

Christie Pollet-Young
14-10-4



Comments regarding proposed modifications to Compliance Offset Protocols

Introduction

SCS Global Services thanks the California Air Resources Board (ARB) for the ability to comment on the proposed Regulatory Review Update to the Compliance Offset Protocol for U.S. Forest Projects ("Forest Protocol") and Compliance Offset Protocol for Rice Cultivation Projects ("Rice Protocol"). SCS appreciates the opportunity to suggest improvements to these protocols.

Having verified 75% of the compliance projects under the Forest Protocol and with far-reaching expertise in the verification of offset projects under several standards in the voluntary market, SCS has drafted the following comments for the ARB's consideration.



2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA | +1.510.452.8000 main | +1.510.452.8001 fax

Comments Regarding the Draft Revision to the Compliance Offset Protocol U.S. Forest Projects

The draft revision to the Compliance Offset Protocol U.S. Forest Projects ("the Protocol") will be known, within this section, as the "draft revision".

No.	Section(s)	Language	Comment
1	1.2(21)	"Forest Management" means the commercial or noncommercial growing and harvesting of forests.	Definition too narrow and does not include multiple forest management objectives outside of harvesting.

No.	Section(s)	Language	Comment
2	1.2(38)	<p>"Professional Forester" means a professional engaged in the science and profession of forestry. For forest projects that occur in a jurisdiction that has professional forester licensing laws and regulations, a professional forester must be credentialed in that jurisdiction. Where a jurisdiction does not have a professional forester law or regulation, then a professional forester is defined as either having the Certified Forester credentials managed by the Society of American Foresters, or other valid professional forester license or credential approved by a government agency in a different jurisdiction.</p> <p>For forest projects that occur on lands held in trust by the United States for a tribe or a tribal member, or on tribally owned fee land, a Professional Forester with credentials managed by the Society of American Foresters, Tribal Forest Manager, Tribal Timber Sale Officer, Tribal or BIA Officer in Charge, or BIA Regional Forester is sufficient.</p>	<p>The professional forestry credentials from a jurisdiction (e.g. a CA Registered Professional Forester) should also be suitable for tribal lands since a SAF CF is allowed.</p> <p>In addition, jurisdictions that have a professional forester licensing law but it is not a requirement to practice forestry the professional forester credential should not be required. For example, in the state of Michigan, you do not need to be a "registered forester" to practice forestry; it is a voluntary registration.</p> <p>It would be helpful for ARB to provide a list of the states which have a professional forester law or regulations so both OPOs and Verification Bodies are aware of the requirements.</p>

No.	Section(s)	Language	Comment
3	2.1(b)	<p>To be eligible under this protocol, a reforestation project must not:</p> <p>(1) involve rotational harvesting of reforested trees or any harvesting of pre-existing carbon in live trees during the first 30 years after offset project commencement unless such harvesting is needed to prevent or reduce an imminent threat of disease. Such harvesting may only occur if the Offset Project Operator or Authorized Project Designee provides a written statement from the government agency in charge of forestry regulation in the state where the project is located stipulating that the harvesting is necessary to prevent or mitigate disease; and</p> <p>(2) Undertake tree planting or removal of impediments to natural reforestation if a commercial harvest of healthy live trees has occurred within 10 years or since the occurrence of a significant disturbance, whichever period is shorter.</p>	<p>The term "and" between sub-sections (1) and (2) is confusing, because, as written, it indicates that the draft revision only precludes instances of circumstances (1) and (2) occurring in combination. From review of Section 2.1 of the prevailing Protocol, it appears that the intent is to preclude instances of circumstances (1) or (2). In this case, it is recommended that "and" be replaced with "or".</p> <p>In addition, sub-section (2), which is a re-wording of Section 2.1.1(3) of the prevailing Protocol, is confusing as written. It is suggested that this sub-section be re-written as follows: "Occur on land within which a commercial harvest of healthy live trees has occurred within 10 years of offset project commencement or since the occurrence of a significant disturbance, whichever period is shorter."</p>
4	2.1(b)(1)	<p>Involve rotational harvesting of reforested trees...</p>	<p>The term "rotational harvesting" is not defined. It is recommended that this term be defined or replaced with a defined term.</p>

No.	Section(s)	Language	Comment
5	3.1(a)(1)	Project consists of at least 95% native species based on the sum of carbon in the standing live tree carbon pool.	It is recommended that this language be replaced with "Project consists of at least 95% native species based on the sum of carbon in Standing Live Carbon Stocks" for greater clarity.

No.	Section(s)	Language	Comment
6	3.1(a)(1)	Native species are identified under the heading "Associated Species" in the Assessment Area Data File associated with this protocol version available on the Forest Offset Protocol Resources section of ARB's website.	It is recommended that ARB personnel confirm, through careful consultation with outside experts, that this is, in fact, the case for all assessment areas within the geographic scope of the draft revision. It has been SCS' experience, in past verification audits, that the species identified within the heading "Associated Species" in the Assessment Area Data File are exemplary of a specific assessment area, but that the list of species under this heading is not necessarily an exhaustive list of species that are native to any given assessment area. As one example of this, many hardwood species (e.g., blue oak, California black oak, California live oak) that naturally occur within the "Coast Redwood/Douglas-fir Mixed Conifer" assessment area of the "Northern California Coast" supersection are not listed within the heading "Associated Species" for that assessment area.

No.	Section(s)	Language	Comment
7	3.1(a)(1)	If a state/regional reference is unavailable or inadequate, documentation from a state botanist or other qualified independent resource, recognized as expert by academic, private and government organizations, must be submitted indicating that the project promotes and maintains native forests.	It is unclear what "state/regional" references may be "unavailable or inadequate". This should be clarified.
8	3.1(a)(1)	Assessed at initial and all subsequent verifications from inventory data	It is stated in Table 3.1 that the "Native Species" and "Composition of Native Species" criteria are "Assessed at initial and all subsequent verifications from inventory data." However, it is unclear how this assessment can happen prior to the second site-visit verification for reforestation projects, since inventory data may not be available for reforestation projects prior to the second site-visit verification (as allowed by the Protocol).

