



SUMMARY AND RESPONSE TO PUBLIC COMMENTS

An updated ACR Standard, Version 5.0 was revised by for approval by the American Carbon Registry (ACR). The ACR Standard was posted for public comment on April 9, 2017 for 60 days and again on November 6, 2017 for 35 days. Comments and responses are documented here.

In response to the public comments received, revisions to the ACR Standard were made which are memorialized in this document as ACR's response to the comments. Additional public (Project Proponent and stakeholder) comments were received after the formal close of public comments, but were still responded to and considered in the final version of the Standard; those comments are also included here.

Public Comment Version	#	Organization	Comment	ACR Response
April 2017	1	Climate Smart Group	<p>Applicability of New Version, July 1st 2017</p> <p>Some language around the situation for PDAs would be helpful - Assuming then for a PDA project registered prior to July 1st, version 4 would be used for the life of any cohorts included at that time? Would a project developer be permitted to add cohorts under the Version 5 Standard after Jul 1st, or would that need to be in a new project.</p>	<p>Section 6.F has been revised to include more details/clarification around PDA and aggregated project development.</p> <p>All project participants are validated to the same version of the Standard that the project was initially validated against. A revalidation of all participating sites must occur upon the project's crediting period renewal, or at the next verification interval after a new version of the methodology is published.</p> <p>Also, please note that the applicability date for Version 5.0 has been extended to accommodate the full review process.</p>
April 2017	2	Climate Smart Group	<p>Start Dates, Approved/Newly Approved</p>	<p>Start date and crediting period requirements for PDA projects have been revised in Section 6.F.</p>

			<p>We understand the need to draw a line somewhere on the inclusion of Start Dates, but the more restrictive the guideline is, the more difficult enrolment in offset programs will be, and it's proving to be difficult enough already. We'd push for a full crediting period or similar. A static date would make it easier to communicate effectively, and give project partners more confidence that their enrolment efforts aren't going to be undone by the clicking over of the calendar from one year to the next. Setting a clear start date by approved activity might also make sense?</p> <p>Specific reference to whether new versions of existing approved Methodologies are considered "new methodologies" is needed.</p>	<p>Each site participating in a PDA project can be credited for the duration of its full crediting period from the site-specific implementation date.</p> <p>Table 2 in Chapter 3 provides clarification on "new methodologies", which includes newly approved modifications that expand the eligibility of a previously published methodology.</p>
April 2017	3	Climate Smart Group	<p>Environmental and Community Safeguards</p> <p>As a project developer, I'm fearful of ambiguous requirements as they can lead to differences of opinion between verification bodies. A requirement to have safeguards in place to deal with potential negative impacts is fine, except that "potential" negative impacts is a very broad term. I would suggest that the Registry could provide specific guidance for each of its approved Methodologies, providing a defined list of risks by activity to be documented by project proponents/ project developers.</p> <p>I see in the draft guidance for the MSU-EPRI Methodology that this statement is included in the table of eligibility criteria table (p.4): <i>"The community and environmental impacts associated with the project are expected to be net positive overall."</i> So Methodology and Standard are contradicting each other, and without specific language about which</p>	<p>The impact assessment done by project proponents should identify any potential negative impacts that are specific to that particular project, proponents/participants, location, etc.</p> <p>Some methodologies do clarify environmental or social impacts that must be considered as part of the project eligibility. However, the Standard requires that each project addresses the impact of its actions on the relevant environment and</p>

