



CLIMATE
ACTION
RESERVE

Avoided Conversion of Grassland Protocol Stakeholder Meeting

Ontario & Quebec Adaptation
May 25th, 2017

Agenda

1. Background & introductions
2. Protocol adaptation process overview
3. Protocol scope
4. Candidate protocol review
5. Stakeholder questions/discussion
6. Next steps



Item 1

BACKGROUND

Ontario & Quebec have retained the Reserve and Partners to develop 13 offset project protocols to support their respective cap-and-trade programs

1. Landfill Gas
2. Mine Methane
3. Ozone Depleting Substances
4. Fertilizer Management
5. Livestock (Enteric)
6. Anaerobic Digestion (Organic Waste & Manure)
7. Organic Waste Management
8. Forest
9. Afforestation & Reforestation
10. Urban Forest
- 11. Grassland**
12. Conservation Cropping
13. Refrigeration Systems

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 >92M tCO₂e in GHG reductions
- Partners: Viresco Solutions, Brightspot Climate, Cap-Op Energy, Green Analytics, and EcoRessources

Grassland Protocol Adaptation Team (PAT)



| Organizations | Names |
|-------------------------------|--|
| Climate Action Reserve | <ul style="list-style-type: none">• Max DuBuisson - <i>Team Lead</i>• Trevor Anderson• Andrew Craig• Teresa Lang - <i>former Team Lead; departing in June</i> |
| Brightspot Climate | <ul style="list-style-type: none">• Aaron Schroeder - <i>Deputy Project Manager</i> |
| Viresco Solutions | <ul style="list-style-type: none">• Karen Haugen-Kozyra - <i>Technical Coordinator</i>• Tanya Maynes• Alicia Klepfer |
| EcoRessources | <ul style="list-style-type: none">• Mathieu Dumas• Nathan DeBaets |

Grassland Technical Task Team (TTT)

| Name | Organization |
|--------------------|----------------------------------|
| Alan Iwaasa | Agriculture and Agri-Food Canada |
| Brian McConkey | Agriculture and Agri-Food Canada |
| Tim McAllister | Agriculture and Agri-Food Canada |
| Sheilah Nolan | Alberta Agriculture and Forestry |
| Keith Paustian | Colorado State University |
| Rich Conant | Colorado State University |
| Marc-André Ouellet | MAPAQ (<i>Quebec</i>) |
| Claude Fortin | MDDELCC (<i>Quebec</i>) |
| Marni Vance | MNRF (<i>Ontario</i>) |
| Sarah Lewis | MNRF (<i>Ontario</i>) |

Grassland Technical Task Team (TTT)

| Name | Organization |
|-----------------|-------------------------------|
| David Coates | MOECC (<i>Ontario</i>) |
| Dushan Jojkic | MOECC (<i>Ontario</i>) |
| John Hutchison | MOECC (<i>Ontario</i>) |
| Shelley Hyatt | MOECC (<i>Ontario</i>) |
| Sara Peckford | OMAFRA (<i>Ontario</i>) |
| Danielle Ethier | University of Guelph |
| Hugh Henry | University of Western Ontario |
| Irena Creed | University of Western Ontario |

Grassland Protocol Stakeholder Team

- Targeted group to provide feedback during the adaptation process
- Including the TTT members, >100 stakeholders from diverse sectors:
 - Government
 - Industry
 - Consulting
 - Academia
 - NGOs



Item 2

PROTOCOL ADAPTATION PROCESS OVERVIEW

Process Overview

- High level review of all “avoided conversion of grassland” (ACoG) and related protocols
- Narrow down list to 3 candidate protocols for detailed protocol comparison and review (against WCI criteria), as starting point for adaptation
- Stakeholders asked to review and comment on candidate list
- All protocols will use a common template
- Key issues to be identified prior to drafting
- Stakeholder drafts will incorporate feedback from TTT and SH review

