REGEN REGISTRY

GHG & Co-Benefits in Watershed Carbon v1.0

Expert Peer - R1 Review Round

Reviewer #1

August 15, 2023

CONTENT referenced by reviewer's comment *e.g. Section number + paste exact text*	**REVIEWER'S COMMENT** *Please paste the comment from the reviewer*	**AUTHOR'S RESPONSE** *Please describe how the comment was addressed and include new content in quotations*	**Reviewer's Conclusion** [PASSED/ REJECTED *WITH COMMENTS*]
P2, Diagram Goals	***Goals or requirements?***	Unclear what this request is.	*Are the objectives goals or requirements? Seems like certain items marked as "goals" should be"requirements" to ensure high quality. Cross reference the methodology.*
Cover	More clearly identify the name of the class	This document is a Regen template.	

1.	The “thereby” is grammatically and logically incorrect.	Edited.	
1.	“Cannot guarantee performance” is concerning	This is background context.	This background context casts doubt on the quality of the projects
2.	Why “regional” grid. Why not on-site renewable?	On-site renewable would therefore have no (significant) avoided emissions to qualify under this credit class.	This was rhetorical. As structured, credits could be claimed if a grey system is powered by renewable, zero-carbon electricity.
2.2	What is the purpose of this section?	Template	The purpose of this section is not clear, irrespective of the reason it is included.
2.2.4.	“Additional Co-Benefits” is not a co-benefit, as suggested in 2.2		Not addressed or corrected.
2.2.1	Must performance of green be better than performance of grey?	Performance of green must be equal to gray, legally. Given uncertainties in addressing nonpoint source pollutant, all active programs have more than a 1:1 trading ratio - most are 2:1 or more, meaning that on average the green infrastructure must be modeled to be twice as beneficial as the	

		gray to deal with uncertainty/natural variability/time lag.	
2.2.2	Need to define the baseline scenario	The co-benefits are addressed in other methodologies.	
3.	Why “in any watershed”?	Broad scope for the application of this Credit Class.	
3.	Specify eligible international standards	We don't think this meth should specify which international standards are eligible, because then would have to update every time a new standard is released. But here are some examples: Tradable Discharge Permits System for Water Pollution of the Upper Nanpan River, China: https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=23ceee4dedf078b7c7872328493b31e0dd99d0e3 South Nation, Canada, and Lake Taupo, NZ: https://www.sciencedirect.com/science/article/abs/pii/S2212041618303012 Hunter River Salinity Trading Scheme, Australia: https://www.epa.nsw.gov.au/licensing-and-regulation/licensing/environment-protection-licences/emissions-trading/hunter-river-salin	Suggest following other established programs with use of references. Be consistent - will other references in 3.1 be updated?

		ity-trading-scheme	
3.1	Must indicate additionality tests	Additionality is defined in section 5.1	
3.1	Too many project types will invite criticism. Consider the critique that installing fences or introducing beavers can generate carbon credits.	Broad project types that address in-stream water quality and avoid the construction of gray infrastructure for water/wastewater treatment exists in the sector today. We have no problem with the idea that fences and/or beavers can improve water quality and therefore avoid infrastructure - this is exactly the world that exists today for water quality trading.	Consider the optics.
3.2	Establishing a clear project boundary does not necessarily ensure the program's impact will be accurately measured.	By requiring instream monitoring, the onus is on the proponent to choose the right geography that they can demonstrate WQ improvements.	I don't disagree with the response. The response does not address the logic of the sentence.
3.2.3	Can project activity occur on public land? Consider precedents of other programs.	Yes, can occur on public land. There are plenty of examples where public land management is unfunded or unfunded, so we have decades of 'status quo' data of poor water quality outcomes from public lands. All that matters here is that water quality improvements are real, and bigger than what could be generated at the point source using gray infrastructure.	