			position is to be adopted for project design, a significant grey area remains.	community in which the project is located. The MSU-EPRI guidance document references language from V4 of the Standard and will be updated once V5 is published.
April 2017	4	Climate Smart Group	<p>Reversal Risk Mitigation Agreement</p> <p>Would this be a standard Agreement the form of which would be provided by ACR? Assuming this would be the case, it would be helpful to have an example Agreement included as an appendix to the Standard. (This would then enable project proponents and developers to ensure that tracking and reporting structures are fit for purpose, and if applicable, to write appropriate compensation clauses into Agreements pertaining to the rights to credits).</p> <p>Will this be required for project types with no risk of reversal too (i.e. something that states this, signed by Project Proponent?). If not required according to the Methodology, this should be stated.</p>	<p>ACR does have a standard ACR AFOLU Carbon Project Reversal Risk Mitigation Agreement that is required only for those projects with a risk of reversal. This is provided to the project proponents when relevant.</p> <p>Appendix B now contains the Buffer Pool Terms and Conditions that govern the use of the ACR Buffer Pool to meet ACR's reversal risk mitigation requirements as stated in the Risk Mitigation Agreement.</p>
April 2017	5	Climate Smart Group	<p>Environmental and Community Impact Assessment</p> <p>Will the GHG Project Plan template be updated to include some detail on what this assessment might look like? This would help ensure consistency and give project developers an idea of the level of detail</p>	Chapter 8 of the Standard outlines in detail the environmental and community requirements.

			<p>envisaged [I see Chapter 8 is designed to do just that – see further comments below].</p> <p>This paragraph needs revisiting from a grammatical perspective, as it currently doesn't make sense.</p>	<p>The GHG Project Plan template will be updated to reflect the changes from V4 to V5.</p>
April 2017	6	Climate Smart Group	<p>Programmatic Development Approach (PDA) Start Date</p> <p>Common Project Start Date – The language could be clearer here (i.e. define what an overarching Start Date and Crediting Period means, give an example etc.). The guidance to the MSU-EPRI Methodology has more clarity on this point, and helps illustrate how the 'Start Date' for given subprojects can be different, and will be as cohorts are added, while still meeting the requirement for a single 'overarching' Start Date.</p> <p>An example of a single Crediting Period would also be useful. If the Crediting Period is set at Start Date + 7 years, additional cohorts will have 6, 5, 4 etc. years of crediting before the Project is subject to an extension (rather than additional cohorts each accessing a 7-year crediting period). An example would make this clearer.</p>	<p>Please see the revised language in Section 6.F which revises the way a crediting period and start date are defined for aggregated and PDA projects.</p>
April 2017	7	Climate Smart Group	<p>PDA – QA QC and Double-Counting</p> <p>Project Plan must include “a procedure to avoid double-counting that no site or cohort has been or will be registered on ACR as its own project, or in a cohort of another PDA”. We can ensure that this is true for own our own projects, but not for those of other groups. For example, if a grower was included in a cohort of Climate Smart Group, but another project developer had projects of the same type, I have no way of knowing whether or not my grower is also registered in someone else's project. I would typically rely on i) contracting language that reflects this position as a condition for the grower, and ii) the</p>	<p>Contracts between the project proponent and project participants should be sufficient, pending the VVB's review, to demonstrate that sites will not be double counted. The intent is to ensure that all participants in a project are aware of this requirement, information about project development is</p>

			<p>registry to have tracking in place that would monitor this and flag up such instances.</p> <p>Equally, considering there are multiple voluntary registries with similar methodologies published, a truly effective system would involve some degree of collaboration between registries to ensure no double-counting was taking place.</p>	<p>transparent, and the project proponent has done their due diligence.</p>
April 2017	8	Climate Smart Group	<p>PDA - Ecoregions</p> <p>The map referenced (footnote 15) refers to Domains, Divisions and Provinces. This language doesn't match up to "Ecoregion" as it relates to the requirement.</p> <p>It is not clear how these maps are useful for referencing the location of project sites, since they contain no reference points, no state or county boundaries etc. Since this is something applying to large-scale ag PDAs (which could in theory contain several thousand fields), is this expectation really that this map will somehow be used to demonstrate the location of each site relative to an Ecoregion? If the map were available as shapefiles, it could be loaded into a spatial information system, but in this format, it's just adding ambiguity. Shapefiles should be made available to project developers.</p> <p>Also, maximum of 3 ecoregions seems a bit arbitrary – what's the thinking here? Isn't homogeneity of the environment as it relates to the activity and quantification of the emission reduction contemplated in the approved Methodology?</p>	<p>The factors that influence the baseline are easier to define when sites are assigned to an ecoregion, and further, cohorts are delineated by ecoregions. This should not conflict with the delineation of the project area.</p> <p>The domains, divisions and provinces as refinements within the ecoregions are accepted taxonomy for AFOLU project types.</p> <p>This language has been moved to Section 6.F.3 as guidance in place of a requirement for PDA projects.</p>
April 2017	9	Climate Smart Group	<p>Commercially Sensitive Information</p>	<p>Items such as farm names and field coordinates are considered commercial information and are</p>

