



SUMMARY OF COMMENTS & RESPONSES REFORESTATION FORECAST METHODOLOGY VERSION 1.0

Three set of comments was received during the public comment period for the Climate Forward draft Reforestation Forecast Methodology version 1.0. Staff provide responses to the comments below. The public comment period for the draft methodology took place from November 20, 2019 to December 20, 2019.

The comment letters can be viewed on Climate Forward's website at <https://climateforward.org/program/methodologies/reforestation/>.

COMMENTS RECEIVED BY:

1. Bluesource (Bluesource)
2. Land Life Company (Land Life)
3. Restore the Earth Foundation (REF)

General Comments

1. We fully support and commend the Climate Action Reserve (the “Reserve”) for developing the Methodology. We view the Methodology as an essential and proactive step to address climate change. Indeed, the Methodology, in our view, will drive much greater investment in reforestation projects by creating improved project economics. Reforestation projects are a critical piece of the solution to combatting climate change. For Restore the Earth, in particular, the Methodology will directly result in opportunities to reforest tens of thousands of acres in the Mississippi River Basin. **(REF)**

RESPONSE: The Reserve would like to thank Restore the Earth Foundation for its support for the development of this methodology and the Climate Forward Program, and for providing feedback on this methodology.

2. The box circled in the leakage decision tree below, does not have a “Y” option. **(Bluesource)**

RESPONSE: We thank you for your comment and attention to detail. The decision tree has been adjusted for the final version of the forecast methodology.

Section 3.3 Additionality, 3.3.2 Legal Requirement Test

3. Much of the areas potentially suitable for replanting will be ineligible due to current or future legally binding requirements, whilst these areas will not be restored due to lack of funding by the forest owner. In particular the [Regulatory] Compliance may be a considerable risk for externally funded carbon sequestration projects. **(Land Life)**

RESPONSE: While we recognize the concern that some sites worthy of being reforested will be precluded from participation as a result of the legal requirement test, ensuring project activities are additional is paramount to maintaining the integrity of the Climate Forward program and the Forecast Mitigation Units issued. One of the Climate Forward program standards addresses the concept of additionality: GHG-reducing actions must be additional to any that would have been taken in the absence of the Program, or in the absence of a market for GHG reductions generally. If the replanting of a site is required under current legal requirements, such replanting would have taken place even if the replanting actions aren’t recognized under a project registering with Climate Forward. Similarly, if legal requirements have been enacted but are yet to come into full force (e.g., legislation has been signed into law but implementation/enforcement is to occur at a later date), the reforestation actions would have taken place even without recognition of a Climate Forward project. On the other hand, if mandatory reforestation is merely being contemplated but has not been established as a legal requirement for a relevant jurisdiction, a reforestation project would still be considered additional.

Section 3.6 Ownership and Double Counting

4. In the draft Methodology, the ownership of Forward Mitigation Units (“FMUs”) is assigned to “the entity that has legal ownership of the trees,” however, such a hardline rule will create unnecessary barriers to project implementation. Instead, the Methodology should allow for a flexible approach in which FMU ownership is assigned to the project proponent that can demonstrate to the Reserve unequivocal right to FMU title. [Specific edits suggested for Section 3.6 Ownership and Double Counting.]

The above proposed changes will make the Methodology internally consistent with Section 2.2, as well as with other Climate Forward methodologies that assign ownership of FMUs to the project proponent and not the entity actually owning the project site and/or equipment.

Streamlining Section 3.6 in the above manner will also remove unnecessary barriers to implementation. For example, the requirement that all legal owners of timber rights sign the timber rights affidavit can be a burdensome task for project proponents, especially in a situation (such as ours) where the project proponent is working with governmental agencies to implement the projects. Securing a governmental agency's signature, even on a relatively straightforward affidavit, can take months to work its way through the bureaucratic approval process. In addition, it would be cumbersome to require a governmental agency, as legal owner of timber rights, to open and maintain registry accounts. By requiring affidavits of timber rights and title from the project proponent, however, along with the implementation of other project resilience measures, the project implementation and confirmation will be streamlined, more reforestation projects will be developed and the environmental integrity of the FMUs will remain intact. **(REF)**

RESPONSE: We thank you for your comment and agree that the language in the Methodology around ownership of FMUs should be internally consistent. While striving to be consistent with approaches used in other methodologies, we also recognize that ownership of the trees (upon which crediting is based) can, under certain circumstances, be quite different than simple ownership of the project site or equipment, with implications for who actually can legitimately claim ownership of emissions reductions generated by a project. Nevertheless, adjustments have been made to Sections 2.2 and 3.6 to indicate the project proponent is assumed to be the owner of the trees and, hence, the owner of FMUs, and that instances in which the project proponent is not the owner of the trees, an agreement must be in place between the project proponent and the owner of the trees clearly indicating that the ownership of the claim to FMUs has been transferred to the project proponent.

