CLIMATE ACTION RESERVE

Conservation Cropping Protocol Stakeholder Meeting

Ontario & Quebec Adaptation
March 28, 2017

Agenda

1. Background & Introductions
2. Process Overview
3. Candidate Protocol
   - Evaluation Process Overview
   - Review of Candidate Protocols
4. Stakeholder Questions/Discussion
5. Next Steps

Item 1

BACKGROUND

Background

- Ontario & Quebec have retained the Reserve and Partners to develop 14 offset project protocols to support cap-and-trade

1. Landfill Gas Destruction
2. ODS Destruction
3. Mine Methane Destruction
4. Efficient Refrigeration Systems
5. Afforestation/Reforestation
6. Forest (improved forest management, avoided conversion)
7. Urban Forest
8. Organic Waste Digestion (expected to be combined with Livestock Manure)
9. Livestock Manure
10. Livestock Enteric (was originally combined with livestock manure)
11. Organic Waste Management (composting)
12. Conservation Cropping
13. Fertilizer Management
14. Grassland

Background

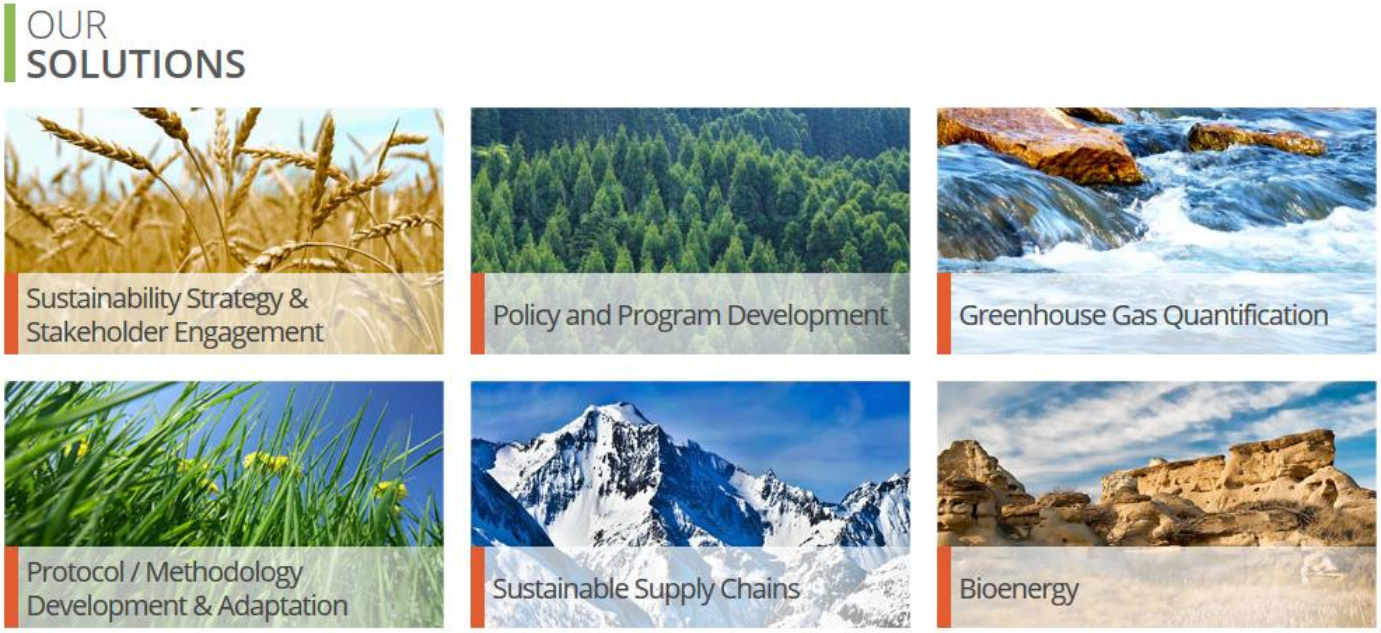
- **MOECC** = Ontario Ministry of Environment and Climate Change
- **MDDELCC** = Quebec Ministry of Sustainable Development, Environment, and Fight Against Climate Change

Climate Action Reserve

- Nonprofit founded in 2001
- Developed GHG inventory & verification protocols for commercial and industrial entities
  - Operated a public registry for hundreds of entities in California
- Launched online offset project registry in 2008
  - Developed or adapted 18 project protocols for the US and Mexico
  - Work directly informed the CA and QC compliance protocols
  - Registered hundreds of voluntary and compliance projects, generating >87M tCO_2e in GHG reductions
- Partners: Viresco Solutions, Brightspot Climate, Cap-Op Energy, Green Analytics, and EcoRessources