			<p>In the case of PDAs containing, for example, farm names, field locations etc., this information does not fit the definition of “commercially sensitive information” provided on page 55. We would request that either the definition is broadened to include reference to this type of information, or an additional category of protected information be created to protect the anonymity of participants within a PDA.</p>	<p>protected by the current definition of “commercially sensitive information”. This information does not need to be disclosed publicly however will need to be made available to the VVB and ACR.</p>
April 2017	10	Climate Smart Group	<p>Environmental and Community Safeguards</p> <p>This type of assessment seems to address concerns that are largely predicated on:</p> <ul style="list-style-type: none"> ➤ Geography ➤ Topography ➤ Community <p>It therefore seems unsuitable for a programmatic approach - Within a PDA containing a large number of sites and geographic regions, the scope of work would be huge. In effect, we’d need to be writing a whole series of individual assessments, due to the number of variables (e.g. soil quality, water quality, biodiversity, proximity to forest, grasslands and wetlands, local regulations).</p> <p>In version 4, this type of requirement was required or not based on the Methodology (p. 42). This seems an appropriate approach given that a methodology is only approved once environmental social factors have been weighed up (hence the approval of the activity in the first instance). Is there any avenue for this flexibility to be maintained in version 5, so that it isn’t necessarily a requirement for certain methodologies that are likely to be only used on a large-scale programmatic level and where the likely contributing environmental</p>	<p>All sites to which quantified emissions reductions are credited on ACR must be included in the environmental and community safeguards assessment.</p>



			factors have been considered net positive at a macro level for the activity as a whole? (see also comments relating to page 22 above)	
April 2017	11	Climate Smart Group	<p>Validation and Verification Interval</p> <p>“No less than once every five years, Proponents must submit a verification statement based on a full verification including a field visit to the project site”. Request clarification for PDAs – the passage quoted above, and footnote 20, could be interpreted to mean that a farm visit would be a requirement for any site in any new cohort added to a PDA project. There should be some reference to how this requirement relates to sample-based and PDA verification approaches (similar to the guidance ACR provided in our meeting of Jan 20th 2017, and to the guidance on this process provided in the draft guidance for the MSU-EPRI Methodology)</p>	<p>Section 10.B of the ACR Validation/Verification Standard provides directions for VVBs conducting validations/verifications of PDA projects.</p> <p>Footnote 21 in Section 9.C has been revised and provides further clarification.</p>
April 2017	12	GreenTrees	<p>Chapter 4.A. Three-Prong Additionality Test</p> <p>The text requires that GHG reductions be a “driving factor” in implementation of the project activity. As ACR know, AFOLU projects are not cost effective on most lands. For some lands, the modest income the landowner can get from offsets can combine with other sources of income and the personal preferences of select landowners to tip those landowners to switch to forest management that sequesters carbon. We are concerned that verifiers might interpret the term “driving factor” to mean that offsets have to provide much of the total revenue from project lands, or that offset revenues pay all costs of implementing project activities, even if project activities will eventually yield some non-offset revenues. We believe that if verifiers were to take this interpretation, no AFOLU projects could meet the</p>	<p>To clarify, the term “driving factor” is used to reference the concept of additionality in general, but not in the specific context of demonstrating financial additionality. While we do not interpret a difference between “driving” and “significant” and note that the term “significant” is used in the implementation barriers assessment, we can accept the change to “significant” in</p>



