion of a species that has had no confirmed sightings in over 50 years, Ivory-billed Woodpecker, throws into question the integrity of the whole process. There is the same concern for including a species such as the Cheoah Bald Salamander whose known range, based upon the maps provided in the NRA, occurs on the Nantahala National Forest and the Smokey Mountains National Park. Both areas are already protected. We suggest taking a second look at the ranges of the individual species listed and if they overlap already protected areas such as National Parks or Wilderness Areas, they should be listed as low risk.	Discuss with WG filtering the HCV 1 species for those that have been documented in the last two decades (or something similar)	Economic
R	CQ 4a	The NRA's threshold for identifying priority RTE species is seriously off-target for an assessment of risk to RTE species and biodiversity in the US. As described at page 103 of the NRA, recognition was effectively limited to species listed as G1 in the NatureServe system (in addition to being limited based on their "S" rankings). In other words, only the very most globally threatened species were considered, largely regardless of their level of endangerment within the US -- despite the fact that many species are highly endangered within the US while not being listed as G1 due to their status in other countries or other reasons. Just a few examples from Western states of the many species excluded by this methodology that are officially listed as threatened or endangered in the US, that are at least partly forest dependent, that are often threatened by forestry activities, and that that arguably of especially high conservation priority and high profile: various cutthroat trout, various Pacific salmonids and steelhead, bull trout, marbled murrelet, Northern spotted owl, Canada lynx, and woodland caribou. Why not use State and Federal RTE lists?	Note that HCV 1 species are not the same thing as RTE species; discuss with WG	Environmental
R	CQ 4a	I am worried that NatureServe or any singular database is not enough to determine risk. I recognize FSC does not have the resources to drill down more than what has been attempted. However, we may need a way to highlight studies and resources raised by organizations in their comments or company risk assessments from the past so that we can evaluate them and flag them for further discussion during regional meetings and as we evolve our NRA over time. If this level of dissemination is not possible or prudent it should at least be part of the working group's discussion prior to approval of the NRA risk designations. If this is planned already, great! An example of significant data available on key topics outside of the NatureServe database is the PNW research station that has been monitoring the impact of the northwest forest plan for 20 years. They have extensive reviews done at interval to look at HVC concerns and goal achievement.	Consider additional information soures identified	Social
R	CQ 4a	WestRock incorporates by reference the comments submitted by NCASI on this question. While the process effectively narrowed the species and impacted landscapes to a very specific list there are instances when state forest practices laws reduce the risk to specific species. Example of this are in California, Washington and Oregon. In these cases the risk designation should be Low Risk.	Look for evidence of the effectiveness of these forest practice laws and discuss results with WG	Economic
R	CQ 4a	The species level is too fine a scale approach of a high-level assessment such as this. Cert Holders will not be able to manage at the species level. The scope needs to stay high, at the state level, at a minimum.	Discuss with WG	Economic

R	CQ 4a	Unclear why State and Federal RTE lists were not used. Looking at only the most globally threatened species, rather than including species at risk in the US, is overly narrow and leaves out important protections for many forest-dependent species in the country.	Note that HCV 1 species are not the same thing as RTE species; discuss with WG	Environmental
A	CQ 4a	The process is very appropriate.		Economic
R	CQ 4a	Recommend utilizing a consistent methodology to exclude non-forested species and areas from the HCV identification process.	Note that we are unable to manipulate the dataset in the ways suggested, because we only have the index number per data cell with which to work.	Economic
R	CQ 4a	See NCASI comments. In general and conceptually, the methodology is on the right track. However, as noted in the NCASI comments, many of the CBAs are very large, and these should be filtered and refined. It is still going to take significant resources and effort for wood procurement organizations to keep track of when wood is coming from an area of specified risk and be sure mitigation measures apply to those sources. Therefore, it is difficult to respond to this question until the yet to be determined mitigation measures from the regional meetings are known.	Discuss with WG; consider using WWF TEOW to refine CBA in reference to the systems that are identified as driving biodiveristy and that are threatened	Economic
R	CQ 4a	Support a methodology that provides baseline consistency in determining risk designations. This adds credibility to the process, allows for a data source that can be monitored over time, and has potential to introduce opportunities or partnerships to augment the data, which is needed. There is added potential in identifying the data gaps that need to be addressed for any risk to be assessed long-term for an HCV species' health. Because of known NatureServe data limitations, relying solely on NatureServe data could result in omission of important HCV species, and should be complemented with expert opinion and consultation.	Discuss with WG; consider other information sources identified	Environmental
R	CQ 4b	While we don't have the internal resources or expertise to identify specific datasets for use here, we are worried about the use of the precautionary approach and terms like "potentially" and "may" in this section of the NRA. We think the document that all US controlled wood risk will be based on going forward should be precise, complete, and should have researched quite systematically to eliminate those unknowns to make risk determinations.	Review language used, but recognize that use of the precautionary principle is requried	Economic

R	CQ 4b	In commenting on High Conservation Values (HCVs), the NRA offers many statements about species and population trends, threats to HCVs, and impacts of forestry practices to HCVs. There is a tendency for the NRA to support such statements with references to unpublished reports or individuals which/who in turn do not provide any data or citations to authoritative sources of information (e.g., peer-reviewed publications or reports by agencies or science-based organizations that present actual data regarding trends, threats, and impacts). For example, the NRA indicates that, for HCVs in the Ouachita River Valley CBA, "Stresses caused by incompatible forestry practices include non-point source pollution (erosion & sedimentation) from operations that are not using best management practices, heavy use of biocides and fertilizers associated with plantations, and extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation [32]." The cited authority for this statement , however, presents no supporting information to document the extent to which these factors are actually affecting HCVs. Rather, it describes factors that have historically affected forests in the Ouachita River Valley CBA and the opinion of the authors about relationships between those factors and HCVs (unsupported by references to data or peer-reviewed publications). The NRA often treats rare events and events that that can have short-term influences on forest structure or other aspects of forest ecosystems qualitatively on par with factors that can have long-term consequences such as conversion of forest to other land uses. While rare events can influence forests, the possibility that they can occur does not support the conclusion that widespread or major impacts exist. Likewise, the potential for short-term influences on forest structure at the stand scale from activities such as forest harvesting do not indicate that forest harvesting is having significant, landscape scale impacts on HCVs. In the FSC webinar on January 18, 2018, the presenter indicated that, to be considered in the draft NFA, risks should be frequent, systemic, and pervasive. However, the NRA appears to consider ephemeral, rare, and even hypothetical events as serious, ongoing threats.	Consider additional information soures identified; assess inforamtion sources for validity; review assessments in regards to SIR	Economic
R	CQ 4b	The dataset you utilized for the coarse filter approach is the best I know of currently. It would be nice to find a methodology for screening and allowing additional outside data to be taken into account – that could be a priority for further down the road. I would add that a regulatory framework needs to be applied for each species in assessing threats to it – for instance, the Scott's Bar salamander is a California state threatened species; thus under the California Forest Practice Rules, it must be addressed and protected in any harvest plan where habitat may exist. I have attached an example of a Fruitgrower's THP that addressed this species (section 2 resubmitted, pages 25-28). A specified risk should not be designated for a species that is fully protected under State Forest Practice Rules and Endangered Species Acts. There may be others this overlay would result in reducing from specified risk to low risk due to the regulatory overlay.	Look for evidence of the effectiveness of these state-scale regulatory frameworks and discuss results with WG	Economic
R	CQ 4b	SFI may be the competitor but they have implemented State level research especially on BMPs that could be useful. As have the various USFS regional offices.	Look for these sources of information	Economic
R	CQ 4b	As a NCASI member, we rely heavily on their scientific expertise and evaluation of the draft NRA. We therefore will incorporate NCASI comments on this question. The NRA designates the Dusky Gopher Frog (Lithobates sevosus) as a Priority Species. Although the map on the U.S. Fish & Wildlife Service Environmental Conservation System suggests that the Dusky Gopher Frog is distributed throughout two counties in Mississippi, it is known from only a few isolated wetlands. Because the dusky gopher frog moves a limited distance (<1,000 feet) from breeding ponds primarily into upland pine-dominated forests, the geographic area designated as being at specified risk because of this species could be delineated with finer resolution, i.e., focused on occupied ponds and the areas immediately surrounding them. More detailed information about the location of occupied ponds is available in the recovery plan for the Dusky Gopher Frog.	Discuss with WG; assess options for refining specified risk area	Economic

R	CQ 4b	Other resources like State Wildlife Action Plans (SWAPs), 303d lists, and a thorough review of the individual research findings indexed on NatureServe can provide more specific information on assessing risk in different areas. Some portions of the NRA reference existing regional research or management plans from external groups like the Southeast Aquatic Resources Partnership's (SARP) Aquatic Habitat Plan (referenced in the HCV 1 section). Additional plans of this type in the U.S. should be reviewed and consulted as well. Web-based databases like the NatureServe databases are dynamic resources and information can and does change over time. The NRA should have specific embedded resources from the NatureServe database listed as references wherever possible, particularly for individual species information.	Consider additional resources identified	Economic
R	CQ 4b	The NRA designates the Dusky Gopher Frog (Lithobates sevosus) as a Priority Species. Although the map on the U.S. Fish & Wildlife Service Environmental Conservation System suggests that the Dusky Gopher Frog is distributed throughout two counties in Mississippi, it is known from only a few isolated wetlands. Because the dusky gopher frog moves a limited distance (<1,000 feet) from breeding ponds primarily into upland pine-dominated forests, the geographic area designated as being at specified risk because of this species could be delineated with finer resolution, i.e., focused on occupied ponds and the areas immediately surrounding them. More detailed information about the location of occupied ponds is available in the recovery plan for the Dusky Gopher Frog.	Assess information available and discuss with WG	Economic
A	CQ 4b	See above Additionally, I agree with the usage of NatureServe as a more robust resource for information on imperiled species than the ESA		Environmental
R	CQ 4b	SWAPs, 303d lists, a thorough review of individual research findings indexed on NatureServe. Some portions of the NRA reference existing regional research or management plans from external groups (example: the Southeast Aquatic Resources Partnership's (SARP) Aquatic Habitat Plan is referenced in the HCV 1 section). That is but one of several regional entities that are part of National Fish Habitat Partnership. There are 14 regional Fish Habitat Partnership entities covering the conterminous U.S., and many of them have developed, or are developing, regional aquatic habitat plans. Most importantly, like many web-based databases that are a dynamic resource, information can and does change over time. The NRA absolutely has to have specific embedded resources from the NatureServ database listed as references wherever possible. This is particularly important for the individual species information.	Consider additional resources identified	Economic
R	CQ 4b	SWAPs, 303d lists, a thorough review of individual research findings indexed on NatureServe. Some portions of the NRA reference existing regional research or management plans from external groups (example: the Southeast Aquatic Resources Partnership's (SARP) Aquatic Habitat Plan is referenced in the HCV 1 section). That is but one of several regional entities that are part of National Fish Habitat Partnership. There are 14 regional Fish Habitat Partnership entities covering the conterminous U.S., and many of them have developed, or are developing, regional aquatic habitat plans. Most importantly, like many web-based databases that are a dynamic resource, information can and does change over time. The NRA absolutely has to have specific embedded resources from the NatureServ database listed as references wherever possible. This is particularly important for the individual species information.	Consider additional resources identified	Economic
A	CQ 4b	The ESA list is useful but incomplete as the assessment details.		Economic
X	CQ 4b	Yes, see above		Economic

R	CQ 4b	Enviva supported NCASI comments The NRA designates the Dusky Gopher Frog (Lithobates sevosus) as a Priority Species. Although the map on the U.S. Fish & Wildlife Service Environmental Conservation System suggests that the Dusky Gopher Frog is distributed throughout two counties in Mississippi, it is known from only a few isolated wetlands. Because the dusky gopher frog moves a limited distance (<1,000 feet) from breeding ponds primarily into upland pine-dominated forests, the geographic area designated as being at specified risk because of this species could be delineated with finer resolution, i.e., focused on occupied ponds and the areas immediately surrounding them. More detailed information about the location of occupied ponds is available in the recovery plan for the Dusky Gopher Frog.	Discuss with WG; assess options for refining specified risk area	Economic
R	CQ 4b	The NRA designates the Dusky Gopher Frog (Lithobates sevosus) as a Priority Species. Although the map on the U.S. Fish & Wildlife Service Environmental Conservation System suggests that the Dusky Gopher Frog is distributed throughout two counties in Mississippi, it is known from only a few isolated wetlands. Because the dusky gopher frog moves a limited distance (<1,000 feet) from breeding ponds primarily into upland pine-dominated forests, the geographic area designated as being at specified risk because of this species could be delineated with finer resolution, i.e., focused on occupied ponds and the areas immediately surrounding them. More detailed information about the location of occupied ponds is available in the recovery plan for the Dusky Gopher Frog.	Assess information available and discuss with WG	Economic
R	CQ 4b	It is of our opinion that the experts consulted by FSC US, as outlined on pg. 94 and 95 of the NRA, has created a systemic bias that resounds throughout this assessment and its policies/determinations. This is particularly evident in the overwhelming representation of environmental and social interests. We feel there should be a more even representation of various individual groups from government, industry, and conservation representatives (i.e. USFWS, USFS, and NCASI along with numerous others would play an important role in shaping the policies and decisions that will define the forestry industry throughout the US). Additionally, For several CBAs, the NRA indicates that forestry operations are adversely affecting water quality. For example, "operations that are not using best management practices" and "extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation" are identified as a threat for the Ouachita River Valley CBA (pg. 100). "Reduced water quality partially due to loss of near-stream forested habitat", "sedimentation associated with forestry practices", "lack of BMP implementation," and "severe erosion of river banks" are identified as threats for the Central Appalachians CBA (pg. 101). The NRA also identifies many of these threats for the Southern Appalachian CBA (pg. 101). For the Florida Panhandle CBA, the NRA (pg. 102) identifies "point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers)" as a threat. Thus, the NRA appears to conclude that forestry practices are having a pervasive and adverse effect on water quality in many of the CBAs. The statements above about threats to water quality are not supported by the scientific literature or by surveys conducted by state forestry agencies. Furthermore, the statements conflict with Section HCV 4 Critical Ecosystem Services (pg. 213) which concludes that "Evidence of the effectiveness of forestry BMPs, combined with the reported levels of compliance, indicates that there is a high likelihood that HCV 4 are being effectively protected throughout the assessment area through the implementation of forestry BMPs associated with State nonpoint source pollution programs." In the decades following passage of the Clean Water Act, the States led development of and approved BMPs as the primary mechanism for controlling non-point source pollution from forestry operations. Cristan et al. (2017) reports that all 50 states have forestry BMP programs that address multiple categories of practices such as timber harvesting, forest road construction and maintenance, log landings, skid trails, streamside management zones, and stream crossings. Twenty-five states had written new BMP guidelines or revised their guidelines within five years of the survey by Cristan et al. (2017).	Assess sources of information and consider additional sources from industry and federal agencies; Note that the HCV4 and HCV 1 assessments were completed at different scales and that BMPs are designed to protect water quality, but their effectiveness at protecting biodiversity is not completely understood; discuss with WG	Economic

R	CQ 4b	NatureServe is a good, all-encompassing dataset, but there are several others typically used at the project-planning level that could be used in conjunction with NatureServe, or in development of mitigation actions, to further refine the approach. Some examples might be: • USFWS IPaC: https://ecos.fws.gov/ipac/ • ODFW Compass: http://dfw.state.or.us/maps/compass/ • California Wildlife Habitat Relationships: https://www.wildlife.ca.gov/Data/CWHR • WDFW Priority Habitats and Species: https://wdfw.wa.gov/conservation/phs/ • StreamNet: https://www.streamnet.org/ It is also important to note that each of these datasets contains a spatial element, which is not available through NatureServe (NatureServe provides a description of range and habitat, and a list of counties with presumed presence, but has no detailed mapping element). Not all states will have a planning application like the ones identified here, but they should be used in the HCV threats assessment and development of control measures, when and where they are available. From the information provided in Annex E, it would appear that these sources were used, but since they are not specifically referenced, it is unclear how they were used. As an example – the specified risk for the Lesser Slender Salamander calls out all of San Louis Obispo County, but the California Wildlife Habitat Relationships site identifies only a small portion of the county centered around Black Mountain, as known habitat for the species. It is unclear why this information was not used to further refine the area for this species, but was used to refine the habitat area for the Scott Bar Salamander. This type of inconsistency casts doubt on the thoroughness and validity of the overall process.	Consider additional resources identified	Economic
X	CQ 4b	Not that we are aware of.		Economic
X	CQ 4b	Unsure. See note above		Economic
R	CQ 4b	As mentioned above, State and Federal RTE lists should be consulted. At a minimum, in addition to those species currently identified, the FSC should also recognize the priority species identified in the prior NRA, and ensure they are covered by Control Measures.	Note that listed and HCV 1 are not the same; discuss with WG	Environmental
R	CQ 4b	It will be valuable to have a method for screening and allowing additional outside data to be taken into account. If NatureServe flags a species for risk as HCV we must take rules at the national and state level that try to address the specific species issue into account. If there are adequate protections required for forest management in the state or county we should move our designation from specified to low risk.	Consider assessments and discuss with WG as needed	Social
R	CQ 4b	The NRA designates the Dusky Gopher Frog (Lithobates sevosus) as a Priority Species. Although the map on the U.S. Fish & Wildlife Service Environmental Conservation System suggests that the Dusky Gopher Frog is distributed throughout two counties in Mississippi, it is known from only a few isolated wetlands. Because the dusky gopher frog moves a limited distance (<1,000 feet) from breeding ponds primarily into upland pine-dominated forests, the geographic area designated as being at specified risk because of this species should be delineated with finer resolution, i.e., focused on occupied ponds and the areas immediately surrounding them. More detailed information about the location of occupied ponds is available in the recovery plan for the Dusky Gopher Frog.	Assess information available and discuss with WG	Economic
R	CQ 4b	As mentioned above, State and Federal RTE lists should be consulted.	Note that listed and HCV 1 are not the same, particularly not state-listed species; discuss with WG	Environmental

R	CQ 4b	Again, the review and framework for assessment was very good. The only real complaint heard at the Atlanta meeting was the inclusion of the ivory-billed woodpecker. This species is an anomaly. Perhaps it is worth FSC addressing it as such…reducing its risk rating due to lack of sound scientific evidence that would support its existence? Alternatively, this can be handled at the Regional Meetings where hopefully there would be a consensus.	Discuss with WG filtering the HCV 1 species for those that have been documented in the last two decades	Economic
A,R	CQ 4b	See NCASI comments. So long as scientifically based data sets, such as NatureServe are used, then this should be satisfactory. Avoid any datasets that are based on opinions or preferences of individual groups.	Discuss with WG	Economic
R	CQ 4c	FSC needs to be careful when using the criteria that was used in this analysis when it identifies species that may be extinct or extirpated. For example, Ivory billed woodpecker was chosen as one of the species , yet the scientific community is not even in agreement if ivory billed woodpecker even exists. The concern is that now FSC would require management /protection for this species which may not exist.	Discuss with WG filtering the HCV 1 species for those that have been documented in the last two decades	Economic
X	CQ 4c	No		Economic
R	CQ 4c	It is recommended that additional consideration be given to some of the specific information about each species in the NatureServe database beyond the initial two-step filtering described in the NRA. Species of concern risk determinations should take into account expert opinions and scientific research related to expected impacts of forest management activities on specific species.	Consider additional resources identified	Economic
R	CQ 4c	Add a criterion for not including species understood to be extinct.	Discuss with WG filtering the HCV 1 species for those that have been documented in the last two decades	Economic
R	CQ 4c	Additional consideration should be given to some of the specific information about each species in the NatureServe database beyond the initial two-step filtering described in the NRA. Species of concern risk determinations should take into account expert opinions and scientific research related to expected impacts of forest management activities on specific species. For example, related to the Cheoah Bald Salamander (Plethodon cheoah), this species is listed in the table on page 95 of the NRA (see footnote 2) as the Priority Species of concern for the Appalachian Region. If you refer to the NatureServe database and review the detailed notes for this species, two expert opinions are noted in "Overall Threat Impact Comments". They appear to present different, and possibly conflicting, opinions on the impact of forest management activities on this species. This is one example. Overall, the depth of review for areas of specified risk is lacking in the NRA.	Consider additional resources identified; note that when available information conflicts, the precautionary approach should be used	Economic
A	CQ 4c	I felt the use of NatureServe to designate Critical Biodiversity Areas was particularly well reasoned. To our knowledge there are no more criteria that need consideration. I also agree with the designation of Specified Risk for species whose threats from forest management activities cannot be determined.		Environmental

R	CQ 4c	For an example of what should be done in the NRA, see NatureServe comments on Cheoah Bald Salamander regarding logging. This species is listed in the table on page 95 of the NRA (see footnote 2) as the Priority Species of concern for the Appalachian Region. If you refer to the NatureServe database and review the detailed notes for this species, two expert opinions are noted in "Overall Threat Impact Comments" stating the following: "….a large amount of the habitat of this species is second-growth forest, so it seems capable of surviving logging and similar forms of habitat disturbance (Beamer, pers. comm., 2003). This and other Plethodon species can persist in relatively small patches of habitat (Beamer and Lannoo 2005)." It is recommended that additional consideration be given to some of the specific information about each species in the NatureServe database beyond the initial two-step filtering described in the NRA. Species of concern risk determinations should take into account expert opinions and scientific research related to expected impacts of forest management activities on specific species. Was Plethodon cheoah the trigger for Designated Risk determination because it was one of those species for which it was not possible to determine threats from forest management activities? The sources of information in the NRA is listed as No. 21 (NatureServe Database) with no specificity as to which portions of the information in the NatureServ database carried the most weight as "literature suggests" citation(s) regarding length of time for secondary growth in forests and population recovery of P. cheoah. Overall, the depth of review for areas of specified risk is sorely lacking.	Consider additional resources identified; note that when available information conflicts, the precautionary approach should be used	Economic
R	CQ 4c	For an example of what should be done in the NRA, see NatureServe comments on Cheoah Bald Salamander regarding logging. This species is listed in the table on page 95 of the NRA (see footnote 2) as the Priority Species of concern for the Appalachian Region. If you refer to the NatureServe database and review the detailed notes for this species, two expert opinions are noted in "Overall Threat Impact Comments" stating the following: "….a large amount of the habitat of this species is second-growth forest, so it seems capable of surviving logging and similar forms of habitat disturbance (Beamer, pers. comm., 2003). This and other Plethodon species can persist in relatively small patches of habitat (Beamer and Lannoo 2005)." It is recommended that additional consideration be given to some of the specific information about each species in the NatureServe database beyond the initial two-step filtering described in the NRA. Species of concern risk determinations should take into account expert opinions and scientific research related to expected impacts of forest management activities on specific species. Was Plethodon cheoah the trigger for Designated Risk determination because it was one of those species for which it was not possible to determine threats from forest management activities? The sources of information in the NRA is listed as No. 21 (NatureServe Database) with no specificity as to which portions of the information in the NatureServ database carried the most weight as "literature suggests" citation(s) regarding length of time for secondary growth in forests and population recovery of P. cheoah. Overall, the depth of review for areas of specified risk is sorely lacking.	Review additional resources identified; note that when available information conflicts, the precautionary approach should be used	Economic
R	CQ 4c	I believe that at least one recent confirmed occurrence of a species within the last 20 years should be a minimum threshold. Ivory billed woodpecker has not had a confirmed sighting since the mid-1940s according to Nature Serve.	Discuss with WG filtering the HCV 1 species for those that have been documented in the last two decades	Economic
X	CQ 4c	Not that we are aware of.		Economic