Viresco Solutions

- Environmental consulting firm working in agriculture, bioenergy and agri-food sectors
- Vision: “Mainstream Sustainability”



CC Protocol Adaptation Team (PAT)

Organizations	Names
Viresco Solutions	• Karen Haugen-Kozyra *(CCP Team Lead and Technical Coordinator for Project)* • Candace Vinke • Alicia Klepfer
Brightspot Climate	• Aaron Schroeder (*Assistant Project Director*) • Michelle Stelmach
Climate Action Reserve	• Teresa Lang
EcoRessources	• Nathan DeBaets • Mathieu Dumas

CCP Technical Task Team (TTT)

Name	Title	Organization
Bert VandenBygaart	Soil Scientist	AAFC
Claudia Wagner-Riddle	Professor	University of Guelph
Edward Gregorich*	Program Rep/Research Scientist	AAFC
Brian McConkey	Research Scientist	AAFC
John Lauzon	Assistant Professor	University of Guelph
Paul Voroney*	Professor	University of Guelph
Sheilah Nolan	Climate Change Specialist	AAF
Tom Goddard	Sr. Policy Advisor	AAF
Adam Hayes*	Soil Management Specialist-Field Crops	OMAFRA
Claude Fortin	Direction du marché du Carbone, Direction générale de la réglementation	MDDELCC
Dan Hahn	Senior Program Advisor	MOECC

CCP Technical Task Team

Name	Title	Organization
David Coates	Project Manager	MOECC
Dushan Jojkic	Senior Program Advisor	MOECC
John Hutchison	Senior Policy Advisor	MOECC
Marc-André Ouellet	Direction de l'agroenvironnement et du développement durable, Direction générale du développement et de l'aménagement du territoire agricole	MAPAQ
Phil Dick*	Business Resource Specialist	OMAFRA
Shelley Hyatt	Senior Analyst	MOECC
Sara Peckford	Senior Policy Advisor	OMAFRA

CC Protocol Stakeholder Team

- Targeted group to provide feedback during the adaptation process
- >80 stakeholders from diverse sectors
  - Government
  - Industry
  - Consulting
  - Academia
  - NGOs