Overall Work Plan

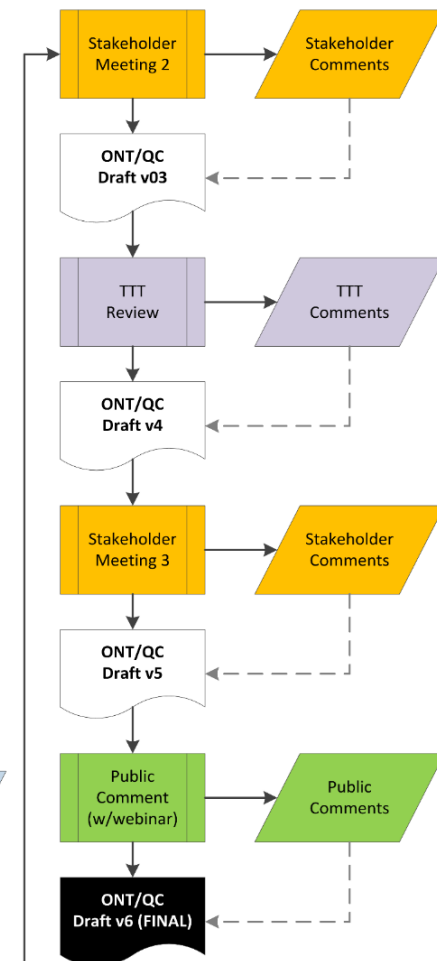
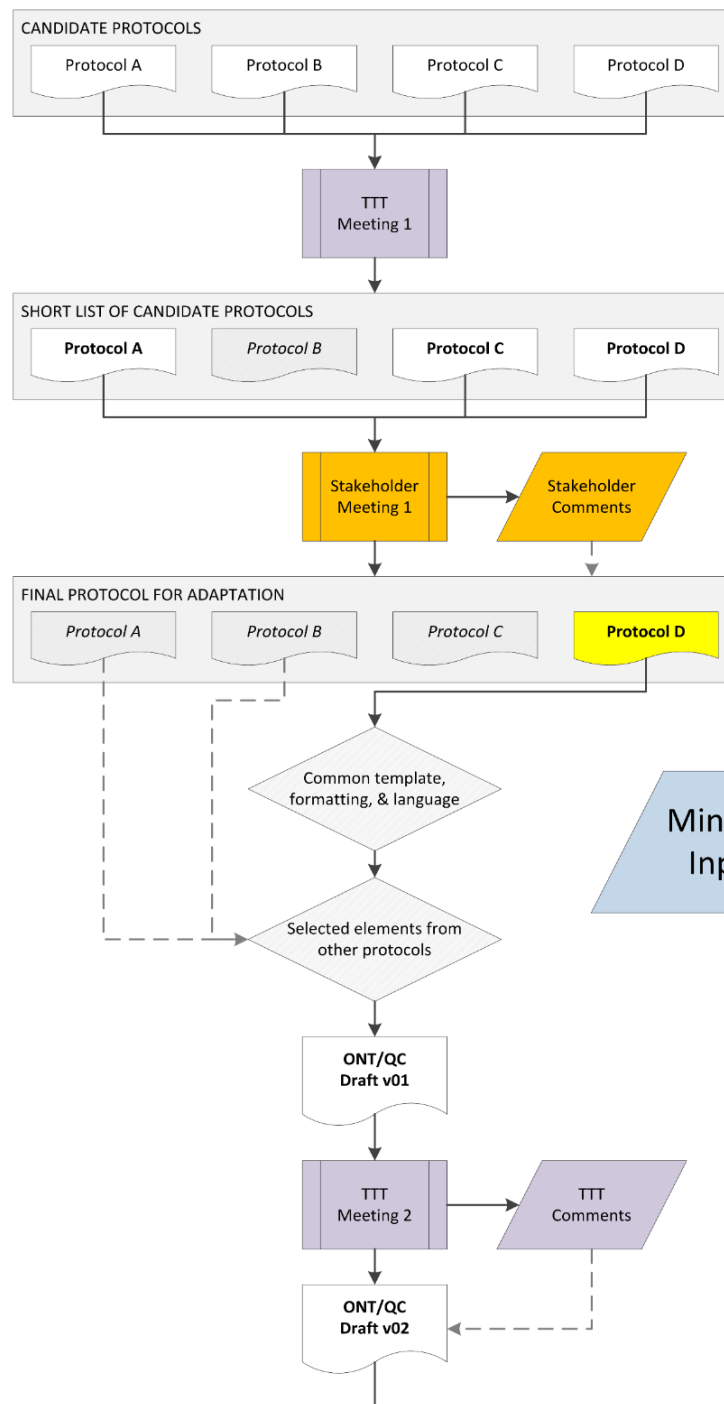