R	CQ 4c	We encourage FSC US to consider whether there are opportunities to address aspects of their methods. First, as acknowledged in the NRA (pg. 169), "One limitation of the NatureServe dataset is that it is driven by survey effort". In other words, surveys for species have not been conducted uniformly across the landscape. Therefore, areas may appear to have a high level of species richness relative to other areas in the landscape simply because of survey effort. We encourage FSC US to consider whether there are opportunities to weight the index based on survey effort. Second, the NRA (pg. 169) acknowledges that "this index is influenced by non-forest species." In other words, all species are included in the richness index including those associated with non-forest land covers. The NRA (pg. 169) assumes that "in areas that are predominately forested or forest matrix (and where forest management activities are more likely occurring) it should be representative of biodiversity in those areas." However, when selecting Priority Species for assessment in the NRA, the authors of the NRA appear to have filtered species based on their association with forests. Taking a similar approach for the analysis of the species richness index would strengthen the NRA Also, in general, indicators of risk for Priority Species are conservation status ranks assigned by NatureServe and threats are derived from qualitative descriptions of threats prepared by conservation organizations and agencies. The designation of the Ivory Billed Woodpecker (Campephilus principalis) as a Priority Species is apparently the basis for the Specified Risk designation for HCV 1 in the Mississippi Alluvial region (NRA pg. 95). The last confirmed sightings of the Ivory Billed Woodpecker were in the 1940s in Louisiana, and it has been presumed extinct for many decades. Although two sightings were reported in 1999 and 2004, there was no confirmation of those sightings and there is no evidence that this species is extant. Even though this species has not been confirmed to exist, the NRA states that logging is among "historic major threats and would likely still be if the species is extant". Thus, the NRA assigns Specified Risk to this likely extinct species on the basis of a hypothetical threat, which is in turn used to assign Specified Risk to the Mississippi Alluvial region. Even though this species is included in the NatureServe database, we encourage FSC to remove it from the NRA, to focus on factors that potentially represent frequent, systemic, and pervasive risks to species and ecosystems, and to base the NRA on documented evidence that these factors are adversely affecting the species or ecosystem of interest.	Note that we are unable to manipulate the dataset in the ways suggested, because we only have the index number per data cell with which to work; discuss with WG filtering the HCV 1 species for those that have been documented within the last 20 years	Economic
R	CQ 4c	It is unclear to me whether or not querying the database in a different manner could provide better results. I think the approach needs to go beyond a simple data consultation and possibly include a review by a panel of wildlife biologists and conservation professionals in each region.	Note that we do not have the resources to do this for each species; discuss with WG and recognize the adaptive framework of the NRA - new information will be incoporated into future versions	Economic
R	CQ 4c	Something around when a species was last sighted? For instance, no one has seen an Ivory- Billed Woodpecker for a human generation or more. Need to develop criteria around anomalies like this one.	Discuss with WG filtering the HCV 1 species for those that have been documented in the last two decades	Economic
X	CQ 4c	Perhaps. See note above		Economic
X	CQ 4c	Are the effects of complex wild-fires on habitat part of the criteria within the dataset?		Economic

R	CQ 4c	While it may inherently involve some subjectivity and expert judgment, it makes sense for the NRA to focus on species that are of particular conservation concern, of particular public profile, and that can serve as indicator and "umbrella" species for threatened ecosystems and biodiversity more generally.	Discuss with WG	Environmental
R	CQ 4c	No additional data sets. However when a species has been identified which has not had a confirmed sighting in more than 20 years the species should be omitted.	Discuss with WG filtering the HCV 1 species for those that have been documented in the last two decades	Economic
R	CQ 4c	Regionally, there are species of particular public concern that could serve as indicators of forest health more broadly and, therefore, should be taken into consideration. Pacific salmonids could serve as such and indicator for the Western states.	Discuss with WG	Environmental
R	CQ 4c	Do not include species understood to be extinct.	Discuss with WG filtering the HCV 1 species for those that have been documented in the last two decades	Economic
R	CQ 4c	The Critical Biodiversity Areas could be refined by using a smaller unit of spatial analysis. Some of the CBAs are very large (i.e. large area in the Appalachians) and this scale of HCV designation makes it cumbersome and difficult to effectively address concerns and apply mitigation measures. In addition, species richness index used to develop CBAs is influenced by non-forest species. Non-forest species were filtered out in identifying specific HCV 1 species. Recommendation is to perform a similar filter before establishing CBAs.	Note that we are unable to manipulate the dataset in the ways suggested, because we only have the index number per data cell with which to work; look for additional sources of information that may provide rationale for refining CBA and discuss with WG	Economic
R	CQ 4c	See comments above relative to methodology. Anything that can be done to refine and limit the defined geographic extent should be done.	Consider refining risk areas when information is available	Economic
R	CQ 4c	Suggest potentially cross-referencing with NatureServe G2, possibly G3 species and RTE lists, or elaborating on why these categories were not used for this HCV category risk assessment. No NatureServe G3 species (Globally Vulnerable) are currently covered by law and are not listed by state or federal T&E species lists, despite being at moderate risk of extinction.	Note that HCV 1 species are not the same thing as RTE species; discuss with WG	Environmental
A	CQ 5	I like the datasets you utilized. We have been using the Greenpeace intact forests for our HCV 2 assessments in our company risk assessments. It appears the working group did a great job in evaluating the sources of data and which should be used.		Economic

A	CQ 5	Perhaps as this sort of analysis is unavoidably subjective. The evaluation applied here is reasonable and sufficient for its purpose.		Economic
R	CQ 5	Could habitat useful for necessary and inevitable migration due to climate change be included in this category of HCV 2 areas? It is consistent with the criteria of "smaller areas that provide key landscape functions". There exist many studies with simulated predictive movement patterns of RTE species, and I believe this data could augment existing data used in identifying HCV 2.	Discuss with WG	Environmental
X	CQ 5	Not that we are aware of.		Economic
X	CQ 5	No		Economic
A	CQ 5	I am not aware of any other datasets that could be used to improve the assessment; I believe it is adequate as is.		Economic
X	CQ 5	Not that we are aware of.		Economic
X	CQ 5	At this time given what is available and the approach used in FSCUS FM standards I do not see additional data for HCV2 items changing at the coarse scale that the national risk assessment is looking at.		Economic
A	CQ 5	Perhaps. This sort of analysis is unavoidably subjective. The evaluation applied here is reasonable and sufficient for its purpose.		Economic
A	CQ 5	NatureServe was/is a good starting point.		Social
A	CQ 5	The existing datasets were appropriate.		Economic
R	CQ 6	US Forest Service Northwest Forest Plan monitoring and research shows increased spotted owl habitat and a significant 60-80 yr age class bubble they expect to start providing increased old growth characteristics in the next 10-50 years. Their recent spotted owl monitoring shows Oregon has seen increases in old growth conditions and spotted owl habitat already.	Review information and discuss with WG	Economic

R	CQ 6a	For HCV 3 (Rare Ecosystems), the NRA considered three factors: old growth forest (including primary forest), roadless areas, and Priority Forest Types. We offer comments addressing old growth forest and Priority Forest Types. Old Growth The NRA (Pg. 110) indicates that there is Specified Risk on publicly-owned lands in the Pacific Coast and Rocky Mountain regions that are not permanently protected (as demonstrated by GAP Status 1 & 2 areas in the U.S. Geological Survey's PAD US dataset). Publicly owned lands that are permanently protected in the Pacific Coast and Rocky Mountain regions and privately owned lands are determined to have low risk (pgs. 110-111). The NRA (pp 199-200) includes a map for the western U.S. that shows essentially all forest land in the region as potentially having old growth. It is unclear whether the map excludes public forests in Gap Status 1 & 2. While we are unaware of any map of old growth forest per se, designating Specified Risk for all publicly owned forests in the Western U.S. that do not fall into Gap Status 1 or 2 implies that sourcing wood from all public lands is problematic. Many public lands provide timber from forests that are not old growth and many forests classified as Gap Status 3 are managed under rigorous state and federal standards. We encourage FSC US to use a finer resolution when identifying areas where harvest from old-growth forests could occur. The NRA (pg. 111) also indicates that "[in] the western conterminous U.S., threats to old growth forests include a lack of managing younger forests with a goal of creating old growth forests, invasive species, pests, pathogens, forest fragmentation, fire suppression, catastrophic wildfires and especially climate change." While these factors may affect existing old-growth forests and the structure and successional pathway of younger forests, they are unrelated to wood procurement. Because the stated focus of the NRA is to assess the risk of sourcing materials deemed unacceptable by FSC, factors such as management of young forests, climate change, pests, etc. appear to be outside the scope of the NRA. Further, the designation of Specified Risk for all publicly owned forests in the Western U.S. that do not fall into Gap Status 1 or 2 will preclude the sorts of management actions that could enhance earlier old-growth development from younger forests. Priority Forest Types	Investigate alternative methods for mapping OG, additional inforamtion sources regarding threats to cove sites; note that basic ecology indicates that changest to structure and species composition will affect biodiversity; note that just because sustainable management can be implemented in LSBH, doesn't mean is is done consistently; find additional information resources for LSBH threats; discuss the above with the WG	Economic

R,E	CQ 6a	No. It is very challenging to determine if these areas are "addressed" without understanding expected mitigation measures. Is the intent to eliminate logging from some of these areas? Two things for FSC to consider is (1) well-managed forests can provide both habitat security and a proactive conservation effort for these areas and (2) FSC should ground truth these areas, particularly given the significant impact on sourcing practices they will have given their scale, to determine if the identified specified risk areas are appropriate. The main areas not appropriately addressed are: <u>Mesophytic Cove Sites</u> - The Appalachian Mixed Mesophytic ecoregion is identified as a priority ecoregion for global conservation via the WWF Global 200 ecoregional conservation priority setting and the WWF has assessed the conservation status of the ecoregion to be "critical/endangered". It is not recognized in the Conservation International Biodiversity Hotspot assessment. It contains a portion of an IUCN and Smithsonian Institution designated Centre of Plant Diversity within the eastern U.S. supply area, but does not overlap with Frontier Forest or Intact Forest. These areas need to delineated on maps – not just a line drawn around several states. There are literally thousands of cove sites within the Appalachian mountain region that are owned by thousands of public and private landowners. The WWF Global 200 includes the Appalachian Mixed Mesophytic Forests ecoregion due to the high species and generic richness of temperate broadleaf trees, as well as understory plants, songbirds, salamanders, land snails, and beetles. Logging is identified as a primary threat. In order to address this threat in context of the ecoregion, it is valuable to understand (as did the previous FSC controlled wood standard) that that the ecoregion has an adequate level of protection through the analysis of a scientific approach of Conservation Risk Index (CRI) which is at 1.06 and therefore, should not warrant a specified risk designation. The CRI evaluates percent converted and percent protected thus achieving an acceptable Conservation Risk Index. (Hoekstra J, T Boucher, T Ricketts, C Roberts. 2005 "Confronting a biome crisis: global disparities of habitat loss and protection." Ecology Letters, 8:23-29) <u>Bottomland Hardwoods (not late successional hardwoods)</u> While these are more identifiable than cove sites, being able to identify "late successional" hardwoods is a problem since the age of timber is not known for large swaths of bottomlands. Harvesting of bottomlands, contrary to what was in the risk assessment, is generally carried out in drier conditions to facilitate ease of harvest and to keep the land in good shape for regrowth. <u>Longleaf Pine</u> We disagree with the FSC assessment that "major threats to the remaining ecoregional conservation values of "native longleaf pine include conversion to pine plantations". In the long term historical context, this was a contributing factor, however in the most recent 15-year period, the acreage of longleaf pine has increased considerably up to nearly 5 million acres. What data is being	Note that ground-truthing is not a reasonable expectation for this coarse-scale assessment; search for additional information sources for defining cove sites and their threats; further evaluate threats to LSBH and review text regarding harvesting practices; note that just because LLP is increasing, this doesn't mean it's not rare; discuss above and comments with WG	Economic
A	CQ 6a	That's a big question. From at least a regional scale, it seemed to hit all the significant ecosystems that I know of in the US that have greater levels of biodiversity (i.e. Appalachian mountains; Siskiyou; etc).		Economic
R	CQ 6a	The NRA and supporting documents fail to point out logistical and technological limitations for mills handling and processing old-growth logs. This might be worth mentioning. The rationale for making a determination of 'specified risk' for public land old growth does not seem to take into affect the amount of protected old-growth in wilderness area, parks, etc and what the National Forests are actually doing in terms of protection and logging management. Vermont as an example has done no logging in the Green Mountain National Forest for many, many years. This may be the case in other States where the actual threat of logging of public land old-growth is very low. The mesophytic cove sites as outlined in the maps seems to indicate that these occur everywhere in Appalachia and are not specific enough in determining if there are specific States or areas where they are at most risk. It would have been useful to engage with USFS and State forest and environmental agencies to determined what has been done on a State-by-State basis. Same with longleaf pine and bottom land hardwood forests.	Look for additional information sources and then discuss with WG	Economic

R	CQ 6a	I'm not aware of any significant HCV areas missed by the methodology. However the designation of Mesophytic Cove Sites as HCFs does not align with on-the-ground reality. While I know of no such study, a modest effort to assess how much of this type is located on federal lands protected from any harvest, federal lands subject to modern forestry practices, and other types of conservation land would show that that there is low risk that this type will be diminished by forest management at a landscape scale. Threats are site-specific and localized. The designation of Late Successional Bottomland Hardwoods in the Southeast/Mississippi Alluvial Valley regions appears to be a political decision. The research cited by other commenters (NCASI) shows that these sites are resilient. An arbitrary 80-year cut-off penalizes landowners who have chosen to grow their timber to larger sizes. These forests regrow after harvesting. Citations of priority forest types from Wildlife Action Plans are particularly problematic. There are similar designations in Wildlife Action Plans throughout the nation, yet most such areas did not become selected as specified risk.	Look for additional information sources and then discuss with WG	Economic
R,E	CQ 6a	The decision to apply a "specified" risk designation for risk to Old Growth forests only on publicly-owned forests in the west is troubling. The statement "Forest management policies and the resulting activities are threats to old growth forests" is highly subjective and potentially misleading. Discussion within the "threat assessment" section points to the very complex serious of land management policy challenges facing the western regions. The relevance of wood procurement (i.e. for controlled wood) is not clear at all. The fact that primary threats to Old Growth forests might be caused by inactivity by land managers is largely ignored. By definition, public land managers in the US are directly accountable to their respective branches of government, and ultimately to the public at large and the political system. This policy format is far from ideal, but far more broadly based and responsive than the FSC system. Federal lands are some of the most heavily regulated areas for timber management in the nation, with laws including the National Forest Management Act and National Environmental Policy Act. Timber sales are developed in accordance with forest management plans and undergo rigorous environmental reviews, with stakeholder input and the opportunity for parties to appeal the decisions made by the Forest Service and Bureau of Land Management, and ultimately, challenge the decisions in court. Additionally, State and Municipal lands have similar regulations and oversight as they are owned by public entities. Designating risk on state lands can have negative impacts on the social structures of those communities that surround them, as many state lands are set up as trusts for schools with timber sales providing funding for local school districts. As for Priority Forest Types, many of these forest types are overly broad and have vague definitions as to what areas may or may not be included in them. There is also a lack of clarity around the scientific basis for the designations of these forest types. Additionally as a NCASI member, we rely heavily on their scientific expertise and evaluation of the draft NRA. We therefore will also incorporate NCASI comments below on this question. Old-Growth Forest The NRA (pp 199-200) includes a map for the western U.S. that shows essentially all forest land in the region as potentially having old growth. It is unclear whether the map excludes public forests in Gap Status 1 & 2. While we are unaware of any published map of old-growth forest per se, designating Specified Risk for all publicly owned forests in the Western U.S. that do not fall into Gap Status 1 or 2 implies that sourcing wood from all public lands is problematic. Many public lands provide timber from forests that are not old growth and many forests classified as Gap Status 3 are managed under rigorous state and federal standards. We encourage FSC US to use a finer resolution when identifying areas where harvest from old-growth forests could occur. The NRA (pg. 111) also indicates that "[in] the western conterminous U.S., threats to old-growth forests include a lack of managing	Provide better rationale for priority forest types; investigate alternative methods for mapping OG, additional inforamtion sources regarding threats to OG and cove sites; note that basic ecology indicates that changest to structure and species composition will affect biodiversity; note that just because sustainable management be implemented in LSBH, doesn't mean is is done consistently find additional information resources for LSBH threats; discuss the above with the WG	Economic
R	CQ 6a	There are logistical and technological limitations for mills to be able to handle and process old-growth logs. The NRA and supporting documents fail to point this out and this certainly might be worth mentioning. The concept of "a lack of managing younger forests with a goal of creating old growth forests" is simply beyond the scope of anything that CW should be. This is appropriate solely for FSC FM certification.	Revisit evidence and rational for OG specified risk; discuss with WG	Economic

R	CQ 6a	Old-Growth Forest The NRA (pp 199-200) includes a map for the western U.S. that shows essentially all forest land in the region as potentially having old growth. It is unclear whether the map excludes public forests in Gap Status 1 & 2. While we are unaware of any published map of old-growth forest per se, designating Specified Risk for all publicly owned forests in the Western U.S. that do not fall into Gap Status 1 or 2 implies that sourcing wood from all public lands is problematic. Many public lands provide timber from forests that are not old growth and many forests classified as Gap Status 3 are managed under rigorous state and federal standards. We encourage FSC US to use a finer resolution when identifying areas where harvest from old-growth forests could occur. The NRA (pg. 111) also indicates that "[in] the western conterminous U.S., threats to old-growth forests include a lack of managing younger forests with a goal of creating old-growth forests, invasive species, pests, pathogens, forest fragmentation, fire suppression, catastrophic wildfires and especially climate change." While these factors may affect existing old-growth forests and the structure and successional pathway of younger forests, they are unrelated to wood procurement. In fact, the NRA (pg. 111) notes that "the most significant current threats may not be due directly to logging/harvest". Because the stated focus of the NRA is to assess the risk of sourcing materials deemed unacceptable by FSC, factors such as management of young forests, climate change, pests, etc. appear to be outside the scope of the NRA. Further, the designation of Specified Risk for all publicly-owned forests in the Western U.S. that do not fall into Gap Status 1 or 2 will preclude management actions that could enhance earlier old growth development from younger forests. Priority Forest Types: Mesophytic Cove Sites The NRA identifies a broad geographic area as having Specified Risk for Mesophytic Cove Sites. This area appears to include portions of several ecological regions (e.g., Appalachian Highlands, Coastal Plain, Interior Plateaus) that vary in terms of biophysical factors that influence occurrence of Mesophytic Cove Sites. The NRA could be strengthened by refining their delineation of the area having Specified Risk for this Priority Forest Type to omit areas with little potential to include the two ecological systems related to this Priority Forest Type, i.e., South Central Interior Mesophytic Forest (CES 202.887) and Southern and Central Appalachian Cove Forest (CES 202.373). With respect to Mesophytic Cove Sites, the NRA (pg. 205) states that "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." It further states (pg. 205) that forestry practices can "affect herbaceous species composition or abundance and therefore the quality and functioning of the system." Thus, the NRA appears to consider changes in forest	Review additional inforamtion sources; investigate alternative methods for mapping OG, additional information sources regarding threats to cove sites; note that basic ecology indicates that changest to structure and species composition will affect biodiversity; note that just because sustainable management can be implemented in LSBH, doesn't mean is is done consistently find additional information resources for LSBH threats; discuss the above with the WG	Economic
A	CQ 6a	To my knowledge, this encompasses the necessary components of rare domestic ecosystems.		Environmental
R	CQ 6a	We have concern that risk to old growth is defined on all public land in the western United States. Please reference comments from NCASI and AF&PA on this topic.	Discuss with WG	Economic

R,E	CQ 6a	The NRA and supporting documents fail to point out logistical and technological limitations for mills handling and processing old-growth logs. This might be worth mentioning. The concept of "a lack of managing younger forests with a goal of creating old growth forests" is simply beyond the scope of anything that CW should be. This is appropriate solely for FSC FM certification. On page 110/111, the sentence "Based upon the above datalayers, the NRA WG concluded that old growth has a high enough likelihood of occurrence on public lands, but outside of protected areas in the Pacific Coast and Rocky Mountain regions (see Annex B for FSC regions) to consider these lands further for the purposes of this NRA." is punctuated differently than on pg 199, where the same sentence exists. As punctuated on 110/111, the sentence makes no sense. Additionally, pg 199 supposedly outlines the rationale for making a determination of 'specified risk' for public land old growth, however the statements included in that section are significantly lacking in depth, and it is unclear why any portion of old growth is held to a different standard than any other portion of old growth. It appears to be a completely arbitrary distinction on the part of the working group.	Fix punctuation on pp 110-111; look for additional information sources and re-assess OG then discuss with WG	Economic
R	CQ 6a	Comment: The draft NRA lists several threats to old growth in the Pacific Coast and Rocky Mountain regions: lack of managing younger forests with a goal of creating old growth forests, invasive species, pests, pathogens, forest fragmentation, fire suppression, catastrophic wildfires, and climate change. All of these are threats to old growth that currently exists on the landscape with the exception of "lack of managing younger forests with a goal of creating old growth", which is a threat to the development of future old growth. This distinction is important in accurately identifying risk. It raises the question of whether the threat of younger forests managed without an old growth goal should be considered in the NRA process, because harvesting timber from younger forests does not threaten existing HCVFs. We also disagree with the assertion that lack of managing young forests with an old growth trajectory is a threat specific to public lands, as young forest exists across all ownership types in the Pacific Coast Region (and across the country). Private industrial forestland is often managed under shorter rotations to maximize revenue, whereas public lands are typically managed using longer rotations and to achieve multiple objectives. Therefore, at any given time, there is likely to be a higher proportion of younger forest not being managed with an old growth goal on private industrial ownerships, relative to public lands. Furthermore, restricting the 'specified risk' designation to public lands creates an incentive for purchasers to source primarily from private forestland, thereby perpetuating the threat of managing younger forests without a goal of creating old growth.	Discuss OG designation, rationale and specified risk area (as appropriate) with WG	Economic