No.	Section(s)	Language	Comment
9	3.1(a)(1)	To the extent seed is available, and/or physical site characteristics permit, reforestation projects that involve planting of seedlings must plant a mixture of species such that no single species' prevalence, measured as the percent of all live tree stems in the project area, exceeds the percentage value shown under the heading "Species Diversity Index" in the Assessment Area Data File associated with this protocol version available on the Forest Offset Protocol Resources section of ARB's website.	<p>This text is confusing because the phrase "plant a mixture of species such that no single species' prevalence" implies that the only opportunity to impact species composition is during planting of trees. In reality, forest managers have the opportunity to impact species composition (through pre-commercial and commercial thinning and other silvicultural treatments) throughout the lifetime of a given stand. If tree planting is deemed to be the only action that can impact species composition so as to comply with the requirement, it is unclear why the requirement needs to be assessed at "all subsequent verifications".</p> <p>It is suggested that the intent of the requirement is merely that an appropriate level of diversity in species composition be maintained throughout the lifetime of a project. Thus, in order to improve clarity and allow for a range of silvicultural options toward this end, and to increase consistency with the requirement for Improved Forest Management and Avoided Conversion Projects, it is suggested that</p> <p>"To the extent seed is available, and/or physical site characteristics permit, reforestation projects that involve planting of seedlings must plant a mixture of species such that no single species' prevalence, measured as the percent of all live tree stems in the project area, exceeds the percentage value shown under the heading "Species Diversity Index" in the Assessment Area Data File associated with this protocol version available on the Forest Offset Protocol Resources section of ARB's website."</p> <p>be replaced with</p> <p>"To the extent seed is available, and/or physical site characteristics permit, no single species' prevalence, measured as the percent of all live tree stems in the project area, exceeds the percentage value of standing live tree carbon shown under the heading "Species Diversity Index" in the Assessment Area Data File associated with this protocol version available on the Forest Offset Protocol Resources section of ARB's website."</p>

No.	Section(s)	Language	Comment
10	3.1(a)(1)	All forest landholdings within geographic areas eligible under this protocol (the contiguous United States and eligible portions of Alaska identified on the map available from the Forest Offset Protocol Resources section of ARB's website), including the project area, owned or controlled by the forest owner(s) and its affiliates (as defined in subchapter 3.1(a)(2)) are currently under one or a combination of the following...	All language within this row of Table 3.1 is redundant, as it duplicates requirements contained within Section 3.1(a)(2)(C). It is recommended that the redundant text be deleted.
11	3.1(a)(1)	...portions of the project area that have not recently undergone salvage harvesting...	The row under the heading "Structural Elements (Standing and Lying Dead Wood)" within Table 3.1 contains two references to "portions of the project area that have not recently undergone salvage harvesting". It is not completely clear what is meant, in this context, by "recently". The language implies that there are two conditions, the condition of having "not recently undergone salvage harvesting" and the condition of not "undergone salvage harvesting within the previous reporting period". If this is the case, "recently" is implicitly defined as "within the previous reporting period". However, it would be better to have this explicitly clarified. This could be done, if desired, by replacing "portions of the project area that have not recently undergone salvage harvesting" with "portions of the project area that have not undergone salvage harvesting within the previous reporting period".

No.	Section(s)	Language	Comment
12	3.1(a)(1)	Assessed during initial and all subsequent verifications from inventory data	The row under the heading "Structural Elements (Standing and Lying Dead Wood)" within Table 3.1 indicates that compliance with these requirements are "Assessed during initial and all subsequent verifications from inventory data". However, the row also contains references to determination of whether "the quantity of lying dead wood is commensurate with recruitment from standing dead trees" or, in other words, whether there is evidence "that lying dead wood has been actively removed". Strictly speaking, it will typically not be possible to assess whether "lying dead wood has been actively removed" from inventory data, as inventories of lying dead wood are typically not maintained (nor are they required to be maintained by the Protocol). In practice, a determination of this is typically made during a site visit and during meetings with project personnel. Therefore, it is recommended that "Assessed during initial and all subsequent verifications from inventory data" be changed to "Assessed during initial and all subsequent verifications from inventory data and, where relevant, observations from site visits and other verification activities".

No.	Section(s)	Language	Comment
13	3.1(a)(1)	standing dead wood	The row under the heading "Structural Elements (Standing and Lying Dead Wood)" within Table 3.1 contains numerous references to "standing dead wood", but this term is not defined within the Protocol. It is suggested that "standing dead wood" be replaced with the defined term "Standing Dead Tree Carbon Stocks".
14	3.1(a)(1)	salvage harvesting	The Protocol does not have a definition of the term "salvage harvesting", as applied in the row under the heading "Structural Elements (Standing and Lying Dead Wood)" within Table 3.1. It is recommended that such a definition can be provided. The Dictionary of Forestry (http://www.dictionaryofforestry.org/), published by the Society of American Foresters, is one helpful source for this type of definition.

