Forest Offset Protocol Technical Working Group

Meeting #3



Agenda

- Topic #1 Alternative approaches for certain types of reversals
- Topic #2 Amend requirements related to decreases in carbon stocks
- Topic #3 Revisions to buffer pool structure
- Introduce topics for next meeting
- Public Comment Opportunity



Reminder: Role of this Working Group

- This working group is not tasked with making consensus recommendations changes to Ecology rule or adopted protocols
- Ecology will consider multiple sources and perspectives, including the input collected through this working group, when deciding how to proceed with changes to this protocol
- Input provided by working group members, even if unanimous, should not be considered an indicator of the changes Ecology may or may not make

Disclosure of relevant financial interest or professional engagements

- At the start of each meeting Ecology will ask working group participants to disclose any financial interests or professional engagements related to the considered protocol revisions being discussed
- Disclosure of a relevant financial interest **does not preclude** participation in the discussion

Examples of financial interests relevant to today's discussion

- Ownership, involvement, or other interest in an offset project has been subject to an intentional or unintentional reversal
- Intention or consideration of development of a forest offset project in Washington's market (or employment at an organization with the intention or consideration of development of a forest offset project in this market)
- Any other financial interests that may be perceived as pertinent to this discussion

Disclosures shared in prior meeting

Prospective project development	Other related experiences
Mike Warjone – Port Blakely	Sheldon Zakreski – Living Sky Carbon Solutions
Steve Hinton – Tulalip Tribes	John Nickerson – Dogwood Springs Forestry
Jonathan Pomp – Green Assets	Felipe Casarim – BP
Jeremy Koslowski – The Climate Trust	
Edward Mann – Global Forest Carbon	
Ed Murphy – Sierra Pacific Industries	
David Ford – L & C Carbon	
Kathleen Farley Wolfe – King County DNR	

Disclosure opportunity



Please use the raise hand feature to share a relevant disclosure

Structure of meeting

- Ecology will briefly present topic
- Ecology will ask for any additional context, considerations, or clarification related to the topic and pose discussion questions to working group members
- Ecology will wrap up each topic with a poll of working group members using Zoom's Whiteboard feature

Topic #1: Alternative approaches to certain types of intentional reversals

Intentional reversal

 Any reversal caused by a forest owner's negligence, gross negligence, or willful intent, including harvesting, development, and harm to the area within the offset project boundary, or caused by approved growth models overestimating carbon stocks. [...]

• When an intentional reversal occurs:

- Operator must submit a verified estimate of carbon stocks within the project boundary within 1 year - a verification site visit is required
- Once Ecology has accepted the updated carbon stock estimate the forest owner(s) must surrender to Ecology compliance instruments (offsets or allowances) to compensate for the reversal within 6 months

Topic #1: Considered change

- Considered change:
 - Include additional types of reversals, still compensated by the forest owner but with greater flexibility in some situations
- Computational Reversal
 - Reversals that occur as result of following the required protocol calculations. Because calculations are intended to be conservative, a reversal may occur if annual growth is insufficient to cover the deductions for sampling error and secondary effects
- Technical Reversal
 - Reversals that occur as a result of a project using an approved growth model or updating its inventory methodology
- Planned reversal
 - Planned reversals are anticipated by the forest owner and may include balancing age classes, switching harvest regimes, or thinning to improve forest health

Topic #1: Considered change

- Remedies for computational, technical, or planned reversal
 - A desk verification may be conducted to verify reversal instead of a site verification as long the verification does not coincide (1) with a regularly scheduled site visit and (2) the reversal is not more that 35% of the previous year's on site carbon stocks
- For computational and technical reversals
 - Verification can be deferred until the next regularly scheduled verification.
 - Reversed credits can be deducted from the credits to be issued in the next scheduled verification period.
 - If verification does not occur within 6 years of reversal, or reversed amount exceeds issuance, forest owner must surrender the balance of compliance instruments to Ecology
- For any intentional reversal
 - Projects may request a partial credit issuance(s) in order to bank excess credits in order to compensate for a planned reversal