R,E	CQ 6a	The NRA and supporting documents fail to point out logistical and technological limitations for mills handling and processing old-growth logs. This might be worth mentioning. The concept of "a lack of managing younger forests with a goal of creating old growth forests" is simply beyond the scope of anything that CW should be. This is appropriate solely for FSC FM certification. On page 110/111, the sentence "Based upon the above datalayers, the NRA WG concluded that old growth has a high enough likelihood of occurrence on public lands, but outside of protected areas in the Pacific Coast and Rocky Mountain regions (see Annex B for FSC regions) to consider these lands further for the purposes of this NRA." is punctuated differently than on pg 199, where the same sentence exists. As punctuated on 110/111, the sentence makes no sense. Additionally, pg 199 supposedly outlines the rationale for making a determination of 'specified risk' for public land old growth, however the statements included in that section are significantly lacking in depth, and it is unclear why any portion of old growth is held to a different standard than any other portion of old growth. It appears to be a completely arbitrary distinction on the part of the working group.	Fix punctuation on pp 110-111; look for additional information sources and re-assess OG then discuss with WG	Economic
R,E	CQ 6a	No, the old-growth designation on public lands in the west is too broad. Most publicly owned forestland is listed with specified risk for HCV 3. The control measure will be to ensure the purchased timber is not from old-growth using the US Forest Service definitions. Is it easier to have the USFS designate the old-growth areas ahead of time? Old-growth stands should also not be excluded from harvesting. Harvesting or thinning could accelerate the development of old-growth characteristics such as diverse species, canopy structure, and age classes. Mesophytic cove sites will also cause issues with sourcing in the Appalachian Region. These areas are by their nature the most productive and most lucrative for harvesting. It will be difficult to exclude these areas or properly implement control measures in the cove sites. Stakeholders will also need to be clear on the difference between a mesophytic cove site and a yellow-poplar grove. Foresters and landowners interchange them when they are distinct different forest types. The assessment does a good job of describing the cove site but stakeholders will be confused when they only read the forest type and not the full description or assessment.	Look for alternative methods for identifying OG specified risk and discuss with WG; clarify difference between cove sites and yellow-poplar groves	Economic
X	CQ 6a	It is unclear how the datasets are relevant to the conclusion		Economic
R	CQ 6a	Global, regional or national is a scale that is nearly impossible to pin down. Most would be alt least regional, but national or global could be questioned. This should not be identified as forest types, ie the definition for bottom land hardwoods as old growth or the mesphytic cove sites. The forests in questions need to be clearly delineated. Every state and the federal government have some level of information that identified RTE forests at the stand level. This is the data set that should be used. The alternative is that CHs are left trying to determine if anything else in their procurement basin may possibly fit into this.	Discuss with WG	Economic

R	CQ 6a	Enviva specific comments Mesophytic Cove Sites The listing of threats to this priority forest type does not relate to timber harvesting activity. The cited reason are driver then these should be addressed in the appropriate venue. Native Longleaf Pine Systems The Longleaf Alliance notes there is an increase in longleaf pine acres and a strong wood market encourages landowners to replant this specie. As noted by NCASI these systems have the same diversity regardless of the pine specie planted. https://www.longleafalliance.org/what-we-do/restoration-management/alr Enviva supported NCASI comments Old-Growth Forest The NRA (pp 199-200) includes a map for the western U.S. that shows essentially all forest land in the region as potentially having old growth. It is unclear whether the map excludes public forests in Gap Status 1 & 2. While we are unaware of any published map of old-growth forest per se, designating Specified Risk for all publicly owned forests in the Western U.S. that do not fall into Gap Status 1 or 2 implies that sourcing wood from all public lands is problematic. Many public lands provide timber from forests that are not old growth and many forests classified as Gap Status 3 are managed under rigorous state and federal standards. We encourage FSC US to use a finer resolution when identifying areas where harvest from old-growth forests could occur. The NRA (pg. 111) also indicates that "[in] the western conterminous U.S., threats to old-growth forests include a lack of managing younger forests with a goal of creating old-growth forests, invasive species, pests, pathogens, forest fragmentation, fire suppression, catastrophic wildfires and especially climate change." While these factors may affect existing old-growth forests and the structure and successional pathway of younger forests, they are unrelated to wood procurement. In fact, the NRA (pg. 111) notes that "the most significant current threats may not be due directly to logging/harvest". Because the stated focus of the NRA is to assess the risk of sourcing materials deemed unacceptable by FSC, factors such as management of young forests, climate change, pests, etc. appear to be outside the scope of the NRA. Further, the designation of Specified Risk for all publicly-owned forests in the Western U.S. that do not fall into Gap Status 1 or 2 will preclude management actions that could enhance earlier old growth development from younger forests. Priority Forest Types: Mesophytic Cove Sites	Note that recent and future predicted increases in extent of LSBH and LLP do not mean they are not rare; note that while sustainable mgmt may be possible in LSBH, this does not mean that is consistently implemented; investigate alternative methods for mapping OG specified risk; look for additional sources of information and then discuss with WG	Economic
R	CQ 6a	Glatfelter incorporates by reference the set of comments submitted by the National Council for Air and Stream Improvement (NCASI) on this question.	Discuss with WG	Economic

R	CQ 6a	Old-Growth Forest The NRA (pp 199-200) includes a map for the western U.S. that shows essentially all forest land in the region as potentially having old growth. It is unclear whether the map excludes public forests in Gap Status 1 & 2. While we are unaware of any published map of old-growth forest per se, designating Specified Risk for all publicly owned forests in the Western U.S. that do not fall into Gap Status 1 or 2 implies that sourcing wood from all public lands is problematic. Many public lands provide timber from forests that are not old growth and many forests classified as Gap Status 3 are managed under rigorous state and federal standards. We encourage FSC US to use a finer resolution when identifying areas where harvest from old-growth forests could occur. The NRA (pg. 111) also indicates that "[in] the western conterminous U.S., threats to old-growth forests include a lack of managing younger forests with a goal of creating old-growth forests, invasive species, pests, pathogens, forest fragmentation, fire suppression, catastrophic wildfires and especially climate change." While these factors may affect existing old-growth forests and the structure and successional pathway of younger forests, they are unrelated to wood procurement. In fact, the NRA (pg. 111) notes that "the most significant current threats may not be due directly to logging/harvest". Because the stated focus of the NRA is to assess the risk of sourcing materials deemed unacceptable by FSC, factors such as management of young forests, climate change, pests, etc. appear to be outside the scope of the NRA. Further, the designation of Specified Risk for all publicly-owned forests in the Western U.S. that do not fall into Gap Status 1 or 2 will preclude management actions that could enhance earlier old growth development from younger forests. Priority Forest Types: Mesophytic Cove Sites The NRA identifies a broad geographic area as having Specified Risk for Mesophytic Cove Sites. This area appears to include portions of several ecological regions (e.g., Appalachian Highlands, Coastal Plain, Interior Plateaus) that vary in terms of biophysical factors that influence occurrence of Mesophytic Cove Sites. The NRA could be strengthened by refining their delineation of the area having Specified Risk for this Priority Forest Type to omit areas with little potential to include the two ecological systems related to this Priority Forest Type, i.e., South Central Interior Mesophytic Forest (CES 202.887) and Southern and Central Appalachian Cove Forest (CES 202.373). With respect to Mesophytic Cove Sites, the NRA (pg. 205) states that "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." It further states (pg. 205) that forestry practices can "affect herbaceous species composition or abundance and therefore the quality and functioning of the system." Thus, the NRA appears to consider changes in forest structure as a threat to this Priority Forest Type but presents no supporting scientific evidence. Harvesting cove sites can increase	Review additional information sources; investigate alternative methods for mapping OG, additional inforamtion sources regarding threats to cove sites; note that basic ecology indicates that changest to structure and species composition will affect biodiversity; note that just because sustainable management can be implemented in LSBH, doesn't mean is is done consistently; find additional information resources for LSBH threats; discuss the above with teh WG	Economic

R	CQ 6a	With respect to Mesophytic Cove Sites, the NRA (pg. 205) states that "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." It further states (pg. 205) that forestry practices can "affect herbaceous species composition or abundance and therefore the quality and functioning of the system." Thus, the NRA appears to consider changes in forest structure as a threat to this Priority Forest Type but presents no supporting scientific evidence. Again, some of the issues identified as threats (e.g., deer herbivory, climate change, harvesting of herbs, pollution) appear to be outside the scope of an assessment of risk associated with sourcing wood. It is unclear how a certificate holder could confirm that wood sourced from this Priority Forest Type is acceptable. For several CBAs, the NRA suggests that forest management is adversely affecting biodiversity values associated with native longleaf pine forests. For example, in the threat assessment for the Cape Fear Arch CBA, the NRA states that "Longleaf pine biodiversity values can be adversely affected by forest management activities via conversion of longleaf (Pinus palustris) to other pine types, and the use of management techniques, including herbicide application that have the potential to inhibit native understory communities" (pg. 102). Similar statements are included in the threat assessments for the Florida Panhandle CBA (pg. 102), the Southern Appalachians CBA (pg. 101), and the Native Longleaf Pine Systems Priority Forest Type (pg. 115). Over the last several decades, many conservation programs and initiatives have supported efforts to increase the area of longleaf pine forest in the Southeast and enhance the value of pine forests for species associated with open pine forests. Examples include the Longleaf Alliance, America's Longleaf Restoration Initiative, the American Forest Foundation Habitat Credit Trading Program, the Conservation Reserve Program, the Wildlife Habitat Incentive Program, the Environmental Quality Incentives Program, the American Reinvestment and Recovery Act, and others. As a result, the area in longleaf pine forest type and longleaf dominated forests have been increasing for more than 15 years (Appendix A). At present, there are an estimated 4.7 million acres in longleaf-dominated forests (personal communication; Robert Abernethy, Longleaf Alliance). Area in the longleaf pine forest type increased by 8% between 2010 and 2016 (Figure C1 in Appendix A). We encourage FSC to consider that communities can be very similar between pine stands with overstories dominated by longleaf pine or other pine species. In south Georgia, Hedman et al. (2000) characterized plant communities in 49 plots located in forest stands with	Review additional inforamtion sources; investigate additional inforamtion sources regarding threats to cove sites; note that basic ecology indicates that changest to structure and species composition will affect biodiversity; note that just because sustainable management can be implemented in LSBH, doesn't mean is is done consistently find additional information resources for LSBH threats; discuss the above with teh WG	Economic
A	CQ 6a	I am unaware of any additional forested ecosystems in the contiguous US that could be added to the list		Economic
R	CQ 6a	AF&PA incorporates by reference the comments submitted by NCASI on this question. Public Lands: AF&PA is concerned by the indication of risk on federal lands in the western U.S. FSC-US states several potential threats to old growth including invasive species, pests, pathogens, forest fragmentation, fires suppression, and catastrophic wildfires. For a number of these threats, including fire suppression, pathogens, and wildfires, active mechanical management can reduce these threats, not increase them. Furthermore, federal lands, and in particular the U.S. Forest Service, have adopted restoration focused logging and harvest methods in coordination with collaboratives using stewardship contracting that work to accomplish multiple objectives while providing fiber to local wood product facilities. Federal lands are some of the most heavily regulated areas for timber management in the nation, with laws including the National Forest Management Act and National Environmental Policy Act. Timber sales are developed in accordance with forest management plans and undergo rigorous environmental reviews, with stakeholder input and the opportunity for parties to appeal the decisions made by the Forest Service and Bureau of Land Management, and ultimately, challenge the decisions in court. Additionally, state and municipal lands have similar regulations and oversight as they are owned by public entities. Designating risk on state lands can have negative effects on the social structures of communities that surround them, as, for example, many state lands are set up as trusts for schools with timber sales providing funding for local school districts. Priority Forest Types: As noted by NCASI, many of these forest types are overly broad and have vague definitions as to what areas may or may not be included in them. There is also a lack of clarity around the scientific basis for the designations of these forest types.	Look for additional information sources and then discuss with WG	Economic

R	CQ 6a	AFRC incorporates by reference the comments submitted by NCASI on this question. Public Lands: AFRC is concerned by the indication of risk on federal lands in the western U.S. FSC-US states several potential threats to old growth including invasive species, pests, pathogens, forest fragmentation, fires suppression, and catastrophic wildfires. For a number of these threats including fire suppression, pathogens, and wildfires, active management -- including timber harvest -- can reduce these threats, not increase them. Furthermore, federal lands, and in particular the U.S. Forest Service, have adopted restoration focused logging and harvest methods in coordination with collaboratives using a variety of contract mechanisms that work to accomplish multiple objectives while providing fiber to local wood product facilities. Federal lands are some of the most heavily regulated areas for timber management in the nation, under laws including the National Forest Management Act and National Environmental Policy Act (among many others) and attendant regulations. Timber sales are developed in accordance with forest land and resource management plans and undergo rigorous environmental reviews, with stakeholder input and the opportunity for parties to appeal the decisions made by the Forest Service and Bureau of Land Management, and ultimately, challenge the decisions in court. Most of the governing forest plans contain restrictions on how harvest may affect old growth and/or late-successional forest types. In areas covered by the Northwest Forest Plan, for example, over 7.4 million acres, or 30% of the plan area, were set aside as "Late Successional Reserves" with significant restrictions on timber harvest. This plan, as well as all other forest plans in the Northwest, was found not to appreciably reduce the likelihood of survival and recovery of species, such as the northern spotted owl, which are associated with late-successional ecosystems. To state that harvest from these areas carries risk to old growth is not supported by the facts. Additionally, State and Municipal lands have similar regulations and oversight as they are owned by public entities. Designating risk on state lands can have negative impacts on the social structures of those communities that surround them, as many state lands are set up as trusts for schools with timber sales providing funding for local school districts. Priority Forest Types: As noted by NCASI, many of these forest types are overly broad and have vague definitions as to what areas may or may not be included in them. There is also a lack of clarity around the scientific basis for the designations of these forest types.	Look for additional information sources and then discuss with WG	Economic
R	CQ 6a	Yes, Old Growth, Roadless Areas and Priority Forest Types together address the rare forested ecosystems in the US; however, the NRA paints with too broad a brush across entire FSC geographic areas when identifying these risk. For instance the entire Appalachian geographic region is identified at specified risk for Mesophytic Cove Sites, including western Tennessee to eastern Maryland. It is unlikely that a Mesophytic cove site could be identified on the eastern shore or along the Mississippi River. These sites only exist at higher elevations with northern exposers and very limited access. By the very nature of where they are located there is little danger that these sites are threatened by invasive species or conversion and many of these intact Mesophytic Cove sites today are located on public land were they receive some degree of protection. Many of the threats that you have identified, ie: deer herbivory, climate change, pollution and herb harvesting are not affected by forest practices or harvesting. The most common timber harvesting methods used in the Appalachian region involves some form of selective harvest, not clear cutting so it is unlikely that even when harvesting occurs in a Mesophytic Cover that the structure and composition of the forest will be altered. You have offered no data demonstrating that there is a specified risk to these sites and we are unsure how we are to determine whether wood harvested from these sites is acceptable or not. We believe that any risk to these sites is low.	Investigate elevation as a criteria for Cove site specified risk area; investigate additional sources and then discuss with WG	Economic
R	CQ 6a	The methodology used compared to the initial NRA makes sense. Further removal of non-forest areas where possible should occur to better align where the risks are identified compared to not present. As an example the mesophytic cove site map can be edited to only show potential risk where forested areas are present and major non forest areas can be removed. If regional meetings discussion outcomes are that risks are more centered in certain areas the flexibility to revise NRA mapped items should be present as part of concentrating mitigation efforts in only the areas where mitigation is needed.	Discuss with WG - need to be consistent with broad specified risk areas in the western states	Economic

R	CQ 6a	The decision to apply a "specified" risk designation for risk to Old Growth forests only on publicly-owned forests in the west is somewhat troubling. The statement "Forest management policies and the resulting activities are threats to old growth forests" is highly subjective and potentially misleading. Discussion within the "threat assessment" section points to the very complex serious of land management policy challenges facing the western regions. The relevance of wood procurement (i.e. for controlled wood) is not clear at all. The fact that primary threats to Old Growth forests might be caused by inactivity by land managers is largely ignored. By definition, public land managers in the US are directly accountable to their respective branches of government, and ultimately to the public at large and the political system. This policy format is far from ideal, but far more broadly based and responsive than the FSC system.	Look for additional information sources and then discuss with WG	Economic
A	CQ 6a	The logic for the methodology used is sound.		Economic
R	CQ 6a	Roadless Areas The fact that there is no consistent database for roadless areas across all ownerships and landscapes in the US should not preclude them from being addressed where important and feasible. Perhaps contrary to the NRA's claim at page 111, the prior incarnation of the WG, when faced with the limitations of the datasets described at page 111, did not conclude that roadless area consideration should be limited to inventoried roadless areas on National Forests. Rather, the prior WG concluded that the risk of unprotected roadless areas is greatest on National Forests and Bureau of Land Management (BLM) forests, inclusive of but not limited to inventoried areas. Meanwhile, the suggestion at page 112 that relatively few BLM Wilderness Study Areas (WSAs) exist in forest zones should not preclude recognition for those WSAs that are forested, nor should it preclude recognition for other roadless areas in BLM forests. At a minimum, the NRA should be revised to recognize the risk to roadless areas on National Forests and BLM forests, for roadless areas of 1,000 acres in size, including but not limited to those that are inventoried or designated as WSAs. Indeed, those that are not inventoried by the Forest Service or designated as WSAs by the BLM are probably at greatest risk from road construction, commercial logging, and other harmful development. Meanwhile, 1,000 acres is a threshold commonly cited by ecologists and forest conservation organizations, including in comments that FSC US has previously received from conservation organizations during the NRA process. If the Forest Service or BLM do not have adequate data sources for these uninventoried/undesignated areas, then at a minimum, local and regional conservation organizations can be consulted to help identify them. Likewise, the NRA should be revised to recognize that while the Roadless Rule for National Forest lands has been relatively effective, it does not constitute permanent protection, and also does not provide any protection to uninventoried roadless areas on National Forests, or within BLM forests. Old Growth To its credit, the NRA still flags old growth in the Pacific Coast and Rockies Regions as being at risk. However, some of the NRA's language on old growth (at page 111) incorrectly dismisses logging-related threats and calls for	Outreach to expert identified, look for additional information sources; discuss with WG	Environmental
R	CQ 6a	Because of the work created by a specified risk designation, we need a finer filter for areas shown as specified risk by the initial filter. A regional filter needs to be used to drill down where specified risk is shown. An example of a regional "drill down" is illustrated in the Western US related to HCV. There is a significant body of literature tracking HCV related topics because of the Northwest Forest Plan. Researchers have published data we can use to help identify risk designations and researchers who are responsive and happy to answer question.	Look for alternative methods for identifying OG specified risk and discuss with WG	Social

R	CQ 6a	WestRock incorporates by reference the comments submitted by NCASI on this question. WestRock incorporates by below comments submitted by AF&PA on this question. Public Lands: AF&PA is concerned by the indication of risk on federal lands in the western U.S. FSC-US states several potential threats to old growth including invasive species, pests, pathogens, forest fragmentation, fires suppression, and catastrophic wildfires. For a number of these threats including fire suppression, pathogens, and wildfires active mechanical management can reduce these threats, not increase them. Furthermore, federal lands, and in particular the U.S. Forest Service, have adopted restoration focused logging and harvesting methods in coordination with collaboratives using stewardship contracting that work to accomplish multiple objectives while providing fiber to local wood product facilities. Federal lands are some of the most heavily regulated areas for timber management in the nation, with laws including the National Forest Management Act and National Environmental Policy Act. Timber sales are developed in accordance with forest management plans and undergo rigorous environmental reviews, with stakeholder input and the opportunity for parties to appeal the decisions made by the Forest Service and Bureau of Land Management, and ultimately, challenge the decisions in court. Additionally, State and Municipal lands have similar regulations and oversight as they are owned by public entities. Designating risk on state lands can have negative impacts on the social structures of those communities that surround them, as many state lands are set up as trusts for schools with timber sales providing funding for local school districts. Priority Forest Types: As noted by NCASI, many of these forest types are overly broad and have vague definitions as to what areas may or may not be included in them. There is also a lack of clarity around the scientific basis for the designations of these forest types.	Look for additional information sources and then discuss with WG	Economic
R	CQ 6a	The concept of late seral forests = HCV is misguided to start with. If an ecosystem or forested area is rare or endangered, or has special habitat features, that's one thing, but to simply identify an entire age class structure as being HCV makes no sense. The definition of Old growth is too subjective and open to misapplication, especially "Type 2 Old Growth", as this describes a great deal of mature forest in the western US. Surely all of these forests can't be HCV. At this point, it seems clear that there is a strong desire for many areas of the US to be classified as HCVF. This is a subjective decision that is up to FSC, which is fine. It would be much better to simply state the fact that certain areas are considered HCVF, and avoid all the semantics of datasets and justification for why the areas are HCVF or not. At the end of the day, for areas designated as HCVF, what really matters, is what the Control Measures will be, as these are the drivers for Cert Holders going forward.	Discuss with WG	Economic
R	CQ 6a	While current protections afforded to HCV 3 forests on federal land are generally quite strong, they are not necessarily permanent. They have not all been inventoried, especially on private land, making their protection that much more difficult. Local and regional conservation organizations and land trusts should be able to help identify these places.	Discuss with WG	Environmental
R	CQ 6a	It appears that the designation of Mesophytic Cove Sites as HCFs does not align with on-the-ground reality. While we know of no such study, a modest effort to assess how much of this type is located on federal lands protected from any harvest, federal lands subject to modern forestry practices, and other types of conservation land would show that that there is low risk that this type will be diminished by forest management at a landscape scale. Threats are site-specific and localized. The designation of Late Successional Bottomland Hardwoods in the Southeast/Mississippi Alluvial Valley regions appears to be a political decision. The research cited by other commenters (NCASI) shows that these sites are resilient. An arbitrary 80-year cut-off penalizes landowners who have chosen to grow their timber to larger sizes. These forests regrow after harvesting. Citations of priority forest types from Wildlife Action Plans are particularly problematic. There are similar designations in Wildlife Action Plans throughout the nation, yet most such areas did not become selected as specified risk.	Look for additional information sources and then discuss with WG	Economic

R	CQ 6a	The methodology behind designating Priority Forest Types is a little unclear based on the NRA document. The reasoning provided was that they "were developed by the original Controlled Wood Working Group (NRA WG) using the FSC US Forest Management Standard as guidance in addition to the HCV Resource Network guidance and additional stakeholder input". Concern is over inclusion of forest types that may be ecologically diverse by nature but can and have been managed effectively. Late successional bottomland hardwoods and mesophytic cove sites fall in this category. Both of these systems can be effectively managed (harvested) and still retain community composition. Designating as HCV 3 may result in an unnecessary avoidance of these areas without a real biological reason for doing so. Also, protection of a seral stage, i.e. late successional bottomland hardwoods, needs further justification.	Look for additional information sources that support HCV3 identificaiton; note that while these forest types can be successfully managed, doesn't mean tha they are consistently	Economic
R	CQ 6a	See NCASI comments. A number of the HCV 3 areas are of particularly significant concern. Old growth – The defined area must be re-evaluated and be greatly refined and limited. It is arbitrary to include all public lands not already protected. The definition of old growth forests as defined by FSC is vague, subjective, and open to interpretation that can include any stand of timber, managed or unmanaged, that is in late seral succession. Exclusion of this source could have significant adverse social and economic impacts, as these forestlands are a significant source of fiber for mills in the 2 regions. For example, Washington and Idaho state public forest lands are endowment lands used to generate income for state purposes, most notably school funding. These lands are managed as such, to generate income, not to recruit old growth forests. It is interesting, and seemingly contradictory that both fire suppression and catastrophic wildfire are listed as threats. Likewise, both forest management activities and the lack of them (with respect to managing younger forests with the goal of creating old growth) are listed as threats. Without fire suppression efforts and/or forest management activities, it can be argued that those forests adjacent to "old growth forest," which could contain an overabundance of fuel, increases the likelihood of a catastrophic wild fire which could destroy all adjacent stands, not just "old growth." This includes neighboring landowners and structures. There are multiple sources that state certain forest management activities do mimic natural fires. To conclude categorically that management activities do not mimic fire is, at best, misleading. The most significant threat listed is climate change, which well beyond the scope or control of wood sourcing activities. Finally, it should be noted that public lands in the 2 regions, both federal and state, are managed under very strict federal and state agency oversight, and that includes significant public stakeholder input that must be considered. Longleaf Pine – This category should be deleted from the HCV 3 specified risk designation. The NRA states on page 209 that this "…type has been reduced to less than 5% of its original range" and that "this system is one of the most rare in the world." The latter statement borders on ridiculous when (according to the NCASI comments) there is currently an estimated 4.7 million acres (5% of a big number is still a relatively big number), and the area increased by 8% between 2010 and 2016. Additionally, as very well documented in the NCASI comments, the ecosystem attributes and values can and are being created and maintained with proper management of other pine species, such as loblolly and slash pine. The ecosystem type itself is not dependent on longleaf species per se. Mesophytic cove – It is unclear as to how these sites are defined and delineated on the ground and what the mitigation expectations are. Obviously, this would be determined at the regional meetings. At this point, we simply point out that this is another unknown, with resulting requirements that could be practically implemented, or not.	Investigate alternative methods for mapping OG, improve definition of cove sites; look for additional information sources for cove site and LSBH and then discuss with WG	Economic
A	CQ 6a	Yes, at this time feel these categories are adequate.		Environmental
R	CQ 6b	Based on our reading of this section, we believe that significantly more research needs to be conducted for specified risk areas.	Look for additional information sources and then discuss with WG	Economic
X	CQ 6b	No available free public data sources.		Economic