No.	Section(s)	Language	Comment
15	3.1(a)(4)	<p>(A) Harvest units that have less than 50 square feet of basal area retention must not exceed 40 acres in total area;</p> <p>(B) Open canopy harvest units, harvest units with an area of 3 acres or greater that have less than 50 square feet of basal area retention, must have a buffer area of forest vegetation containing at least 50 square feet of basal area retention must surround the harvest unit. The width of the buffer area must be a minimum of the area of the harvest unit, rounded up to the nearest acre, multiplied by 40; and</p> <p>(C) Cuts on harvest units that occurred prior to the project commencement date are exempt from subchapters 3.1(a)(4)(A) and 3.1(a)(4)(B) provided that no new harvests occur in the previously cut harvest unit or would be buffer area until the harvest unit cut prior to project commencement meets the requirements of subchapter 3.1(a)(4)(A) and 3.1(a)(4)(B);</p>	<p>SCS is concerned that the addition of this new requirement would be a major disincentive for projects outside of CA. Not only is this requirement extremely burdensome and time-intensive to verify, it does not stipulate an end time for the adjacency requirement.</p> <p>Please clarify how clause B of this requirement is to be met should surrounding areas be under a different ownership or be of a non-forest classification type.</p>

No.	Section(s)	Language	Comment
16	3.1(b)(1)(E)	The decrease in standing live tree carbon stocks occurs after the final crediting period (during the required 100 year monitoring period) and the residual live carbon stocks are maintained at a level that assures all credited standing live tree carbon stocks are permanently maintained;	The criteria by which it should be evaluated whether "the residual live carbon stocks are maintained at a level that assures all credited standing live tree carbon stocks are permanently maintained" are unclear. It is recommended that additional criteria be added to clarify this requirement.

No.	Section(s)	Language	Comment
17	3.2(d)	This approval must include an explicit approval of the forest project's baseline...	It is unclear what "approval of the forest project's baseline" means. One possible interpretation is that the language means that the government agency must approve the course of action (e.g., the silvicultural regime) modeled to occur in the baseline scenario. However, this does not appear entirely logical, as the baseline scenario is typically thought of as the scenario that does not occur. Another possible interpretation is that a government must sanction the description of the baseline scenario as "a conservative estimate of business-as-usual GHG emission reductions or GHG removal enhancements" (per the definition of "Project Baseline" in Section 95302(298) of the Regulation), or some similar language. It is recommended that the meaning of "approval" be clarified.

No.	Section(s)	Language	Comment
18	3.4.1(c)	The legal requirement test is satisfied if... (3) Avoided conversion projects must submit official documentation..."	The quoted text is grammatically incorrect. It is recommended that "Avoided conversion projects must submit official documentation" be replaced with "Avoided conversion projects submit official documentation"
19	3.4.2(b)(3)(A)(7)	Projects with multiple parcels within a project area must meet the requirement that the alternative land use each parcel has at least a 40 percent greater value than the current forested land use.	It is recommended that "the alternative land use each parcel" be replaced with "the alternative land use for each parcel". Also, it is recommended that "parcel" be defined, given its importance to this language.

No.	Section(s)	Language	Comment
20	3.4.2(b)(3)(A)(7)	The Offset Project Operator or Authorized Project Designee must sum the individual appraised values for each parcel within the project area when calculating the ACD.	The language is somewhat confusing. It is correct if the appraised values for each parcel are first calculated on a total basis (i.e., equal to the appraised value of each parcel, on a per-acre basis, multiplied by the area of that parcel). However, if the appraised values for each parcel are first calculated on a per-acre basis (as they often are in real-estate appraisals), application of this language will result in failure to properly weight values by parcel area. It is recommended that "sum the individual appraised values for each parcel within the project area" be replaced with either "take the weighted average (weighted by area of each parcel within the project area) of the individual appraised values for each parcel".

No.	Section(s)	Language	Comment
21	4.1(b), 4.2(b), 4.3(b)	Mechanical site preparation activities are not conducted on contours.	The time scale over which this criterion (stated regarding SSRs RF-6, IFM-6 and AC-6) must be evaluated is unclear. For example, it is not clear whether site preparation activities prior to the project commencement date are considered within the scope of the evaluation.

No.	Section(s)	Language	Comment
22	5(c), 3.5.2(c)	...for reporting period y...	<p>The temporal scopes of the variables $\Delta A_{\text{Consite}}$ and $\Delta B_{\text{Consite}}$ have been defined as "since the last reporting period". This is a helpful improvement in clarity over the previous version of the Protocol. However, this is not entirely consistent with the definitions of the variables $A_{\text{Consite},y}$, $A_{\text{Consite},y-1}$, CD_y, CD_{y-1}, $B_{\text{Consite},y}$, and $B_{\text{Consite},y-1}$, which indicate that the respective variables are quantified "for reporting period y" or "for reporting period y-1". This raises the question: for which time in the reporting period should these variables be quantified? For greater clarity, it is recommended that all instances of "for reporting period y" be replaced with "at the end of reporting period y" and all instances of "for reporting period y-1" be replaced with "at the end of reporting period y-1", which is consistent with the definitions of the variables $\Delta A_{\text{Consite}}$ and $\Delta B_{\text{Consite}}$.</p> <p>It is recommended that corresponding changes be made to Equation 3.1 in Section 3.5.2(c).</p>

No.	Section(s)	Language	Comment
23	5.1.1(b)	For carbon pools that will be affected by site preparation...	<p>The Protocol does not have a definition of the term "site preparation", as applied in the quoted text. It is recommended that such a definition can be provided. (SCS has experienced one situation where lack of such a definition caused a challenge in interpretation of a similarly worded clause in the Climate Action Reserve's Forest Offset Protocol Version 3.2.) The Dictionary of Forestry (http://www.dictionaryofforestry.org/), published by the Society of American Foresters, is one helpful source for this type of definition.</p> <p>In addition, it is suggested that additional criteria be added for determination of whether a given pool has been "affected by site preparation": For example, some popular herbicide treatments work to control shrub and herbaceous species by limiting their ability to germinate and establish on the site, but does not necessarily actively kill established plants. It is unclear whether or not use of such an herbicide would be deemed to "affect" SSR-RF-2 (Shrubs and herbaceous understory carbon).</p>

