



# Forest Offset Protocol Technical Working Group

Meeting #4



# Agenda

- Topic #1 Revisions to buffer pool structure – continued from prior meeting
- Topic #2 Initial Project Baseline Discussion
- Introduce topics for next meeting
- Public comment opportunity



#### DEPARTMENT OF ECOLOGY State of Washington

# Zoom tips and tricks



Please rename yourself with your affiliation: Click on 'Participants,' hover over your name Click 'More' then 'Rename.'



Attendees use the Raise Hand feature during public comment period.



Panelists please keep your video on as bandwidth allows.



# **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 ECOLOGY 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 ECOLOGY State of Washington today's discussion

- Ownership, involvement, or other interest in an offset project has been subject to an 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 experiences related to project development	Experiences related to registration, verification, or protocol development
Mike Warjone – Port Blakely	Sheldon Zakreski – Living Sky Carbon Solutions	Jon Remucal – Climate Action Reserve
Steve Hinton – Tulalip Tribes	Felipe Casarim – BP	Tani Colbert Sangree – GHG Institute
Jonathan Pomp – Green Assets		John Nickerson – Dogwood Springs Forestry
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		
Ben Parkhurst - Anew		

# **Disclosure opportunity**



Please use the raise hand feature to share a relevant disclosure



# **Topic #1: 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

# **US Forest 2015 buffer pool structure**

Category of Risk	Low Risk	High Risk
Financial Risk	Has qualified conservation easement (QCE) <u>OR On public or tribal</u> lands: 1%	Private lands, no QCE: 5%
Management Risk	QCE 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 that encumbers all harvesting <u>OR</u> On public or tribal lands: 0%	Private lands, no QCE that meets condition: 2%
Wildfire risk	Project has completed fire risk reduction work: 2%	No fire risk reduction work: 4%
Disease or insect risk	Undifferentiated: 3%	Undifferentiated: 3%
Natural disaster risk	Undifferentiated: 3%	Undifferentiated: 3%
Total	Min: 9%	Max: 19%

#### **ARB** buffer pool contributions

#### Average ARB Forest project buffer contribution = 17%



# **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



### **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

# 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: 3%	Private lands, no easement or deed restrictions: 15%
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%

# **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 On public or tribal lands: 3%</u>	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%

10/16/2024

# 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 risks intended to address increased risk in a changing climate

# Alternative mechanisms to buffer pool contributions

- The nascent carbon credit insurance market allows and developer to enter in an agreement with an insurer that, in the event of a reversal the insurer will surrender a valid compliance instrument to the appropriate registry
- This insurance policy is intended to be used instead of a buffer pool contributions
- In theory these insurance mechanism would be more individualized
- The Reserve's 5.1 protocol allows for developers to use an insurance mechanism in lieu of a buffer pool contribution, subject to registry review and approval

# **Topic #1: Poll Results**

- Buffer pool contributions in the existing protocol are sufficient to ensure project permanence over the life of the project
  - Strongly Disagree 3
  - Disagree 2
  - Neutral/Unsure 6
  - Agree 4
  - Strongly agree 1



# **Topic #1: Poll Results**

- Buffer pool contributions in the existing protocol adequately incentivize forest resilience activities
  - Strongly Disagree 1
  - Disagree 6
  - Neutral/Unsure 6
  - Agree 2
  - Strongly agree 0



# **Topic #1: Poll Results**

- Existing buffer pool structure is appropriately restrictive in the types of mechanism that can be used to attain compliance (Ecology should retain a prohibition on the use of insurance or bonds in lieu of a buffer pool contribution)
  - Strongly Disagree 0
  - Disagree 12
  - Neutral/Unsure 1
  - Agree 4
  - Strongly agree 0



### **Topic #1: Discussion on accuracy in contribution structure**

- What alternative approaches should Ecology consider to set buffer pool contribution limits?
  - Key themes brought up in last meeting
    - Fire risk calculation could be made more rigorous with use of site level fire risk data in quantification
    - Buffer pool contributions should be continually studied to ensure adequate performance
- Are there alternative approaches to quantifying reversals that Ecology should consider?
  - Key themes brought up in last meeting
    - Ecology should reconsider treatment of salvage logging in reversal calculations
    - Projects only receive credits for the increase in forest carbon associated with the implementation of the project, but buffer pool withdrawals reflect any lost carbon on a site.

### **Topic #1: 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 #1: 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?

