



SUMMARY AND RESPONSE TO PUBLIC COMMENTS

A draft Methodology for the Quantification, Monitoring, Reporting and Verification of Greenhouse Gas Emissions Reductions and Removals from Improved Forest Management on Canadian Lands, was developed by Bluesource LLC and Finite Carbon for approval by the American Carbon Registry (ACR).

All new methodologies and methodology modifications, whether developed internally or brought to ACR by external parties, undergo a process of public consultation and scientific peer review prior to approval.

The methodology was posted for public comment from December 1^{st} , 2020 - February 11, 2021. Comments and responses are documented here. If applicable, additional public comments received after the formal close of the public comment period are also documented herein.





#	Organization	Comment	Author Response
1	Community	1.2 Applicability Conditions	Please see ACR's responses below:
	Forests	Page 10-11:	
	International	SFI is considered equivalent to FSC, even though it is	Section 1.2: The methodology reference to a "Long-term
		demonstrably an industry-led certification that is less	Forest Management Plan or Program" is consistent with "a
		robust than FSC, and permits a number of practices	plan or program providing written prescriptions and
		(e.g. extensive clearcutting) that are the foundation of	timeframes for implementing specific forestry activities to
		the common practice scenario/baseline condition in the AFR.	achieve landowner goals and objectives". The reference to "Natural Forest Management" is consistent with "forest
		tile AFN.	management practices promoting native forests comprised
		What constitutes a "long-term forest management	of multiple ages and species".
		plan"? And "natural forest management"? Please	or maniple ages and species i
		define.	Section 1.4 : The methodology specifies that exceptions to
			perpetuating existing onsite timber producing species can be
		1.4 Methodology Summary	made where proof of replacement of existing timber species
		Page 13: "The baseline management scenario shall be	from the last 10 years can be provided.
		based on silvicultural prescriptions commonly	
		employed within the relevant ownership class and	Section 2.3: The ACR Standard (Section A.3.3) prescribes
		geography to perpetuate existing onsite timber-	that for IFM, the Start Date may be denoted by one of the
		producing species while fully utilizing available growing	following:
		space."	The date that the Project Proponent began to apply the land management; regime to increase carbon
		How does this definition accommodate accounting for	stocks and/or reduce emissions relative to the
		the widespread practice of natural mixedwood (even	baseline;
		hardwood) stand conversion to softwood plantations	The date that the Project Proponent initiated a
		in the AFR? I think I understood how this is addressed	forest carbon inventory;
		at the bottom of page 13, but the explanation is pretty	3. The date that the Project Proponent entered into a
		dense. Is there any way to reword or re-structure the	contractual relationship to implement a carbon
		paragraph to make it more clear?	project;





2.3 Project Temporal Boundary

Page 16: With regards to the Project Start date being "the date the Project Proponent or associated landowner(s) began to apply the land management regime to increase carbon stocks and/or reduce emissions relative to the baseline", please explain how would project proponents be asked to demonstrate or prove this? I see that "Evidence shall be based on official and/or legal documentation. Early actors undertaking voluntary activities to increase forest carbon sequestration prior to the release of this requirement may submit as evidence recorded conservation easements or other deed restrictions that affect onsite carbon stocks."

Would the following constitute "official" documentation or evidence - a private non-industrial landowner who engaged forestry professionals to create a forest management plan for their property, with the stated goal of increasing carbon sequestration on that forest, followed by interventions prescribed in that management plan. This would be a much more likely and cost-effective scenario in the Maritimes provinces, since the kinds of legal mechanisms (like the conservation easements mentioned in the methodology) are not well developed here and are still cost-prohibitive.

3.3.1.1 Tree Carbon Stock Calculation

4. The date the project was submitted for listing review.

Depending on the nature of the engagement between the Project Proponent and forestry professional, the Start Date may be eligible under options 1 or 3 above.

Section 3.3.1.1: Typo has been corrected.

Section 3.4: An ACR Crediting Period for IFM, as detailed in the ACR Standard, is limited to 20 years. At that time, the Project Proponent may elect to renew the Crediting Period by resubmitting a GHG Plan and reconfirming baseline additionality against then current ACR requirements and applicable regulations. If a Project Proponent does not elect to renew for a second Crediting Period, it must still continue monitoring, reporting and verification activities for the duration of the ACR Standard minimum project term (40 years).

Section 4.6: This typo has been corrected.