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| Grassland Protocol Activities | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| TTT Kickoff Webinar | | | | | | | | | |
| Candidate Protocol Posting - input from TTT | | | | | | | | | |
| Candidate Protocol Selection - input from TTT and SH | | | | | | | | | |
| Draft Preliminary Protocol – PAT | | | | | | | | | |
| 1 st Review of Draft Protocol by TTT & TTT Meeting | | | | | | | | | |
| PAT revises Draft Protocol based on TTT comments | | | | | | | | | |
| 1 st Review of Draft Protocol by SH & SH Meeting | | | | | | | | | |
| PAT revises Draft Protocol based on TTT & SH comments | | | | | | | | | |
| 2 nd Review of Draft Protocol by SH & SH Meeting | | | | | | | | | |
| PAT works with Ministries to revise & finalize protocol in response to comments | | | | | | | | | |
| Final Protocol delivered to Ministries | | | | | | | | | |

Near-Term Work Plan

| Timeline (expected) | Task |
|-----------------------|--|
| February – March | Protocol Adaptation Team (PAT) worked with Ministries to develop task teams and coordinate outreach |
| April – May | Initial meeting (webinar) held with TTTs. PAT outlined process, presented protocol candidate lists, outlined key issues and next steps. |
| | Short lists of candidate protocols & initial screening sent to TTT |
| | TTT reviewed screened protocols and provided feedback |
| May 25 th | Initial meeting (webinar) with the broader group of interested stakeholders. PAT outlines process, presents protocol candidate list and protocol comparison document, outlines next steps. |
| June 2 nd | Stakeholder feedback on candidate list due |
| June 11 th | Protocol candidate(s) finalized and posted |
| mid-June – mid-August | PAT drafts protocol |





Item 3

PROTOCOL SCOPE

From the Ontario Request for Bids:

“8. Grassland Protocol.

This protocol addresses emissions removals and reductions associated with avoided conversion of grasslands to croplands.”

- The Reserve and partners were retained to adapt an existing “avoided conversion of grassland” protocol for use in Canada.
 - Ideally, will be applicable in all provinces and territories, but at minimum must be applicable to Ontario and Quebec.
- The TTT has raised concern that there is limited opportunity for “avoided conversion of grassland” in Ontario and Quebec; have urged an expansion of scope.
 - We will raise this issue with the Ministries; it is their decision to change the scope of any protocols
 - At this time, there are no plans for an expansion of scope.

- “Eligible grasslands” will likely include:
 - Areas of land dominated by native or introduced grass species with little to no tree canopy (10% or less on a per-acre basis)
 - Land suitable for conversion to crop cultivation
 - Continuous grassland cover for at least 10 years prior to project start date
 - Native grassland/prairie
 - Nonnative grassland/prairie
 - Managed rangeland and/or pastureland
 - Potentially shrubland
- We will discuss this in more depth, as part of our protocol review and comparison exercise.



Item 4

CANDIDATE PROTOCOLS

Task Ahead of Us

- Task – if possible, protocol applies to all of Canada
- Follow Western Climate Initiative Offset Criteria (2010)
- Need to assess regulatory requirements in each province (additionality)
- May need additional definitions – terms consistent
- Update language based on ON/QC Offsets regulation
- Refresh equations, tables and diagrams – alignment with Canadian science and standards
- Standardize emission factors wherever possible
- Align with existing practices for conservation and land management

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 (Avoided Conversion of Grassland)

| Protocol / Methodology | Voluntary or Compliance | Program | Jurisdiction | Link |
|--|-------------------------|--------------------------|------------------------|---|
| Grassland Project Protocol, v2.0 | Voluntary | Climate Action Reserve | United States | http://www.climateactionreserve.org/how/protocols/grassland/ |
| Methodology for Avoided Ecosystem Conversion, v3.0 | Voluntary | Verified Carbon Standard | Global | http://database.v-c-s.org/methodologies/methodology-avoided-ecosystem-conversion-v30 |
| Avoided Conversion of Grasslands and Shrublands to Crop Production | Voluntary | American Carbon Registry | United States & Canada | http://americancarbonregistry.org/carbon-accounting/standards-methodologies/methodology-for-avoided-conversion-of-grasslands-and-shrublands-to-crop-production |

Non-ACoG Relevant Protocols

| Protocol/ Methodology | Voluntary or Compliance | Program |
|---|-------------------------|--------------------------|
| DRAFT Offset credits protocol for carbon sequestration projects on private land in Québec (afforestation or reforestation) | Draft - Compliance | Quebec |
| DRAFT Quantification Protocol for Conversion of Annual Cropland to Perennials | Draft - Compliance | Alberta |
| Methodology for the Adoption of Sustainable Grasslands through Adjustment of Fire and Grazing | Voluntary | Verified Carbon Standard |
| Soil Carbon Quantification Methodology | Voluntary | Verified Carbon Standard |
| Sustainable Grassland Management | Voluntary | Verified Carbon Standard |

- Protocols included in high-level review. However, none of these protocols are “avoided conversion of grasslands” protocols; ultimately excluded from full protocol comparison.
- Elements of these protocols may still be considered for inclusion, if applicable.