#### **Topic #2: Forest Project Baselines**

- Brief overview of baseline approach in existing protocol – focusing on private IFM projects for this meeting
- Discussion
- Baseline approaches in other carbon markets
- Poll



# **Topic #2: Forest Project Baselines**

- Baseline is intended to represent a conservative business-as-usual scenario
  - For forest projects the baseline is intended to reflect what would have occurred absent the project
- In the protocol baseline approaches differ between IFM/Avoided Conversion/Reforestation project and between projects on public and private lands

# **Forest Project Baselines**

- Terms relevant baseline calculation
  - Assessment Area geographic ecoregion with distinct forest characteristics in which the project is located
  - Logical Management Unit All the forest owner(s) and affiliates' holdings within the same assessment area as the project
  - Common Practice the average carbon stocks of the forest project's assessment area (based on FIA data)

- What's needed to calculate a minimum baseline
  - Inventory initial carbon stocks
    - Average live carbon stocks per acre within the project area (ICS)
  - Weighted average live carbon stocks per acre for all the forest owner(s) landholdings within the same logical management unit
    - This may be calculated using an inventory of the other landholdings, or a stratified vegetation type analysis
  - Common practice values for the project area

- If the initial standing live carbon stock (per acre) is **above** the common practice value then the <u>minimum</u> baseline level is:
  - Max(Common Practice, Min(Initial carbon stock, Common practice + Initial standing live carbon stock – weight average carbon stock in logical management unit))
- If the initial standing live carbon stock (per acre) is **below or equal to** the common practice value then the <u>minimum</u> baseline level is:
  - Max(Max(High stocking reference level, Initial carbon stock), Min(Common practice, Weight average carbon stock in logical management unit))

If initial onsite carbon inventory is	The minimum baseline is
Scenario: High carbon project area, comparable with other landholdings	Common practice: 100 tons/acre
	Eq. 5.5: Max(100, min(120, 100 + 120-
Common Practice: 100 tons/acre	122)) =
ICS: 120 tons/acre	Max(100, min(120, 98)) =
WCS: 122 tons/acre	100

If initial onsite carbon inventory is	The minimum baseline is
Scenario: High carbon project area, <b>not</b> comparable with other landholdings	Common practice + the difference between ICS and WCS: 115 tons/acre
Common Practice: 100 tons/acre ICS: 120 tons/acre WCS: 105 tons/acre	Eq. 5.5: Max(100, min(120, 100 + 120- 105)) = Max(100, min(120, 115)) = 115

If initial onsite carbon inventory is	The minimum baseline is
Scenario: Low carbon project area, comparable with other landholdings	High stocking reference level: 105 tons/acre
	Eq. 5.6: Max(max(105,90), min(100,90)) =
Common Practice: 100 tons/acre	Max(105,90)=
ICS: 90 tons/acre	105
WCS: 90 tons/acre	
High stocking reference level: 105 tons/acre	

- For 10 most recent private IFM projects in CARB's program
  - Initial carbon stocks:
    - Were greater than common practice (8/10)
    - Were less than common practice (2/10)
  - Weighted average carbon stocks:
    - Were not calculated (e.g. proponent had no holdings in the LMU) (6/10)
    - Were calculated using stratified vegetation analysis and did not differ significantly from initial carbon stocks (2/10)
    - Were calculated using inventory data from LMU (2/10)
  - Minimum baseline level was set at:
    - Common practice (8/10)
    - Initial carbon stock (2/10)

# **Baseline modeling**

- Proponent must model carbon stocks over year 100 years using an approved growth model
- Modeling must include:
  - All legal constraints (including forest practice rules)
  - Financial constraints (including financial analysis of the anticipated growth and harvest regime)
  - Evidence that comparable activities have occurred within the project's assessment area
- Average 100 year modeled baseline must not fall below minimum baseline
- In practice, 100 year modeled baseline are often equal to the minimum baseline, which in turn are often equal to (or very close to) the common practice value of the project area

## **Additional baseline components**

- Carbon in harvested forest products
- Forest product carbon in landfills

# **Deductions**

- Confidence deduction
  - Based on sampling error for onsite carbon pools
- Secondary effects
  - Emissions from site prep, leakage, emissions from decomposition

#### Discussion

- Corrections, context, and clarifications related to Private IFM project baselines
- What are the strengths and weaknesses of this approach to baseline setting?

# Alternative approaches in voluntary markets

#### • CAR 5.1

- Streamlined option to baseline calculation (in lieu of 100 year baseline modeling)
  - Adds a conservative multiplier to raise initial baseline to account for legal and financial constraints
- ACR 2.1
  - Dynamic baselines
    - Baselines can change over time due to changes in analysis of comparable properties, financial analysis, operability or access constraints, or regional timber market capacity
  - Harvest intensity baseline component that sets a baseline harvest level based on recently observed comparable properties, or qualified management plan

#### • Verra VM0045

- Dynamic matched baselines
  - Credits are issued based on difference in carbon stored at project site vs composite of plots outside the project area

### Poll

#### Next steps

- Meeting #5 is **11/12/2024** at 9 am (PT)
- Topics for Meeting #5
  - Alternative approaches to baseline calculations (continued)



### **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</u> <u>comment platform</u>
- Please use "raise hand" button to indicate that you wish to provide a comment



# Thank you!

**Contact: CCAOffsets@ecy.wa.gov**