Example	Classification – existing protocol	Remedy – existing protocol	Classification – proposed change	Remedy – proposed change
Slow growth leads to required deductions (e.g. for secondary effects) resulting in a calculated net loss in carbon on site	Intentional reversal	1) Carbon stocks must be on-site verified and submitted to ECY within 1 year; 2) forest owners must surrender compliance instruments to ECY to compensate	Computational Reversal	1) Carbon stocks can be verified at next regularly schedule site visit (within 6 years); 2) Negative balance can be deducted from the next offset issuance to the project
An updated site inventory results in a calculated decrease in carbon stocks	Intentional reversal	Same as above	Technical reversal	1) Carbon stocks can be verified at next regularly schedule site visit (within 6 years); 2) Negative balance can be deducted from the next offset issuance to the project
Planned forest thinning for the purpose of improving forest health	Intentional Reversal	Same as above	Planned Reversal	1) Carbon stocks may be desk verified; 2) forest owners must surrender compliance instruments to ECY to compensate <i>however</i> offsets may be "banked" ahead of time to ease burden

Topic #1: Rationale for change

- Reversals are still compensated by forest owner(s) in all these situations
- This approach reduces some costs for project owners for intentional reversals that may largely be out of their control (e.g. related to calculations or inventory updates)
- Removes a disincentive for activities to improve forest health that result in a decrease in carbon

Topic #1: Treatment in comparable protocols

Treatment in comparable protocols	
CAR US Forest V 5.1	Proposed language for computational reversals comes for this protocol
ACR IFM 2.0 (ACR General Standard)	N/A

Topic #1: Discussion questions

- What additional considerations or context related to this topic should Ecology be aware of?
- How would these new types of reversal impact developer or landowner decision making?
- Are the conditions that would result in a computational or technical reversal common?

Topic #1: Programmatic goals

- Does this change positively or negatively impact any of Ecology's programmatic goals for this rulemaking?
 - Improve project feasibility for smaller landowners
 - Increase viability of less used project types and less used land types
 - Remove unnecessary or unintended barriers or exclusions to project development
 - Improve applicability of the protocol to forests in Washington state
 - Increase methodological rigor

Topic #2 : Amend requirements prohibiting decrease in carbon stocks

- In order to be eligible under the protocol, a must not:
 - Experience a net decrease in standing live tree carbon stocks over any 10 year period
 - Unless the decrease is demonstrably necessary to improve project area's resistance to wildfire, insects or disease
 - Or the decrease is associated with a planned balancing of age classes and is detailed in a long term management plan
 - Experience a decrease in standing live carbon stock below the baseline or greater than 20% below carbon stocks at initiation
- If carbon stocks fall below these levels the project may be required to be terminated. IFM early terminations are compensated at a greater than 1:1 rate, depending on project age
- Source: US Forest Protocol 2015 Section 3.1(b)(1) & (2)

Topic #2: Considered change

• Considered change:

- Adopt CAR US Forest 5.1 approach to project eligibility where carbon stocks have decreased:
 - Projects with a decrease in standing live carbon stocks over a 10 year period may only be issued offsets if:
 - The decrease is necessary to improve resistance to wildfire, insect, or disease risk (same as ARB US Forest 2015)
 - The decrease is associated with planned balancing of age classes detailed in management plan (same as ARB US Forest 2015)
 - The decrease is part of normal silvicultural cycles for projects <1,000 acres, as long as decrease does not result in carbon stocks falling below initial baseline or 20% less than carbon stocks as project's initiation (new category of exclusion)

Topic #2: Alternatives

- Alternative approach (Taskforce recommendation)
 - Remove 10 year average carbon stock restriction
 - Remove 20% below carbon stock at initiation restriction
 - Retain restriction on carbon stocks falling below initial baseline

Topic #2: Rationale for change

- All reversals must still be compensated.
 - This change does not impact the compensation for losses in carbon, but may reduce the risk that a loss in carbon stock results in an early project termination
- Provides greater flexibility for smaller landowners (CAR US Forest 5.1 approach) or all landowners (Taskforce recommendation)

Topic #2: Treatment in comparable protocols

Treatment in comparable protocols	
CAR US Forest V 5.1	Source for considered revision
ACR IFM 2.1	Project terminates if carbon stocks decrease below the long-term average baseline stocking level at any point in the project term

Topic #2: Discussion questions

- What additional considerations or context related to this topic should Ecology be aware of?
- How would these changes impact landowner activities on a forest site? Do these changes improve the ability for small landowners to participate in the market?