		Carbon credits are not earned based on sequestration on public land - it's incidental to the credits where the alternative happens.	
3.3	Serious concerns about additionality and necessity of credits to change behavior or enable projects.	Extensively revised additionality definition including addressing existing programs.	
3.4	Do not issue credits so early.	See section 6.	
4.2 Project Plan Template	Where is this?	Does not yet exist.	
4.4	Avoid redundancy with methodology	This section is not in the Methodology. Unclear what the reviewer is observing.	Ref: Temporal Resolution
4.4 Crediting period	Is this the same as "Term"?	Yes, edited for consistency.	Passed
5.5	Buffer Pool is necessary if the system can die	This is a question devolved to the project itself, and negotiated based on project type, regulatory approval, etc.	Raises concerns about quality
5.6.1	Need more specificity of requirements. A masters degree does not mean someone is qualified. Validator accreditations already exist.	The section goes into detail on the requirements for the validator.	
5.6.2	What is difference between reviewer and verifier?	None, edited.	passed

5.1	What is the reference to “TThis methodology?	Edited to Credit Class	“This methodology” is still in the document
5.1	The mention of additionality is appropriate. However, it is inconsistent. Clarification: Additionality tests should be identified and required. Current wording indicates additionality is important but then does not indicate how additionality is determined. A simple attestation is inappropriate. There are hints that performance tests would be applied. Choose one or the other to avoid ambiguity. Consider the possibility of the credit class applying to existing projects. Also, avoid characterization of utilities and public servants.	Additionality definition has been revised.	Need to bolster the link between carbon credits and the statement “in the case of projects already deployed at least in part, that the additional monitoring and verification requirements of this methodology strengthen the program performance and accountability“ Does the CDM Barrier Analysis allow credits for existing projects?
5.2 Leakage	Leakage must be accounted for. Consider a failed green system and the need to divert water or	1) Water quality trading has been formally used in the USA since 1986. The scenario that the reviewer describes has never	Can Regen be certain that every fence built to move

	install a temporary water treatment system while the green system is repaired.	happened. 2) The most clear instances of regulatory agencies demonstrating patience in waiting for a watershed restoration project to achieve its goals are in Wisconsin and Oregon. In Wisconsin's Department of Natural Resources' technical handbook (https://apps.dnr.wi.gov/swims/Documents/DownloadDocument?id=83656445), the DNR states that when using adaptive management, "A maximum duration of twenty years can be granted to achieve compliance with P criteria; PS compliance with permit requirements based on criteria being attained." The same handbook states that water quality trading "May be used to demonstrate compliance indefinitely, as long as credits are generated". Oregon's Department of Environmental Quality has consistently offered longer compliance schedules for watershed restoration programs - in this regulatory document for the Hells Canyon Dam relicensing (https://www.oregon.gov/deq/wq/Documents/HCCFinalEvalReport.pdf), ODEQ's response on page 122 is formally: "To attain compliance with the spawning temperature criteria, [the permittee] has 15 years to attain half of the thermal benefits and 30 years to attain 100% of the thermal benefits using the Snake River Stewardship Program. Oregon's temperature standard allows	cows to a different watershed will not increase load if that watershed uses grey infrastructure?

		establishment of a compliance schedule, and this schedule is reasonable given the necessary project design and implementation that must occur." In practice, 20+ year periods are standard in the USA to assess the environmental improvements from watershed programs. Thus the Authors have never seen a failure or leakage of the type described here.	
6.	Why "decades"? What is basis of this timeframe?	The expected operational lifetime of gray infrastructure is at least 10-30 years. And, the water quality obligation itself is effectively perpetual.	
6.	The "selection" does not avoid GHG emissions. The operation of the system does.	Added "and implementation".	
6. ex-post	Credits should be issued ex-antt if Regen wants to recognize actual reductions and not planned reductions.	We believe the reviewer means ex-post, and we have identified in Section 6 how the credits are defined as ex-post.	
general	How accurate will the grid emissions factors predictions be? What if the grid adopts renewables faster than anticipated and the green system actually reduces GHG by less than anticipated?	This is a major challenge. We are pointing practitioners to the most robust data set we have on this front (cambium our of NREL) and point the practitioners to use the most robust data available.	

	Ex-ante would mitigate this potential criticism.		
6.3.	“May not be achieved” is unacceptable.	Edited to clarify that the monitoring period requires establishing that the project is on track. BUt green infrastructure projects may take 30 years to actually achieve the water quality goal - that is not material to this methodology/credit class as the avoided emissions are established and permanent as soon as the regulator approves the alternative, NOT when the alternative is fully functional.	

Post here any additional feedback or comments that are more general:

- **Avoid redundancies throughout document and with methodology**
- **Seems language in this document should be in the methodology**
  We have taken guidance from Regen on what material goes in which document.
- **As written, credits in this class will be moderate to low quality. Not sure this is Regen’s goal.**
- **Add page numbers to document, standardize formatting and fonts, check grammar**
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