No.	Section(s)	Language	Comment
24	5.1.1(d)(1)(A), 5.2.2(e), 5.3.1(d)	<p>The baseline for a forest project under this version of the protocol is valid for the duration of the project life following a successful initial verification where the offset project receives a positive verification statement.</p> <p>(1) If correctable errors to the baseline are detected in subsequent verifications, the baseline must be adjusted prior to a verification statement being issued. The corrected baseline would then supersede the originally verified baseline for the purpose of determining GHG emission reductions and GHG removal enhancements going forward.</p> <p>(A) Previously issues ARB offset credits will be subject to the invalidation provisions in section 95985 of the Regulation.</p> <p>(B) In no case will additional ARB offset credit be issued.</p>	<p>It is recommended that "Previously Issues ARB offset credits" be replaced with "Previously issued ARB offset credits".</p> <p>It is suggested that additional criteria added for determination of what constitutes a "correctable error".</p> <p>It is recommended that "going forward" be replaced with more precise language (e.g., "for the reporting period for which the offset verification services are being conducted and all subsequent reporting periods").</p> <p>It is unclear exactly what is meant by the statement "In no case will additional ARB offset credit be issued". This statement could mean that in no case will additional ARB offset credits be issued for prior reporting periods (for which credits have already been issued). It could also mean that in no case will ARB offset credits be issued, throughout the project crediting period that are in excess of those that would have been issued with the prior (erroneous) baseline in place. It could also mean that both of the previous conditions is true. It is suggested that clarification be provided.</p>

No.	Section(s)	Language	Comment
25	5.1.2(a), 5.1.4(a), 5.3.2(a), 5.3.4(a)	[all language]	These sections do not appear to have a purpose, since they are not used in the calculation of secondary effects; these sections appear to conflict with guidance in Appendix C (which requires calculation on the basis of the harvested bole only) and are recommended for deletion.
26	5.1.2(a), 5.1.4, 5.2.3(a)(2), 5.2.5(a), 5.3.2(a)(2), 5.3.4(a)	...determine the actual amount of carbon in standing live and standing dead trees (whole tree including belowground biomass and bark)...	For greater clarity, it is recommended that this language be linked to the well-written definitions already included in the Protocol. Thus, it is suggested that "amount of carbon in standing live and standing dead trees (whole tree including belowground biomass and bark)" be replaced with "Standing Live Tree Carbon Stocks and Standing Dead Tree Carbon Stocks".

No.	Section(s)	Language	Comment
27	5.1.3; 5.2.4, 5.3.3; 6(f)	(a) Incorporate any new forest inventory data obtained during the previous reporting period into the inventory estimate. Any plots sampled during the previous reporting period must be incorporated into the inventory estimate; (b) Use an approved model to "grow" (project forward) prior-year data from existing forest inventory plots to the current reporting year, per the requirements of appendix B; (c) Update the forest inventory estimate for harvests and/or disturbances that have occurred during the previous reporting period; and (d) Apply an appropriate confidence deduction for the inventory based on its statistical uncertainty, following the requirements and methods in appendix A.	It is recommended that, for greater clarity, elegance and consistency with Section 5(c), the following changes be made: Replace "during the previous reporting period" with "during the reporting period" Replace "to the current reporting year" with "to the end of the reporting period" Replace "during the previous reporting period" with "during the reporting period" It is recommended that corresponding changes be made to Section 6(f).

No.	Section(s)	Language	Comment
28	5.2.3(a), 5.2.5(a), 5.2.6, 5.3.2(a), 5.3.5(a), 5.2.6	...AChv,n for use in equations 5.10, C.8, and C.17)... BChv,n for use in equations 5.10, C.8, and C.17)...	The references to Equations C.8 and C.17 in these sections are incorrect (and recommended for deletion), since the end result of sections 5.2.3(a), 5.2.5(a), 5.3.2(a), and 5.3.5(a) is the calculation of secondary effects (not the calculations of Appendix C). It is understood that the confusion is caused, in part, by the use of the variable names AChv,n and BChv,n for both the calculation of secondary effects and the calculations of Appendix C (it is recommended that this confusion be minimized by using different variable names for the two processes).
29	7.1.1(13)	If the forest project is located on public land, describe the approval process and public vetting processes necessary to evaluate management and policy decisions concerning the offset project that has or will take place in order to obtain approval of the offset project's management activities and baseline	This requirement should be applicable only when the public land baseline procedure in Section 5.2.2 is applicable (per Section 5.2). It is recommended that "on public land" be replaced with "on land that was publicly owned prior to the offset project commencement date".

No.	Section(s)	Language	Comment
30	N/A	[No specific language]	The draft revision contains instances, throughout, where definitions of terms defined in Section 1.2(a) are either repeated or paraphrased elsewhere within the draft revision. It is recommended that this be avoided, as it results in the following: 1. In some cases, the potential for a more cluttered and confusing text (e.g., it is stated in Section 3.1(a)(4)(B) that "Open canopy harvest units, harvest units with an area of 3 acres or greater that have less than 50 square feet of basal area retention, must have a buffer area of forest vegetation containing at least 50 square feet of basal area retention must surround the harvest unit"; the definition of "open canopy harvest unit" has been repeated within the text in such a manner that it is not clear whether "harvest units with an area of 3 acres or greater that have less than 50 square feet of basal area retention" are different from, or the same as, "open canopy harvest units") 2. In some cases, the potential for slightly different definitions to be applied, leading to a potential for internal inconsistency (e.g., "Significant Disturbance" appears to be paraphrased within Section 2.1(a)(2) as an event that "resulted in a loss of at least 20 percent of the land's above-ground standing live tree biomass"; this is not entirely consistent with the full definition of this term, but is sufficiently similar to make it unclear whether the two descriptions of "Significant Disturbance" are contradictory) In summary, it is recommended that all descriptions of defined terms be restricted to Section 1.2(a), unless a compelling reason exists to the contrary for a specific instance.

