

(carbon)plan

APR 21 2022

Dr. Hellen Nansikombi (by email)
Senior Program Officer, Verra

RE: NCX's Proposed Methodology for Improved Forest Management through Targeted, Short-Term Harvest Deferral

Dear Dr. Nansikombi,

Thank you for the opportunity to comment on the proposed Methodology for Improved Forest Management through Targeted, Short-Term Harvest Deferral (hereinafter referred to as the "Proposed Methodology"), which Verra and NCX developed.¹

Earlier this month, we submitted comments on Verra's Proposed Updates to the VCS Program that specifically addressed the implications of issuing offset credits based on ton-year accounting.² We incorporate our earlier comments here by reference and write separately to reiterate our concerns with the use of ton-year accounting to issue offset credits to projects that, as proposed here, could store carbon for as little as one year. These approaches are inconsistent with net-zero climate goals and global temperature stabilization. They should be labeled accordingly.

We also urge Verra and NCX to directly and transparently address the novel additionality risks posed by ton-year accounting, which the Proposed Methodology fails to do. Ton-year accounting effectively gives projects an open option to exit from carbon storage commitments, which enables strategic, non-additional enrollment behaviors. We do not see adequate protections in the Proposed Methodology that foreclose these risks, as the only meaningful constraints are imposed through a proprietary baseline scenario model that cannot be evaluated in this public consultation. We also discuss a significant loophole that illustrates these additionality problems in concrete terms. Finally, we express concerns with the Proposed Methodology's treatment of emissions leakage from short-term harvest deferrals.

¹ Verra, [Methodology for Improved Forest Management Through Targeted Harvest Deferral](#) (March 17, 2022) (developed by NCX) (hereinafter "Proposed Methodology").

² CarbonPlan, [Comments to Verra](#) (Apr. 8, 2022); Verra, [Proposed Updates to the VCS Program](#) (Feb. 7, 2022) (proposing to modify Verra's [VCS Standard v4.2](#) (Jan. 20, 2022)).

As detailed below, we encourage Verra and NCX to make public any baseline scenario models used to ensure additionality under the Proposed Methodology and to close obvious loopholes that would lead to non-additional crediting. We also suggest ways Verra and NCX should improve their treatment of emissions leakage.

1. The Proposed Methodology fails to ensure additionality because it relies on unspecified, proprietary methods to account for the unique additionality risks associated with short-duration harvest deferrals.

As we addressed in our earlier comments to Verra, ton-year accounting allows for 1-year crediting periods and creates the ongoing option for landowners to exit from their carbon storage commitment. These characteristics enable new opportunities for landowners to strategically enroll and un-enroll in forest offset projects to earn credits around business-as-usual harvest cycles. Ton-year's novel additionality risks must be addressed and mitigated within each methodology, but the Proposed Methodology punts management of this critical problem to unspecified, proprietary methods.

Accurately crediting harvest deferrals hinges on predicting the baseline scenario — how forests would have been harvested in the absence of carbon finance. The Proposed Methodology credits harvest deferrals by comparing observed on-site carbon to predicted at-risk carbon. All carbon savings above the modeled baseline scenario are considered additional.³ Thus, evaluating additionality outcomes requires understanding the details of the baseline model because the accuracy of the baseline model determines what the Proposed Methodology considers additional.⁴

Despite the fact that the choice and use of baseline models determines the Proposed Methodology's definition of additionality, the Proposed Methodology does not prescribe specific methods or models that can be used.⁵ Instead, the Methodology describes high-level characteristics that a baseline model must consider, but outsources model development and application to financially interested project proponents like NCX.⁶

³ Proposed Methodology at § 7 (defining the “Performance Benchmark” additionality test in relation to the baseline scenario); *id.* at § 6 (defining the requirements for baseline scenario).

⁴ The additionality test also includes a conventional “regulatory surplus” test that generally requires baseline scenarios to reflect existing legal commitments. *Id.* at § 7 (identifying a “Regulatory Surplus” additionality test); Verra, VCS Methodology Requirements v4.1 (Jan. 20, 2022) at § 3.5.3 (defining the “Regulatory Surplus” additionality test).

⁵ Proposed Methodology at § 6.

⁶ *Id.* Baseline models must estimate the percentage likelihood of harvest and consider timber value, non-timber value, cost of harvest, and forest types.

It is striking that we aren't able to review the method or see any comprehensive description of its accuracy or comparison against validation benchmarks. As far as we are aware, there is no complete and publicly reviewable description of NCX's baseline modeling approach — neither in the Proposed Methodology nor in any other forum.⁷ Under these conditions, it is not possible to tell what exactly the baseline model is, let alone if it adequately mitigates ton-year accounting's unique additionality risks.