R	CQ 6b	• WWF Ecoregion definition and information. • Forest, woodland, or mangrove ecoregions identified by WWF as a Global 200 Ecoregion and assessed by WWF as having a conservation status of endangered or critical. If the Global 200 Ecoregion comprises more than a single terrestrial ecoregion, an ecoregion within the Global 200 Ecoregion can be considered low risk if the sub-ecoregion is assessed with a Conservation Status other than "critical/endangered." • Regions identified by the World Conservation Union (IUCN) as a Centre of Plant Diversity. • Regions identified by Conservation International as a High Biodiversity Wilderness Area that contain contiguous forest ecosystems greater than 500 km2. • Regions identified by the World Resources Institute as a Frontier Forest. Intact Forest Landscapes, as identified by Greenpeace.	Assess information available and discuss with WG	Economic
X	CQ 6b	Not that I am aware of…		Economic
R	CQ 6b	Overall, significantly more research needs to be conducted for specified risk areas. For example, as was brought up in the FSC NRA overview webinar on February 20, 2018 related to Category 3, Indicator 3.3 HCV 3 and Native Longleaf Pine systems, there was a certain amount of subjective judgement used for the Specified Risk determination. Although there were no specific risks identified associated with harvest it was felt that there was enough concern about incompatible forest management activities and forest type conversion to make the Specified Risk determination. While there has been a great deal of loss of Native Longleaf Pine systems there is also a significant and building interest in increasing longleaf pine acreage in the SE U.S. There are management plans and deliberate efforts underway to convert areas back to longleaf pine dominated systems and to manage what is already in place to make it better (by introducing fire regimes onto the landscape, for example). Specifically, as noted in the Georgia Forestry Commission's 2010 Statewide Assessment of Forest Resources, "Georgia and several other southern states are collaborating to reintroduce longleaf pine throughout its natural range". Additionally, groups like the Longleaf Alliance are involved in actively promoting restoration and working with public and private landowners. Current and near-term restoration activities in the SE should be noted in the NRA and be taken into consideration if control measures and mitigation are to be developed. Same as with HCV1, State Wildlife Action Plans (SWAPs) are also variously referenced within the NRA and Annexes. These are very important (and stakeholder developed!) resources that should be consulted and utilized as much as possible. They contain species information and detailed information about planned conservation activities in each state.	Look for additional information sources and then discuss with WG	Economic
R	CQ 6b	Overall, significantly more research needs to be conducted for specified risk areas. In some instances, like with Native Longleaf Pine Systems, there was a certain amount of subjective judgement used for the Specified Risk determination. Although there were no specific risks identified associated with harvest it was felt that there was enough concern about incompatible forest management activities and forest type conversion to make the Specified Risk determination. This was discussed in the FSC NRA overview webinar on February 20, 2018 related to Category 3, Indicator 3.3 HCV 3 and Native Longleaf Pine systems. It should also be noted that while there has been a great deal of loss of Native Longleaf Pine systems there is also a significant and building interest in increasing longleaf pine acreage in the SE U.S. Groups like the Longleaf Alliance are involved in actively promoting restoration and working with public and private landowners. Current and near-term restoration activities in the SE should be noted in the NRA and be taken into consideration if control measures and mitigation are to be developed. And, as noted with HCV1, State Wildlife Action Plans (SWAPs) are referenced within the NRA and Annexes. These are very important, and stakeholder-developed, resources that should be consulted and utilized as much as possible. They contain species information and detailed information about planned conservation activities in each state.	Look for additional information sources and then discuss with WG	Economic

X	CQ 6b	If so, they are beyond my familiarity		Environmental
R	CQ 6b	Overall, significantly more research needs to be conducted for specified risk areas. For example, as was brought up in the FSC NRA overview webinar on February 20, 2018 related to Category 3, Indicator 3.3 HCV 3 and Native Longleaf Pine systems, there was a certain amount of subjective judgement used for the Specified Risk determination. Although there were no specific risks identified associated with harvest it was felt that there was enough concern about incompatible forest management activities and forest type conversion to make the Specified Risk determination. While there has been a great deal of loss of Native Longleaf Pine systems there is also a significant and building interest in increasing longleaf pine acreage in the SE U.S. There are management plans and deliberate efforts underway to convert areas back to longleaf pine dominated systems and to manage what is already in place to make it better (by introducing fire regimes onto the landscape, for example). Specifically, as noted in the Georgia Forestry Commission's 2010 Statewide Assessment of Forest Resources, "Georgia and several other southern states are collaborating to reintroduce longleaf pine throughout its natural range". Additionally, groups like the Longleaf Alliance are involved in actively promoting restoration and working with public and private landowners. Current and near-term restoration activities in the SE should be noted in the NRA and be taken into consideration if control measures and mitigation are to be developed. Same as with HCV1, State Wildlife Action Plans (SWAPs) are also variously referenced within the NRA and Annexes. These are very important (and stakeholder developed!) resources that should be consulted and utilized as much as possible. They contain species information and detailed information about planned conservation activities in each state.	Look for additional information sources and then discuss with WG	Economic
R	CQ 6b	Overall, significantly more research needs to be conducted for specified risk areas. For example, as was brought up in the FSC NRA overview webinar on February 20, 2018 related to Category 3, Indicator 3.3 HCV 3 and Native Longleaf Pine systems, there was a certain amount of subjective judgement used for the Specified Risk determination. Although there were no specific risks identified associated with harvest it was felt that there was enough concern about incompatible forest management activities and forest type conversion to make the Specified Risk determination. While there has been a great deal of loss of Native Longleaf Pine systems there is also a significant and building interest in increasing longleaf pine acreage in the SE U.S. There are management plans and deliberate efforts underway to convert areas back to longleaf pine dominated systems and to manage what is already in place to make it better (by introducing fire regimes onto the landscape, for example). Specifically, as noted in the Georgia Forestry Commission's 2010 Statewide Assessment of Forest Resources, "Georgia and several other southern states are collaborating to reintroduce longleaf pine throughout its natural range". Additionally, groups like the Longleaf Alliance are involved in actively promoting restoration and working with public and private landowners. Current and near-term restoration activities in the SE should be noted in the NRA and be taken into consideration if control measures and mitigation are to be developed. Same as with HCV1, State Wildlife Action Plans (SWAPs) are also variously referenced within the NRA and Annexes. These are very important (and stakeholder developed!) resources that should be consulted and utilized as much as possible. They contain species information and detailed information about planned conservation activities in each state.	Look for additional information sources and then discuss with WG	Economic
R	CQ 6b	Does the US Forest Service or the Bureau of Land Management have their own designation of old growth? Are they similar to the old-growth requirements listed in the FSC-US standard?	Discuss with WG	Economic

R	CQ 6b	State data sets should cover this.	Look for additional information sources and then discuss with WG	Economic
X	CQ 6b	See answer above (Question 6, Part 1) and References section.		Economic
X	CQ 6b	As they relate to the specified risk associated with old growth in the Rocky Mountain and Pacific Coast Regions, it is unclear to me how the datasets referenced are relevant to the conclusion being offered.		Economic
E	CQ 6b	FSC-US should clarify threats to HCV 4 from forest management activities and those from threats unrelated to forest management activities.	Review text and clarify if possible	Economic
E	CQ 6b	FSC-US should clarify threats to HCV 4-3 from forest management activities and those from threats unrelated to forest management activities.	Review text and clarify if possible	Economic
X	CQ 6b	At this time we are not aware of any.		Economic
X	CQ 6b	Perhaps. See note above		Economic
X	CQ 6b	See above		Environmental
R	CQ 6b	Northwest Research Station.	Review additional inforamtion sources and discuss with WG	Social
R	CQ 6b	USGS Land Cover Data Viewer https://gis1.usgs.gov/csas/gap/viewer/land_cover/Map.aspx	Review additional inforamtion sources and discuss with WG	Economic
E	CQ 6b	FSC-US should clarify threats to priority forest types, Mesophytic Coves from forest management activities and those from those unrelated to forest management activities	Review text and clarify if possible	Economic
R	CQ 6b	In the West, consultation with Drs. Norm Johnson (Professor Emeritus at Oregon State University) and Jerry Franklin (Professor at University of Washington) could help locate most potential HCV 3 forests.	Contact experts iif possible and then discuss with WG	Environmental
R	CQ 6b	Data sets for roadless areas and old growth seem appropriate. A finer-scale approach to Priority Forests, with attention to unique microclimates, would be more appropriate. Nature Serve ecological community types with G ranks indicating their global rarity (G1-G2) would be preferable. Classifying broad forest areas as HCVs will be challenging and may not result in the protection of unique systems.	Consider alternative methods for mapping specified risk and discuss with WG	Economic
R	CQ 6b	The literature on defining and determining roadless areas varies and this is an active area of research, globally. There is no consensus for an absolute threshold or ratio to determine a roadless area, but rather a recognition for such thresholds to be locally and thoughtfully determined. For these reasons, we recognize the assessment of roadless areas to be ambiguous, especially with limited knowledge of non-public lands. We expect relevant experts have been or will be consulted in each region to determine the appropriate risk designation for roadless areas to complement the data measures used. We have suggested expert names or resources previously. If additional experts are suggested through this consultation, suggest consulting these experts as well to ensure this designation is robust and justifiable.	Contact experts if possible and then discuss with WG	Environmental

R	CQ 6c	Landsat imagery is available for purchase.	Assess cost/benefit of data acquisition and discuss with WG	Economic
R	CQ 6c	We believe there is very little threat to old growth forests on public lands in the western US. The USFS and other government entities have already addressed old growth management and due to changes in the forest industry over time, the overwhelming majority of forest products facilities cannot physically handle the large size trees from old growth forests. The USFS has several programs in place to address the management of younger forests to eventually become late seral stage or old growth.	Discuss with WG	Economic
X	CQ 6c	No		Economic
R	CQ 6c	The results defy logic, and can best be understood as a political decision. Public lands containing old-growth are not threatened by forest management activities. On the contrary more forest management is needed to restore these systems and protect them from uncharacteristicly-severe wildfires. There are numerous reports and publications detailing the limited amount of harvesting on U.S. National Forests, for example. NEPA and Forest Service planning requirements are adequate to protect these areas for the values that they encompass.	Discuss with WG	Economic
R	CQ 6c	FSC should avail itself of the Forest Plan monitoring reports for the National Forest System lands for information on status of old growth stands on public lands. As stated above, threats to public land old growth forests are at risk from factors outside of forest management, and the designation of risk for public lands may negatively impact old growth forests.	Discuss with WG	Economic
X	CQ 6c	I am not		Environmental

R	CQ 6c	Comment: GAP1 and GAP2 forests are certainly low risk, but the designation of wood from all other public lands in the Pacific Coast region as "specified risk" is too coarse a conclusion—it does not accurately reflect the distribution of old forests across the landscape (and on both public and private ownerships) or the efforts currently underway to protect and enhance those conditions. There are a variety of habitat conservation plans (HCPs), Safe Harbor Agreements, and other arrangements with the federal services across the Pacific Northwest that protect existing old forests and/or include measures to put younger forest stands on a trajectory toward old forest habitat. These agreements exist across both private and public ownerships and are subject to a rigorous public comment period as part of the NEPA process. Below is a sampling of such agreements between forestland owners/managers and the federal services. - Washington Department of Natural Resources, State Lands Habitat Conservation Plan (Washington, Public): 1,600,000 acres - Plum Creek Timber Company (now Weyerhaeuser), Central Cascades Habitat Conservation Plan (Washington, Private): 169,177 acres - Port Blakely, Safe Harbor Agreement – Morton Block (Washington Private): 45,306 acres - Port Blakely, RB Eddy Tree Farm HCP (Washington, Private): 10,628 acres - Murray Pacific Corporation, West Fork Timber HCP (Washington, Private): 53,527 acres - SDS Company, NSO Safe Harbor Agreement (Washington and Oregon, Private): 81,587 acres - Weyerhaeuser, Millicoma Tree Farm Habitat Conservation Plan (Oregon, Private): 209,000 acres - Oregon Department of Forestry, Programmatic Safe Harbor Agreement for the NSO (Oregon, Public/Private): 19,000,000 acres *Additional current and pending agreements and more information on the above documents can be found here and here. These plans include a variety of strategies to protect existing old forests as well as enhance and restore habitat for old growth dependent species (such as the northern spotted owl and marbled murrelet) in conjunction with timber harvest and other forest management activities. Through these strategies, public and private timber managers are managing millions of acres of working forests in Washington and Oregon using strategies designed to conserve and restore older forests and the species that rely upon them.	Investigate alternative methods for mapping OG and then discuss with WG	Economic
X	CQ 6c	No		Economic

R	CQ 6c	The threat assessment does not seem to take into consideration the restoration efforts being made on USFS and BLM lands across the Rocky Mountain and Pacific Coast regions. I suspect there are many sources of information available that could be used to demonstrate the extent of this activity, and to illustrate the focus on forest health improvement, fire risk mitigation, and promotion of old forest structure development through stewardship contracting. Two examples would be from the Pinchot Institute: 1. Case Studies of Public Engagement in Stewardship Contracting, FY 2017 Programmatic Monitoring Report to the USDA Forest Service; https://www.fs.fed.us/restoration/documents/stewardship/reports/2017/FY2017Stewar dshipContractingReport-Pinchot.pdf 2. Collaborative Forest Landscape Restoration: A Meta-Analysis of Existing Research on the CFLR Monitoring Program; http://www.pinchot.org/pubs/548 (download) The specified risk calls out public lands in general, and I believe evidence exists that at least two of the three states in the Pacific Coast region each have programs geared towards the protection and enhancement of existing old growth forests, or recruitment of old forest structure. Examples from these states include: 1. In Washington State, policies related to the management of State Trust Lands contain multiple provisions for the identification, conservation, and enhancement of old growth forest. The State Trust Lands Habitat Conservation Plan is one place to look for evidence of this (https://www.dnr.wa.gov/programs-and-services/forest- resources/habitat-conservation/identifying-mature-and-old-forests); the Policy for Sustainable Forests on State Trust Lands (https://www.dnr.wa.gov/programs-and- services/forest-resources/habitat-conservation/policy-sustainable-forests-state-trust), is another. The document associated with the latter policy even names as one of the intended outcomes of the plan, "Conserving old growth and targeting other suitable structurally complex forests, to meet a 10 percent to 15 percent older-forest target for each Western Washington HCP planning unit, over 70 years." 2. In Oregon, the Oregon Department of Forestry has a stated commitment to employing structure-based management of state lands under their jurisdiction west of the Cascades, and uneven-aged management of the mixed-conifer forests east of the Cascades. Forest Management Plans for three geographic regions of the state (found under "Forest Management Plans," at: http://www.oregon.gov/odf/working/pages/stateforests.aspx), all contain information on the current status of old growth forests, and how they will be restored, protected, or enhanced over time. Riparian Management Areas, HCVAs, and other features of ODF lands and management policies would seem to provide ample evidence to suggest that protection, enhancement, and/or creation of "old forest structure," is a management objective on ODF lands.	Discuss with WG	Economic
R	CQ 6c	FSC should avail itself of the Forest Plan monitoring reports for the National Forest System lands for information on status of old growth stands on public lands. As stated above, threats to public land old growth forests are from factors outside forest management, and the designation of risk for public lands may negatively affect old growth forests.	Discuss with WG	Economic
R	CQ 6c	As stated above, threats to public land old growth forests are at risk from factors outside of forest management, and the designation of risk for public lands may negatively impact old growth forests. The FSC should avail itself of the Forest Plan monitoring reports for the National Forest System lands for information on status of old growth stands on public lands.	Discuss with WG	Economic
R	CQ 6c	We are not aware of any additional information sources that identify threats to public land Old-Growth from forest management activities. However, we think the threat to Old Growth on public land is much lower than the NRA is assuming. Since the early 1990's the harvest levels in the Pacific Northwest have been drastically reduced. These lower harvest levels are partially due to public land policy and partially due to legislative protections. Today, almost all known and identified Old Growth stands on our National Forest Lands are protected from harvesting and in many selectively harvested stands only the smaller timber is being removed leaving the larger trees standing. In reality the threat to remaining Old-Growth stands on federally owned public lands in the US is low.	Discuss with WG	Economic
X	CQ 6c	See above		Environmental

R	CQ 6c	Yes. I do not agree with the Specified Risk designation related to old growth HCV in Oregon, Washington, and California based on lack of recruitment of old growth habitat as the main issue or limited presence of current old growth condition forests. We must look at what can be expected with existing protections and land uses. I highlight this because there are protections in place today (northwest forest plan) that will bear fruit over time. The protections have not been in place long enough for younger age class forests to achieve old growth characteristics yet. Research shows a trend toward older trees in Reserves created by the Northwest Forest Plan and an increase in recruitment over time. Research exits from the Forest Service - Region 6 office related to recruitment. Raymond J. Davis is monitoring lead for older forests and spotted owls. There is on-going monitoring related to the Northwest Forest Plan to gauge success related to old growth goals in addition to other goals that overlap with our NRA. Research shows that while attrition of old growth on national forests does occur (largely due to fire disturbance events), protection goals are being met and recruitment of older growth forests is occurring and is expected to increase over time. Furthermore, there is a significant age class of 60-80 year trees in the reserves that are not currently classified as old growth created from post fire germination and post-harvest planted that occurred mid-century. In the next 50 years this age class will start exhibiting key old growth characteristics needed for spotted owl and other old growth values. In Oregon, there is an additional wave of 100+ year old trees from fires in the late 1800s. Eighty percent of forest service property is in Reserve statues under the NWFP and managed specifically for old growth as a core goal. Land area in the reserves that was not old growth when the NWFP was established are transitioning into older forests. To see a graph that specifically shows younger age forests moving toward older growth forests in Reserve areas you can look in the latest Northern Spotted Owl monitoring report Fig. 12 on page 37. (Status and Trends of Northern Spotted Owl Habitats. Raymond J. Davis, Bruce Hollen, Jeremy Hobson, Julie E. Gower, and David Keenum, March 2016 Pacific Northwest Research Station.) The figure in the study is specific to Oregon and shows the most increase on the coastal range. Similar conditions can be assumed in Washington and California based on similar fire, harvest, and protection (NWFP) histories along the West Coast. A resource on the NWFP and recruitment of old growth is Tom Spies at Oregon State. A second resource is Norm Johnson who just retired from OSU and is publishing a book on ecological forestry. Tom has been involved in NWFP monitoring work in addition to spotted owl habitat recruitment and other related topics. I have read three monitoring reports and one phone conversation to confirm my understanding of the issue with Tom.	Look for additional information sources and then discuss with WG	Social
R	CQ 6c	FSC should avail itself of the Forest Plan monitoring reports for the National Forest System lands for information on status of old growth stands on public lands. As stated above, threats to public land old growth forests are at risk from factors outside of forest management, and the designation of risk for public lands may negatively impact old growth forests.	Discuss with WG	Economic
X	CQ 6c	Same comment as above		Environmental

		From our perspective, public lands containing old-growth are not threatened by forest management activities. For example, in the southern Appalachian region on public lands, very minimal forest management activity have occurred in the past 20 years. Given this situation, more forest management is actually needed to restore these systems, enhance wildlife habitat, and protect the forests from uncharacteristically-severe wildfires. There are numerous reports and publications detailing the limited amount of harvesting on U.S. National Forests, for example. NEPA and Forest Service planning requirements are adequate to protect these areas for the values that they encompass. Priority Forest Types: Mesophytic Cove Sites The NRA identifies a broad geographic area as having Specified Risk for Mesophytic Cove Sites. This area appears to include portions of several ecological regions (e.g., Appalachian Highlands) that vary in terms of biophysical factors that influence occurrence of Mesophytic Cove Sites. The NRA could be strengthened by refining their delineation of the area having Specified Risk for this Priority Forest Type to omit areas with little potential to include the two ecological systems related to this Priority Forest Type, i.e., Southern and Central Appalachian Cove Forest (CES 202.373). With respect to Mesophytic Cove Sites, the NRA (pg. 205) states that "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." It further states (pg. 205) that forestry practices can "affect herbaceous species composition or abundance and therefore the quality and functioning of the system." Thus, the NRA appears to consider changes in forest structure as a threat to this Priority Forest Type but presents no supporting scientific evidence. Harvesting cove sites can increase abundance at the stand level of plant and animal species associated with younger forests and diminish abundance of those associated with older forest. However, the implications of these changes for biodiversity obviously will vary depending upon the site-specific alterations to forest structure and the spatial and temporal scales of assessment. In some cases, responses to harvesting can be minimal. For example, Ford et al. (2000) surveyed cove-hardwood stands aged 15, 25, 50, and >85 years in the Southern Appalachian Mountains of northern Georgia. Of 69 species and/or genera of spring-late summer herbaceous plants recorded, the abundance of only four species differed among stand ages surveyed. We encourage FSC US to recognize that short-term changes to forest structure, such as those associated with forest harvesting, do not inherently represent a frequent, systemic, or pervasive threat to biological diversity. Furthermore, as previously mentioned, some of the issues identified as threats (e.g., deer herbivory, climate change, harvesting of herbs, pollution) appear to be outside the scope of an		
R	CQ 6c		Look for additional inforamtion sources and then discuss with WG	Economic
X	CQ 6c	Not additionally at this time.		Environmental
R	CQ 7a	It seems like the Clean Water Act reporting requirements may be a valuable source of information here.	Review additional inforamtion sources and discuss with WG	Economic
X	CQ 7a	No		Economic
R	CQ 7a	Review and consult state watershed protection plans, Clean Water Act reporting requirements (303d lists), and any regional and local water management plans.	Consider additional information sources and discuss with WG	Economic

R	CQ 7a	No, though I think more emphasis should be placed on additional ecosystem services besides those relating to water. Though erosion control and other important services were mentioned, they were not of focus in the designation of HCV4 forests. Presumably this is because the dataset available considered water issues alone. We hope that datasets suggested through this commentary review can be utilized in future analyses.	Consider additional information sources and discuss with WG	Environmental
X	CQ 7a	No		Economic
R	CQ 7a	State watershed protection plans, Clean Water Act reporting requirements, regional water plans	Consider additional information sources and discuss with WG	Economic
R	CQ 7a	State watershed protection plans, Clean Water Act reporting requirements, regional water plans	Consider additional information sources and discuss with WG	Economic
X	CQ 7a	No		Economic
X	CQ 7a	No		Economic
X	CQ 7a	No		Economic
X	CQ 7a	No		Economic
X	CQ 7a	No		Economic
X	CQ 7a	The challenge is about datasets that match the coarse scale of the NRA. Given this scale many datasets may not make sense.		Economic
X	CQ 7a	Not at this time, though with increasing impacts from climate change-related events, forest ecosystem services such as preventing erosion and mudslides may become increasingly relevant.		Environmental
A	CQ 7b	The Low Risk designation is appropriate in our opinion.		Economic