Section 3.8 Ensuring Permanence

5. Much of the carbon sequestration that can be reasonably expected by a reforestation project is heavily discounted, based on the application of tonne-year accounting, assumptions around when regeneration harvests are likely to take place, exclusion of standing dead tree and soil carbon pools, and resilience-based management actions not captured by projections. These risks making many projects unnecessarily economically unattractive. **(Land Life)**

RESPONSE: We thank you for your comment and appreciate the concern about discounts applied to reforestation projects under the forecast methodology. Given the ex ante nature of Climate Forward forecast methodologies, with no required long-term monitoring, reporting, and verification beyond the initial confirmation that the project has been implemented according to a methodology's standards, credit quantification is intentionally conservative in several ways. Tonne-year accounting reflects the time-value of the carbon as it is sequestered and maintained over time. In other words, the longer a tonne of carbon is assumed to be maintained out of the atmosphere, the higher the percentage of that tonne is recognized for credit issuance. The consequence is that, while the amount of carbon sequestered each year in absolute terms may increase over the period of time leading up to the assumed regeneration harvest, those tonnes sequestered closer to the time of harvest simply have less of a climate benefit because they are assumed to be maintained for less time.

To offer an alternative to tonne-year accounting, we have included options for both private and public lands to increase credit issuance based on legally recognized commitments (e.g., conservation easements) that extend the probability that the sequestered carbon stocks remain onsite and, hence, the crediting period of a project, as well as potentially allowing for the use of tonne-tonne accounting if the permanence of the carbon sequestered over the crediting period is secured.

The standing dead tree pool has been excluded from project accounting as a conservative measure. While mortality of trees over time will occur, there are no assurances as to how projects registering under this methodology will manage dead trees. We assume under this methodology that dead trees will be removed from the project site and the carbon in such trees emitted back into the atmosphere.

Soil carbon was also excluded from project accounting as a conservative measure. While we recognize there are conditions under which reforestation activities can increase soil carbon, the nuances around such conditions as well as the lack of certainty around estimates of the soil carbon increases prevented us from crediting for carbon sequestered in soils.

Lastly, the standardized deduction is intended to address the effects of managing for resilient forest conditions that may not be captured by the modeled increases in carbon stocks. After further review, we agree that the preliminary discount of 20% may be too high. However, a discount is still warranted since the modeling on which the projected increases are based likely does not capture all potential resiliency-oriented management activities, especially given recent shifts in the focus of management across ownership types toward greater overall forest health. We have adjusted the discount in the final methodology to 10%.

6. It should be noted that, in the absence of a conservation easement, the default Rate of Return and CMAI factors will severely limit credit generation for large private landowners and will discourage them from participating in the program. The crediting for large private landowners is about half that of non-profit or government landowners, which seems far too conservative. In the absence of these crediting handicaps, it is likely that large private landowners would be strong candidates for participation in this program. **(Bluesource)**

RESPONSE: We thank you for your comment and appreciate the concern about discounts applied to reforestation projects under the forecast methodology. Please see the response above to Comment 5. However, we have re-evaluated the growth rate threshold and CMAI factors and adjusted them in the final version of the methodology to better reflect real-world harvest decision-making for the different ownership classes.

It is our intent is to shift the economics of reforestation-based carbon projects to allow revenue generation from credit sales earlier in the project than would otherwise occur under an ex post (offset) crediting framework, thereby making reforestation more feasible for landowners desiring to restore forest cover on their land. We recognize that crediting under this methodology may not generate a profit for project proponents as a result of revenue generated from of credit sales, at least in the short term given recent carbon pricing. Projects registering under this methodology will have the option to transition to ex post reporting under a forthcoming reforestation project protocol as part of the Reserve's offset

program, allowing project owners to be awarded offset credits based on an inventory that demonstrates the actual carbon stocks sequestered by the project to date, net of any credits issued under this forecast methodology and Climate Forward. The intent of this provision is to provide an additional incentive for the project to continue considering a management approach that is rewarded for the long-term sequestration of carbon.