Topic #2: Programmatic goals

- Does these changes positively or negatively impact any of Ecology's programmatic goals for this rulemaking?
 - Improve project feasibility for smaller landowners
 - Increase viability of less used project types and less used land types
 - Remove unnecessary or unintended barriers or exclusions to project development
 - Improve applicability of the protocol to forests in Washington state
 - Increase methodological rigor

Topic #3: Buffer pool contribution structure

- Approaches to improve accuracy in buffer pool structure
 - Alternative sources or approaches to estimate risk
 - Reconsider itemization of risk
 - Tonne-year accounting approach for buffer pool withdrawals
 - Allow longer time horizon for verification after reversal
- Approaches to improve incentivizing risk reduction
 - Greater incentives for forest resilience activities in buffer pool contributions
 - "Refund" a portion of buffer pool contributions at specific milestones
- Approaches to improve buffer pool diversification
 - Allow contribution of any Ecology certified offsets to be usable as a buffer pool contribution
 - Allow use of private insurance or bonds to meet the regulatory buffer pool requirements for forest offset credits

Topic #3: Buffer pools

- All forest offset projects must contribute a percentage of their issued credits to a shared buffer pool
- In the event of an unintentional reversal credits are withdrawn from the shared pool following verification of the reversal
- Contribution amounts are based on specific project risks and range from 9% -19% of total credit issuance

Topic #3: US Forest 2015 buffer pool structure

Low Risk	High Risk
Has qualified conservation easement (QCE) <u>OR On public or tribal lands: 1%</u>	Private lands, no QCE: 5%
QCE that encumbers development rights <u>OR On public or tribal lands: 0%</u>	Private lands, no QCE that meets condition: 2%
QCE that encumbers all harvesting <u>OR</u> On public or tribal lands: 0%	Private lands, no QCE that meets condition: 2%
Project has completed fire risk reduction work: 2%	No fire risk reduction work: 4%
Undifferentiated: 3%	Undifferentiated: 3%
Undifferentiated: 3%	Undifferentiated: 3%
Min: 9%	Max: 19%
	Low RiskHas qualified conservation easement (QCE) OR On public or tribal lands: 1%QCE that encumbers development rights OR On public or tribal lands: 0%QCE that encumbers all harvesting OR On public or tribal lands: 0%Project has completed fire risk reduction work: 2%Undifferentiated: 3%Undifferentiated: 3%Min: 9%

Topic #3: Buffer pool structure

- Buffer pool withdrawal amounts are not restricted by category
 - For 2-4% of each project's credit issuances are allocated to the buffer pool to insure against fire loss, but in the event of a fire the buffer pool withdrawal is not limited to those 2-4% contributions

Topic #3: ARB buffer pool contributions

Average ARB Forest project buffer contribution = 17%



ARB Project contribution levels to date

Topic #3: ARB research on buffer pools

- In April 2024 workshop CARB shared that they are considering revisions to natural disturbance risk ratings, to amend wildfire and disturbance probabilities and include climate projections
- These changes are *not* part of CARB's current rulemaking and are expected to be pursued in a later rulemaking process

Topic #3: Buffer pool withdrawals to date – in ARB's program

- Withdrawals lag actual reversals
- 198 million forest offsets issued to date in ARB's program (excluding early action projects)
 - 31.8 million credits contributed to the buffer pool
 - 4.1 million credits withdrawn from the buffer pool due to unintentional reversal (~12% of buffer pool)
- The buffer pool is needed to ensure permanence over the life of the project (100 years)

Topic #3: Buffer pool critiques

- Recent research has identified a risk of ARB's forest buffer pool being insufficient
 - Badgely, et al (2022) California's forest carbon offset buffer pool is severely undercapitalized. *Frontiers in Forests and Global Change*
 - Findings indicate that unintentional reversals due to wildfire may have already exceeded the portion of the buffer pool "earmarked" for wildfire
 - Disease is identified as another potentially underestimated risk