To be clear, we do not wish to prejudge the accuracy of NCX's models (or any other models that might be developed for use under the Proposed Methodology). But without more detail, it is impossible to evaluate the rigor of NCX's modeling approach. As a result, we are unable to test the Proposed Methodology's technical accuracy in projecting baseline scenarios nor its vulnerability to additionality gaming — including the novel risks introduced with 1-year crediting periods.⁸

The opacity of what is actually being proposed is more than a theoretical concern. For example, Appendix A of the Proposed Methodology indicates that the model developed by NCX to predict common practice harvest patterns would be an acceptable approach. We are told that this model is trained on FIA data.⁹ However, predicting harvest patterns from FIA data is a very difficult problem, especially for the small, family landowners NCX targets in its marketing efforts.¹⁰ As described by a paper NCX itself cites in Appendix A:

“[W]e found little predictive information either from the FIA, census, or NWOS data to explain harvest behavior within the private woodland owner-class ... [T]heir reactive harvest behavior due to external stimuli or unplanned financial need[] confounds the ability to predict future conditions in a consistent way[.]”¹¹

We recognize that the Proposed Methodology requires baseline models like NCX's to be reviewed by an expert panel and approved by Verra.¹² However, since the process does not

⁷ *Id.* at § 11 (providing only a high-level description of NCX's baseline model; see also NCX, NCX Carbon Guide (2022); NCX, Baseline Model Building Block (2022).

⁸ CarbonPlan comment letter, *supra* note 2.

⁹ Proposed Methodology at § 11.3(a).

¹⁰ NCX Carbon Guide, *supra* note 7 at 1-3.

¹¹ Jonathan R. Thompson et al., Social and biophysical variation in regional timber harvest regimes, *Ecological applications* 27(3): 942–55 (2017) at 952.

¹² Baseline models must be approved by Verra as a module for use with the Proposed Methodology. Proposed Methodology § 6; Verra, Methodology Approval Process v4.0 (2019) §§ 2.2 and 4. Baseline models will be subject to review by an expert panel. Proposed Methodology, § 11. Expert reviewers for the baseline model characterized in Appendix A are not identified within the Proposed Methodology, but appear to be indicated in separate NCX marketing materials. NCX Carbon Guide, *supra* note 7 at 10-11.

specify formal criteria or model validation benchmarks, it does not alleviate our concern about the opacity of the baseline modeling approach and inscrutability of the Proposed Methodology's additionality protection.

RECOMMENDATION 1:

Verra should require full public disclosure of all baseline scenario models approved for use with this methodology.

2. The Proposed Methodology explicitly contemplates crediting forests whose landowners have sold the option to harvest to third parties, illustrating its failure to screen obviously non-additional behavior. Option holders control the decision to harvest, not the landowners being credited for outcomes outside their control.

Timber sale contracts often provide a third party with the right to harvest the landowner's timber within a specified period of time.¹³ The Proposed Methodology mentions this arrangement in passing, asserting that an exercisable harvest option could reasonably be interpreted as implying a 100% probability of future harvest.¹⁴

This example illustrates the Proposed Methodology's profound failure to screen obviously non-additional behavior. When a landowner sells a harvest option to a third party, the landowner no longer controls the decision to harvest or not harvest. That decision rests with the third-party option holder.

Nevertheless, the Proposed Methodology allows projects to assign a 100% probability of harvest to lands subject to an exercisable third-party option. This would allow the landowner who has sold a harvest option to claim full credit for deferring harvest for every year the third-party rightsholder elects not to harvest timber. But contractually, the decision to harvest rests exclusively with the third-party option holder.

In this situation, it makes no sense to claim that compensating a landowner with credits induces a change in harvest behavior. This potential loophole calls into question the Proposed Methodology's ability to screen non-additional behaviors that are particularly concerning in light of the unique challenges of short-duration crediting periods.

¹³ Patrick Hiesl and Stephen Pohlman, An Introduction to Timber Sale Contracts, Clemson University Cooperative Extension Land-Grant Press (May 7, 2020).

¹⁴ Proposed Methodology at § 6 ("In the event there is an existing exercisable option for timber purchase on the land in question, the likelihood of harvest may be appropriately set at 100%").

RECOMMENDATION 2:

Verra should prohibit landowners with outstanding harvest options from claiming credits for avoiding harvests that they no longer control.