			requirements of the three-prong additionality test. We suggest replacing “driving” with “significant”.	meeting with the spirit of additionality in general. Please note that ACR staff is always available to VVB staff and project developers should there be any question regarding the interpretation of this language.
April 2017	13	GreenTrees	6.B. 3rd Bullet. Information in the GHG Project Plan Requires “unique identification” of the extent of the project. A clause is needed to allow use of the “Programmatic Development Approach” where not all locations are known at the time of the validation of the Project Plan.	This clarification has been made.
April 2017	14	GreenTrees	6.D. Project Monitoring Reports During verification, projects sometimes find errors in Project Plans or methodologies. These errors have to be addressed before verification can be closed. We suggest adding a clause to this section stating that if inconsistencies or errors are discovered in the Project Plan or methodology, and if these errors or inconsistencies are addressed in a conservative way, the solution to the error or inconsistency can be included in the monitoring report and verified, and—like verified deviations to methodologies—be reported and applied in all subsequent monitoring reports. This process would be analogous to minor modifications to methodologies to provide clarification or correct errors.	Conservative errors will be handled on a case-by-case basis.

April 2017	15	GreenTrees	<p>6.E. Programmatic Development Approach</p> <p>The “General PDA Requirements” 2nd bullet (page 35) requires that sites in a Programmatic Project have the same start date. We suggest adding a provision where lands that (a) meet all requirements of the ACR Standard, the ACR Forest Project Standard, and the relevant methodology, and (b) where a carbon project was initiated but never validated, the lands may be enrolled in a validated PDA project using the start date for that site as the date when project activities were initiated, even if the date of initiation of the project activities on the lands of that site, even if that start date is prior to the PDA start date. There are projects that landowners initiate but that are never verified because of lack of economy of scale, or lack of knowledge of the forest offset verification process, and this provision would allow those offsets to reach the market through an ACR PDA project.</p>	<p>ACR’s current Start Date requirements reflect the development of the carbon market, which is no longer nascent. Additional time between start date and validation is allowed for project participants who are implementing a newly published methodology to facilitate recruitment of early innovators. Also, ACR understands that in the context of PDA projects it is not always possible or practical to expect validation of new sites within the same timeframe as new projects. Therefore, there is additional flexibility for the deadline for validation of new sites participating in a PDA project, allowing for project enrollment up to 5 years after the site-specific implementation date. This is meant to encourage new adoption of the project activity going forward, rather than crediting project activities that have occurred</p>
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				prior to the overall project start date.
April 2017	16	GreenTrees	<p>6.E. Programmatic Development Approach</p> <p>The “General PDA Requirements” 6th bullet (page 35) requires that each cohort of sites must undergo validation and verification during a full project verification, including site visits to a sample of new sites, before ERTs are issued. Enacting this requirement would be a considerable hardship for AFOLU projects where the margins are thin and landowners generally are not willing to wait years to get revenue from credits.</p> <p>This requirement would force programmatic AFOLU projects to do field verifications every year, which could make projects not financially feasible. Meeting ACR standards does not require immediate field verification of new sites. There is sufficient evidence for desk verification of new sites. Specifically, key aspects of the evidence needed for verification (and that would be used by a verifier doing a site review) are available to desk reviewers. Evidence used in both field and desk verifications includes evidence used to prove that landowners own the land, and that landowners have properly contracted with the Project Proponent. Regarding A/R projects, there is documentary evidence of planting, and the carbon stocks of newly planted A/R sites will be very small until after the next field verification, so there is little risk that a project could get net over-crediting. For IFM, there is imagery available to document the existence of trees, and the technology is developing to better quantify carbon stocks from remotely sensed imagery. Over the next few years, we expect both monitoring and verification of existing treed areas (both in IFM and ongoing A/R</p>	<p>A project developer is only required to submit a site for site visit consideration by the VVB upon validation, which must occur prior to credit issuance, and then at the minimum required interval of once every 5 years. A project developer will only be required to schedule a site visit year on year if they are submitting new sites for validation each year. The Project Proponent may choose to delay a site's validation until after the first reporting period so that a verification can be completed simultaneously and credits issued. A project developer may also choose to submit groups of sites for the VVB's consideration of site visit subsampling at any time, thereby starting clock over for the minimum interval of once every 5 years. Once all expected sites are participating in the project, credits can</p>