Item 2

PROCESS OVERVIEW

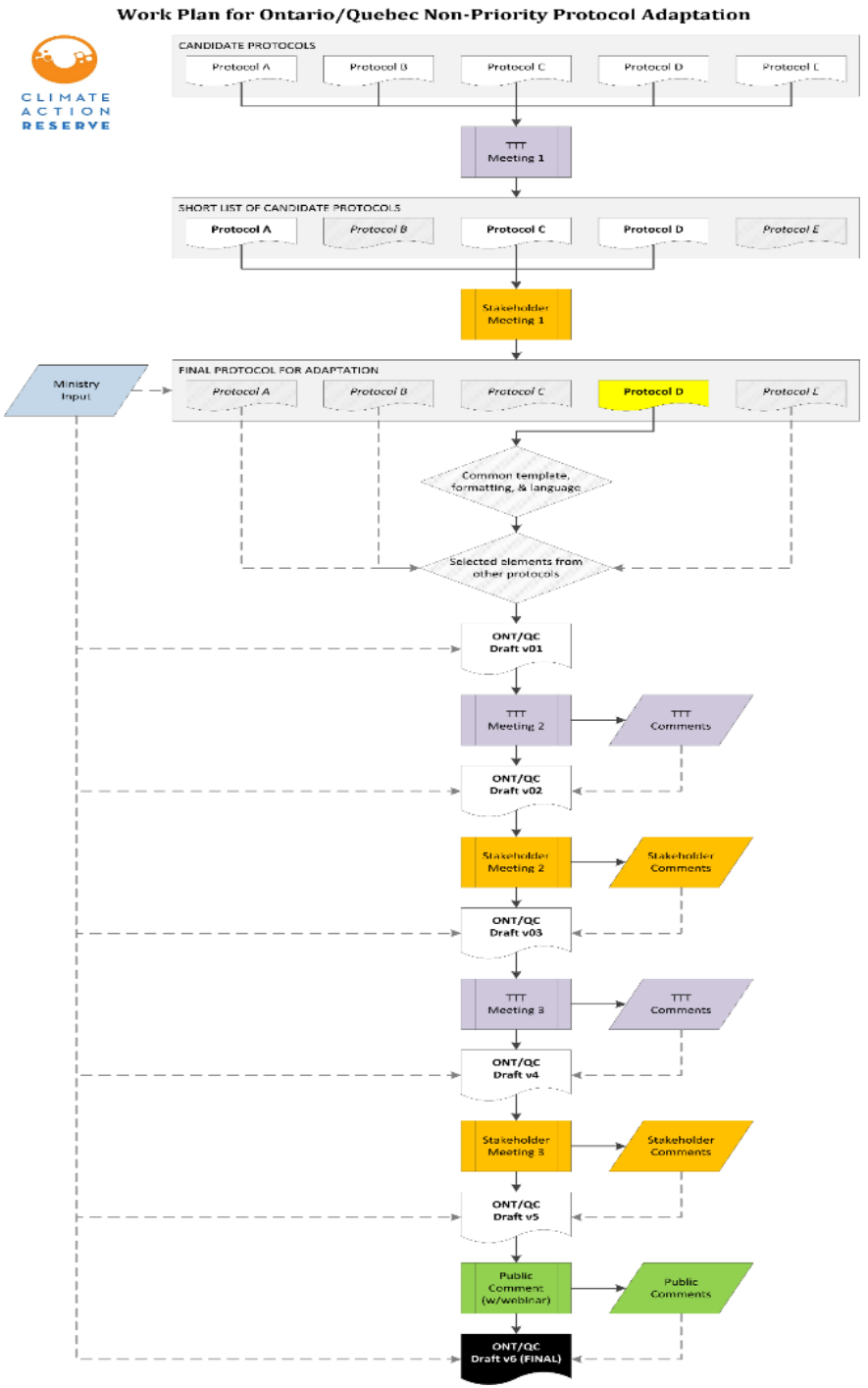
Process Overview

- 1-3 candidate protocols will be selected as starting point for adaptation
- Stakeholders asked to review and comment on candidate list & short list
- All protocols will use a common template
- Key issues to be identified prior to drafting
- Stakeholder drafts will incorporate feedback from Technical Task Team (TTT)
- After Stakeholder review, additional comments/feedback will be reviewed and incorporated

Work plan

Timeline (expected)	Task
February	Protocol Adaptation Team (PAT) worked with Ministries to develop task teams and coordinate outreach
March 10th	Initial meeting (webinar) of held with TTT. PAT outlined process, presented protocol candidate list, outlined key issues and next steps.
March 23rd	Short list of candidate protocols & initial screening sent to TTT
March 23rd to 27th	TTT reviewed screened protocols and provided feedback
March 28th	Initial meeting (webinar) with the broader group of interested stakeholders. TTT members encouraged to attend.
March 28th to April 4th	Stakeholder feedback on candidate list due
April 5th	Protocol candidate finalized and posted
April 5th	PAT to begin drafting protocol

Process Flow Diagram



Item 3

CANDIDATE PROTOCOLS

Terminology

Protocol Term	Ontario	Quebec
"Project"	Offset Initiative	Project
"Ministry"	MOECC	MDDELCC
"Regulation"	Regulation concerning The Cap and Trade Program, made under the Climate Change Mitigation and Low-Carbon Economy Act	Regulation respecting a cap-and-trade system for greenhouse gas emission allowances, made under the Environment Quality Act
"Project Developer"	Offset Initiative Operator and/or Offset Initiative Sponsor, as appropriate	Project Promoter

Each Ministry may make their own final edits when the adapted protocols are prepared for formal regulatory adoption

Candidate Protocols - TTT

Protocol/ Methodology	Voluntary or Compliance	Program	Jurisdiction	Link
Conservation Cropping	Compliance	Specified Gas Emitters Regulation	Alberta	http://aep.alberta.ca/climate-change/guidelines-legislation/specified-gas-emitters-regulation/documents/ProtocolConservationCropping-Apr2012.pdf
Soil Carbon Quantification Methodology	Voluntary	Verified Carbon Standard	Global	http://database.v-c-s.org/methodologies/soil-carbon-quantification-methodology-v10
Estimation of Sequestration in Soils using Default Values	Voluntary, but can feed into Emission Reduction Fund for regulated entities	ERF	Australia	http://www.environment.gov.au/climate-change/emissions-reduction-fund/methods/sequestration-carbon-modelled-abatement-estimates

Scoring Guide

Protocols were scored based on individual criteria and then weighted by overall category

1 = this protocol is useful for this item
0 = this protocol is somewhat useful for this item, but needs further work
-1 = this protocol either doesn't address this item, or addresses it very poorly.