R	CQ 7b	For several CBAs, the NRA indicates that forestry operations are adversely affecting water quality. For example, "operations that are not using best management practices" and "extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation" are identified as a threat for the Ouachita River Valley CBA (pg. 100). "Reduced water quality partially due to loss of near-stream forested habitat", "sedimentation associated with forestry practices", "lack of BMP implementation," and "severe erosion of river banks" are identified as threats for the Central Appalachians CBA (pg. 101). The NRA also identifies many of these threats for the Southern Appalachian CBA (pg. 101). For the Florida Panhandle CBA, the NRA (pg. 102) identifies "point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers)" as a threat. Thus, the NRA appears to conclude that forestry practices are having a pervasive and adverse effect on water quality in many of the CBAs. The statements above about threats to water quality are not supported by the scientific literature or by surveys conducted by state forestry agencies. Furthermore, the statements conflict with Section HCV 4 Critical Ecosystem Services (pg. 213) which concludes that "Evidence of the effectiveness of forestry BMPs, combined with the reported levels of compliance, indicates that there is a high likelihood that HCV 4 are being effectively protected throughout the assessment area through the implementation of forestry BMPs associated with State nonpoint source pollution programs." In the decades following passage of the Clean Water Act, the States led development of and approved BMPs as the primary mechanism for controlling non-point source pollution from forestry operations. Cristan et al. (2017) reports that all 50 states have forestry BMP programs that address multiple categories of practices such as timber harvesting, forest road construction and maintenance, log landings, skid trails, streamside management zones, and stream crossings. Twenty-five states had written new BMP guidelines or revised their guidelines within five years of the survey by Cristan et al. (2017). Forestry BMPs are based on a substantial body of scientific research that has identified the most important causes of NPS pollution in managed forests and has demonstrated that the NPS control and mitigation measures embodied in BMPs are effective. Forestry BMP programs are typically backed by mandatory compliance with the Federal Clean Water Act and by state regulatory authority (NCASI 2009, NASF 2015).	Look for additional information regarding BMP implementation in CBAs; note that the scale of the HCV4 and HCV1 assessments are different; discuss with WG	Economic
R	CQ 7b	State Forestry/DNR Agencies NCASI has evaluated the effectiveness of forestry BMP's through numerous scientific studies. We would defer to their comments on this question.	Consider additional information sources and discuss with WG	Economic
X	CQ 7b	No		Economic
R	CQ 7b	State SICs.	Consider additional information sources and discuss with WG	Economic

R	CQ 7b	Journal of Forestry January 2016: Introduction: Symposium on Forestry Best Management Practice (BMP) Effectiveness in the Eastern United States. Erik B. Schilling. Research Articles: Estimated Erosion, Ground Cover, and Best Management Practices Audit Details for Postharvest Evaluations of Biomass and Conventional Clearcut Harvests. Scott M. Barrett, Scott M., W. Michael Aust, M. Chad Bolding, William A. Lakel III, and John F. Munsell. Can the Water Erosion Prediction Project Model Be Used to Estimate Best Management Practice Effectiveness from Forest Roads? Kristopher R. Brown, Kevin J. McGuire, W. Cully Hession, and W. Michael Aust. Effects of Timber Harvest on Water Quantity and Quality in Small Watersheds in the Piedmont of North Carolina. Johnny Boggs, Ge Sun, and Steven McNulty. Influence of Variable Streamside Management Zone Configurations on Water Quality after Forest Harvest. Emma L. Witt, Christopher D. Barton, Jeffrey W. Stringer, Randall K. Kolka, and Mac A. Cherry	Consider additional information sources and discuss with WG	Economic
R	CQ 7b	As a NCASI member, we rely heavily on their scientific expertise and evaluation of the draft NRA. We therefore will incorporate NCASI comments on this question. For several CBAs, the NRA indicates that forestry operations are adversely affecting water quality. For example, "operations that are not using best management practices" and "extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation" are identified as a threat for the Ouachita River Valley CBA (pg. 100). "Reduced water quality partially due to loss of near-stream forested habitat", "sedimentation associated with forestry practices", "lack of BMP implementation," and "severe erosion of river banks" are identified as threats for the Central Appalachians CBA (pg. 101). The NRA also identifies many of these threats for the Southern Appalachian CBA (pg. 101). For the Florida Panhandle CBA, the NRA (pg. 102) identifies "point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers)" as a threat. Thus, the NRA appears to conclude that forestry practices are having a pervasive and adverse effect on water quality in many of the CBAs. The statements above about threats to water quality are not supported by the scientific literature or by surveys conducted by state forestry agencies. Furthermore, the statements conflict with NRA Section HCV 4 Critical Ecosystem Services (pg. 213) which concludes that "Evidence of the effectiveness of forestry BMPs, combined with the reported levels of compliance, indicates that there is a high likelihood that HCV 4 [Critical Ecosystem Services] are being effectively protected throughout the assessment area through the implementation of forestry BMPs associated with State nonpoint source pollution programs." The critical ecosystem service referred to here is water quality. In the decades following passage of the Clean Water Act, the States led development and approval of BMPs as the primary mechanism for controlling non-point source pollution from forestry operations. Cristan et al. (2017) reports that all 50 states have forestry BMP programs that address multiple categories of practices such as timber harvesting, forest road construction and maintenance, log landings, skid trails, streamside management zones, and stream crossings. Twenty-five states had written new BMP guidelines or revised their guidelines within five years of the survey by Cristan et al. (2017). Information about BMP recommendations, implementation rates, and research findings is available through the National Association of State Foresters at https://stateforesters.org/action-issues-and-policy/state-forestry-BMPs-map-o-o. Forestry BMPs are based on a substantial body of scientific research that has identified the most important causes of nonpoint source (NPS) pollution in managed forests and has demonstrated that the NPS control and mitigation measures embodied in BMPs are effective. Forestry BMP programs are typically backed by mandatory compliance with the Federal Clean Water Act and by state	Look for additional information regarding BMP implementation in CBAs; note that the scale of the HCV4 and HCV1 assessments are different and that BMPs are designed to protect water quality but their effectiveness at protecting biodiversity is not fully understood; discuss with WG	Economic

A,I	CQ 7b	The Low Risk designation is appropriate and reasonable in the NRA. Although the NRA and Annexes describe limited availability of data related to HCV 4 there are additional information sources and legal (or state policy) protections that should be noted such as: protections for water quality provided under the Clean Water Act (CWA) that are implemented by each state, and the variety of water supply protection plans and watershed protection plans in place at the local level around the U.S. As an example, local water supply planning assistance has been provided in Ohio since the 1980s through resources available from Ohio Department of Natural Resources, Division of Water and the Ohio EPA, Division of Drinking & Ground Waters. This type of planning is essential to maintain dependable drinking water supplies that are essential for the health and social well-being of all Ohioans. Likewise, Indiana has developed a statewide water supply and storage plan (2009 and updated in 2015). The purpose of this plan is to provide the State of Indiana with an effective and systematic plan to assess and manage the State's water resources during a water shortage or potential water shortage to respond, to the maximum extent practicable, to the needs of its water users while protecting its environment. These examples are provided because these are the states where we have facilities, not necessarily where we currently, or would in the future, source CW. There are no doubt similar regional, state, and local water resource planning efforts around the U.S. that should be considered and consulted for determinations regarding HCV4.	Consdier additional information soures and incorporate as appropriate	Economic
R	CQ 7b	For several CBAs, the NRA indicates that forestry operations are adversely affecting water quality. For example, "operations that are not using best management practices" and "extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation" are identified as a threat for the Ouachita River Valley CBA (pg. 100). "Reduced water quality partially due to loss of near-stream forested habitat", "sedimentation associated with forestry practices", "lack of BMP implementation," and "severe erosion of river banks" are identified as threats for the Central Appalachians CBA (pg. 101). The NRA also identifies many of these threats for the Southern Appalachian CBA (pg. 101). For the Florida Panhandle CBA, the NRA (pg. 102) identifies "point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers)" as a threat. Thus, the NRA appears to conclude that forestry practices are having a pervasive and adverse effect on water quality in many of the CBAs. The statements above about threats to water quality are not supported by the scientific literature or by surveys conducted by state forestry agencies. Furthermore, the statements conflict with NRA Section HCV 4 Critical Ecosystem Services (pg. 213) which concludes that "Evidence of the effectiveness of forestry BMPs, combined with the reported levels of compliance, indicates that there is a high likelihood that HCV 4 [Critical Ecosystem Services] are being effectively protected throughout the assessment area through the implementation of forestry BMPs associated with State nonpoint source pollution programs." The critical ecosystem service referred to here is water quality. In the decades following passage of the Clean Water Act, the States led development and approval of BMPs as the primary mechanism for controlling non-point source pollution from forestry operations. Cristan et al. (2017) reports that all 50 states have forestry BMP programs that address multiple categories of practices such as timber harvesting, forest road construction and maintenance, log landings, skid trails, streamside management zones, and stream crossings. Twenty-five states had written new BMP guidelines or revised their guidelines within five years of the survey by Cristan et al. (2017). Information about BMP recommendations, implementation rates, and research findings is available through the National Association of State Foresters at https://stateforesters.org/action-issues-and-policy/state-forestry-BMPs-map-o-o. Forestry BMPs are based on a substantial body of scientific research that has identified the most important causes of nonpoint source (NPS) pollution in managed forests and has demonstrated that the NPS control and mitigation measures embodied in BMPs are effective. Forestry BMP programs are typically backed by mandatory compliance with the Federal Clean Water Act and by state regulatory authority (NCASI 2009, NASF 2015). Thirty-two states have conducted BMP implementation studies (Cristan et al. 2017). Nationally, rates of BMP compliance and	Look for additional information regarding BMP implementation in CBAs; note that the scale of the HCV4 and HCV1 assessments are different and that BMPs are designed to protect water quality but their effectiveness at protecting biodiversity is not fully understood; discuss with WG	Economic

X	CQ 7b	No		Environmental
R	CQ 7b	Please refer to comments submitted by NCASI.	Discuss with WG	Economic
A,I	CQ 7b	The Low Risk designation is appropriate and reasonable in the NRA. Although the NRA and Annexes describe limited availability of data related to HCV 4 there are additional information sources and legal (or state policy) protections that should be noted. a. Legal protection for water quality is provided under the Clean Water Act (CWA). Each state has to assess water quality in streams, lakes, and estuaries and determined if those waters are meeting their designated uses. If they are not meeting their designated uses then Total Maximum Daily Loads (TMDLs) are developed and TMDL implementation plans are put into place to address the sources of impairment. Point and non-point sources of impairment are covered in TMDLs. b. Beyond the CWA, there are also a variety of water supply protection plans and watershed protection plans in place at the local level. For example, the State of Georgia requires watershed protection plans for municipalities and counties with a certain size of service area and wastewater treatment capacity (generally 1 million gallons a day). Those plans are designed to incorporate BMPs to improve and protect water quality in those areas. Water quality monitoring as well as biotic assessments (fish and macroinvertebrate communities) are required so there is a great deal of information available to determine existing threats to water quality and ecosystem services from land use changes and development activities. c. Also using the State of Georgia as an example, there are Regional Water Plans, completed for the entire State in 2011. The plans were reviewed and revised in 2016-2017. These plans were developed through a highly stakeholder driven process and include information on water resource assessments, future water demands based on growth projections (through a 2050 planning horizon), and management practices to meet regional visions and goals and address future needs. The plans and their supplemental materials are available at https://waterplanning.georgia.gov/. These plans, and others like them, done at regional or statewide scales, contain information relevant to HCV 3 concerns (and they should be identified and referenced for future iterations of the NRA and for guiding decision making coming out the planned Regional Meetings). They are also informative for HCV 4 concerns related to growth magnitude and trends.	Consdier additional information soures and incorporate as appropriate	Economic

A,I	CQ 7b	The Low Risk designation is appropriate and reasonable in the NRA. Although the NRA and Annexes describe limited availability of data related to HCV 4 there are additional information sources and legal (or state policy) protections that should be noted. a. Legal protection for water quality is provided under the Clean Water Act (CWA). Each state has to assess water quality in streams, lakes, and estuaries and determined if those waters are meeting their designated uses. If they are not meeting their designated uses then Total Maximum Daily Loads (TMDLs) are developed and TMDL implementation plans are put into place to address the sources of impairment. Point and non-point sources of impairment are covered in TMDLs. b. Beyond the CWA, there are also a variety of water supply protection plans and watershed protection plans in place at the local level. For example, the State of Georgia requires watershed protection plans for municipalities and counties with a certain size of service area and wastewater treatment capacity (generally 1 million gallons a day). Those plans are designed to incorporate BMPs to improve and protect water quality in those areas. Water quality monitoring as well as biotic assessments (fish and macroinvertebrate communities) are required so there is a great deal of information available to determine existing threats to water quality and ecosystem services from land use changes and development activities. c. Also using the State of Georgia as an example, there are Regional Water Plans, completed for the entire State in 2011. The plans were reviewed and revised in 2016-2017. These plans were developed through a highly stakeholder driven process and include information on water resource assessments, future water demands based on growth projections (through a 2050 planning horizon), and management practices to meet regional visions and goals and address future needs. The plans and their supplemental materials are available at https://waterplanning.georgia.gov/. These plans, and others like them, done at regional or statewide scales, contain information relevant to HCV 3 concerns (and they should be identified and referenced for future iterations of the NRA and for guiding decision making coming out the planned Regional Meetings). They are also informative for HCV 4 concerns related to growth magnitude and trends.	Consdier additional information soures and incorporate as appropriate	Economic
A,I	CQ 7b	Yes! Here are a sampling: • Kentucky's Timber Harvesting BMP Implementation Study: Preliminary Results – University of Kentucky Cooperative Extension Services – FORFS 97-4 • Silviculture Best Management Practices 2007 Implementation Survey Report – Florida Division of Forestry (February 2008) • Vowell and Frydenborg. 2004. A biological assessment of best management practice effectiveness during intensive silviculture and forest chemical application. Water, Air, and Soil Pollution: Focus: 4 (297-307) • Vowell, J. 2001. Using stream bioassessment to monitor best management practice effectiveness. Forest Ecology and Management 143: 237-244 • Phillips and Blinn. 2004. Best management practices compliance monitoring approaches for forestry in the eastern United States. Water, Air, and Soil Pollution: Focus: 4 (263-274) • Ice, Dent, et al. 2004. Programs implementation and effectiveness of state forest practices rules and BMPs in the west. Water, Air, and Soil Pollution: Focus: 4 (143-169) • Kilgore, Ellefson, and Phillips. 2004. BMP compliance monitoring programs in the eastern United States. Water, Air, and Soil Pollution: Focus: 4 (119-130) • Ireland and Connors. 1994. State nonpoint source programs affecting foresztry: The 12 northeastern states. Northern Journal of Applied Forestry 11 (1): 5-11. • Briggs, Cormier, and Kimball. 1998. Compliance with Foretsry Best Management Practices in Maine. Northern Journal of Applied Forestry 15 (2): 57-68. • Ellefson, Kilgore, and Phillips. 2001. Monitoring compliance with BMPs: the experience of state forestry agencies. Journal of Forestry 99 (1): 11-17. • Husak, Grado, Bullard, and Moffat. 2005. Silvicultral best management practice compliance monitoring programs in the southern United States. SOutherm Journal of Applied Forestry 29 (1): 48-52. • Adams. 1998. Implemetation monitoring of forestry Best Management Practices for site preparation in South Carolina. Southern Journal of Applied Forestry 22 (2): 74-80. • Phillips and Blinn. 2007. Practices evaluated and approaches used to select sites for monitoring the application of best management practces: a regional summary. Journal of Forestry. 105 (4): 179-183.	Consdier additional information soures and incorporate as appropriate	Economic

A,I	CQ 7b	BMP compliance and the benefits are fairly well documented at the state level. Additionally, you can review state data for the miles of impaired streams due to silvicultural activity and find that it is very small.	Consdier additional information soures and incorporate as appropriate	Economic
R	CQ 7b	Enviva supported NCASI comments For several CBAs, the NRA indicates that forestry operations are adversely affecting water quality. For example, "operations that are not using best management practices" and "extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation" are identified as a threat for the Ouachita River Valley CBA (pg. 100). "Reduced water quality partially due to loss of near-stream forested habitat", "sedimentation associated with forestry practices", "lack of BMP implementation," and "severe erosion of river banks" are identified as threats for the Central Appalachians CBA (pg. 101). The NRA also identifies many of these threats for the Southern Appalachian CBA (pg. 101). For the Florida Panhandle CBA, the NRA (pg. 102) identifies "point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers)" as a threat. Thus, the NRA appears to conclude that forestry practices are having a pervasive and adverse effect on water quality in many of the CBAs. The statements above about threats to water quality are not supported by the scientific literature or by surveys conducted by state forestry agencies. Furthermore, the statements conflict with NRA Section HCV 4 Critical Ecosystem Services (pg. 213) which concludes that "Evidence of the effectiveness of forestry BMPs, combined with the reported levels of compliance, indicates that there is a high likelihood that HCV 4 [Critical Ecosystem Services] are being effectively protected throughout the assessment area through the implementation of forestry BMPs associated with State nonpoint source pollution programs." The critical ecosystem service referred to here is water quality. In the decades following passage of the Clean Water Act, the States led development and approval of BMPs as the primary mechanism for controlling non-point source pollution from forestry operations. Cristan et al. (2017) reports that all 50 states have forestry BMP programs that address multiple categories of practices such as timber harvesting, forest road construction and maintenance, log landings, skid trails, streamside management zones, and stream crossings. Twenty-five states had written new BMP guidelines or revised their guidelines within five years of the survey by Cristan et al. (2017). Information about BMP recommendations, implementation rates, and research findings is available through the National Association of State Foresters at https://stateforesters.org/action-issues-and-policy/state-forestry-BMPs-map-o-o. Forestry BMPs are based on a substantial body of scientific research that has identified the most important causes of nonpoint source (NPS) pollution in managed forests and has demonstrated that the NPS control and mitigation measures embodied in BMPs are effective. Forestry BMP programs are typically backed by mandatory compliance with the Federal Clean Water Act and by state regulatory authority (NCASI 2009, NASF 2015).	Look for additional information regarding BMP implementation in CBAs; note that the scale of the HCV4 and HCV1 assessments are different and that BMPs are designed to protect water quality but their effectiveness at protecting biodiversity is not fully understood; discuss with WG	Economic
R	CQ 7b	Glatfelter incorporates by reference the set of comments submitted by the National Council for Air and Stream Improvement (NCASI) on this question.	Discuss with WG	Economic

R	CQ 7b	For several CBAs, the NRA indicates that forestry operations are adversely affecting water quality. For example, "operations that are not using best management practices" and "extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation" are identified as a threat for the Ouachita River Valley CBA (pg. 100). "Reduced water quality partially due to loss of near-stream forested habitat", "sedimentation associated with forestry practices", "lack of BMP implementation," and "severe erosion of river banks" are identified as threats for the Central Appalachians CBA (pg. 101). The NRA also identifies many of these threats for the Southern Appalachian CBA (pg. 101). For the Florida Panhandle CBA, the NRA (pg. 102) identifies "point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers)" as a threat. Thus, the NRA appears to conclude that forestry practices are having a pervasive and adverse effect on water quality in many of the CBAs. The statements above about threats to water quality are not supported by the scientific literature or by surveys conducted by state forestry agencies. Furthermore, the statements conflict with NRA Section HCV 4 Critical Ecosystem Services (pg. 213) which concludes that "Evidence of the effectiveness of forestry BMPs, combined with the reported levels of compliance, indicates that there is a high likelihood that HCV 4 [Critical Ecosystem Services] are being effectively protected throughout the assessment area through the implementation of forestry BMPs associated with State nonpoint source pollution programs." The critical ecosystem service referred to here is water quality. In the decades following passage of the Clean Water Act, the States led development and approval of BMPs as the primary mechanism for controlling non-point source pollution from forestry operations. Cristan et al. (2017) reports that all 50 states have forestry BMP programs that address multiple categories of practices such as timber harvesting, forest road construction and maintenance, log landings, skid trails, streamside management zones, and stream crossings. Twenty-five states had written new BMP guidelines or revised their guidelines within five years of the survey by Cristan et al. (2017). Information about BMP recommendations, implementation rates, and research findings is available through the National Association of State Foresters at https://stateforesters.org/action-issues-and-policy/state-forestry-BMPs-map-o-o. Forestry BMPs are based on a substantial body of scientific research that has identified the most important causes of nonpoint source (NPS) pollution in managed forests and has demonstrated that the NPS control and mitigation measures embodied in BMPs are effective. Forestry BMP programs are typically backed by mandatory compliance with the Federal Clean Water Act and by state regulatory authority (NCASI 2009, NASF 2015). Thirty-two states have conducted BMP implementation studies (Cristan et al. 2017). Nationally, rates of BMP compliance and	Look for additional information regarding BMP implementation in CBAs; note that the scale of the HCV4 and HCV1 assessments are different and that BMPs are designed to protect water quality but their effectiveness at protecting biodiversity is not fully understood; discuss with WG	Economic
X	CQ 7b	No		Economic
X	CQ 7b	No		Economic
R	CQ 7b	AF&PA incorporates by reference the comments submitted by NCASI on this question.	Discuss with WG	Economic
R	CQ 7b	AFRC incorporates by reference the comments submitted by NCASI on this question.	Discuss with WG	Economic
I	CQ 7b	Suggest National Association of State Foresters if this source not already consulted. https://stateforesters.org/ . They may be aware of studies or Oregon State University School of Forestry or Yale School of Forestry.	Consdier additional information soures and incorporate as appropriate	Economic
I	CQ 7b	Yes. The Sustainable Forestry Initiative (SFI) program has been actively promoting, monitoring, tracking, and reporting BMP implementation and effectiveness for many years. Many (perhaps most) of their engaged network of land management and wood procurement companies are also engaged member and stakeholders of the FSC program.	Consdier additional information soures and incorporate as appropriate	Economic