No.	Section(s)	Language	Comment
31	N/A	[No specific language]	<p>In many cases, the draft revision has adopted the convention (as also adopted in the Cap-and-Trade Regulation) of capitalizing defined terms. SCS supports this convention, as it facilitates use of the Protocol. However, this convention has not been adopted with complete consistency, as shown in the following examples:</p> <ol style="list-style-type: none"> 1. "Reforestation Project" is not capitalized in Section 2.1 2. "Significant Disturbance" is not capitalized in Section 2.1(a)(2) 3. "Open canopy harvest unit" is not capitalized in Section 3.1(a)(4)(B) 4. "Basal Area" and "Basal Area Retention" are not capitalized in Section 3.1(a)(4)(B) <p>For maximum clarity, it is recommended that capitalization be employed in all instances of usage of defined terms.</p>
32	N/A	[No specific language]	<p>The terms "above-ground standing live tree carbon stocks" and "above-ground standing live tree biomass" are used several times within the draft revision, but are not defined within Section 1.2(a).</p>

No.	Section(s)	Language	Comment
			<p>"Above-Ground Live Biomass" is defined within Section 1.2(a) but used only once, in Section 7.1.2(a)(1). "Below-ground standing live tree carbon stocks" is not defined within Section 1.2(a). The following actions are suggested:</p> <ol style="list-style-type: none"> 1. Provide a definition for "above-ground standing live tree carbon stocks" and "below-ground standing live tree carbon stocks" within Section 1.2(a). 2. Replace "above-ground standing live tree biomass" with "above-ground standing live tree carbon stocks" ("above-ground standing live tree biomass" is only used in the context of the definition of a significant disturbance as a "natural impact that results in a loss of at least 20 percent of the above-ground standing live tree biomass", and, as calculated using the approach mandated by the Protocol, 20 percent of the above-ground standing live tree carbon stocks is, by definition, equivalent to 20 percent of the above-ground standing live tree biomass, so the inclusion of the two separate terms is redundant). 3. Replace "Above-Ground Live Biomass" with "above-ground standing live tree carbon stocks" for consistency with the definition of "Significant Disturbance" (as in action #2 above). (Biomass in shrub cover is generally not quantifiable and generally not of interest with respect to the definition of a "Significant Disturbance". Any loss in biomass in shrub cover is likely to be transient in any case, as shrubs are, generally speaking, likely to re-occupy a site within a few years of a disturbance.) 4. Remove the definition of "Above-Ground Live Biomass" from Section 1.2(a).

No.	Section(s)	Language	Comment
33	N/A	[No specific language]	<p>The draft revision contains the following instances of temporal references to offset verification services:</p> <p>1. "May have boundaries that are not finalized until the second full verification. The boundary that is set at the second site visit verification shall be the Project Area boundary for the duration of the project, provided that:</p> <p>(A) All lands included in the project area were initially included in the project area during listing; and</p> <p>(B) The project has elected to defer its initial inventory until the second full verification" (Section 2.1(c)(2))</p> <p>2. "Must be finalized by the conclusion of the initial verification" (Sections 2.2(b)(1) and 2.3(b)(1))</p> <p>SCS suggests the following:</p> <p>1. "Verification" does not occur at a single moment in time. Rather, offset verification services occur over a period of, generally, at least several months. Therefore, it would be more precise, where it is desired to refer to "verification" in this manner, to clarify what point in the verification process is being referred to (as is done in instance #2 above).</p> <p>2. As the review process for a given OPDR does not end with completion of offset verification services, but also involves review by the applicable OPR and by ARB, it is suggested that the above references to "verification" be replaced with the corresponding action by ARB (e.g., issuance of ARB offset credits). Otherwise, it is possible that a change to the project boundary, as required by ARB or the OPR, may not be possible because it would occur after conclusion of offset verification services.</p>

No.	Section(s)	Language	Comment
34	throughout		It is recommended that the parameters BChv,n and AChv,n be renamed BChv,y and AChv,y, respectively, for greater consistency with the symbology used elsewhere in the Protocol.
35	7.1.1(12)	If the project is located on one of the above categories of land, a description and copies of documentation demonstrating that the land is owned by (or subject to an ownership or possessory interest of) a tribe or private entities	It is unclear what "above categories of land" refers to. From comparison with the currently prevailing Protocol, it appears that the intent is to refer to the categories of land set out in Section 7.1.1(11)(a)-(c). If so, it is suggested that this be more clearly indicated, perhaps by replacing "one of the above categories of land" with "lands falling within one of the categories set out in subchapter 7.1.1(11)(a)-(c)".
36	7.1.1(32)	Declaration that the project is not being implemented and conducted as the result of any law, statute, regulation, court order, or other legally binding mandate?	The sentence is not grammatically correct. It is recommended that it be replaced with "an indication as to whether the project is being implemented and/or conducted as the result of any law, statute, regulation, court order, or other legally binding mandate".
37	7.1.4(a)	In addition to the requirements of 7.1.1, improved forest management projects on public lands must provide...	The requirements for Section 7.1.4 should be applicable only when the public land baseline procedure in Section 5.2.2 is applicable (per Section 5.2). It is recommended that "on public lands" be replaced with "on land that was publicly owned prior to the offset project commencement date".

