

(carbon)plan

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Shelby Livingston
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: Workshop on potential amendments to the cap-and-trade regulation

Dear Ms. Livingston and CARB staff,

Thank you for the opportunity to submit comments in response to your recent workshop on potential amendments to California's cap-and-trade regulation.¹ Our comments today focus on the possible revisions to the regulation that govern various reporting and verification aspects of the Board's forest offset program.

Before responding to the specific questions raised by staff during the workshop, however, we'd like to again request that the Board place a moratorium on the development of new forest carbon offset projects until such time that the protocol's risk factors are revised. In the workshop, we were surprised to hear staff suggest that revisions to the Board's forest protocol are likely still years away. To be clear, we appreciate the amount of work involved in accurately quantifying future risks to forests, especially at the continental scale. This work should be commended, as getting these numbers right is critical and good science cannot be rushed.

That said, it is increasingly clear that the program's existing buffer pool is insufficient to cover its carbon liabilities for the next 100 years.² The Board's decision to allow more forest projects to enroll using the existing risk adjustment factors only compounds the vulnerability of the program's buffer pool.

¹ California Air Resources Board, [California Public Workshop: Potential Amendments to the Cap-and-Trade Regulation CARB Presentation](#) (Apr. 23, 2024) (hereinafter "Staff Presentation").

² William R L Anderegg, [Climate driven risks to the climate mitigation potential of forests](#), *Science* (2020); Grayson Badgley et al., [California's forest carbon offsets buffer pool is severely undercapitalized](#), *Frontiers in Forests and Global Change* (2022); Grayson Badgley, [California's shrinking buffer pool](#), CarbonPlan (2024).

Failure to halt project development will further burden the program’s already strained buffer pool and, in our view, goes against the Board’s statutory mandate to ensure that all offset-based emission reductions are both “real” and “permanent.”³ We therefore respectfully request that the Board pause further development of forest offset projects until such time that its forest offset program uses reversal risk factors that are more firmly grounded in science.

The remainder of our comments directly address questions raised by staff during the workshop and in accompanying workshop materials. Overall, we were encouraged by many of the possible revisions and look forward to further details on their implementation.

1. Revisions to the reporting requirements of reversal events

During the workshop, staff discussed steps to clarify reporting requirements for reporting periods where no offset credits are issued.⁴ Based on staff’s comments, it is our understanding that such revisions intend to accelerate the timeline for Board verification of reversals. This would be a welcome change compared to the status quo.

The existing rules allow for significant delays in public reporting of reversal outcomes, which complicate efforts to understand the environmental outcomes and integrity of the state’s forest offset program. This is especially the case when it comes to the buffer pool. This challenge is perhaps best illustrated by the Lionshead Fire, which ignited on August 16, 2020 and severely damaged ACR260.⁵ Nearly four years later, we still don’t know the official status of the project and its 2.7 million credits. On paper, California’s buffer pool currently contains around 27.2 million credits,⁶ but the buffer pool would be roughly 10 percent smaller if ACR260 were terminated, which seems likely given recent reporting.⁷

When isolated to a single reversal, multi-year delays might not seem that important. However, we’re concerned about the possibility of several reversals with multi-year delays stacking up at once. This could result in a significant divergence between the size of the buffer pool reported on paper and its actual size, in practice. Timely reporting and verification of reversals is essential to understand whether or not the buffer pool can meet its obligations when future reversals come due.

³ Cal. Health & Safety Code § 38562(d)(1).

⁴ Staff Presentation, *supra* note 1 at slide 41 (“Clarify when project and verification documents become publicly available for a verification that does not result in offset credit issuance”).

⁵ Claudia Herbert et al., Carbon offsets burning, CarbonPlan (Sept. 17, 2020).

⁶ CARB, Q1 2024 Compliance Instrument Report (Apr. 4, 2024).

⁷ Hal Bernton A giant Oregon wildfire shows the limits of carbon offsets in fighting climate change, Oregon Public Broadcasting (2023) (Quoting forester Malcolm Vollmer about the likely termination of ACR260).

As such, we're encouraged by the proposed revisions to § 95987(b)(2) to require that reversal verification documents be made publicly available, even when offset credits are not issued. Other proposed changes, such as adding a requirement that offset registries alert the Board when an active project misses a reporting deadline, similarly serve to accelerate the speed at which reversals are accounted for by the offset program.

In addition to accelerating the timeline of reversal reporting, the Board should consider clarifying its treatment of carbon losses that result from non-salvage harvest activities that co-occur during reporting periods with unintentional reversals. While the protocol provides guidance for determining whether or not a reversal has occurred, and the regulation describes the compensation process for both an intentional and an unintentional reversal, neither the protocol nor the regulation provide specific guidance about what happens if both an intentional and unintentional reversal occur during the same reporting period.

For example, imagine a project with a reporting period that starts in July that experiences a severe, lightning-caused wildfire that ignites in August and is contained by the end October. The damage from the fire triggers a reversal. Additionally, the project has previously scheduled harvests planned to occur over the winter, starting in November and continuing through March, during the same reporting period where the wildfire-caused reversal took place. Following Equation 3.1 of the 2015 forest offset protocol, reversals occur when there is a negative change in project carbon stocks from one reporting period to the next.⁸ To the extent that elective, non-salvage harvests contribute to a decline in project carbon stocks in addition to whatever losses are caused by an unintentional reversal, we believe those losses should constitute an intentional reversal per Equation 3.1.

