

Criteria	CAR		GHG	RGGI		CCX				VCS		
	Forest Project Protocol	Livestock Project Protocol: Capturing and Destroying Methane from Manure Management Systems	Methodology for Agricultural Livestock Manure Management System Methane Capture and Destruction Projects	Afforestation	Manure Management	Forestry Carbon Sequestration	Agricultural Methane Collection and Combustion	Continuous Conservation Tillage and Conversion to Grassland Soil Carbon Sequestration	Sustainably Managed Rangeland Soil Carbon Sequestration	Afforestation/ Reforestation of Agricultural Lands Version 2	MSU-EPRI N2O	SALM Agricultural Land Management
<b>Science Based</b>												
Does the protocol/methodology use relevant, current best practice guidance from widely accepted sources relevant to the project?	Yes	Yes	Yes	No. Limited transparency given short-form protocol provided.	No. Limited transparency given short-form protocol provided.	Uncertain	Uncertain	Uncertain	Uncertain	Yes	Yes	Yes
Is the quantification method grounded in peer-reviewed science or based on disciplined scientific review?	Yes	Yes	Yes	No. Limited transparency given short-form protocol provided.	No. Limited transparency given short-form protocol provided.	Uncertain	Uncertain	Uncertain	Uncertain	Yes	Yes	Yes
<b>Quantifiable, Verifiable and Results-Based</b>												
Does the protocol give quantification procedures for measuring/estimating all GHGs for each relevant SSR?	Yes	Yes	No. Exclusion of N <sub>2</sub> O.	No. Limited guidance given short-form protocol provided.	No. Limited guidance given short-form protocol provided.	No. Limited coverage of GHGs	No. Limited coverage of GHGs	No. Limited coverage of GHGs	No. Limited coverage of GHGs	Yes	Yes	Yes
Does the protocol provide suitable guidance for data capture and management, in sufficient detail to understand what specific proof is required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does the protocol rationalize the number of project-level inputs required for quantification?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Additionality</b>												
Does the protocol use a project-specific baseline?	No	No	Yes	No	No	Yes	Yes	No, can be continuation of practice	No, can be continuation of practice	Yes	Yes	Yes
If yes, is there supplemental guidance for assessing additionality?	N/A	N/A	Yes	N/A	N/A	Yes	Yes	No	No	Yes	Yes	Yes
Does the protocol use a performance standard baseline?	Yes	Yes	N/A	Yes	Yes	No	No	No	No	No	No	No
If yes, is the justification and documentation of the baseline available?	Yes	Yes	N/A	No. Limited transparency given short-form protocol provided.	No. Limited transparency given short-form protocol provided.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Permanence</b>												
Does the protocol take a risk or market-based approach to addressing permanence in sequestration projects?	No. Mandated approach.	N/A	N/A	Partial. Carbon maintained through conservation easement.	N/A	Yes	N/A	Yes	Yes	Yes	N/A	No
Does the permanence approach take into account the need to maintain sequestered carbon for a period of time relevant to the life-span of the GHG in the atmosphere?	Yes	N/A	N/A	Yes	N/A	No. Limited term to liability.	N/A	No. Limited term to liability.	No. Limited term to liability.	Yes	N/A	No
<b>Comprehensive GHG Accounting</b>												
Was the protocol baseline scenario selected through a structured and well-justified process?	Yes	Yes	Yes	No. Limited transparency given short-form protocol provided.	No. Limited transparency given short-form protocol provided.	No. Limited transparency.	No. Limited transparency.	No. Limited transparency.	No. Limited transparency.	Yes	Yes	Yes
Does the baseline scenario take into account all relevant existing and proposed regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does the protocol address leakage?	Yes	Yes	Yes	No. Limited transparency given short-form protocol provided.	No. Limited transparency given short-form protocol provided.	No. Limited guidance provided.	Yes	N/A	No. Limited guidance provided.	Yes	Yes	Yes
Are there consistent and conservative criteria and procedures established for selecting relevant SSRs for monitoring or estimation?	Yes	Yes	Yes	No. Limited transparency given short-form protocol provided.	No. Limited transparency given short-form protocol provided.	No. Limited transparency.	No. Limited transparency.	No. Limited transparency.	No. Limited transparency.	Yes	Yes	No
Does the protocol, where warranted, set a well-justified threshold for exclusion of a greenhouse gas (i.e. a de minimus threshold)?	Yes	No	No	No. Limited transparency given short-form protocol provided.	No. Limited transparency given short-form protocol provided.	No. Limited guidance provided.	No. Limited guidance provided.	No. Limited guidance provided.	No. Limited guidance provided.	Yes	Yes	No
Does the protocol use functional equivalence (common base metrics) when calculating the difference in emissions between the project and the baseline?	Yes	Yes	Yes	No. Short-form protocol does not provide sufficient detail.	No. Short-form protocol does not provide sufficient detail.	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Scalability</b>												
Can the protocol and/or quantification method be implemented across all applicable regions of the U.S. (i.e. how scalable is the protocol)?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes, with differing degrees of detail.	No
Does the format or structure of the protocol enable the application of more than one protocol, without double counting, where multiple emission reduction/sequestration activities occur on the same project site?	No. Limited disclosure on interrelationships of SSRs.	No. Limited disclosure on interrelationships of SSRs.	Yes	No. Minimal disclosure of protocol SSRs.	No. Minimal disclosure of protocol SSRs.	No. Limited disclosure on interrelationships of SSRs.	No. Limited disclosure on interrelationships of SSRs.	No. Limited disclosure on interrelationships of SSRs.	No. Limited disclosure on interrelationships of SSRs.	No. Limited disclosure on interrelationships of SSRs.	No. Limited disclosure on interrelationships of SSRs.	No
<b>Engagement and Review</b>												
Is the background information on the protocol development and review process recorded and available?	No. Only final version is published.	No. Only final version is published.	No. Only final version is published.	No. Only final version is published.	No. Only final version is published.	No. Only final version is published.	No. Only final version is published.	No. Only final version is published.	No. Only final version is published.	No. Only final protocol available.	Review process underway.	No. Only final protocol available.