		<p>projects) to become even more heavily dependent on analysis of remotely sensed images. For forestry projects, desk reviews already do most of what is done in verifications that include site visits.</p> <p>What is unique to field verifications is checking of plot measurements. ACR has determined that it is reasonable to do these field checks of plot measurements once every five years, and this logic applies equally to new plots on lands that were included in an earlier field verification and new plots that on lands added to the project after the last field verification.</p> <p>Also, all projects have to pass an initial on-site verification. Just as it is appropriate to quantify ERTs in desk verifications between on-site verifications because the verifier can achieve a reasonable level of assurance, it is appropriate and feasible—using a combination of documentation, imagery, and modeled growth of trees—to achieve the same reasonable level of assurance by desk verifying new sites between field verifications. We agree that in subsequent field verifications VVB risk-based sampling plans must adequately sample sites added since the last field verification.</p> <p>As written, the requirements for cohorts (pp. 36-37), would defeat the purpose of the Programmatic Development Approach and—combined with the requirement for immediate initial sites verification of new sites—would destroy the programmatic aspect of the Programmatic Development Approach and make the Programmatic Development Approach the same as the regular project approach. The “Cohort Design Document” contains the same information as the Project Document, and creating separate cohorts as proposed in this draft Standard makes each cohort indistinguishable from a separate project, except that it</p>	<p>continue to be issued on an annual basis with only desk-based verifications until the next required site visit interval. Methodology requirements may provide further guidance around reducing the requirements of site visits, but those details shall be specified on the level of the project type.</p> <p>The previous draft requirements around homogeneous design of “cohorts” that were presented in the first public comment version of v5.0, have since been reclassified as recommendations. PDA project developers are encouraged to consider grouping project sites according to defining site characteristic to enable verification efficiencies; however, they are not required to do so.</p> <p>ACR understands that the information required by the Cohort Design Document (now</p>
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			<p>might share with other cohorts some of the sampling done for monitoring. The bullet points labelled “Each cohort shall:” should be deleted. The Project Plan applies to all sites, and elsewhere in the Standard there are requirements that apply equally to new sites, so that new sites must meet the requirements of the ACR standard, sector standard, methodology, and Project Plan.</p> <p>In the next section, labeled “Each site, field, parcel or facility (collectively the “sites”) participating in a PDA project must”, delete the first bullet. In the third bullet, replace “Be described in a Cohort Design Document outlining the unique attributes of each site, to include each of the following” with “Be described in project records with information including”.</p>	<p>termed PDA Project Design Document) is likely encompassed by records that are already being kept by the Project Proponent. The intent is not to require additional busy work for the Project Proponent. However, ACR and the VVB will require a high-level outline of all the sites that are included in a project at any one time, and the sequence of their inclusion. The site-specific details that are required for validation may be attached to the summary document in the existing format used by the Project Proponent.</p>
April 2017	17	GreenTrees	<p>Throughout the document, the term “cohort” should be replaced with “sites added to the project since the last verification”. There are several instances in the section “General PDA Requirements” that refer to both sites and cohorts, and it the standard would read more clearly if the text only refers to “sites” because these requirements apply to both sites previously being verified, and sites being added to the PDA project.</p>	<p>This has been addressed. We feel that the term cohort is still valid to recognize a group of sites that are being added to the project and submitted for validation together. However, the requirements have been cleanly delineated between those relevant to the project as a whole and the individual sites.</p>