No.	Section(s)	Language	Comment
38	7.1.3(a)	In addition to the requirements of 7.1.1, Improved forest management projects on private lands must provide...	The requirements for Section 7.1.3 should also be applicable on public lands for which the private land baseline procedure in Section 5.2.1 is applicable (per Section 5.2(b)). It is recommended that "on private lands" be replaced with "on private land -- or on land that is transferred to public ownership at the time the project is initiated".
39	7.1.4(a)(3)	"policy item"	It is not clear exactly what is meant by "policy item". This term should be defined.
40	Appendix E(b)(4)	The category must be consistent with the stated site class provided at time of listing.	It is not clear what action must be taken in the event that the stated site class provided at the time of listing is found to be incorrect. It is recommended that this requirement be removed. A competent verification body would then ensure, with reasonable assurance, that the identified site class is correct.
41	7.2(c)	The listing information in subchapter 7.1 must be included in the initial Offset Project Data Report, and is subject to verification at the initial and all subsequent offset project verifications.	SCS understands that, under most circumstances, listing information is not subject to change. This being the case, it is unclear how listing information can be "subject to verification" during the initial verification. SCS understands that the intent here is that the information provided within the initial OPDR must be subject to verification during the initial verification audit, but this could be more clearly explained. In addition, it is unclear how, or under what circumstances, the information in the initial OPDR can or should be assessed during "all subsequent offset project verifications" (since neither the Protocol nor the Regulation

No.	Section(s)	Language	Comment
			appear to otherwise contain any indication that the initial OPDR is subject to assessment during all subsequent verification audits).
42	7.2.1	The Offset Project Operator or Authorized Project Designee must submit the information required by section 95976 of the Regulation and the following information	It is unclear in what form "the information required by section 95976 of the Regulation and the following information" must be submitted. While it appears to be implied, from the placement of Section 7.2.1 as a sub-section of Section 7.2 (the heading for which is "Offset Project Data Report"), that the information set out in Section 7.2.1 must be submitted in an OPDR, this is not explicitly stated.
43	7.2.1(a)(4)	Any technical consultants;	It is unclear exactly what is meant by "technical consultant".
44	7.2.1(a)(15), 7.2.1(a)(24)(A)	An estimate of reporting period harvest volumes (may be reported in tCO ₂ e or tCO ₂ e/acre as appropriate) and associated carbon in harvested wood products Projections of baseline and actual harvesting volumes from the project area over 100 years (may be reported in tCO ₂ e or tCO ₂ e/acre as appropriate)	Harvest volume is typically reported in terms of board feet or cubic feet, so it is unclear how volume could be reported "in tCO ₂ e or tCO ₂ e/acre".

No.	Section(s)	Language	Comment
45	7.2.1(a)(19)	The avoided conversion discount factor, as determined following the requirements of subchapter 5.3.1 and approved at offset project's initial verification	As the avoided conversion discount factor is only applicable to avoided conversion projects, it is suggested that the quoted language be preceded with "For avoided conversion projects, "
46	7.2.1(a)(24)(B)	If the forest project is located on public land, provide documentation demonstrating explicit approval of the offset project's management activities and baseline including any public vetting processes necessary to evaluate management and policy decisions concerning the offset project;	This requirement is applicable only when the public land baseline procedure in Section 5.2.2 is applicable (per Section 5.2). It is recommended that "on public land" be replaced with "on land that was publicly owned prior to the offset project commencement date".
47	8(c)	The Offset Verification Statement for the initial reporting period must be received by ARB or an Offset Project Registry within 13 months after the conclusion of the Reporting Period for which offset verification services were performed	This appears to conflict with the requirement in Section 95977(d) of the Regulation that "Any Offset Verification Statement must be received by ARB or an Offset Project Registry within eleven months after the conclusion of the Reporting Period for which offset verification services were performed."
48	8	[no specific language]	The prevailing Protocol explicitly identifies the initial verification as a full verification. However, such an explicit identification is missing from the draft revision.

No.	Section(s)	Language	Comment
49	8(g).	At least a less-intensive verification is required anytime there is a change to the forest project's reversal risk rating as a result of employing a qualified conservation easement.	It is not clear what is meant by "At least a less-intensive verification".
50	8.1(b)(2)(E)(2)	Verifiers must use professional judgment as determined by the Registered Professional Forester when assessing the basal area retention levels, size limitations, and buffer area requirements and may make determinations by visual inspection, if obvious, or sampling according to the following basal retention sampling guidance	"Registered Professional Forester" is not defined. Perhaps this was meant as a reference to "Professional Forester"? It is also unclear which "Professional Forester" is being referred to. In addition, it is suggested that criteria for determination of when determinations can be made "by visual inspection". Verification bodies are likely to experience a high level of pressure to forego the time-intensive field sampling procedure set out in Section 8.1(b)(2)(E)(2), and, therefore, a high level of pressure to make determinations by visual inspection. Additional criteria would assist in ensuring that verification bodies provide the level of rigor in assessing these requirements that is required by ARB.
51	8.1(b)(2)(E)(2)(a)	Establish a 2-chain systematic grid within each harvest unit or buffer area sampled.	It is not clear how many harvest units or buffers need to be sampled. The level of auditing time and assessment rigor will obviously vary widely, depending on the number of areas sampled, and so it is recommended that this be clarified.