Topic #3: Climate Action Reserve – US Forestry 5.1

Category of Risk	Low Risk	High Risk
Financial Risk	Has qualified conservation easement (QCE) or deed restrictions <u>OR</u> On public or tribal lands: 1%	Private lands, no easement or deed restrictions: 5%
Management Risk	QCE or deed restrictions that encumbers development rights <u>OR</u> On public or tribal lands: 0%	Private lands, no QCE that meets condition: 2%
Risk of Over Harvesting	QCE or deed restrictions that encumbers harvesting of project stocks <u>OR</u> On public or tribal lands: 0%	Private lands, no QCE that meets condition: 2%
Wildfire, disease, insect outbreak	Project has completed fire risk reduction work: Supersection rating * 20%/70%/100% depending on vegetation plan implementation	No fire risk reduction work: Supersection rating
Natural disaster risk	Undifferentiated: 3%	Undifferentiated: 3%
Total	Min: 5.4%	Max: 19%

Topic #3: ACR – Forest Reversal Risk Tool

Category of Risk	Low Risk	High Risk
Financial Risk	Has qualified conservation easement (QCE) or deed restrictions <u>OR</u> On public or tribal lands: 3%	Private lands, no easement or deed restrictions: 4%
Management Risk	QCE or deed restrictions that encumbers development rights <u>OR</u> On public or tribal lands: 3%	Private lands, no QCE that meets condition: 4%
Social/Policy Risk	Undifferentiated for US projects: 2%	Undifferentiated for US projects: 2%
Wildfire	2% if located in low fire risk region, approved a registry discretion	4% if located in low fire risk region, approved at registry discretion, 8% if within 30 miles of fire greater than 1000 acres that occurred in prior 12 months
Disease and Pest	Default: 4%	8% if epidemic disease or infestation is present within project area, or within 30 mile radius of project area
Levee failure or water table changes	0%	2% for all forest project where more than 60% is a forested wetland
Natural disaster risk	Undifferentiated: 2%	Undifferentiated: 2%
Total	Min: 16%	Max: 30%

Topic #3: Buffer pool structure in comparable voluntary protocols

Verra – AFOLU Risk Reversal Tool

- Contributions range from 12% 60%, if risk rating exceeds 60% the project is considered ineligible
- Related to natural risks
 - Project must assess the historic risk of natural disturbances at the project site over the past 100 years, and categorize those disturbances from catastrophic (>70% loss in carbon stock), to insignificant (<5% loss in carbon stock), and then establish a likelihood of this risk occur: 1 in 10 years, 1 in 10-25 years, etc.
 - There are small deductions for risk mitigation plans
 - There is a risk "multiplier" applied to climate related risk intended to address increased risk in a changing climate

Topic #3: Discussion on accuracy in contribution structure

- What alternative approaches should Ecology consider to set buffer pool contribution limits? Are there specific approaches in the voluntary market or other compliance markets that Ecology should consider?
- Is the itemization of risks comprehensive and appropriate in the existing protocol? Are there itemized risks that may be under or overestimated? Are there alternative approaches that Ecology should consider?
- Are there alternative approaches to quantifying reversals that Ecology should consider? (such as applying a tonne-year account approach to reversals to account for the time the carbon was stored prior to reversal) 9/16/2024

Topic #3: Discussion on incentivizing risk management

- How can Ecology further incentivize forest resilience activities?
- What metrics, measures, or methods should Ecology consider to quantify forest resilience activities?

Topic #3: Discussion on buffer pool diversification

- Should Ecology consider allowing the use of qualified insurance products in place of buffer pool contributions? How may this impact developer decision making?
- Should Ecology consider allowing non-forest offsets to be used as contributions to the buffer pool? How would this support project development?



Next steps

- Meeting #4 is 10/8/2024 at 9 am (PT)
- Topics for Meeting #4
 - Alternative approaches to baseline calculations

Public Comment Opportunity

Guidelines for providing public comment

- Up to two minutes per person
- Host will unmute you and begin timer
- Please keep the comments related to forestry or offset projects
- Ecology will not respond to comments in this meeting
- To submit written comments, use our <u>digital comment</u>
 <u>platform</u>
- Please use "raise hand" button to indicate that you wish to provide a comment



Thank you!

Contact: CCAOffsets@ecy.wa.gov