April 2017	18	GreenTrees	In the “General PDA Requirements” subsection, third bullet, you may wish to revise the text to require the Project Plan to describe the principles that will be applied to add new sites to the monitoring program.	The proposed edit has been accepted.
April 2017	19	GreenTrees	6.G. States that proof of title shall accompany each GHG project Plan. For a project using the “Programmatic Development Approach” does a sample landowner agreement constitute proof of title? Or does at least one landowner have to be under contract at the time of project eligibility screening? Please clarify.	A sample landowner agreement does not constitute proof of title. PDA projects shall include at least one project site in the GHG project plan at the time of eligibility screening. Language in this section has been clarified to state that the examples of title documentation "may" be required at the time of eligibility screening. The title documents must be available for review by the VVB.
April 2017	20	GreenTrees	7. The introductory paragraph of this section states that if ACR has not yet published a methodology for a particular project type, a Project Proponent may request approval of a methodology from another program, or may submit a new methodology for approval. Does this mean that ACR is no longer accepting new methodologies if there is already one approved methodology for that project type? We recommend allowing new methodologies, as offset quantification practices are improving and the methods for setting baselines in some existing methodologies are not ideal.	ACR encourages innovation to identify new project types and expansions to already eligible project types that may be eligible for crediting under the ACR Standard. In the cases where ACR has an approved methodology for a project type, any updates, clarifications and/or proposed expansions to

				the scope of the methodology shall be published in a revised version of the same methodology, rather than creating a new, separate methodology.
November 2017	21	Environmental Services, Inc.	<p>Offset Title, Eligibility criteria in Chapter 3 Table 2:</p> <p>There appear to be no safeguards for projects that can show clear and legal offset title, are currently undergoing verification, and the project area is currently for sale. This is a situation that could cause reversals if future land owners are not fully aware of encumbrances on the land they are purchasing (i.e. timber land appraisers having no way of valuing carbon project encumbrances on timberland).</p> <p><i>“ACR will only issue offsets into the account of a Project Proponent with clear, unencumbered and uncontested offset title.”</i> This language does not address the above situation, and some safeguard for the “intent” of future ownership should be incorporated.</p>	ACR has a legal agreement with the project proponent and the project proponent is therefore responsible for incorporating changes in forest ownership to the project. ACR allows for changes in project owner, but in order for the project to remain eligible the new owners must take on the encumbrances of the land. If a new owner chooses to not continue project participation the project will be considered terminated early and the project proponent is responsible for the reversal compensation procedures required by the ACR AFOLU Project Risk Mitigation Agreement.

November 2017	22	Environmental Services, Inc.	<p>Environmental and Community Safeguards, Eligibility criteria in Chapter 3 Table 2:</p> <p>Language in environmental and community safeguards does not specifically address negative impacts that might be legal. Specific examples are natural gas extraction under Forest project areas (i.e. IFM etc.). This kind of activity may be completely legal, yet may pose negative community impacts, and is also a perversion of the carbon market where credits are gained for trees in project areas where fossil fuel extraction is occurring.</p> <p>The specific language in the ACR standard that seems to allow this kind of activity is currently stated as, <i>“Environmental and community impacts of projects should be net positive, and projects must “do no harm” in terms of being in violation of local, national or international laws or regulations.”</i></p> <p>Language in this section should also be revised to address such activities.</p>	<p>Where possible, such activities would need to be reported in the context of these impacts. Since below ground rights are often distinct from forest owner rights, this may not always be tenable. However, it is ACR’s view that promoting good land management is positive regardless of what is occurring below ground, and requiring long term maintenance of forest is likely going to result in fewer negative impacts.</p>
November 2017	23	Environmental Services, Inc.	<p>Regulatory Surplus, specifies consideration for timing of conservation easements when defining regulatory constraints of AFOLU projects, Chapter 4 A.1.:</p> <p>Language within this change appears to be a typo, in that the easement would also not need to be included in the baseline scenario within this time frame. See actual language, where the standard states, “AFOLU projects with easements need to consider the legally binding requirements of the easement if the recordation date is within one year of the project start date (the constraints outlined in the easement</p>	<p>The word “not” has been deleted from Section 4.A.1 so that it now reads, <i>“(The constraints outlined in the easement would also need to be included in the baseline scenario within this time frame.)”</i></p>