Protocol Evaluation Framework

- Quantitative assessment against WCI criteria (this is a critical component for scoring)
- Qualitative assessment, including of any modifications necessary to fully meet WCI criterion
- Results of full assessment retained, noting elements useful for adaptation (notwithstanding protocols not short listed)
- Based on TTT and SH comments, the Reserve will make a final recommendation to the Ministries for 1-3 protocols to form basis of adaptation

Quantitative Assessment

| | |
|----|---|
| 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 |

- Protocols are scored based on individual criteria and then weighted by overall category
- Staff have conducted an initial assessment, which will be updated based on feedback from TTT and SH
- PAT will make a recommendation to the Ministry

Grassland Project Protocol v2.0

(Climate Action Reserve)



- **PROS:**

- Performance Standard Tests for additionality, limits on payment and credit stacking
- Highly standardized methodology that greatly simplifies quantification and monitoring
- Permanence and reversals clearly defined, ongoing monitoring and verification for 100 years after credit issuance
- Periodic assessments of rangeland health, project owners must attest that activities do not cause material violations

- **CONS:**

- Not applicable to Canada; only U.S.
- Existing baseline emission factors may not be applicable in Canada

- **Total Score = 5.1**

Avoided Conversion of Grasslands and Shrublands (ACR)

- **PROS:**

- Tests for Regulatory Surplus, Lack of Common Practice, and Financial Implementation Barrier
- Baseline management re-assessed every 5 years
- Requires an impact assessment to ensure best practices
- Applicable to projects located in Canada

- **CONS:**

- Less standardized than Reserve protocol
- Ease of quantification is highly dependent on selected model; flexibility on choice of model
- Lack of clarity surrounding procedures for reversal events

- **Total Score = 5.2**

Avoided Ecosystem Conversion (VCS)

- **PROS:**

- Documentation and monitoring reports on project design requirements and ER calculations must be provided to VB (also the case for Reserve and ACR protocols)
- Clear procedures for buffer pool allocation and credit replacement/return
- Applicable to Canada

- **CONS:**

- Does not clearly describe ownership of emission reductions
- Does not account for all relevant SSRs or market-based leakage for ACoGs projects
- Quantification is complicated and labor intensive
- Regulatory compliance is not addressed

- **Total Score = 2.9**

Short Listed Protocols

- **PROTOCOL SHORT LIST:**

1. Grassland Project Protocol v2.0 (Climate Action Reserve)

- Most standardized and easy to use, but quantification model not directly applicable to Canada

2. Methodology for Avoided Conversion of Grasslands and Shrublands to Cropland (ACR)

- Applicable to Canada, but less standardized / more flexibility in choice of quantification model

3. Avoided Ecosystem Conversion (VCS)

- Applicable to Canada, but quantification is complicated and labor intensive
- Does not address critical WCI elements (e.g. regulatory compliance, clear ownership, market leakage quantification)



Item 5

STAKEHOLDER QUESTIONS & DISCUSSION



Item 6

NEXT STEPS

Submit Comments

- Stakeholder Team to review candidate protocols and protocol comparison results.
- Stakeholders to submit comments to the Reserve on the protocol comparison and selection of a protocol(s) for adaptation no later than:
 - **Monday, June 5th (end of day)**
 - max@climateactionreserve.org
- PAT will review all comments and submit a recommendation to the Ministries.
- PAT will notify Stakeholder Team of protocol(s) selected for adaptation and drafting start date.
 - Look for an email about this mid-June

Next Meeting

- Next Stakeholder Team Meeting (to review draft protocol):
 - **Mid-September**
 - Watch for email announcement with registration link in August
- Sharing documents and drafts with stakeholders on Reserve's Grassland Protocol webpage:
<http://www.climateactionreserve.org/grassland/>

Contact Information



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