Is there a broad representation of the key technical and scientific experts involved in the review?	No. However, broad stakeholder representation.	No. However, broad stakeholder representation.	No. Private protocol development process.	No. Limited transparency given short-form protocol provided.	No. Limited transparency given short-form protocol provided.	No. Limited transparency to review process.	No. Limited transparency to review process.	No. Limited transparency to review process.	No. Limited transparency to review process.	No. Double validation process relies on limited pool of experts.	No. Double validation process relies on limited pool of experts.	No. Double validation process relies on limited pool of experts.
Has a government or government-mandated body approved the protocol (or its foundation document) for use in the GHG program?	No. Revised process for CARB approval.	No. Revised process for CARB approval.	No. Private protocol.	Yes	Yes	No. Voluntary program.	No. Voluntary program.	No. Voluntary program.	No. Voluntary program.	No. Although CDM protocols are applicable.	No. Although CDM protocols are applicable.	No. Although CDM protocols are applicable.

Criteria	CDM		AOS									ACR		
	Consolidated methodology for GHG emission reductions from manure management systems - Version 5	Offsetting of synthetic nitrogen fertilizers by inoculant application in legumes-grass rotations on acidic soils on existing cropland	Beef Feeding (Reducing Days-on-Feed)	Dairy Cattle Emission Reduction	Beef Feeding (Edible Oils)	Pork	Beef Lifecycle	Biogas	Tillage	Nitrous Oxide Emission Reduction Protocol (NERP)	Energy Efficiency	Livestock Manure Management	Fertilizer Management	Forest Carbon
<b>Science Based</b>														
Does the protocol/methodology use relevant, current best practice guidance from widely accepted sources relevant to the project?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Is the quantification method grounded in peer-reviewed science or based on disciplined scientific review?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes
<b>Quantifiable, Verifiable and Results-Based</b>														
Does the protocol give quantification procedures for measuring/estimating all GHGs for each relevant SSR?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does the protocol provide suitable guidance for data capture and management, in sufficient detail to understand what specific proof is required?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Does the protocol rationalize the number of project-level inputs required for quantification?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Additionality</b>														
Does the protocol use a project-specific baseline?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes. Provides for both, depending on project conditions
If yes, is there supplemental guidance for assessing additionality?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes	Yes	Yes
Does the protocol use a performance standard baseline?	No	No	No	No	No	No	No	No	Yes	No	No	No	No	Yes. Provides for both, depending on project conditions
If yes, is the justification and documentation of the baseline available?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A	Yes
<b>Permanence</b>														
Does the protocol take a risk or market-based approach to addressing permanence in sequestration projects?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A	Yes
Does the permanence approach take into account the need to maintain sequestered carbon for a period of time relevant to the life-span of the GHG in the atmosphere?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A	Yes
<b>Comprehensive GHG Accounting</b>														
Was the protocol baseline scenario selected through a structured and well-justified process?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does the baseline scenario take into account all relevant existing and proposed regulatory requirements?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does the protocol address leakage?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A	N/A	Yes	Yes	Yes	Yes
Are there consistent and conservative criteria and procedures established for selecting relevant SSRs for monitoring or estimation?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does the protocol, where warranted, set a well-justified threshold for exclusion of a greenhouse gas (i.e. a de minimus threshold)?	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Yes
Does the protocol use functional equivalence (common base metrics) when calculating the difference in emissions between the project and the baseline?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Scalability</b>														
Can the protocol and/or quantification method be implemented across all applicable regions of the U.S. (i.e. how scalable is the protocol)?	Yes	Yes	No. GHG emissions from manure management are geographically specific	No. GHG emissions from manure management are geographically specific	Yes	No. Revisions to baseline and emission factors required.	No. Revisions to baseline and emission factors required.	Yes	No. Would require incorporating US data / modelling.	No. Would require incorporating US data / modelling.	Yes	Yes	Yes	Yes
Does the format or structure of the protocol enable the application of more than one protocol, without double counting, where multiple emission reduction/sequestration activities occur on the same project site?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No. Limited disclosure on interrelationships of SSRs.	No. Limited disclosure on interrelationships of SSRs.	No. Limited disclosure on interrelationships of SSRs.
<b>Engagement and Review</b>														
Is the background information on the protocol development and review process recorded and available?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A Review process underway.	N/A Review process underway.	Yes
Is there a broad representation of the key technical and scientific experts involved in the review?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No. Protocol relies on professional sign-off on quantification model.	N/A Review process underway.	N/A Review process underway.	Unsure. Anonymous scientific peer review.
Has a government or government-mandated body approved the protocol (or its foundation document) for use in the GHG program?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Protocol in late stages of review by Alberta Environment	Yes	N/A Review process underway.	N/A Review process underway.	No. Private Sector Protocol.