			<p>would also not need to be included in the baseline scenario within this time frame).”</p> <p>Considering legally binding requirements implies including them in the baseline scenario, and this language should be revised.</p>	
November 2017	24	Environmental Services, Inc.	<p>Aggregation, Specifies the requirements for aggregated projects in terms of ACR account, start date, risk rating, crediting period, stakeholder consultation, and uncertainty. Chapter 6 E:</p> <ol style="list-style-type: none"> 1. It appears this change actually occurs in Chapter 6F of the standard, not 6 E as stated in the Summary of Changes from ACR Standard v5.0 document. 2. The following language for how “aggregate” is calculated should be clarified, “Where relevant, the Project Proponent should pursue the ACR Standard requirements for precision ($\pm 10\%$ of the mean at a 90% confidence level) at the level of the entire Aggregate for the purposes of monitoring and verification.” Without defining “aggregate”, project proponents may calculate weighted averages etc. to game this requirement. 	<ol style="list-style-type: none"> 1. The Summary of Changes document has been corrected to reference Section 6.F. 2. The intent of this clause is to ensure that the precision requirement is applied at the aggregated project level. As such, the text has been revised in Section 6.F.1 for clarity.
November 2017	25	Environmental Services, Inc.	<p>Design Considerations for Aggregates and PDA Cohorts, Specifies and updates considerations for Aggregated or PDA project design that may enable increased efficiencies around reporting and verification. Chapter 6 E.3:</p> <ol style="list-style-type: none"> 1. The Chapter and section reference for this change also appears incorrect (i.e. not 6 E as stated in the Summary of Changes from ACR Standard v5.0 document). 2. How do PDA projects that are ARR, with some deferred requirements such as monitoring and measurement, fit into 	<ol style="list-style-type: none"> 1. The Summary of Changes document has been corrected to reference Section 6.F.3. 2. Section 6.F.3 speaks to design considerations that should be considered and are recommended, but as currently written, do not require a project proponent



			these design considerations, especially where language specifies “must”?	to necessarily group project sites or participants in this fashion. Monitoring and measurement requirements are often specified in the chosen methodology and Appendix A for AFOLU projects.
November 2017	26	Environmental Services, Inc.	<p>Start Date, AFOLU The list of allowable start dates for IFM projects has been expanded to include the date the project was submitted to ACR for listing review. Requirements specified for newly addressed project types. Appendix A Table 1:</p> <p>This is a common action for an allowable start date and is similarly used by ARB. It is our verification experience that project land owners, and managers may not understand how their management is supposed to change to maintain or increase carbon stocks with AFOLU projects such as IFM. Meaning a forest manager will commonly answer when asked, “how has your management changed as a result of this project?”, they will say, “we do nothing different, and manage the land as we always have”. Letting projects use submitting projects for listing, and not linking start dates to a verifiable change in management may leave a loophole for perverse listing of carbon projects, where project developers have no actual intention of maintaining or increasing carbon stocks over time.</p>	The project listing is a verifiable start date that is consistent with the ACR IFM methodological requirements currently in place. The ACR IFM methodology requires project proponents/participants to demonstrate an increase of carbon stocks over time. Reductions of carbon stocks below previously credited levels must be compensated by the landowner if deemed intentional.
November 2017	27	Environmental Services, Inc.	Crediting Period AFOLU, Requirements for Avoided Conversion project types with land conservation agreements in place have been clarified.	Avoided conversion projects require that the start date be in conjunction with the recordation date of the