		Page 30: Typo – "If summation methods are used, biomass expansion factors are calculated by multiplying invidiual tree total biomass obtained in step 1" 3.4 Monitoring Requirements for Baseline Renewal Page 40: It says "A project's Crediting Period is the finite length of time for which the baseline scenario is valid and during which a project can generate offsets against its baseline. Project Proponent may apply to renew the Crediting Period". If the Crediting Period is 20 years and the minimum Project Period is 40 years, isn't renewing the baseline mandatory at least once, not optional (the way it is worded in the methodology)? 4.6 Monitoring of Activity-Shifting Leakage Page 48: The last bullet in the list contains and "or" at the end – is this a typo, or is one of the options missing?	
2	NB Federation of Woodlot Owners	Thank you for the opportunity to comment on the methodology. The methodology is extremely complex and so understanding of the impacts of the methodology are also difficult to ascertain.	We agree that requirements of this methodology necessitate significant technical understanding of forest mensuration and carbon quantification, such that most small landowners will likely require third party support to implement. Technical consultants and Project Developers provide
		As the Executive Director of a not-for profit representing small land owners and as a small landowner the complexity of the methodology means that very few landowners are going to be able to	technical (and in some cases financial) support to landowners that wish to enter carbon markets. Further, ACR has developed standardized aggregation techniques that help small landowners join together into a single project to





		account for or determine the carbon they have	create efficiencies and distribute project development and
		available. You have included the ability to amalgamate	verification costs. According to the methodology,
		which will be critical for small land owners but still the	sustainable management requirements are only applicable if
		complexity and cost of determining and verifying the	commercial harvesting occurs. If a landowner does
		carbon as well as the need for certification is a heavy	commercially harvest, there are options for meeting the
		burden for any small landowner. Particularly in a	sustainable management requirement, including the option
		province where we have a supressed market with	of abiding by an approved long-term forest management
		random access. Is the certification necessary, since	plan/program, in addition to the certification option.
		there seems to be another approach for First	
		Nations? Is it possible that woodlots that have been in	
		one family for generation could be granted that same	
		exemption from certification?	
		,	
		The other question, that is not relevant to the	
		methodology but important if individual small woodlot	
		owners are to participate is the upfront cost of	
		verification and then the fact that the payment is a	
		lump sum, at the beginning of the period. As small	
		landowners they will pay higher personal income tax	
		without the ability to shelter that money. 40 years is a	
		long time for a commitment when you are 60 when	
		you inherit a woodlot. This makes it very difficult to	
		,	
		get a 40 year commitment and will require very high	
		residual amounts to be kept as a buffer.	
3	Climate	The Reserve would like to provide comments on	Please see ACR's responses below:
	Action	several topics, including the Methodology's	
	Reserve	approach to baseline setting, permanence,	Baseline setting: The ACR IFM methodology employs a
		approach to baseline setting, permanence,	quantitative, NPV maximization baseline approach with a
			quantitative, ivi v maximization baseline approach with a





monitoring, reporting, and verification (MRV) and early action guidance.

Baseline Setting

Establishing a representative baseline is fundamental to ensuring the quality of offsets in the voluntary market. The baseline analysis should conservatively reflect the realities of forest management in the project region. However, while the Methodology requires a "common practice test," there are no clear guidelines given for such a test, indicating that a project could take any approach to demonstrate "going beyond" common practice. The Methodology instead relies on maximization of NPV to quantify what would have happened in the absence of the offset project. However, the Methodology itself states that the underlying theorems of NPV maximization "do not correctly account for all situations."

In the earliest versions of our Forest Protocol, the Reserve considered a similar approach to baseline setting that was also missing a quantitative approach to common practice, but through our stakeholder workgroup process, stakeholders concluded that this approach lacked sufficient rigor for the issuance of offset credits. While NPV maximization is technically a possibility for future management, most landowners do not manage their forests in such a

firm basis in forest economic theory. Baseline prescriptions are based on published state or federal silvicultural recommendations and baseline harvest determination is based on widely accepted principles of investment analysis and NPV discounting. The relationship between NPV maximization and common practice, as well as the appropriateness of the discount rates employed in the methodology, were thoroughly vetted by experts in peer-review of our existing IFM methodology and are well supported in the literature (Newman (2002) reviews over 300 works on the subject). The resulting output is a project-specific baseline management regime that is surplus of all existing legal and regulatory frameworks and could be employed to generate revenues in the absence of the project. We argue that the project-specific (as opposed to regionally derived) approach used in constructing the ACR baseline provides a scientific and economically justified counterfactual management regime that could reasonably be expected to occur in the absence of the project.

Permanence: The ACR 40-year minimum project term is defined as the minimum duration for which a Project Proponent must commit to project continuance, monitoring and verification, and as stated in the ACR Standard, it is not directly equated with assurance of permanence. This is because the concept of permanence is not scientifically justified by an artificially truncated





way and thus such an approach should not be used as it is not representative of actual common practice and is not conservative. We suggest explicitly defining what is considered to be common practice, or providing clearer citations supporting the conservativeness of the proposed discount rates, which will improve the credibility of baselines established using the Methodology.