3. The Proposed Methodology does not adequately justify the leakage deductions applied to carbon credits issued for harvest deferrals. To the extent baseline models can accurately predict the probability of timber harvest, the same models can and should be used to provide leakage estimates.

Leakage and additionality are closely related. To the extent a landowner is actually deferring harvest, leakage risks increase because deferred harvests from one parcel can lead to increased harvests elsewhere. Accordingly, it is important to connect an additionality finding to the specific mechanisms that might result in leakage.

The Proposed Methodology considers but fails to adequately address two types of leakage: (1) leakage from activities shifting within a landowner's operations and (2) leakage from the market effects of reducing harvest.¹⁵

First, the Proposed Methodology assumes there will be no activity shifting leakage based on the premise that owners/managers must enroll the entirety of their holdings,¹⁶ but uses imprecise language that fails to ensure this outcome. The Proposed Methodology asserts that a participating landowner must enroll all forested property within the "program area" of the credited project. However, the Proposed Methodology allows project proponents to define each project's "program area."¹⁷

In other words, project proponents get to define what satisfies the Proposed Methodology's requirement of enrolling all relevant lands on a project-by-project basis, without any programmatic guardrails. With such broad and flexible definitions, it is easy to imagine a program area that intersects only a portion of a large landowner's holdings and thus allows activity-shifting leakage that would nevertheless be ignored under the Proposed Methodology.

¹⁵ *Id.* at § 8.3.

¹⁶ *Id.*

¹⁷ *Id.* at § 4 (see Condition 7) (requiring that owners enroll all land within a program area); *but see id.* at § 3 (allowing the term "program area" to be "determined by the project proponent" and defined separately "for each individual project developed under this methodology.").

Second, the Proposed Methodology adopts default Verra leakage deductions to account for market-wide effects of deferring harvest.¹⁸ These deductions are not based on clear evidence, nor calibrated to the specific mechanics of the Proposed Methodology.

It is not uncommon for forest offset programs to use simple assumptions precisely because it is so challenging to robustly measure leakage outcomes. For example, in a 2019 public letter reviewing the limited number of studies estimating forest carbon leakage rates, Duke University Professor Brian Murray wrote that:

“The empirical work is not easy and I do not pretend that the estimates from my work with others, generated more than ten years ago [in 2004], focused on hypothetical programs are precise estimates of what happens today with real programs. But to my knowledge, they are the only (or perhaps one of a few) peer-reviewed estimates of carbon leakage in US regional programs out there.”¹⁹

Although we are sympathetic to the challenge deep uncertainty presents for climate policy decisions, and appreciate Dr. Murray’s characterization of the limited evidence available today, the Proposed Methodology is premised on the notion that harvest rate probabilities can be accurately characterized in baseline modeling. If accurate, these harvest prediction models should also be capable of calculating market leakage.²⁰ If baseline harvest models are not capable of characterizing leakage, however, this implies that they are also incapable of accurately predicting the risk of harvest and should not be used as the basis for crediting.

RECOMMENDATION 3:

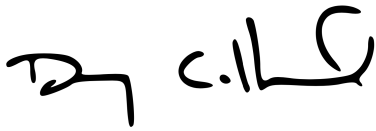
We recommend Verra either (1) introduce an activity shifting leakage factor, or (2) establish clear and appropriate guardrails on the definition of a program area. We also recommend that Verra (3) require any model deemed sufficient to predict baseline harvest risk probabilities for the purposes of additionality findings also be used to evaluate the adequacy of assumed leakage factors for market effects.

¹⁸ *Id.* at § 8.3. Technically, the Proposed Methodology applies the default 10% market leakage factor to the first 7 years of a project, rather than the first 10 years as prescribed by Verra’s general approach.

¹⁹ Letter from Dr. Brian C. Murray to California Legislators (June 3, 2019) (discussing two peer-reviewed studies that Dr. Murray co-authored in 2004). We also note that Verra cites Dr. Murray’s work in its determination of standard leakage rates. Verra, Methodology Requirements (Jan. 20, 2022) at § 3.7.15 (see note 10) (citing several of the studies discussed in Dr. Murray’s 2019 letter).

²⁰ Any carbon savings above the modeled baseline scenario are deemed additional. Proposed Methodology at §§ 6-7. Because an additionality finding is based on the difference between baseline and project scenarios at the project in question, while leakage impacts are based on the difference between baseline and project scenarios in the broader forest products market at large, any model that is capable of predicting project-level harvest rates in any broad region — such as across North American forests — should also be capable of predicting market effect leakage in the same region.

Thank you for the opportunity to submit comments.



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