			<p>Requirements specified for newly addressed project types. Appendix A, Table 4:</p> <p>Language on the type and timing of conservation easements allowed for avoided conversion projects could be further clarified to avoid confusion. A conservation easement on forestland that requires trees to stay onsite should make a project non-additional (no matter the project crediting period). The language in table 4 currently states, “Avoided Conversion projects on both forest and non-forest land with land conservation agreements in place shall have a crediting period of forty (40) years, unless otherwise specified in chosen methodologies.”.</p>	<p>conservation easement, which satisfies the project scenario eligibility requirements for these project types.</p> <p>Additionally, this project type is not allowed to renew crediting periods because the implementation of the conservation easements do not then meet the additionality requirements.</p>
November 2017	28	Environmental Services, Inc.	<p>Natural Management Requirements, New criterion specifies that project plantations are designed within a minimum threshold for facilitating regrowth of species that contribute to an ecosystem with broad environmental benefits and avoid potential negative impacts. Appendix A , Table 1:</p> <p>The requirement allows projects that are difficult or impossible, to properly account for with approved models, and are questionable from an environmental perspective (plantation forestry and the use of fertilizers).</p> <p>Approved models include forest allometric equations and process based models. Predictions of growth on projects that are allowed the use of fertilizers are problematic for a number of reasons:</p> <ol style="list-style-type: none"> 1. Allowing projects that use any fertilizer would be nearly impossible to properly project the baseline. Allometric equations allowed are statistical in nature and do not allow for adjustments in predicted biomass from the use of fertilizer, and 	<ol style="list-style-type: none"> 1. Allometric equations are not currently allowed to quantify emission reductions from fertilizer. 2. Process based models must be approved for use in the chosen methodology. Methodologies that do allow for the use of these models also include robust uncertainty calculations to ensure that the precision requirements are met. 3. The requirements for proper calibration of the model will be specified at the methodology level in order

		<p>2. Process based models will not make predictions of volume that are within the required precision of 90% statistical confidence interval of sampling of no more than $\pm 10\%$ of the mean.</p> <p>3. The standard also needs to specify requirements for proper calibration of the process models if ACR is going to allow their use.</p> <p>Further, it is difficult to project annual fertilizer application rates for the project lifetime. This problem would make the baseline artificially low and increase project crediting. These errors are almost certainly outside the required 90% statistical confidence interval of sampling of no more than $\pm 10\%$ of the mean. See Pinjuv et al. 2006 (http://www.sciencedirect.com/science/article/pii/S0378112706004373). The referenced paper shows a peer reviewed calibration of a process based model that is greater than the required statistical confidence.</p> <p>The current requirement also is difficult to enforce as a verifier, because it lacks detail (i.e. what kind of evidence is acceptable in demonstrating the non-native species do not negatively impact the local ecosystem, or how does a species get defined as “naturalized”?) Most forest carbon methodologies do not allow any use of fertilizer, pesticides, or plantation forestry for the above reasons.</p> <p>Please consider concerns outlined above with the current definition of Natural Forest Management that allow fertilizer use, plantation forestry, and with baseline projections not meeting statistical requirements within the standard.</p>	<p>to allow for project-specific parameters to be accounted.</p>
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<p>November 2017</p>	<p>29</p>	<p>Environmental Services, Inc.</p>	<p>Use of Models, New specifications around use of models in AFOLU project development. Appendix A Section 6:</p> <p>The requirements for process based model calibration should state that all calibration variables from the approved sources must be used (i.e. photosynthetic efficiency, etc., as varying these values and trying to use non-validated, site specific values can have profound impacts on projections of growth). Climate variables used to run the models should also be clarified (should average historical climate be used, or projected future climates?)</p> <p>Further, specification for verification should be clarified.</p>	<p>Section A.6 of Appendix A has been amended for clarity to read:</p> <p>“Process-based biogeochemical models may be approved for use under ACR-approved, AFOLU methodologies to quantify emissions. The correct application of process-based biogeochemical models shall be specified in the approved methodology. To be applicable, the model shall have been accepted in peer reviewed scientific publications and have the potential to model emissions from the relevant practice change(s) with consideration of the following, where relevant...”</p> <p>The requirements for model calibration and selection of climate variables will be specified at the methodological-level as there may be additional considerations depending on the location, project type, etc.</p>
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