Permanence

The proposed methodology does not adequately describe the mechanisms to ensure the integrity of carbon stocks beyond the 40-year commitment period. For example, it is not clearly stated if there are any obligations to monitor sequestered carbon stocks beyond the minimum project term or if there are any remedies in the event of a reversal after year 40, leading to uncertainty about the ongoing integrity of credits issued to the project. Further, it does not seem appropriate that a project can have a 40-year crediting period in addition to only a 40-year commitment period. This combination would lead to each successive year of crediting having a diminishing permanence requirement. If this is the case, a credit issued in year one would need to be maintained for the 40-year project term, but a credit issued in year 40 would not need to be monitored at all after the 40-year project commitment expires, falling short of ACR's stated commitment period.

time horizon of 40, 100, or any number of years short of perpetual. Numerous authors have pointed out that GHG claims and ton-year accounting approaches equating 100-year GWP indices with permanence lack fundamental economic (or other) rationale and can in fact have undesired consequences (see Herzog et al. 2003 and citations therein). Rather, ACR requires Project Proponents engage in legally binding reversal compensation mechanisms over the entirety of the project term. The ACR Buffer Pool Terms and Conditions is available on our website. While the RMA is a confidential contract between ACR and the Project Proponent, the terms associated with permanence are clearly defined in Section 5 of the ACR Standard.

Monitoring and reporting: This assertion is not accurate. ACR processes and requirements are clearly defined and publicly available. Inventory methods must meet the minimum data collection specifications as required by approved models and volume/biomass equations (see sections 3.3.1, 3.3.1.1 and 3.3.1.2). Inventories must be updated at least every 10 years. Information requirements and approval processes for GHG Project Plans are clearly stated in Chapter 6 of the ACR Standard and validation/verification requirements in Chapter 9. Further, applicability conditions stated in section 1.2 of the IFM methodology specify that all projects must meet all requirements of the ACR Standard.





We suggest providing greater transparency around documents relevant to both the Methodology and the ACR Standard v7.0 (e.g., Reversal Risk Mitigation Agreement, or template of the same) that demonstrate how the proposed permanence provisions can guarantee carbon stocks are indeed permanent beyond the minimum project commitment period. In terms of reversals that occur at some point in the future, ACR relies on its buffer pool for assuring permanence of reversible credits. However, like the Reversal Risk Mitigation Agreement, the ACR Buffer Pool Terms and Conditions is maintained as a proprietary document. This reduces the transparency in the market and does not provide assurance to credit buyers that their credit purchases represent a real, permanent GHG removal. It should be highlighted that the absence of both clear monitoring guidance and permanence requirements creates a high risk for the environmental integrity of this methodology and any credits issued through its use. As permanence is one of the critical tenets of offset integrity, it is essential that the treatment of permanence is clearly and transparently addressed in the proposed methodology and/or through greater transparency with respect to the additional relevant programmatic documents cited.

Early action guidance: Eligible start dates for IFM are defined in section A.3.3 of the ACR Standard. Notably, IFM projects using existing methodologies must be validated within 3 years of the project Start Date. A single exception is given to projects using newly approved methodologies (i.e. published no more than 6 months prior to the project's listing or registration) to accommodate projects being implemented while awaiting the methodology development/approval process. For these projects, however, the listing submittal must be within 6 months of methodology publication and the project must then be validated within 2 years of listing.





We further note that the ACR Standard v7.0 asserts "no length of time, short of perpetual, is truly permanent, nor is there a sound scientific basis or accepted international standard around any number of years that equates to an emission reduction/removal being permanent." We fundamentally disagree with this statement and think that care should be taken to distinguish between the clear scientific basis for a 100-year commitment, and policy considerations that should determine whether means to implement such a commitment are considered reasonable. If a quantification approach is based on a 100-year GWP, then such credits need to remain permanent for 100 years. This may still leave the door open for various policy options that reasonably represent permanence for those 100 years. Care should be taken to make this difference clear, so that industry stakeholders can better understand the various policy options used in the marketplace. Blurring this distinction creates confusion in the marketplace that is to the detriment of all. The use of commitment periods shorter than 100 years should only ever be considered best practice if accompanied by either a proration of the volume of credits issues (i.e., Tonne Year Accounting), or when accompanied by clear and transparent rationale for the shorter commitment.





We feel this protocol and supporting documentation does not meet the second of these alternatives.

Monitoring, Reporting and Verification

The proposed methodology permits Project Proponents to use a GHG Plan that allows them to establish their own methodology and frequency for data and parameter monitoring. However, the requirements for monitoring and reporting that address both the crediting period and post-project term obligations are not clearly defined. One can assume that there would be an approval process for a Project Proponent's GHG Plan, yet this process is not mentioned and therefore does not provide guidance nor transparency of the decision-making processes. Additionally, verification is notably absent from the proposed methodology, leaving it unclear as to what is verified in relation to the project. While we understand that the ACR Standard provides some verification timing information, and the ACR Risk Mitigation Agreement does provide some guidelines around reporting for reversals, the lack of transparency around these MRV policies provides little assurance for buyers that their credits represent permanent GHG removals.

Early Action Guidance

With regards to early action guidance, clearer guidelines should be provided on what constitutes an "additional" early actor, as the recordation of a





conservation easement does not demonstrate that
GHG mitigation was a priority. The ACR Standard
v7.0 allows projects to list under new methodologies
(like this one) with start dates going back 10 years.
This allows for the potential non-additional crediting
of activities that were occurring in the absence of
the project. We think 10 years is far too generous.
Shortening this limit will help improve additionality
claims and ensure that all eligible projects can
demonstrate GHG mitigation as a priority at
inception.