I	CQ 7b	https://stateforesters.org/action-issues-and-policy/state-forestry-BMPs-map-o-o Literature review in Forest Ecology and Management: Effectiveness of forestry best management practices in the United States: https://stateforesters.org/sites/default/files/issues-and-policies-document-attachments/Literature%20Review%20published%20in%20Forest%20Ecology%20and%20Management.pdf	Consdier additional information soures and incorporate as appropriate	Economic
A	CQ 7b	I support the Low Risk designation.		Social
R	CQ 7b	WestRock incorporates by reference the comments submitted by NCASI on this question.	Discuss with WG	Economic
I	CQ 7b	Journal of Forestry January 2016: Introduction: Symposium on Forestry Best Management Practice (BMP) Effectiveness in the Eastern United States. Erik B. Schilling. Research Articles: Estimated Erosion, Ground Cover, and Best Management Practices Audit Details for Postharvest Evaluations of Biomass and Conventional Clearcut Harvests. Scott M. Barrett, Scott M., W. Michael Aust, M. Chad Bolding, William A. Lakel III, and John F. Munsell. Can the Water Erosion Prediction Project Model Be Used to Estimate Best Management Practice Effectiveness from Forest Roads? Kristopher R. Brown, Kevin J. McGuire, W. Cully Hession, and W. Michael Aust. Effects of Timber Harvest on Water Quantity and Quality in Small Watersheds in the Piedmont of North Carolina. Johnny Boggs, Ge Sun, and Steven McNulty. Influence of Variable Streamside Management Zone Configurations on Water Quality after Forest Harvest. Emma L. Witt, Christopher D. Barton, Jeffrey W. Stringer, Randall K. Kolka, and Mac A. Cherry	Consdier additional information soures and incorporate as appropriate	Economic
I	CQ 7b	Yes. • Cristan, Richard & Aust, W & Chad Bolding, M & M. Barrett, Scott & F. Munsell, John. (2017). National status of state developed and implemented forestry best management practices for protecting water quality in the United States. Forest Ecology and Management. 10.1016/j.foreco.2017.07.002. https://www.researchgate.net/publication/318435678_National_status_of_state_developed_and_implemented_forestry_best_management_practices_for_protecting_water_quality_in_the_United_States	Consdier additional information soures and incorporate as appropriate	Economic
I	CQ 7b	There is a great deal of information on the effectiveness of forestry BMPS and state monitoring of implementation. Christan et al 2017 provides a broad and detailed summary that references multiple other sources that can be utilized. The NRA would benefit from a clearer acknowledgement of BMP effectiveness, implementation monitoring and the protections they afford. Sources of information citing lack of BMP implementation or inadequate BMPs should be verified against the breadth of credible information available.	Consdier additional information soures and incorporate as appropriate	Economic
R	CQ 7b	See NCASI comments.	Discuss with WG	Economic
X	CQ 7b	Not at this time.		Environmental
X	CQ 8	No		Economic
X	CQ 8	No		Economic

R	CQ 8	No. We assume FSC has reached out to FSC member and non-member organizations concerned with native lands or consisting of majority native membership. Obviously, the communities (native and non-native) in question would have the most information about their own needs, and could perhaps give valuable commentary.	Reach out to tribes and experts and then discuss with WG	Environmental
X	CQ 8	No		Economic
X	CQ 8	No		Economic
X	CQ 8	No.		Economic
X	CQ 8	No		Economic
X	CQ 8	No		Economic
A,I	CQ 8	I support the low risk designation. However, as a social chamber member I would like to raise a process concern. FSC must make sure our standards protect our forests and achieve our values. I strongly believe we must protect HCV 1, 2, 3, and 4. However, it is not a net sum game. As a social chamber member, I have seen our core values run up against one another. For example IFLs has run up against ICLs. Do we honor indigenous communities' autonomy and cultural landscapes or do we place IFL rules on communities in ICL areas. Community health and welfare vs forest preservation can be seen in real ways in rural communities in the US. I have a deep concern about how the "precautionary approach" is being used. We are using specified risk as the default for the precautionary approach when there is uncertainty on HCV 1-4 issues. However, protection for HCV 5 when it comes to resource dependent rural communities means a low risk default. Low risk is critical to make sure we are not limiting log supply beyond what is required to legitimately protect 1, 2, 3, and 4. If we heavily weight our process to specified risk, we make it harder for FSC mills to source logs. Basic community needs conflicts with over application of HCV1-4 protection. Using the precautionary approach to raise specified risk puts resource dependent rural communities at risk of not having access to critical timber volumes and markets to keep rural mills open, infrastructure, and jobs in place. Mill jobs are basic necessities for communities with >50% of employment directly connected to a mill. One of the main reasons mills close in the US is because of lack of log availability. Log availability means food on the table for families in many rural communities in the US. We must consider low risk as a precautionary approach for ensuring the basic needs of local rural communities. This should not be used as an excuse for overharvest but should be considered a relevant social chamber issue in the US.	Discuss with WG	Social
R	CQ 8	No, however consultation with organizations such as the Affiliated Tribes of the NW Indians and the United Tribes of the South and East could provide additional, useful information.	Reach out to tribes and experts and then discuss with WG	Environmental
R	CQ 8	Not at this time though we expect expert opinion, included indigenous communities to have been or to be consulted.	Reach out to tribes and experts and then discuss with WG	Environmental
X	CQ 9a	No		Economic

X	CQ 9a	No		Economic
R	CQ 9a	See above While the information may not be public because of the private nature of tribal ceremonies, there may be an opportunity for direct communication between the groups suggested above and decision makers (such as FSC). This apparently was done in the case of a Sacred Lands Task force advising the Forest Service.	Reach out to tribes and experts and then discuss with WG	Environmental
X	CQ 9a	No		Economic
X	CQ 9a	No		Economic
X	CQ 9a	No		Economic
X	CQ 9a	No		Economic
A	CQ 9a	No, there are no known issues, concerns or threat to sacred areas/sites from forestry in the US. This would be a good example of what seems to be a perceived problem, yet is unsupported by any real evidence to the contrary.		Economic
R	CQ 9a	Yes. Over the last few years, several tribes and Native American-led organizations have submitted formal, written letters to the Washington Forest Practices Board with concerns about the management of private forests in Eastern Washington State. These concerns center around aerial application of chemicals and lack of consultation with tribes when management activities effect cultural resources.	Look for additional inforamtion sources and then discuss with WG	Environmental
I	CQ 9a	No, Sustainable Biomass Program and FSC Stakeholder Consultations resulted in no feedback.	Consdier additional information soures and incorporate as appropriate	Economic
R	CQ 9a	Not at this time though we expect expert opinion, included indigenous communities to have been or to be consulted.	Reach out to tribes and experts and then discuss with WG	Environmental
X	CQ 9b	No		Economic
X	CQ 9b	No		Economic
X	CQ 9b	I am not		Environmental

X	CQ 9b	No		Economic
X	CQ 9b	No		Economic
X	CQ 9b	No		Economic
X	CQ 9b	No. Same as immediately above.		Economic
R	CQ 9b	Same comment as above and, throughout the West and likely the entire country, cultural values and resources are widespread in forested areas. Consultation with local tribes will indicate specific threats.	Reach out to tribes and experts and then discuss with WG	Environmental
I	CQ 9b	No, Sustainable Biomass Program and FSC Stakeholder Consultations resulted in no feedback.	Consdier additional information soures and incorporate as appropriate	Economic
X	CQ 9b	Not at this time.		Environmental
A	CQ21	Yes		Economic
X	General	Enviva supported NCASI Comment NOTE: Many of the Consultation Questions are focused on implementation issues or topics outside our forestry expertise. Where there is no forest science basis for a response, we have answered “No Comment”. Throughout our comments we cite scientific publications and data presented in Appendices. These references and appendices can be found in the attached document “NCASI_Technical Comments_FSCUSNRA.pdf”		Economic
X	General	Allegheny Wood Products is a manufacturer of hardwod lumber with facilities focues on the Appalachian Region of the U.S., particularly West Virginia. Our company is potentially impacted by proposed changes to the FSC Chain of Custody standard and requirements for Controlled Wood. We submit the floowing comments relative to FSC-US National Risk Assessment.		Economic
R,C	General	I am emailing to let you know that PCA supports the written comments from AF&PA and NCASI in regards to the draft NRA from FSC US. I do not have separate comments, I feel AF&PA and NCASI articulated it best. Please respond if you have questions for me.	Discuss with WG	Economic

X	General	I am writing to provide feedback on Version 2.0 of the Draft National Risk Assessment (NRA) for Controlled Wood (CW). I apologize for not using the official comment form, but many of my concerns and recommendations for the NRA do not easily fit within the framework of the comment form. Hopefully I have organized these comments in a manner that facilitates cross-walking them with the draft NRA and your analyses of stakeholder feedback. I am writing based on over twenty-five years experience with researching and evaluating forest management and conservation topics and forest certification systems in the United States, especially but not only in Western states. My experience with FSC certification in the US is of similar duration, and includes serving as a regional standards coordinator, past board member, national standards committee member, and most saliently, a member of the prior incarnation of the FSC US Controlled Wood NRA Working Group (WG), during which time I submitted considerable information to the WG and FSC US regarding risk levels for many of the CW categories, and potential control measures. I also have spent many years working with NGOs dedicated to forest conservation and ecosystem restoration in the US, both on their behalf and in the course of coordinating with them on behalf of FSC projects, client projects, and other initiatives. While I have not had the opportunity to solicit environmental NGOs' input to these comments, I did actively engage a number of FSC environmental chamber members and other environmental NGOs while serving on the prior incarnation of the CW NRA WG, and believe I have a good sense of their concerns and priorities, and the role they expect the FSC to play in the broader conservation and sustainable markets landscape. Thank you for considering the perspectives below. I hope they enable FSC US to produce a final NRA that achieves a more reasonable and effective balance.		Environmental
X	General	The FSC's official policies and standards for Controlled Wood and NRAs notwithstanding, it's my understanding and expectation that: • NRAs are intended to replace company-based risk assessments, in part because many were found to be ineffective and inaccurate, presumably as a result of certificate-holders' self-interest in under-estimating and avoiding risk designations and adoption of control measures. • NRAs should find a genuine balance between meaningful environmental and social protections, and practical, cost-efficient approaches to managing forest product supply chains. Controlled Wood isn't and shouldn't be about avoiding every possible risk in every possible place – but it should be reasonably effective at minimizing the risk of the highest priority controversial sources entering into FSC products. And the Controlled Wood system should clearly require certificate holders to take effective actions when there are serious, known controversial sources in their supply chains. The current draft NRA is much improved over its predecessors in some specific regards, especially its organization and clarity. The improvements in the document's presentation are important and should be maintained. The NRA's further development of the idea of regional meetings also appears constructive, as far as it goes.		Environmental

R,C	General	Unfortunately, the substance of the draft NRA often fails to provide balanced and effective approaches. The current draft not only fails to correct some important shortcomings of the prior draft NRA (e.g., those I outlined in previous memos to FSC US), but has also eliminated some of the prior draft's most valuable and important content, including recognition of serious risks to some important, high priority HCVs. Meanwhile, the draft NRA retains and expands on some amorphous and low priority HCV definitions and risk designations that sound nice, but that are unlikely to translate into priority conservation actions, while still requiring significant time on the part of FSC and certificate holders to address. Similarly, the draft NRA has failed to identify meaningful solutions to some gaps and challenges with the prior draft's Control Measures, and instead has defaulted to Control Measures that largely do not appear to require meaningful outcomes, and that suffer from additional loopholes. In other words, the current draft's approach appears to be the worst of both worlds – for certificate holders, it would still require considerable time and effort, while for imperiled HCVs and the FSC's brand integrity, it may do very little, thus leaving the FSC and certificate holders vulnerable to potential concerns about highly controversial sources within FSC labeled products.	Discuss with WG	Environmental
R,C	General	AF&PA incorporates by reference the set of comments submitted by the National Council For Air and Stream Improvement (NCASI) in their entirety. You will also find reference throughout the responses to specific incorporations of comments by NCASI.	Discuss with WG	Economic
R,C	General	AFRC incorporates by reference the set of comments submitted by the National Council For Air and Stream Improvement (NCASI) in their entirety. You will also find reference throughout the responses to specific incorporations of comments by NCASI.	Discuss with WG	Economic
E	General	There should be maps that clearly identifies specified risks in the country.	Consider incorporating small simple maps into the document	Economic
E	General	An executive summary with general maps would be very helpful for CHs and CBs for the upcoming updating of DDSs.	Consider developing an executive summary after the NRA is approved	Economic
X	General	The FSC program (COC, CW) is becoming increasingly complex and time consuming for certificate holders. As an example, to become properly educate on the new CW NRA and prepare comments for this document, we read nearly 420 pages of material and participated in a webinar (as instructed by the website's "Recommended Review Process").		Economic
X	General	Thank you for the opportunity to provide comment on the second draft of the FSC US Controlled Wood National Risk Assessment. As a FSC CoC/CW certificate holder Drax Biomass has considerable stake in the outcome of the NRA. These comments detail our praise and criticism of the NRA as it applies to our sourcing area. We have also provided answers to pertinent questions posed by FSC on the Controlled Wood National Risk Assessment – Second Public Consultation Comment Form, attached as Appendix A.		Economic
X	General	Drax Biomass sincerely appreciates the opportunity to provide comment to FSC's U.S. NRA. Please do not hesitate to contact us for further input or clarification. We look forward to participation in the Controlled Wood Regional Meetings.		Economic

X	General	Thank you for the opportunity to provide comment on the National Risk Assessment FSC-NRA-USA V2-0. PotlatchDeltic regularly evaluates certification products to help us meet our stewardship goals, those of our customers and to meet market demand for certified products in a cost-effective manner. Potlatch owns FSC certified forest lands and maintains CoC/CW certificates for manufacturing facilities located in the Lake States and Southern FSC regions. We have been involved in FSC certification and standard development since 2004. The following comments are provided in support of FSC's efforts to provide efficient certification standards that meet environmental, social and economic objectives for CoC/CW certificate holders. We appreciate the opportunity to have input on FSC's efforts to improve your certification products and to provide consistent resources to certificate holders. All the literature cited in our comments is referenced by hyper link. Please feel free to contact either of us with questions.		Economic
C	General	Recognition of PEFC Certification to Control for Specified Risk The Program for the Endorsement of Forest Certification (PEFC) framework and PEFC recognized forest certification programs in the US contain adequate measures to control for all NRA specified risks. All wood from PEFC recognized FM certification programs sourced under a current, valid certificate should meet CW requirements and no additional control measures should be required. The NRA should state that PEFC recognized certification is an accepted control measure for all specified risks.	Discuss with WG	Economic
R,C	General	We fully support and endorse the NCASI comments dated 02-20-2018 and submitted to FSC-US as part of the public consultation, including the accompanying and separate narrative document that NCASI submitted, "NCASI_Technical Comments_FSCUSNRA.pdf." The NCASI comments are to be considered fully incorporated into Resolute's comments herein. For the sake of brevity, the NCASI comments are not copied and repeated herein, but they are to be considered as such. The comments herein are in addition to the NCASI comments. Note that we may refer to certain of the NCASI comments for emphasis, but, again, all of the NCASI comments are to be considered incorporated into these comments, though they are not necessarily copied in or directly referred to.	Discuss with WG	Economic
X	General	The Society of American Foresters (SAF) appreciates the opportunity to submit comments on the Forest Stewardship Council's (FSC) second draft of the US Controlled Wood National Risk Assessment (hereafter "Risk Assessment"). SAF is an independent, nonprofit, professional society, focusing on the full spectrum of forestry issues that emerge throughout the US and representing a diverse membership of 12,000 professionals across academia, government, private industry, and consulting. SAF and its members are committed to promoting and improving sustainable forest management, which protects watersheds and soils, improves air quality, creates wildlife habitat, supports well-paying jobs, and provides renewable energy and essential forest products. As tools to promote active management and improve forestry practices, SAF supports all credible forest certification systems, including FSC, the Sustainable Forestry Initiative, and the American Tree Farm System. Certification systems like these help drive improvements in forest management practices and build greater awareness and understanding of the importance of forests and forest management to society and our everyday lives. SAF shares FSC's goal of continuously improving forest management practices and limiting forest conversion. Like FSC, SAF also believes that increasing the demand for forest products will lead to a greater appreciation and investment in forests. With 58% of US forests on private lands, creating value in forests, whether it be economic, social, or environmental, is an essential part of maintaining and increasing forest cover across the US. Thank you for this opportunity to submit comments. SAF and its members are invested in the promotion and improvement of forest management activities and BMPs, and look forward to working with FSC in the future to continue these efforts.		Economic
X	General	Our shared goal remains responsible forest management supported and encouraged by viable forest certification systems on privately owned forests, particularly for large landowners. The Risk Assessment must complement a viable US Controlled Wood Standard. The limited availability of FSC 100% certified fiber in the US impacts certification decisions, and companies that maintain FSC certification must consider implementation costs and how they compare to the benefits of certification. In addition, the benefits of "mitigation actions" to consumers must be clearly articulated, economically feasible, and not overly burdensome. Without these assurances, the value of FSC certification for landowners in the US may be diminished, which would be a disservice to our shared goals.		Economic

X	General	The National Council for Air and Stream Improvement, Inc. (NCASI) offers the following comments regarding the NRA. NCASI is a non-profit organization that serves the forest products industry as a center of excellence for providing technical information and scientific research needed to achieve the industry's environmental goals and principles. NCASI (http://www.ncasi.org) has a long history of research investigating forestry environmental and sustainability issues in collaboration with state and federal agencies, universities, and others. Because NCASI is interested in developing cost-effective measures for sustainable forest management and fiber sourcing, we offer several observations regarding two sections of the NRA in particular: Controlled Wood Category 3, "Wood from forests in which high conservation values are threatened by management activities," and Controlled Wood Category 4, "Wood from forests being converted to plantations or non-forest use".		Economic
R	General	Recently, the Forest Stewardship Council® (FSC®) US released the second draft of the FSC US Controlled Wood National Risk Assessment2 (hereafter "NRA") for public consultation. Because NCASI is interested in developing cost-effective measures for sustainable forest management and fiber sourcing, we offer several observations regarding the NRA in general and two sections in particular: Controlled Wood Category 3, "Wood from forests in which high conservation values are threatened by management activities," and Controlled Wood Category 4, "Wood from forests being converted to plantations or non-forest use". In general, the NRA includes statements about species and population trends, threats to HCVs, and impacts of forestry practices to HCVs that are not supported by authoritative sources. The NRA also appears to sometimes treat ephemeral, rare, and even hypothetical events as serious, ongoing threats. We suggest that FSC US focus on frequent, systemic, and pervasive risks to forests due to forestry practices, and that those effects be documented based on the scientific literature or some other authoritative source.	Review risk designations for frequency and severity of threats and then discuss with WG as appropriate	Economic
X	HCV 1: CBA	Good afternoon, Our team at Danzer has reviewed the upcoming changes to the FSC CoC and CW standards and really, the main thing we question is the critical biodiversity area like the Appalachian - where we could have potential sources. How did they determine at threat to HCV in the USA when, in general, good forest management is in place and working to protect our forests. Thank you so much!		Economic

R	HCV 1: CBA	At least in the Pacific Coast Region, the NRA's focus on "Critical Biodiversity Areas" appears to be diverting the FSC and certificate holders' limited resources away from HCV occurrences that are of higher conservation priority, that will correspond to more focused and meaningful Control Measures and conservation actions, and that can correspond to more serious brand and supply chain risk if left unaddressed. In this region, the Klamath-Siskiyou sub-region and Central California Sierra Nevada mountains surely do constitute areas of high biodiversity. However, simply designating these large sub-regions as areas of risk is unlikely to translate to meaningful Control Measures that achieve high priority forest conservation and restoration objectives for imperiled forest resources and ecosystems. Partly this is an inherent, structural problem with identifying Control Measures for relatively large areas that are defined as HCV because of the entirety of their biodiversity, and that not only are highly biodiverse, but also contain a wide range of resource conditions, forest ownerships, forest management contexts, etc. Under such circumstances, there is little reason to think that any particular values will be properly addressed by Control Measures. Likewise, it will surely be impractical if not impossible for all values and situations in these areas to be properly addressed by Control Measures. Indeed, it is perhaps telling that in the discussion of risk in the Klamath-Siskiyou at page 98, the NRA fails to mention prominent threats such as serious gaps in streamzone protections for salmonids and steelhead on non-federal forests in Oregon, salvage logging on National Forests, exemptions that forest landowners have received or have proposed from the Endangered Species Act, logging of old growth on National Forests and BLM forests, etc. Similar deficiencies may well exist in the NRA's discussion of the Central California, and perhaps the other CBA regions covered by the NRA. Of course one simple solution would be for Control Measures to state that any significant logging in these two regions – or in the NRA's other CBAs – is incompatible with maintaining the HCVs, given that their defining feature is all of their biodiversity. While this could be the best outcome for the ecosystems, it would presumably not be viewed as a balanced solution in keeping with the FSC's ethic. And for especially large CBAs like Central California, it again raises the question of whether the FSC is focusing its energy on the highest priority locales and HCVs. Surely it would make more sense for the NRA to focus on more narrowly and clearly defined HCVs, not just in these bio-regions but also across the broader forest landscape, both from the standpoint of focusing Control Measures on more specific resource values and	Discuss with WG	Environmental

R	HCV 1: CBA	Ouachita River HCV CBA The designation of this CBA based on high endemism, it's inherent conservation value and location within a predominately forested area is supported by the best available data. However, it is not clear what objective data was used to assign specified risks to this CBA from forestry. The reference to "heavy biocides and fertilizers" associated with pine plantations threatening aquatic biodiversity is not supported by objective data within the NRA. If there is additional objective information on forestry BMPs specific to the three-county area that support the following statement in the NRA (pg. 32), it should be referenced in the NRA and vetted with the AR Forestry Commission. "Stresses caused by incompatible forestry practices include non-point source pollution (erosion & sedimentation) from operations that are not using best management practices, heavy use of biocides and fertilizers associated with plantations, and extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation." Forestry BMP implementation rates are assessed in AR every two years using the Southern Group of State Forests BMP monitoring framework (http://www.southernforests.org/water/SGSF%20Regional%20BMP%20Framework%20Protocol%20publication_2007.pdf). The most recent information on BMP implementation assessed and reported by the Arkansas Forestry Commission indicated that the Ouachita physiographic region had the highest BMP implementation rate of all regions at 90% (range 86-90). BMP implementation rates were further divided and reported by Arkansas Forestry Commission District. Districts 2 and 6 overlap the Ouachita River CBA and implementation in both districts was the highest of any district – both at 91%, see AR BMP implementation survey (http://www.aad.arkansas.gov/Websites/aad/files/Content/5944990/2010-11_BMP_Imp._Report_CORRECTED.pdf). Data on forestry BMP effectiveness in the southern U.S. is well established.	Look for additional inforamtion sources and then discuss with WG	Economic
R	HCV 1: CBA	The NRA (pg. 167-168) identifies areas that qualify as HCV 1 based on "a high overall species richness, diversity or uniqueness within a defined area when compared with other sites within the same biogeographic area", "populations of multiple endemic or [rare, threatened, or endangered species]", and several other attributes. Thus, the NRA assessed risk for HCV1 Species Diversity based on potential impacts to Critical Biodiversity Areas (CBAs) and individual species. To identify Critical Biodiversity Areas, FSC US used a species richness index published by NatureServe and The Nature Conservancy (TNC) that identifies areas with high concentrations of rare species based on element occurrence data from NatureServe. The spatial unit of analysis was a grid of hexagons, each about 160,000 acres in size. Areas that had an index of 10 x 10-3 species per km2 or greater were considered Critical Biodiversity Areas, based on an analysis by The Nature Conservancy. The NRA indicates that this threshold was selected to ensure known areas of high biodiversity were included. Some of the Critical Biodiversity Areas (CBAs) are quite large including, for example, approximately three-fourths of California, ≈35% of Florida, and a large area in the Appalachians. It is possible that the very large grid squares used for classification followed by the smoothing step to create regions led to these large CBAs. While it would be difficult to use maps with highly patchy areas of conservation priority, it is possible that the methods used went too far in the other direction. Thus, we encourage FSC US to re-evaluate their methods for delineating CBAs (e.g., evaluate implications of different grid sizes) to ensure that they encompass only areas with high endemism of forest-associated species.	Discuss with WG	Economic