No.	Section(s)	Language	Comment
52	8.1(b)(2)(E)(2)(c)	Navigate through the harvest unit or buffer area by selecting a course of successive sample points that initiate in the lowest stocked area and proceed to higher stocked points within the harvest unit;	It is unclear exactly what this language means. It is not clear what "lowest stocked" means. Even in the event that a definition is provided for this term, it will be impossible, in most cases, to precisely identify "the lowest stocked area". The instruction to "proceed to higher stocked points within the harvest unit" is meaningless as, by definition, all areas within a given polygon that are not "the lowest stocked area" of that polygon will be "higher stocked points". It is also unclear how this instruction is to be interpreted where a buffer area, rather than a harvest unit, is being inspected.
53	8.1(b)(2)(E)(2)(d)	Sampling must be conducted for basal area retention and performed using a prism, relaskop, or angle gauge using a basal area factor that will yield 6-10 trees on average at each sample point throughout the harvest unit	The language "on average at each sample point" is self-contradictory. The quoted language makes sense only with "at each sample point" stricken. With this modification, it is good general forest sampling advice, but it becomes challenging when written into a regulatory protocol. It may be difficult to identify, ahead of time, the basal area factor that will yield 6-10 trees on average throughout the harvest unit. It does not make sense to require the verification body to achieve something that may not be practicable to achieve.
56	8.1.1(a), 8.1.1(j)	The offset verifier must re-measure existing monumented sample plots when all plot locations within a project area can be found and it is statistically appropriate. A paired test must be used when existing monumented sample plots were re-measured.	Circumstances may exist whereby all plot locations within a project area can be found but the plots are not considered "monumented". It is recommended that the term "monumented" be removed, as it adds no information to the discussion.

No.	Section(s)	Language	Comment
57	8.1.1(b)(1)	If the Offset Project Operator or Authorized Project Designee did not combine sample data for standing live and standing dead trees... If the Offset Project Operator or Authorized Project Designee combined the measurement of standing live and standing dead trees...	It is unclear what is meant by "combine sample data for" and "combined the measurement of".
58	8.1.1	"agreement"	The term "agreement", as used throughout this section, is not defined, and it is unclear what this term means.
59	8.1.1(c)(2)	When a carbon pool or combination of pools have been stratified into six or more strata for the purposes of estimating the forest project's inventory, the offset verifier must select a minimum of three strata, based on the offset verifier's evaluation of risk. The strata selected for sampling must represent a total sum of at least 50% of the total sum of carbon stocks measured in CO ₂ e. Sampling of more than three strata may be required.	In practice, this language would mean that the lowest verification costs would always be ensured by selection of the three strata containing the highest total carbon stocks. As it is always important for verification bodies to keep verification costs competitive, verification bodies would therefore be under considerable pressure to consistently select the three strata containing the highest total carbon stocks. This would lead to the possibility that strata to be selected for sequential sampling could be reliably determined beforehand, which may well lead to negative unintended consequences. As SCS feels that successful implementation of the sequential sampling procedure on up to three strata (as is done under the currently prevailing Protocol) is sufficient to attain a reasonable assurance regarding the quality of a forest inventory, it is recommended that these requirements be removed.

No.	Section(s)	Language	Comment
60	8.1.1(c)(2)	If the project area has not been stratified or there are less than 3 strata, the offset verifier must locate the plots or clusters using a process of their own design consistent with the objectives of a random, risk-based, and efficient approach.	This requirement has been removed from the context within which it is located within the currently prevailing Protocol. Detached from this context, it is confusing and misleading. It is recommended that it be deleted.
61	8.1.1(d)	Selection of stands must be based on the following	It is SCS' understanding that the procedures referring to "stands" within this section of the Protocol are optional and may be followed at the discretion of the verification body. However, this is not clear within the currently prevailing Protocol. It is suggested that this be clarified in the draft revision.
62	8.1.1(e)(2)	Verification plots must reflect the variability in tree species, heights, and diameters existing in the project area	In practice, this text may conflict with the requirement of Section 8.1.1(e)(4) that "Plots, or clusters, must be independently selected within a stand using a random or systematic design" (since a statistically sound random or systematic design may not result in a set of plots that reflects "the variability in tree species, heights, and diameters existing in the project area". As the most important thing is to retain statistical validity in the selection of verification plots, it is recommended that this requirement be removed.
63	8.1.1(e)(4)	If the offset project is not stratified for each applicable carbon pool, the offset verifier must allocate the plots or clusters on a randomized basis	It is unclear what this requirement means, or what it adds to the Protocol. It is suggested that this requirement be removed.

No.	Section(s)	Language	Comment
64	8.1.1(e)(5)	No more than 6 plots or clusters can be assigned to a stand, unless the groups of plots required for verification exceed the number of stands that exist for the offset project;	This language is confusing in its context within the draft revision. It should be moved in a manner that makes its linkage with Section 8.1.1(d) clearer.
65	8.1.1(e)(5)	The minimum number of sample plots varies by project size and number of strata (table 8.1).	It is recommended that the values in this table be reverted to those within the currently prevailing Protocol (see comment 59 above).
66	8.1.1(h)	For effective application of the sequential statistics in the field, the offset verifier must use their discretion to determine if the stopping rules have been met for each stratum...	It is unclear what this language means, exactly, or what clarity it is intended to add. In SCS' experience, the sequential sampling test is typically carried out after at least the minimum number of plots have been sampled and after a number of additional plots have been sampled, as agreed to with the Offset Project Operator or Authorized Project Designee. Specific instructions on when to carry out the sequential sampling test are not contained within the currently prevailing Protocol, and SCS is aware of no reason why they should be. So far as all other requirements are compiled with, it should be the verification body's determination as to when to undertake the sequential sampling test. It is recommended that sub-section 8.1.1(h) be deleted.

No.	Section(s)	Language	Comment
67	8.1.1(h)(4)	The verifier may defer the determination until no later than the end of each day of sampling, which will include the full set of plots measured in that day.	It is unclear what this language means or what clarity it is intended to add. It is also unclear why any restrictions are being proposed regarding the timeline for carrying the sequential sampling process. In many cases, scheduling constraints preclude immediate implementation of the sequential sampling test (and a subsequent decision as to how to proceed). The requirement to carry out the decision at "the end of each day of sampling" would impose onerous, and costly restrictions where they are completely unnecessary. It is also unclear what is meant by the requirement that "the determination" must "include the full set of plots measured in that day". Strictly speaking, a determination cannot include anything.
68	8.1.1(i)(2)	Re-sample the strata with a new plots selected using the methodology of subchapter 8.1.1	It is recommended that "a new plots" be replaced with "new plots".
69	8.1.1(i)(3)	If randomization results in the inclusion of plots that have already been sampled during a previous site visit and that information has been shared with the Offset Project Operator, Authorized Project Designee, forest owner(s) or its affiliates during that site visit, the offset verifier must indicate they have tested for bias;	It is unclear where the verification body is required to "indicate they have tested for bias". It is unclear how such testing is intended to be carried out.