However, there is ambiguity around how such a case is reported in offset project data reports (OPDRs). Specifically, for OPDRs that report an unintentional reversal, it is unclear if the values of Standing Live (IFM-1) and Standing Dead (IFM-3), which are needed to calculate reversals, reflect carbon losses associated with both the unintentional reversal and non-salvage harvests.⁹ Providing clarity on this issue is necessary to ensure that carbon losses associated with elective, non-salvage harvests are not compensated for by the buffer pool. Such clarification could be part of the Board's proposed revisions around the information included in

⁸ California Air Resources Board, Compliance Offset Protocol U.S. Forest Projects (2015) at page 32. While CARB's previous forest offset protocols, from 2011 and 2014, do not contain Equation 3.1, both protocols have a similar logic for determining if a reversal has occurred: see California Air Resources Board, Compliance Offset Protocol U.S. Forest Projects (2014) at § 7.1 and California Air Resources Board, Compliance Offset Protocol U.S. Forest Projects (2011) at § 7.1.

⁹ OPDRs filed by ACR255 for its fifth and sixth reporting periods provide an example of this ambiguity. Both OPDRs report i) Reversals (Part VI) and ii) Harvest Volumes and Carbon in Wood Products (Part VII). It is unclear if the harvest volumes reported in Part VII relate to salvage or non-salvage harvests.

verified reversal estimates.¹⁰ Specifically, the publicly disclosed reversal estimate could be required to detail the calculations used to arrive at the values of IFM-1 and IFM-3 reported in any OPDR filed for a reporting period with a reversal. To enhance transparency, those calculations could separately document i) the carbon losses caused by the reversal, ii) the carbon gains due to forest growth, and iii) any carbon losses caused by non-salvage harvest.

2. Considerations around project termination

During the workshop, staff discussed the possibility of eliminating the automatic termination requirement when project carbon stocks fall below baseline and, instead, allowing a project to continue its crediting period without re-enrollment.¹¹ We are eager to learn more details about this proposed change, as any such revision must grapple with difficult questions about how to treat additionality in cases where carbon losses exceed the minimum carbon stocking predicted in a project's baseline scenario.

In the context of forest offset projects, additionality requires that carbon payments alter forest management in such a way that causes a sustained increase in long-term carbon stocks. Prior to a large reversal event, like a catastrophic wildfire, the project's baseline provides a rough outline of possible future management. However, it is all but inevitable that a significant reversal event meaningfully changes what business-as-usual forest management looks like. As such, if a project's carbon stocks dip below its previously projected baseline, it is likely necessary to revisit the assumed baseline scenario.

One benefit of the program's current approach of project termination and re-enrollment is that this baseline re-evaluation is already required. If the Board pursues pathways for allowing a project to continue without termination, it should preserve this feature of baseline re-evaluation. Should the Board not wish to re-assess a project's baseline scenario, a conservative approach to determining additionality would be required. For example, previously credited lands could be ineligible to receive new credits until carbon stocks exceed the maximum CO₂ per acre previously achieved by the project.

Furthermore, the Board should require that any post-reversal project — both those that re-enroll and those that continue through a possible non-termination pathway — continue forward with 100 percent of the projects' previously enrolled acreage. This requirement is necessary to ensure that the new, re-evaluated project baseline fully considers the

¹⁰ Staff Presentation, *supra* note 1 at Slide 42 (“Clarify what is included in a verified estimate [95983(b)(1) and 95983(c)(2)]”).

¹¹ Staff Presentation, *supra* note 1 at Slide 43 (“If carbon stocks fall below the baseline, consider eliminating automatic termination and providing options to continue a forest project”).

management implications of a large-scale reversal across the project proponent's full land ownership.

Finally, we believe that any revision to project termination logic should be paired with further clarification about what happens when a reversal exceeds the number of credits issued. The existing automatic termination language caps buffer pool losses at the total number of credits issued to a project in cases where an unintentional reversal causes standing live carbon stocks to fall below a project's baseline.¹²

Compensation by the buffer pool for an unintentional reversal that exceeds credit issuance is less clear when there is no project termination. Here, the regulation states: "ARB will retire ARB offset credits in the amount of metric tons CO₂e reversed for all Reporting Periods."¹³ In the case where losses exceed issuance and the project *does not* terminate, it is ambiguous whether or not losses to the buffer pool can exceed the number of credits issued to a project. If automatic termination is no longer required, it would be helpful to clarify this edge case.

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Thank you for the opportunity to submit these comments.



Grayson Badgley
Research Scientist
grayson@carbonplan.org

¹² Cal. Code Regs., title 17, § [95983\(d\)\(1\)](#) ("ARB will retire from the Forest Buffer Account a quantity of ARB offset credits equal to the total number of ARB offset credits issued pursuant to section 95981, and where applicable, all ARB offset credits issued to the offset project pursuant to the Program for Recognition of Early Action Offset Credits, over the preceding 100 years.").

¹³ Cal. Code Regs., title 17, § [95983\(b\)\(2\)\(A\)](#).