R	HCV 1: CBA	We also encourage FSC US to consider whether there are opportunities to address two additional aspects of their methods. First, as acknowledged in the NRA (pg. 169), "One limitation of the NatureServe dataset is that it is driven by survey effort". In other words, surveys for species have not been conducted uniformly across the landscape. Therefore, areas may appear to have a high level of species richness relative to other areas in the landscape simply because of survey effort. We encourage FSC US to consider whether there are opportunities to weight the index based on survey effort. Second, the NRA (pg. 169) acknowledges that "this index is influenced by non-forest species." In other words, all species are included in the richness index including those associated with non-forest land covers. The NRA (pg. 169) assumes that "in areas that are predominately forested or forest matrix (and where forest management activities are more likely occurring) it should be representative of biodiversity in those areas." However, when selecting Priority Species for assessment in the NRA, the authors of the NRA appear to have filtered species based on their association with forests. Basing the species richness index only on forest-associated species would strengthen the NRA.	Note that we are unable to manipulate the dataset in the ways suggested, because we only have the index number per data cell with which to work.	Economic
R	HCV 1: CBA	Forestry Impacts on Water Quality For several CBAs, the NRA indicates that forestry operations are adversely affecting water quality. For example, "operations that are not using best management practices" and "extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation" are identified as a threat for the Ouachita River Valley CBA (pg. 100). "Reduced water quality partially due to loss of near-stream forested habitat", "sedimentation associated with forestry practices", "lack of BMP implementation," and "severe erosion of river banks" are identified as threats for the Central Appalachians CBA (pg. 101). The NRA also identifies many of these threats for the Southern Appalachian CBA (pg. 101). For the Florida Panhandle CBA, the NRA (pg. 102) identifies "point and non-point source pollution (including sediments from forestry operations due to insufficient ground cover and inadequate buffers)" as a threat. Thus, the NRA appears to conclude that forestry practices are having a pervasive and adverse effect on water quality in many of the CBAs. The statements above about threats to water quality are not supported by the scientific literature or by surveys conducted by state forestry agencies. Furthermore, the statements conflict with Section HCV 4 Critical Ecosystem Services (pg. 213) which concludes that "Evidence of the effectiveness of forestry BMPs, combined with the reported levels of compliance, indicates that there is a high likelihood that HCV 4 [Critical Ecosystem Services] are being effectively protected throughout the assessment area through the implementation of forestry BMPs associated with State nonpoint source pollution programs." The critical ecosystem service referred to here is water quality. In the decades following passage of the Clean Water Act, the States led development and approval of BMPs as the primary mechanism for controlling non-point source pollution from forestry operations. Cristan et al. (2017) reports that all 50 states have forestry BMP programs that address multiple categories of practices such as timber harvesting, forest road construction and maintenance, log landings, skid trails, streamside management zones, and stream crossings. Twenty-five states had written new BMP guidelines or revised their guidelines within five years of the survey by Cristan et al. (2017). Information about BMP recommendations, implementation rates, and research findings is available through the National Association of State Foresters at https://stateforesters.org/action-issues-and-policy/state-forestry-BMPs-map-o-o. Forestry BMPs are based on a substantial body of scientific research that has identified the most important causes of nonpoint source (NPS) pollution in managed forests and has demonstrated that the NPS control and mitigation measures embodied in BMPs are effective. Forestry BMP programs are typically backed by mandatory compliance with the Federal Clean Water Act and by state	Look for additional information regarding BMP implementation in CBAs; note that the scale of the HCV4 and HCV1 assessments are different and that BMPs were designed to protect water quality but their reffectiveness at protecting biodiversity is not fully understood; discuss with WG	Economic

R	HCV 1: CBA	Herbicide Application The NRA identifies “herbicide application[s] that have the potential to inhibit native understory communities” as a threat to longleaf biodiversity values in the Southern Appalachians CBA (pg. 101), the Cape Fear Arch CBA (pg. 102), and the Florida Panhandle CBA (pg. 102). Herbicides are an important tool used to manage the composition and structure of plant communities, including herbaceous vegetation, in commercially managed forests. For many reasons, herbicide use does not represent a threat to biological diversity. The objective of herbicide use is not to provide complete control of competing vegetation, but to enhance survival and early growth of planted trees and provide a temporary growth advantage (Miller and Miller 2004). Managers apply herbicides infrequently during a typical forest rotation, use concentrations well below label maximums, and use many techniques and practices to reduce risks and the potential for herbicides to affect non-target areas (NCASI 2015). When establishing planted pine forests, targeted herbicides are often used to suppress young hardwoods, thus enhancing herbaceous understory communities (Miller and Chamberlain 2008; Jones et al. 2009a; Lane 2010; Lane et al. 2011a, 2011b; Jones et al. 2012). Miller et al. (1995, 2003) studied vegetation response to various levels of herbicide treatments at multiple sites across the Southeast. Miller et al. (2003) concluded that “[h]ardwoods and shrubs remained suppressed on all sites 15 yr after early woody control treatments, which altered not only stand structure but woody composition as well. It is apparent that intensive woody control treatments during establishment can greatly limit woody species reoccupation through midrotation even in small stands within forested landscapes.” Prescribed fire can also be used when establishing stands, but it is increasingly difficult to use on private lands due to concerns about issues such as public opinion, risk of liability, air quality and smoke regulations, residential development, cost limitations, and limited burning days (Haines et al. 2001, Melvin et al. 2015). Miller and Chamberlain (2008) found that, in eastern Louisiana, site preparation with herbicides reduced woody plant cover and promoted development of the herbaceous plant community, but sites with burn-only site preparation were dominated by woody vegetation. Based on their findings, Miller and Chamberlain (2008) suggested that site preparation with fire and herbicide “may increase availability of early successional vegetation associations on managed forest landscapes and may extend the time stands stay in this successional stage”.	Revisit information sources regarding herbicide use as a threat to biodiversity	Economic
R	HCV 1: CBA	Fertilization The NRA states that “heavy use of biocides and fertilizers associated with plantations” is a threat to the unique aquatic biota in the Ouachita River Valley CBA (pg. 100). Managed forest stands are not all fertilized. When stands are fertilized, it is once or twice during a 30- to 60-year rotation at relatively low rates. For example, of approximately 44.4 million acres of pine plantation in the South (Miles 2018), only 500,000 to 1.2 million acres (1.1%-2.7%) are fertilized annually (http://www.forestproductivity.net/fertilization/ror_estimates_sept_2010.pdf). On sites where fertilizers are used, streamside management zones and other best management practices, which are implemented at high rates (Cristan et al. 2017), are effective at protecting water quality (Cristan et al. 2016, Tatum et al. 2017). We encourage FSC US to recognize in the NRA that fertilizers are used infrequently in forestry and that forestry best management practices, which are implemented at high rates, are effective at protecting water quality. Operational use of fertilizers does not represent a pervasive threat.	Review additional information and then discuss with WG	Economic

R,E	HCV 1: CBA	Management of Longleaf Pine Forests For several CBAs, the NRA suggests that forest management is adversely affecting biodiversity values associated with native longleaf pine forests. For example, the threat assessment for the Cape Fear Arch CBA, the NRA states that "Longleaf pine biodiversity values can be adversely affected by forest management activities via conversion of longleaf (Pinus palustris) to other pine types, and the use [of] management techniques, including herbicide application that have the potential to inhibit native understory communities" (pg. 102). Similar statements are included in the threat assessments for the Florida Panhandle CBA (pg. 102), the Southern Appalachians CBA (pg. 101), and the Native Longleaf Pine Systems Priority Forest Type (pg. 115). We encourage FSC US to consider the information presented below related to Native Longleaf Pine Systems (Section 2.2.2.2). Based on the peer review literature, there is a strong technical basis to suggest that operational forest management in southern pine forests can be compatible with providing forest structure, ground cover characteristics, and prey suitable for many species associated with native longleaf pine forests subjected to historical disturbance regimes (Greene et al. 2016). Furthermore, the continued and expanded markets for longleaf pine forest products is essential for the continued restoration of this species. A brochure addressing the importance of markets for restoration of this forest type is available through the Longleaf Alliance (office@longleafalliance.org) and was endorsed by organizations such as the American Forest Foundation, Society of American Foresters, Southern Group of State Foresters, the U.S. Forest Service, the National Wildlife Federation, The Nature Conservancy, and the Southeastern Association of Fish & Wildlife Agencies.	Note that just because sustainable management can be implemented in LLP doesn't mean is is done consistently; review additional information and then discuss with the WG	Economic
R,E	HCV 1: CBA	Management of Pocosins The NRA indicates that establishment of planted pine forests results in the loss of biodiversity in pocosins (pg. 101). However, Mitchell et al. (1995) found that the small mammal species in planted pine forests were similar to those in native pocosins with the addition of a few early successional types. Karriker (1993), in the same study area, found that bird communities in pocosins and planted pine forests were similar if forest structure was similar. Demarais et al. (2017), based on an extensive review of the literature, noted that "[a] typical intensively managed landscape contains a variety of stand ages, forest types, and other features (e.g., streams, mature forest stands, set-aside areas) that provide habitat for a diversity of terrestrial vertebrate species." Thus, we encourage FSC US to recognize that establishment of planted pine forests does not inherently represent a threat to HCVs associated with pocosins.	Review additional inforamtion sources regarding threats to cove sites; note that basic ecology indicates that changest to structure and species composition will affect biodiversity; discuss the above with the WG	Economic
R	HCV 1: Specie	The NRA's threshold for identifying priority rare, threatened, and endangered (RTE) species is seriously off-target for an assessment of risk to RTE species and biodiversity in the US. As described at page 103 of the NRA, recognition was effectively limited to species listed as G1 in the NatureServe system (in addition to being limited based on their "S" rankings). In other words, only the very most globally threatened species were considered, largely regardless of their level of endangerment within the US -- despite the fact that many species are highly endangered within the US while not being listed as G1 due to their status in other countries or other reasons. Just a few examples from Western states of the many species excluded by this methodology that are officially listed as threatened or endangered in the US, that are at least partly forest dependent, that are often threatened by forestry activities, and that that arguably of especially high conservation priority and high profile: various cutthroat trout, various Pacific salmonids and steelhead, bull trout, marbled murrelet, Northern spotted owl, Canada lynx, and woodland caribou. Unfortunately, there are many forest species across the US that are endangered and at risk from forestry activities. Thus while it may inherently involve some subjectivity and expert judgment, it makes sense for the NRA to focus on species that are of particular conservation concern, of particular public profile, and that can serve as indicator and "umbrella" species for threatened ecosystems and biodiversity more generally. This was precisely the approach taken with the prior draft NRA. At a minimum, future drafts of the NRA should also recognize the priority species identified in the prior NRA, and ensure they are covered by Control Measures.	Reach out to experts regarding identification of HCV 1 species and then discuss with WG	Environmental

R	HCV 1: Species	The inclusion of ivory-billed wood pecker as a specified risk is a distraction to risks that certificate holders can respond to and significantly undermines the NRA's credibility. The last documented ivory-billed woodpecker sightings were in Cuba in the 1970s and in the United States they were last documented on the Singer tract in Tensas Parish, LA in 1944, USFWS. https://www.fws.gov/ivorybill/photoalbum/ The Luneau sighting in April 2004 was never confirmed and its credibly was challenged within the ornithological community, see Sibley et al. (http://science.sciencemag.org/content/311/5767/1555.1.full?ijkey=8RIu7gVofPs4Y&keytype=ref&siteid=sci). Some of the less tangible aspects surrounding the Luneau sighting were described by Jack Hitt in Bunch of Amateurs. Admittedly this is not a purely scientific reference, however, the Hitt reference, pages 75-81, provides extended context to the credibility issues that including the ivory-billed woodpecker in the NRA creates. We offer it with a smile and an appreciation for the task of wading through the depths of science that are necessarily part of a FSC NRA comment review (https://books.google.com/books?id=UsNEKAa8nTsC&pg=PA81&lpg=PA81&dq=ivory+billed+woodpecker+ghost+whisperer&source=bl&ots=vXYGK_rRgL&sig=KnB0cRhB4cPA-4PEGdf7h6-hg-I&hl=en&sa=X&ved=0ahUKEwij_I-hoL3ZAhVS22MKHT-ICeYQ6AEIXzAM#v=onepage&q=ivory%20billed%20woodpecker%20ghost%20whisperer&f=false).	Consider filtering HCV 1 to include only species with documented occurrences in the last two decades; discuss with WG	Economic
R	HCV 1: Species	In general, indicators of risk for Priority Species are conservation status ranks assigned by NatureServe and threats are derived from qualitative descriptions of threats prepared by conservation organizations and agencies. The designation of the Ivory Billed Woodpecker (Campephilus principalis) as a Priority Species is apparently the basis for the Specified Risk designation for HCV 1 in the Mississippi Alluvial region (NRA pg. 95). The last confirmed sightings of the Ivory Billed Woodpecker were in the 1940s in Louisiana, and it has been presumed extinct for many decades. Although two sightings were reported in 1999 and 2004, there was no confirmation of those sightings and there is no evidence that this species is extant. Even though this species has not been confirmed to exist, the NRA states that logging is among "historic major threats and would likely still be if the species is extant". Thus, the NRA assigns Specified Risk to this likely extinct species on the basis of a hypothetical threat, which is in turn used to assign Specified Risk to the Mississippi Alluvial region. Even though this species is included in the NatureServe database, we encourage FSC US to remove it from the NRA, to focus on factors that potentially represent frequent, systemic, and pervasive risks to species and ecosystems, and to base the NRA on documented evidence that these factors are adversely affecting the species or ecosystem of interest.	Consider filtering HCV 1 to include only species with documented occurrences in the last two decades; discuss with WG	Economic
R	HCV 1: Species	The NRA also designates the Dusky Gopher Frog (Lithobates sevosus) as a Priority Species. Although the map on the U.S. Fish & Wildlife Service Environmental Conservation System4 suggests that the Dusky Gopher Frog is distributed throughout two counties in Mississippi, it is known from only a few isolated wetlands. Because the dusky gopher frog moves a limited distance (<1,000 feet) from breeding ponds primarily into upland pine-dominated forests, the geographic area designated as being at specified risk because of this species could be delineated with finer resolution, i.e., focused on occupied ponds and the areas immediately surrounding them. More detailed information about the location of occupied ponds is available in the recovery plan5 for the Dusky Gopher Frog.	Look for more refined species range data and then discuss with WG	Economic
R	HCV 2: IFLs	Intact Forest Landscapes (IFLs) are both relatively rare within the US and a global conservation priority – including for the FSC. Equally important, the FSC requires that NRAs be developed at scales at which areas of risk can be distinguished from areas of non-risk. Thus it makes no sense for the NRA to deny recognition and protection to those IFL occurrences that are unprotected, even while most occurrences do have some level of protection. As noted in the NRA at page 110, there are IFL occurrences outside of protected areas. Moreover, to the extent these areas are covered by the Forest Service's Roadless Rule, that Rule is not a form of permanent protection, but rather could be rescinded by an Administration such as the current one. Indeed, contrary to the NRA's statement at page 110, the Roadless Rule does not constitute "legislative" protection. It is correct that the roadless rule is an administrative rule, used to implement legislation. In itself, the Roadless Rule is not legislative.	Discuss with WG	Environmental

E	HCV 3: Late Successional Bottomland Hardwoods	1st sentence. Bottomland hardwoods or floodplain forests are commonly inundated during the dormant season. If done during the growing season you'd never get any seedling reproduction and, secondarily, harvesting costs would increase.	Review information sources and edit as appropriate	Economic
X	HCV 3: Late Successional Bottomland Hardwoods	Late succession species do not maintain themselves. Sooner or later, barring a catastrophic event such as fire or hurricane they succumb to shade tolerant species, such as hornbeam and beech in bottomlands. Where they do hold are in extended flooded area such as muck swamps. Trees are like people: they live to a given age and die. The adage that we want to restore the forest to the time Columbus discovered is wishful thinking. Yes, most stands had reached maturity, but other stands were in different stages of development.		Economic
R	HCV 3: Late Successional Bottomland Hardwoods	Late succession at 80 years is not valid. I know of sweetgum stands at 80 years old that are being succeeding by more shade tolerant oaks.	Look for additional inforamtion sources and then discuss with WG	Economic
E	HCV 3: Late Successional Bottomland Hardwoods	Disagree that harvesting systems in the Coastal Plain are usually done during periods of high water. Accessibility has a large effect on harvesting. Anyone ignoring that is incurring added harvesting costs. Likewise, the notion that bottomland hardwood forests harvested for pellet production is often portrayed that everything is processed for pellets. The landowner or the outfit doing the logging would be out of their mind to do that. The procedure is that anything of higher value would be sent for the manufacture of lumber, or veneer, or pallets, or pulp. Economics come into play just as it would for any other forest activity.	Review information sources and edit as appropriate	Economic
E	HCV 3: Late Successional Bottomland Hardwoods	A significant difference between the Mississippi Valley (MV) and Coastal Plain (CP) is that the shelterwood system (and other partial harvests) are more successful in the MV. The reasons are the prevalence of Nuttall and to a lesser degree Shumard oaks. The CP has Shumard to the south, but Nuttall is uncommon in our area. This HCV could benefit from some refinement and clarification along with a more thorough review of available research. First, it is unclear what the FSC NRA is trying to protect. Is it the bottomland hardwood system or just "late successional" bottomland stands? It does not seem appropriate to protect a seral stage unless the purpose is to promote old-growth on the landscape. And if that is the case, it should not be approached through this HCV designation. The designation of a seral stage infers that the act of regeneration degrades the bottomland system. Temporary alteration of stand age structure should not be considered degrading to the system. A recent report by the Forest Stewards Guild (Ecological Forestry Practices for Bottomland Hardwood Forests of the Southeastern United States) recognizes this. This report details how active management and harvesting can help restore and maintain ecological function in bottomland hardwood stands. In addition, McKee et al. 2012 investigated the resilience of tupelo-gum forests to harvesting in the Mobile Tensaw River Delta (Long term site productivity of a tupelo cypress swamp). (hyperlinks in comment document) According to Dr. Bob Kellison, former Director of the Hardwood Research Cooperative and NCSU professor (now retired), it is not realistic to expect a forest to remain in a static late successional phase, "Sooner or later, barring a catastrophic event such as fire or hurricane they succumb to shade tolerant species, such as hornbeam and beech in bottomland". Also, Dr. Kellison added that to "restore the forest to the time Columbus discovered is wishful thinking. Yes, most stands had reached maturity, but other stands were in different stages of development." (Kellison, personal communication, February 2018). It might be argued that some form of uneven-aged management could be used on a limited basis (i.e. single-tree selection) which might maintain the predominant late-successional age structure of a stand, however, this could lead to degradation of the forest from both an economic and ecological standpoint. In fact, according to Kellison et al. 1997 (Kellison and Young 1997),	Review the LSBH section and consider edits for accuracy	Economic

R,E	HCV 3: Late Successional Bottomland Hardwoods	This HCV is not clear. The specified risk for late successional bottomland hardwood HCV references hardwood trees 70-80 years old and older and a cover type predominated by hardwood. These criteria do not provide a usable risk or a specific HCV. Hardwood trees older than 70-80 and/or stands of trees with hardwood trees older than 70-80 are harvested from FSC FM certified sources and flow through the system as certified content. Many hardwood species reach financial maturity at older age classes and many of the objectives in the FSC FM standard encourage older age classes on FSC certified lands and do not prohibit or discourage harvest. Management and harvest in these forest types and age classes is consistent with maintaining high conservation values on certified, working forest lands. CW criteria more stringent and/or less specific than FSC FM criteria is confusing and is not something CW certificate holders can respond to. In addition to the lack of specificity FIA data do not indicate a decline of older age hardwood nor do FIA data indicate a decline in hardwood cover types. If the HCV is old growth or primary hardwood forest this would be a small subset of stands containing 70-80+ year old hardwood trees and would need to be defined and supported with mapping of the refined HCV. If the risk to this HCV is conversion of hardwood to pine or miss management of hardwood forests, as might be suggested by the reference to lack of forester training on hardwood management, those references are not supported by FIA and NRI data, which is the best available data sources on extent and trends of forest cover type and age class.	Review the LSBH section and consider edits for accuracy; review additional information and then discuss with WG	Economic
R	HCV 3: Late Successional Bottomland Hardwoods	The NRA assigns Specified Risk to late successional bottomland hardwood forests in the Mississippi Alluvial Valley and in the portion of the Southeast region that is in the Coastal Plain (pg. 208). The NRA (pg. 207) states that "'Late successional' is typically defined as beginning in the 70-80-year age range". Estimates from FIA (Appendix D) indicate that across the South, approximately 675 acres per year of late-successional bottomland hardwood forest were converted to nonforest conditions during the most recent inventory cycle. However, an average of >350,000 acres per year will be added to the late-successional cohort (>80 years old) over the next decade. Thus, each acre of late-successional bottomland hardwood lost annually to conversion over the last inventory cycle will be replaced by over 520 acres over the next ten years. Threats identified in the NRA (pg. 208) include "incompatible forest management (results in changes to canopy age and structure, to hydrology and to available dead and down woody debris), pollution" and other factors. The NRA further states that "Forest management occurring within bottomland hardwoods is not necessarily in itself a threat, but how the management is applied". Kellison and Young (1997) reported that many bottomland hardwood forests in the eastern U.S. are "occupied by a degraded mixture of tree species, caused largely by repeated, incomplete harvests" and that "[the] recommended procedure for perpetuating viable hardwood forests is by management." Hicks et al. (2004) explain that many hardwood stands, either due to their stage of development or neglect, are in need of intermediate management operations such as thinning and improvement cutting. Authors such as Meadows and Stanturf (1997), Hicks et al. (2004), and Rousseau (2009) have provided guidance related to management of bottomland hardwood forests. A common theme of these papers is that harvesting practices such as clearcut, patch clearcut, and seedtree harvesting, which provide abundant light to the forest floor, have proven successful for regenerating bottomland hardwood forests, and that intermediate treatments such as thinning can further enhance success. Changes to structural features of bottomland hardwood forests do not necessarily indicate that ecological functions, such as hydrology or support for biological diversity, are adversely affected. For example, published studies on management of bottomland hardwood forests indicate that, following forest harvesting, hydrological responses are typically of low magnitude and short duration (Tatum et al. 2006). A long-term study of bottomland hardwood forest responses to harvesting in the Mobile Tensaw River Delta in south Alabama has documented the resilience of this Priority Forest Type and the post-harvest trajectory of several ecological functions (e.g., McKee et al. 2012, 2013; Sain et al. 2012). Harvesting in bottomland hardwood forests can increase abundance at the stand level of plant and	Review additional inforamtion sources and discuss with WG	Economic