Offset and Project Definition

Protocol	Alberta Conservation Cropping	VCS Soil Carbon Quantification Methodology	Australia Estimation of Sequestration in Soils using Default Values
Description	• Includes soil carbon, reduced nitrous oxide, and lower fuel usage • Complete ownership requirements • Valid in Alberta but with technical documents to extend analysis to all of Canada	• Includes soil carbon, nitrous oxide, and methane emissions • Power/fuel usage is included if expected to increase • Applicable in any region • No discussion of defining ownership	• Includes soil carbon, nitrous oxide, and fuel for tillage events • Only applicable in Australia • No discussion of defining ownership
Score	1.0	0.3	-0.3

Quantifiable

Protocol	Alberta Conservation Cropping	VCS Soil Carbon Quantification Methodology	Australia Estimation of Sequestration in Soils using Default Values
Description	• Conservative approach to leakage through Performance Standard Baseline of adoption rates of tillage • National analysis based on National Emissions Inventory methodology (NCGAVs) to derive practice change emission factors, with reductions taken to decrease uncertainty	• Soil carbon measured empirically, while nitrous oxide and methane are estimated using modelling or IPCC Tier 1 or 2 methods • Modules provided to determine leakage risk and subsequent tasks • No guidance on uncertainty	• Based on IPCC Good Practice Guidance (Tier 1 defaults) • Leakage discount factor may be considered, but responsibility lies with the Project Developer (PD) • Uncertainty guidance included in IPCC
Score	1.0	0.7	0.3

Additional

Protocol	Alberta Conservation Cropping	VCS Soil Carbon Quantification Methodology	Australia Estimation of Sequestration in Soils using Default Values
Description	• Proportional additionality approach • Baseline set using regional Performance Standard • Coefficients updated from the census every 5 to 10 years	• Use CDM combined tool for baseline and additionality • Project is stratified into homogenous areas to define project-specific baseline • Regional assessment or performance standard baseline is optional but must be developed	• Additionality based on Emissions Reduction Fund requirements – no consideration of common practice adoption • Baseline can be project specific, or may use IPCC default equations and emission factors
Score	0.8	0.6	0.4

Permanent

Protocol	Alberta Conservation Cropping	VCS Soil Carbon Quantification Methodology	Australia Estimation of Sequestration in Soils using Default Values	Quebec Afforestation and Reforestation
Description	• Buffer Reserve Pool based on risk assessment • Required monitoring and reporting of reversals • Enforcement may not be stringent and could be enhanced	• Buffer Reserve Pool based on module for risk assessment • Required monitoring and reporting of reversals	• Account and Replace system • PD is required to track reversals and make equivalent contribution in either credits (from any project) or to the fund	• Tonne-year Accounting • Offsets are only issued after actual sequestration takes place and is attested • May create long lag time
Score	1.0	1.0	0.5	

Verifiable

Protocol	Alberta Conservation Cropping	VCS Soil Carbon Quantification Methodology	Australia Estimation of Sequestration in Soils using Default Values
Description	• Verification is required • Explicit records requirements stated to support verification and assertion • Best practice guide available considering sufficient and appropriate evidence	• Verification is required • Explicit guidance in records not given • Burden of verifying appropriate application of biogeochemical model lies with verifier increasing costs in verification and risk to system	• Verification is required • Explicit record requirements or guidance is not given
Score	1.0	-1.0	0

Overall Score

Protocol	Alberta Conservation Cropping	VCS Soil Carbon Quantification Methodology	Australia Estimation of Sequestration in Soils using Default Values
Description	• Strongest based on assessed categories • May benefit from shortening the coefficient review time • Doesn't allow for project specific/empirical baseline	• Although complete in some categories, lacks rigor on issues such as ownership and additionality • Includes a wide variety of practices	• Recommend excluding • Very basic approach w/ IPCC Tier 1 default values that are only accurate at a large scale • Most responsibility lies with PD
Score	4.8	2.6	0.9

Item 4

STAKEHOLDER QUESTIONS & DISCUSSION

Item 5

NEXT STEPS

Submit comments

- Stakeholder Team to review candidate protocols and submit comments to the Reserve no later than:
  - **Tuesday, April 4th** (end of day)
  - candace@virescosolutions.com
- Any comments related to the regulation should be directed to the appropriate Ministry

Next meeting

- Next Stakeholder Team Meeting (to review draft protocol):
  - **Mid-May**
  - Watch for email announcement with registration link
- Sharing documents and drafts with stakeholders on CAR website

Contact Information

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