7. In the draft Methodology, the crediting period represents the period for which the Reserve has a reasonable assurance that the re-established forest will not be subject to a regeneration harvest (clear-cut). State and federal lands held in perpetuity can provide the same assurance of permanence as a conservation easement on private lands. Acknowledgment of the safeguards provided via public ownership would be consistent with the Reserve's Forest Project Protocol v 5.0, where "With Qualified Conservation Easement or Qualified Deed Restriction that explicitly encumbers timber harvesting associated with project stocks or on public or tribal lands" corresponds to a 0% contribution to project reversal risk rating due risk of over-harvesting.

Admittedly, since state and federal lands are unlikely to be subject to specific quantitative thresholds on stocking as those envisioned for the conservation easements for Climate Forward, it would be reasonable to assume a slightly lower stocking level attained and conserved over the 100-year period (e.g., at culmination of mean annual increment) that reflects the outcomes of the potential array of management decisions on those lands.

We would also propose that the stocking level attained and conserved over the 100-year period on public lands reflect the designated primary management objective of those lands, specifically distinguishing between those lands designated for wildlife management and conservation (e.g., US Fish and Wildlife Service National Wildlife Refuges, state Wildlife Management Areas) and those where timber production is the primary management objective (e.g., national and state forests). **(REF)**

RESPONSE: We thank you for your comment and agree that some public lands may warrant credit recognition beyond simple consideration of an assumed rate of return. We have adjusted Section 3.8 in the methodology to provide a pathway for projects on public lands to demonstrate that management of the project area will be consistent with the increase and long-term maintenance of carbon stocking levels attained through the point in time when CMAI is reached and to modify credit quantification accordingly.

Section 5.2.2 Reforestation Communities Data File

8. Additional information would be helpful in determining the appropriate forest type in step 2 of section 5.2.2. "Using the Reforestation Communities Data File, determine the forest type that corresponds to the project's geography and species composition of the trees planted or regenerating on the Project Area."

Ideally, there would be a qualitative description of each forest type and region so that there is no ambiguity in assigning forest types. **(Bluesource)**

RESPONSE: We appreciate the request for additional clarity around forest type definitions. We recognize the desire to reduce or remove subjectivity related to defining forest types. Current forest types available in the Reforestation Communities Data File do have specific geographies within which they may be applied, based on the forest regions defined by

source for the carbon stock projection data.¹ A map of these regions is included in the Reforestation Communities Data File, and as separate PDF and GIS files on the forecast methodology's webpage.²

Due to the inherent complexity in establishing hard boundaries to define forest types, the methodology relies on the professional forester/ecologist to describe how the species mix being established on the project site are in line with the forest type upon which project quantification is based in the Reforestation Communities Data File.

Section 7.3 Reporting and Confirmation Period

9. At Section 7.3, the draft Methodology requires that “[c]onfirmation activities cannot commence until the project is submitted by the project proponent and approved by the Reserve, and at least one year following the completion of the activity that led to seedling establishment (tree planting or site preparation to enable natural establishment of tree seedlings).” This requirement is unnecessarily stringent. The Reserve should consider building in more flexibility to allow for confirmation to occur closer temporally to the completion of project implementation. While we recognize the need for the Reserve to confirm that seedlings and saplings are viable and surviving as part of ensuring project resiliency, the mandatory one-year delay between project implementation and project confirmation is a disincentive to investment and counteracts the improved project economics that the Methodology provides. A more flexible approach that accounts for regional-specific growing periods should be incorporated into the Methodology. For example, in Louisiana, the planting season is October-November, thus a confirmation body can determine the survival rate of established seedlings with a high degree of certainty, at the latest, by April of the following year. This would shorten the delay between project implementation and project confirmation by six months without sacrificing environmental integrity, thus making investments in reforestation projects more desirable. **(REF)**

RESPONSE: We thank you for your comment and appreciate the desire to better align the timing of credit issuance with when costs for reforestation are incurred. While the methodology does improve on this timing mismatch in comparison to offset crediting protocols based on ex post reporting and verification, we recognize even a year can be a significant amount of time for some project proponents to bear the upfront costs of reforestation activities. Nevertheless, we believe the greater assurance of seedling survivability afforded by waiting at least one year before conducting confirmation of tree establishment is important to maintain the integrity of the credits issued, especially given there are no requirements for ongoing monitoring of project performance. That said, we have updated the language in the final methodology to allow for exceptions to be made at the sole discretion of and subject to any conditions determined by the Reserve.

¹ Smith, J. E., Heath, L. S., Skog, K. E., & Birdsey, R. A. (2006). *Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States*. Newtown Square, PA. <https://doi.org/https://doi.org/10.2737/NE-GTR-343>

² <https://climateforward.org/program/methodologies/reforestation/>