R	HCV 3: Mesophytic Cove Sites	The chart at Annex C of the FSC US Controlled Wood Risk Assessment; "Risk Designations by FSC US Region," under the heading "HCV3: Rare Ecosystem" specifies that this risk involves a Priority Forest Type: Mesophytic Cove Sites. Documents readily available to us do not detail how it was concluded that these sites are "rare." We find that to the contrary, professional foresters practicing in the region disagree that these sites are rare. To that point in a personal communication with Jamie Schuler, Ph.D. professor of silviculture, West Virginia University, Dr. Schuler confirmed that these sites are "very common." Importantly, by their very nature, these cove sites include a stream which mandates that the core of hte site be treated as a Streamside Management Zone under West Virginia Silvicultural Best Management Practices. We believe this risk designation greatly overstates the importance of and the threats to this forest type in West Virginia. Mesophytic Cove Sites are not rare in West Virginia; rather they are common and typical of the topography of the state. These sites, according to FSC US Controlled Wood Risk Assessment, are not under significant threat from logging. To impose the costly and time consumptive process detailed in the report is greatly burdensome to AWP and the landowner/supplier community for little if any benefit to the resource. We urge that FSC reconsider designating these sites as rare or threatened by forest management activity.	Review additional inforamtion sources and discuss with WG	Economic
R	HCV 3: Mesophytic Cove Sites	The NRA identifies a broad geographic area as having Specified Risk for Mesophytic Cove Sites. This area appears to include portions of several ecological regions (e.g., Appalachian Highlands, Coastal Plain, Interior Plateaus) that vary in terms of biophysical factors that influence occurrence of Mesophytic Cove Sites. The NRA could be strengthened by refining their delineation of the area having Specified Risk for this Priority Forest Type to omit areas with little potential to include the two ecological systems related to this Priority Forest Type, i.e., South Central Interior Mesophytic Forest (CES 202.887) and Southern and Central Appalachian Cove Forest (CES 202.373). With respect to Mesophytic Cove Sites, the NRA (pg. 205) states that “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.” It further states (pg. 205) that forestry practices can “affect herbaceous species composition or abundance and therefore the quality and functioning of the system.” Thus, the NRA appears to consider changes in forest structure as a threat to this Priority Forest Type but presents no supporting scientific evidence. Harvesting cove sites can increase abundance at the stand level of plant and animal species associated with younger forests and diminish abundance of those associated with older forest. However, the implications of these changes for biodiversity obviously will vary depending upon the site-specific alterations to forest structure and the spatial and temporal scales of assessment. In some cases, responses to harvesting can be minimal. For example, Ford et al. (2000) surveyed cove-hardwood stands aged 15, 25, 50, and >85 years in the Southern Appalachian Mountains of northern Georgia. Of 69 species and/or genera of spring-late summer herbaceous plants recorded, the abundance of only four species differed among stand ages surveyed. We encourage FSC US to recognize that short-term changes to forest structure, such as those associated with forest harvesting, do not inherently represent a frequent, systemic, or pervasive threat to biological diversity. Furthermore, as previously mentioned, some of the issues identified as threats (e.g., deer herbivory, climate change, harvesting of herbs, pollution) appear to be outside the scope of an assessment of risk associated with sourcing wood.	Consider additional information sources and discuss with WG	Economic

E	HCV 3: Native Longleaf Pine	The longleaf pine system developed under a historic fire dominated disturbance regime. As stated in the NRA, lack of fire is the biggest threat to this system. Without consistent fire on the landscape, harvesting can be considered an important tool to manage stand density (best if paired with fire). Very appropriately, the NRA does not list harvesting as a risk to the forest system. It also acknowledges that this community type can be regenerated by planting (if the previous forest cover was native longleaf pine). It might be helpful to directly mention that harvesting is not a threat to the system so sourcing from and replanting longleaf areas is not inadvertently discouraged. Also, it may be important to acknowledge and track the increase in longleaf pine acreage that has occurred in the recent decades as a concerted effort by private, federal, and state cooperators. The Longleaf Alliance, America's Longleaf Restoration Initiative, the Conservation Reserve Program, the Wildlife Habitat Incentive Program, and the Environmental Quality Incentives Program are prime examples of these efforts. While conversion of this type is still a concern, recognition of its potential increase due to active forest management is warranted. Finally, it is worth mentioning that many of the attributes associated with native longleaf pine systems can be achieved through management of other southern yellow pine species such as loblolly and slash. In a literature review conducted by Greene et al. (2016) managed pine forests, including loblolly and slash, provided the vegetation structure and composition for many species which were historically associated with open pine conditions. Similarly, longleaf pine establishment (especially when it is driven by subsidies), can result in stands established on inappropriate soils or managed in a manner inconsistent with desired ecological values. In these circumstances harvest and regeneration with another species may be entirely appropriate. Suggestion is that FSC recognizes these complexities when considering the scope of this HCV and its associated mitigation measures.	Review text and consider edits as appropriate; consider organizations as participants for the regional meetings and/or in association with control measures; note the ecological impact of changing dominant species and/or structure on biodiversity	Economic
R	HCV 3: Native Longleaf Pine	For several CBAs, the NRA suggests that forest management is adversely affecting biodiversity values associated with native longleaf pine forests. For example, in the threat assessment for the Cape Fear Arch CBA, the NRA states that "Longleaf pine biodiversity values can be adversely affected by forest management activities via conversion of longleaf (Pinus palustris) to other pine types, and the use of management techniques, including herbicide application that have the potential to inhibit native understory communities" (pg. 102). Similar statements are included in the threat assessments for the Florida Panhandle CBA (pg. 102), the Southern Appalachians CBA (pg. 101), and the Native Longleaf Pine Systems Priority Forest Type (pg. 115). Over the last several decades, many conservation programs and initiatives have supported efforts to increase the area of longleaf pine forest in the Southeast and enhance the value of pine forests for species associated with open pine forests. Examples include the Longleaf Alliance, America's Longleaf Restoration Initiative, the American Forest Foundation Habitat Credit Trading Program, the Conservation Reserve Program, the Wildlife Habitat Incentive Program, the Environmental Quality Incentives Program, the American Reinvestment and Recovery Act, and others. Strong markets for wood also enable landowners to invest in the management practices required to establish and manage longleaf pine forests. As a result, the area in longleaf pine forest type and longleaf dominated forests have been increasing for more than 15 years (Appendix C). At present, there are an estimated 4.7 million acres in longleaf-dominated forests (personal communication; Robert Abernethy, Longleaf Alliance), and area in the longleaf pine forest type increased by 8% between 2010 and 2016 (Figure C1 in Appendix C). FSC US should not assume that modern forestry practices, including application of forestry herbicides, adversely affect biodiversity values associated with longleaf pine forests. Rather, modern forestry practices provide opportunities to enhance biodiversity values in pine-dominated forest types regardless of the overstory species. In South Georgia, Hedman et al. (2000) characterized plant communities in 49 plots located in forest stands with overstories dominated by longleaf, loblolly (P. taeda), or slash pine (P. elliottii). Their ordination and classification procedures consistently placed herbaceous plots into two groups which they described as "longleaf pine benchmark" (34 plots) and "nonbenchmark" (15 plots). Benchmark plots typically contained numerous herbaceous species characteristic of relic longleaf pine/ wiregrass communities found in the area. Conversely, non-benchmark plots contained fewer species characteristic of relic longleaf pine/wiregrass communities and more ruderal species common to highly disturbed sites. The benchmark group consisted of plots in which the dominant overstory tree species differed including 12 naturally regenerated longleaf plots and 22	Note that just because the acreage is increasing, doesn't mean that it isn't rare; consider additional information sources and then discuss with WG	Economic

R	HCV 3: Old Growth	To its credit, the NRA still flags old growth in the Pacific Coast and Rockies regions as being at risk. However, some of the NRA's language on old growth (at page 111) incorrectly dismisses logging-related threats and calls for management that mimics fire, which sounds like long-discredited proposals to commercially log forests under that rubric. This language needs to be corrected, lest it improperly inform subsequent development of Control Measures. While it is true that in some specific forest types, past fire suppression has led to understory growth that increases fire risk, this needs to be tempered with an understanding that these are often forests that are naturally fire adapted and even fire dependent, and that if any fuels reduction occurs, it must be carefully limited to activities that do not include any commercial logging, road construction, etc., and that ideally rely on controlled burns. Meanwhile, commercial logging and other forest management activities continues to be a serious threat to old growth and late successional forests, e.g., on BLM and National Forests in West Coast states, and in some Western state forests. When revising the language on old growth, I would recommend consulting with Dominick DellaSala of the Geos Institute, who is an expert of these ecosystems and their management, including in relation to fire risk, and who is quite familiar with the FSC.	Look for additional inforamtion sources and then discuss with WG	Environmental
R	HCV 3: Old Growth	The NRA (Pg. 110) indicates that there is Specified Risk on publicly-owned lands in the Pacific Coast and Rocky Mountain regions that are not permanently protected (as demonstrated by GAP Status 1 & 2 areas in the U.S. Geological Survey's PAD US dataset). Publicly-owned lands that are permanently protected in the Pacific Coast and Rocky Mountain regions and privately-owned lands are determined to have low risk (pgs. 110-111). The NRA (pp 199-200) includes a map for the western U.S. that shows essentially all forest land in the region as potentially having old growth. It is unclear whether the map excludes public forests in Gap Status 1 & 2. While we are unaware of any published map of old-growth forest per se, designating Specified Risk for all publicly owned forests in the Western U.S. that do not fall into Gap Status 1 or 2 implies that sourcing wood from all public lands is problematic. Many public lands provide timber from forests that are not old growth and many forests classified as Gap Status 3 are managed under rigorous state and federal standards. We encourage FSC US to use a finer resolution when identifying areas where harvest from old-growth forests could occur. The NRA (pg. 111) also indicates that "[in] the western conterminous U.S., threats to old-growth forests include a lack of managing younger forests with a goal of creating old-growth forests, invasive species, pests, pathogens, forest fragmentation, fire suppression, catastrophic wildfires and especially climate change." While these factors may affect existing old-growth forests and the structure and successional pathway of younger forests, they are unrelated to wood procurement. In fact, the NRA (pg. 111) notes that "the most significant current threats may not be due directly to logging/harvest". Because the stated focus of the NRA is to assess the risk of sourcing materials deemed unacceptable by FSC, factors such as management of young forests, climate change, pests, etc. appear to be outside the scope of the NRA. Further, the designation of Specified Risk for all publicly-owned forests in the Western U.S. that do not fall into Gap Status 1 or 2 will preclude management actions that could enhance earlier old growth development from younger forests.	Reassess rationale for specified risk; consider additional information sources and then discuss with WG	Economic

R	HCV 3: Roadless Areas	The fact that there is no consistent database for roadless areas across all ownerships and landscapes in the US should not preclude them from being addressed where important and feasible. Perhaps contrary to the NRA's claim at page 111, the prior incarnation of the WG, when faced with the limitations of the datasets described at page 111, did not conclude that roadless area consideration should be limited to inventoried roadless areas on National Forests. Rather, the prior WG concluded that the risk of unprotected roadless areas is greatest on National Forests and Bureau of Land Management (BLM) forests, inclusive of but not limited to inventoried areas. Meanwhile, the suggestion at page 112 that relatively few BLM Wilderness Study Areas (WSAs) exist in forest zones should not preclude recognition for those WSAs that are forested, nor should it preclude recognition for other roadless areas in BLM forests. At a minimum, the NRA should be revised to recognize the risk to roadless areas on National Forests and BLM forests, for roadless areas of 1,000 acres in size, including but not limited to those that are inventoried or designated as WSAs. Indeed, those that are not inventoried by the Forest Service or designated as WSAs by the BLM are probably at greatest risk from road construction, commercial logging, and other harmful development. Local and regional conservation organizations can be consulted to help identify these areas, including as a means of overcoming potential gaps in the Forest Service and/or BLM's available data. Meanwhile, 1,000 acres is a threshold commonly cited by ecologists and forest conservation organizations, including in comments that FSC US has previously received from conservation organizations during the NRA process. Likewise, the NRA should be revised to recognize that while the Roadless Rule for National Forest lands has been relatively effective (as stated in the NRA), it does not constitute permanent protection, and also does not protect uninventoried roadless areas on National Forests, or within BLM forests.	Contact experts and then discuss with WG	Environmental
X	HCVs - gener	Hopefully this goes without saying, but it should also be remembered that CW NRAs, even at their best, are not a substitute for either more comprehensive or more site-specific HCV interpretations and assessments, or for similar interpretations and assessments for legality, conversion, Indigenous and civil rights, or GMOs. As noted above, there's an argument for having the FSC US NRA focus on a sub-set of higher priority HCV interpretations, for example, given the specific and limited role of CW in the FSC system, and the realities of purchaser companies' leverage within CW supply chains. However, this also means that CW NRAs will not sufficiently define and identify HCVs for other purposes, e.g., National Standards and HCV Frameworks. Nor are CW risk assessments a substitute for the more site-specific and fine-scale assessments required for FSC Forest Management certification.		Environmental
R	HCVs - risk designation	The draft NRA dismisses some important, high priority High Conservation Value (HCV) forest risks identified in the prior draft, e.g., flagship endangered species like Pacific salmonids, Northern spotted owls, and marbled murrelets, and also uninventoried roadless areas on National Forests and Intact Forest Landscapes lacking permanent protection. These are precisely the types of HCV interpretations and occurrences that the NRA should focus on, including given these resources' high levels of endangerment, their function as indicators and "umbrellas" for more systematic ecosystem risks, and the high level of public interest and concern associated with them. Indeed, if one of the fundamental purposes of Controlled Wood is to avoid potential branding risk associated with supply chain inputs from non-certified forests, then these are precisely the types of resources the NRA should address, rather than exclude.	Discuss with WG	Environmental

R	HCVs - risk designation	For Controlled Wood Category 3, The NRA assessed risk for HCV1 Species Diversity based on potential impacts to Critical Biodiversity Areas (CBAs) and individual species. Some of the CBAs are quite large and apparently were identified based on richness of all species rather than forest-associated species only. Basing the species richness index only on forest-associated species, potentially weighting it based on survey effort, and examining the implications of different grid sizes may help ensure that CBAs encompass only areas with high endemism of forest-associated species. The NRA identifies forestry effects on water quality, forest herbicides, fertilizers, management of longleaf pine forests, and management of pocosins as threats to several CBAs. However, there is strong scientific evidence that forestry BMPs are being implemented at high rates, are effective at protecting water quality, and protect habitat for species associated with aquatic and riparian ecosystems. Forest herbicides and fertilizers are applied at relatively low rates and used infrequently. Furthermore, there is a strong technical basis to suggest that operational forest management of southern pine forests can be compatible with providing forest structure, ground cover characteristics, and many species associated with pocosins and native longleaf pine forests subjected to historical disturbance regimes. Because there have been no confirmed sightings of the Ivory-billed Woodpecker, we encourage FSC US to remove it from the list of Priority Species. We also suggest delineating the geographic area designated as having specified risk for the Dusky Gopher Frog with greater resolution by focusing on occupied ponds and the areas immediately surrounding them. For HCV 3 (Rare Ecosystems), the NRA considered three factors: old-growth forest (including primary forest), roadless areas, and Priority Forest Types. We encourage FSC US to use a finer resolution when identifying areas where harvest from old-growth forests could occur. In addition, while forest management may result in short-term, localized (e.g., stand-level) changes to structural characteristics of Mesophytic Cove Sites, Native Longleaf Pine Forest Systems, and Late Successional Bottomland Hardwoods, those structural changes do not inherently represent a pervasive threat to biological diversity. Delineation of the area predicted to have Specified Risk for Mesophytic Cove Sites is very broad, includes multiple forest types, and likely could be refined by eliminating areas that lack some important biophysical features of this Priority Forest Type.	Review content and additional information sources and then disuss with WG	Economic
E,R	HCVs - risk designation	In commenting on High Conservation Values (HCVs), the NRA offers many statements about species and population trends, threats to HCVs, and impacts of forestry practices to HCVs. There is a tendency for the NRA to support such statements with references to unpublished reports or individuals which/who in turn do not provide any data or citations to authoritative sources of information (e.g., peer-reviewed publications or reports by agencies or science-based organizations that present actual data regarding trends, threats, and impacts). For example, the NRA (pg. 100) indicates that, for HCVs in the Ouachita River Valley Critical Biodiversity Area (CBA), “Stresses caused by incompatible forestry practices include non-point source pollution (erosion & sedimentation) from operations that are not using best management practices, heavy use of biocides and fertilizers associated with plantations, and extensive manipulation of vegetative cover that affects infiltration and runoff of precipitation [32].” The cited authority for this statement3, however, presents no supporting information to document the extent to which these factors are actually affecting HCVs. Rather, it describes factors that have historically affected forests in the Ouachita River Valley CBA and the opinion of the authors about relationships between those factors and HCVs (unsupported by references to data or peer-reviewed publications). The NRA often treats rare events and events that can have short-term influences on forest structure or other aspects of forest ecosystems qualitatively on par with factors that can have long-term consequences such as conversion of forest to other land uses. While rare events can influence forests, the possibility that they can occur does not support the conclusion that widespread or major impacts exist. Likewise, the potential for short-term influences on forest structure at the stand scale from activities such as forest harvesting does not indicate that forest harvesting is having significant, landscape scale impacts on HCVs. In the FSC US webinar on January 18, 2018, the presenter indicated that, to be considered in the NRA, risks should be frequent, systemic, and pervasive. However, the NRA appears to consider ephemeral, rare, and even hypothetical events as serious, ongoing threats.	Review soures for validity and relevancy; review additional sources; review assessments for appropriate consideration fo frequency and severity of threast; discuss the above wth the WG	Economic
E	Pg 102	limate change	edit	Economic
E	Pg 102	limate change	edit	Economic

E	Pg 120	Intension	edit	Economic
E	Pg 120	Intension	edit	Economic
E	Pg 91, 166	'FSC-US Draft HCVF Assessment Framework,' and 'Common Guidance for the Identification of HCV.' are both referenced without proper citation.	cite accurately	Economic
E	Pg 91, 166	FSC-US Draft HCVF Assessment Framework,' and 'Common Guidance for the Identification of HCV.' are both referenced without proper citation.	cite accurately	Economic
E	Pg 98	"The portion of the CBA in the Rocky Mountain region…."	Review accuracy of text and edit as appropriate	Economic
E	Pg 98	"The portion of the CBA in the Rocky Mountain region…."	Review accuracy of text and edit as appropriate	Economic
R	Risk Designations	Specificity in Risk Assignment and Conservation Values When enumerating a specified risk, it is helpful for FSC to provide as much specificity as possible on the factors that are elevating risk and the conservation value that is threatened. Specifics help CoC/CW certificate holders develop processes and tools to address the risk and/or exclude unacceptable materials from sourcing. For example, late successional bottomland hardwood is identified as a HCV with specified risk, however a seral stage and a cover type is not specific enough for certificate holders to respond to, develop tools to reduce threats and/or to develop control measures to avoid it as an unacceptable source.	Review text and add additional specificity as appropriate	Economic
C	Scale, Intensity, and Risk	The NRA's Control Measures also contain a wide-open loophole, as a result of a mis-application of the concept of Scale, Intensity, and Risk (SIR) at CMs 3.c and 4.c (at pages 120 and 134). Inasmuch as different Control Measures are appropriate for different size Organizations, or in response to other SIR variables, then those alternate Control Measures should be defined by FSC US, with their applicability subject to thresholds for Organizational size (or other relevant SIR variables) that are also specified by FSC US. Certificate holders have an inherent self-interest in underestimating the risk and intensity of their operations, and any SIR-based approaches should be developed through more objective processes.	Review and discuss with WG	Environmental
E,R	Sources of Information	The NRA contains multiple citations that refer to non-peer reviewed literature as evidence of real HCV threats. These sources, such as regional conservation plans, contain assumptions that are not backed up by evidence or controlled scientific investigation. It is not appropriate to assign risks based on assumptions. Recommendation is to conduct a more comprehensive literature search and remove perceived risks which do not have adequate evidence, therefore cannot be considered "frequent, systemic, or pervasive".	Review soures for validity and relevancy; review additional sources and edit text as appropriate	Economic

R	Sources of Information	1. Ouachita River Valley CBA –There is an unsubstantiated claim of "heavy biocides and fertilizers" associated with pine plantations threatening biodiversity. There is also an assumption that lack of BMP implementation is leading to erosion and sedimentation. State BMPs address erosion and sedimentation as well as fertilizer and herbicide application. A survey by Cristan et al. 2017 reveals that BMPs are implemented at relatively high rates across the entire United States. Fox et al. 2007 specifically examined the effectiveness of BMP mandated Stream Side Management Zones (SMZs) for protecting water quality following fertilization. Tatum et al 2017, reviewed the effectiveness of BMPs for reducing the risk to aquatic organisms from forest herbicide applications. (hyperlinks in comment document)	Review additional inforamtion sources and discuss with WG	Economic
R	Sources of Information	2. Southern Appalachians CBA & Central Appalachians CBA – In both CBAs "Hydrologic alteration partially due to forestry practices and conversion from hardwood forests to non-native pine plantations" is listed as a threat. The references supporting these statements, like the Quachita River CBA, are regional conservation plans which simply make statements of perceived threats without providing supporting evidence to substantiate them. Clarification on what is meant by "hydrologic alteration" and its presumed causes would be helpful. Forestry practices are subject to the federal Clean Water Act (CWA) which does not allow hydrologic alteration which would drain or otherwise convert wetlands to non-wetlands. It is not apparent if this is the concern or if some other "hydrologic modification", directly related to forestry operations, is presumed to present a frequent, systematic, or pervasive risk. Suggestion is to remove ambiguous and unsubstantiated threats from the NRA document so mitigation measures for real risks can be more effectively developed. Establishing the practice of using good science will improve the integrity of the NRA and set a tone for the setting of mitigation measures.	Review additional inforamtion sources and discuss with WG	Economic
R	Sources of Information	3. Ivory Billed Woodpecker –The last confirmed sighting of the ivory billed woodpecker occurred in the 1940s. Although two sightings were reported in 1999 and 2004, these occurrences were never substantiated and were challenged by the scientific community (see Sibley et al. 2006: http://science.sciencemag.org/content/311/5767/1555.1.full?ijkey=8RIu7gVofPs4Y&keytype=ref&siteid=sci). FSC's procedure for identifying potential HCV 1 species may be appropriate (i.e. G1, LE designations), however there is absolutely no evidence that current forestry operations pose a risk to the species. To effectively assess risk there must first be a population to evaluate. Inclusion of this species as a HCV 1 undermines the effectiveness of the NRA by calling into question the credibility of the entire assessment and its methodology. The methodology must include how to best address the existence of outliers.	Consider filtering HCV 1 to include only species with documented occurrences in the last two decades; discuss with WG	Economic
E	Sources of Information	4. Lack of subject area experts – FSC should consider the inclusion of subject area experts in the development and review of the draft NRA. Based on the type of references provided, it is apparent that not enough emphasis was placed on evaluating the body of peer-reviewed literature which exists prior to the determination of risk from forestry operations. Suggestion is to conduct a final literature review of the selected HCVs and solicit involvement of experts who have published research and survey results in peer-reviewed scientific journals. This would provide FSC confidence that the NRA represents real rather than perceived threats. If FSC hopes to achieve conservation gain through their NRA and Controlled Wood program it is imperative that risks are accurately identified and mitigation measures are developed based on the best available science. Self-declared experts involved in the drafting of the NRA should be considered with the appropriate weighting while the inclusion of credentialed experts prioritized and searched.	Contact additional experts	Economic
I	Sources of Information	The National Council for Air and Stream Improvement (NCASI) is an excellent source of information. NCASI (http://www.ncasi.org) is a non-profit organization that serves the forest products industry by facilitating scientific investigation of critical questions the industry faces. The affect forest sourcing has on biodiversity and ecosystems is an on-going priority. Suggestion is to solicit NCASI review and input in both the finalization of the NRA and the development of mitigation measures.	Review available materials	Economic

E	Sources of Information	Scientific Experts, Scientific Sources and Technical Data When developing risk ratings FSC should ensure a breadth of perspectives and expertise is considered and avoid relying too heavily on a single source. The delineation of an expert should not be determined by affiliation with any organization or sector. Participation in an environmental organization does not convey any depth of expertise and the same is true for the forestry sector. A breadth of education, experience and supporting documentation from available technical sources is recommended. Additional investigation and verification is warranted where experts and technical resources do not convey a consensus.	Contact additional experts	Economic
X	Sources of Information	The NCASI comment memo includes 6 pages of references. Please see the memo for all sources.		Economic
E	Table on pg 1	CA Dept. of Fish & Game	Correct error	Economic