No.	Section(s)	Language	Comment
70			
71	3.1(a)(4)	If harvesting occurs within the project area, meet the following harvest unit size and buffer area requirements...	<p>SCS is strongly opposed to the language of Section 3.1(a)(4), as it is opposed to any language restricting forest management practices beyond the sustainable forest management requirements already contained within the currently prevailing Protocol. These requirements, which originate in the Climate Action Reserve's Forest Project Protocol Version 3.2, were developed during a lengthy series of work group sessions with a diverse group of stakeholders that included major landowners, the environmental community, the agencies, non-governmental organizations and other interested parties (including SCS). The balanced series of requirements emerging from that process ensured appropriate environmental safeguards while also facilitating widespread participation (and, thus, GHG emission removal enhancements) across a variety of geographic locations, ownership categories and landowner objectives. By contrast, the requirements of Section 3.1(a)(4) would restrict forest management far beyond the requirements of the most restrictive state-level regulations (including the California Forest Practice Act and Rules), thus unnecessarily limiting marketplace access and introducing burdensome complications with no discernable benefit (environmental or otherwise).</p> <p>The requirements of Section 3.1(a)(4)(A) would impose an arbitrary opening size that is far smaller than the industry standard in many areas. The requirements of Section 3.1(a)(4)(B)</p>

No.	Section(s)	Language	Comment
			<p>would impose a buffer area that is from 330% (for a 10-acre harvest unit) to 891% (for a 40-acre harvest unit) as large as the harvest area itself. Moreover, unlike many comparable state forest practice regulations (which allow for "buffer" areas to be harvested after "green-up" has occurred, i.e., after the harvest unit is stocked with regeneration of a prescribed size and density), the draft revision would contain no such provision, thereby requiring retention of the buffer areas in perpetuity. Such requirements can only be described as punitive. In many circumstances, harvests that leave a residual basal area of less than 50 square feet per acre are completely compatible with sound forest management strategies, including management strategies that are geared at maximization of environmental benefits. For example, landowners may choose to implement such harvests in order to shift species mixes (including favoring species that provide better habitat for certain wildlife species) or accelerate development of late-successional forest structures, provide habitat for animals and plants that thrive in early-successional forested settings, in addition to meeting financial and other management objectives. SCS is aware of no reason that such management strategies should be disincentivized in such a dramatic fashion.</p> <p>Finally, imposition of the proposed requirements would place verification bodies in the role of forest practice inspectors and substantively (if not dramatically) increase the level of effort required for offset verification services. As outlined above, this increase in required verification effort would carry with it no discernable benefit. In summary, the requirements of Section 3.1(a)(4) constitute a completely unwarranted and unnecessary addition to the Protocol. It is recommended that they be removed in their entirety.</p>

Comments Regarding the Draft Revision to the Compliance Offset Protocol Rice Cultivation Projects

No	Sections(s)	Language	Comment
1	Compliance Offset Protocol Rice Cultivation Projects, 2.2(c)		This clause states that no more than 10% of a participating field's perimeter may be shared with another field that also employs early drainage, however it is not clear how that may be verified if the adjoining field is not participating in the project. Please provide additional guidance on ARB's expectations for verification of this eligibility criterion.
2	Compliance Offset Protocol Rice Cultivation Projects, 2.2(d)		Section 2.2(d) is confusing as written. Please provide clarity on what the eligibility requirement is. Additionally, verification guidance on how to assess whether or not the standing water was apparent at the beginning of drainage is requested.
3	Compliance Offset Protocol Rice Cultivation Projects, Appendix B: Staff Report, Pg. 20		The first paragraph on page 10 indicates that a single verification can occur for multiple projects covered in one (1) OPDR. Please clarify if each project will require its own verification report or if one report per OPDR will suffice.

4	Compliance Offset Protocol Rice Cultivation Projects, 8.1(f)-(g); Title 17, California Code of Regulations, Article 5, Subchapter 13; Section 95978(d)-(e)		In the proposed Rice Cultivation Protocol, section 8(f) requires that each verification team must include either an agronomist or a local/state agricultural cooperative rice farming advisor. In what capacity will the expert be allowed to serve on the audit team? Will they be allowed to conduct field visits? In section 95978(e) of the Regulation adopted in July 2014, it defines "Direct supervision" of a technical expert as "daily, on-site close contact with an ARB-accredited verifier acting as a supervisor who is able to respond to the needs of the technical expert. The supervisor must be physically present, or within 4 hours travel time and available to respond to the needs of the technical expert". If an ARB-accredited verifier must be on-site or within 4 hours of the expert, then having them conduct field visits is a moot point as this will also increase verification costs as it increases the total assessment time we will need to spend on the verification.
5	Compliance Offset Protocol Rice Cultivation Projects, 8.1(i)		Clarification is requested on when the <i>Notice of Verification Services & Conflict of Interest</i> forms can be submitted if the OPO/APD contract with the VB before the end of a reporting period. Additionally, if a verifier is allowed to witness project activities, they are very likely to conduct the initial phase of the risk assessment, develop a sampling plan as well as an audit plan. Please elaborate on what the audit team is allowed to do before the OPDR is submitted.
6	Compliance Offset Protocol Rice Cultivation Projects, 8.1(i)		OPDR is incorrectly referenced as OPRD in this section.

