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Ontario and Quebec Urban Forest Offset Protocol Adaptation

Stakeholder
Meeting

March 30, 2017
1:00-2:00 PST

Agenda



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- Introductions
- Protocol Adaptation Process & Expectations for Stakeholders
- Definitions of activities
- Candidate Protocols
 - Evaluation Process Overview
 - Review of Candidate Protocols
- Next Steps

The Climate Action Reserve



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- Nonprofit founded in 2001
- Developed GHG inventory and verification protocols for commercial and industrial entities
 - Operated a public registry for hundreds of entities in CA
- Launched offset project registry in 2008
 - Developed or adapted 18 project protocols for the US and Mexico
 - Registered hundreds of voluntary and compliance projects, generating over 89M tCO₂e in GHG reductions

Ontario & Quebec Carbon Offset Protocol Adaptation



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Carbon Offset Protocol	
Landfill Gas Destruction	Organic Waste Digestion
ODS Destruction	Livestock Manure
Mine Methane Destruction	Livestock Enteric
Efficient Refrigeration Systems	Organic Waste Management
Afforestation and Reforestation	Conservation Cropping
Forest: IFM and AC	Fertilizer Management
Urban Forest	Grassland

Ontario & Quebec Protocol Adaptation



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Ministry Approval

MDDELCC: Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques

MOECC: Ministry of Environment and Climate Change Ontario

Project Management Team

Organization

Climate Action Reserve

Brightspot Climate

Viresco Solutions

Name

Craig Ebert

Aaron Schroeder

Karen Haugen-Kozyra

Urban Forest Protocol Adaptation Team



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Organization	Name
Climate Action Reserve	John Nickerson Amy Kessler Sarah Wescott Jon Remucal
Green Analytics	Jeff Wilson Mike Kennedy
EcoResources	Nathan DeBaets
Viresco Solutions	Tanya Maynes

Protocol Adaptation Timeline



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Urban Forest Protocol												
Activities:												
Task Team Kickoff Webinar												
**Stakeholder Kickoff Webinar												
Candidate Protocol Selection												
Draft Preliminary Protocol- Reserve team												
Draft Protocol- review by TTT												
**Draft Protocol- review by stakeholders - Webinar												
Draft Protocol- public review process												
Draft Protocol- review by MOECC & QC												
**Final Protocol - Webinar												

Logistical Issues



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- Future Webinars
- Sharing documents and drafts with stakeholders:
 - [Urban Forest Website](#)



- **Urban Tree Planting Project:**
 - New trees are planted in areas where trees have not been harvested with a primary commercial interest during the 10 years prior to Project Commencement. Only planted trees and trees that regenerate from planted trees are eligible.
- **Urban Forest Management Project:** .
 - Activities that maintain or increase carbon inventories relative to baseline through increasing and/or conserving urban forest Carbon Stocks
 - Eligible management activities may include, but are not limited to:
 - Increasing the urban forest productivity by removing diseased and suppressed trees
 - Reducing emissions by avoiding tree removals
 - Planting additional trees on available and appropriate sites
 - Monitoring, protecting, and treating trees to avoid premature mortality from stressors such as drought, pests, storm damage, and abiotic agents
 - Reducing the vulnerability of trees to impacts of climate change by increasing resilience

Challenges to Urban Forest Projects



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- Scale and financial feasibility of implementation
- Tree planting: slow return
- High costs of investment
 - Costs of inventory
 - Costs of verification

Candidate Protocols



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Candidate Protocols for Adaptation

CAR Urban Forest Management Protocol 1.0

Secondary List of Candidate Protocols

Specific Policy/Methodology

Offset Protocol for Carbon Sequestration Projects in Quebec Private Land Activities: Afforestation and Reforestation V0.1

Consider for tonne-year accounting approach

CAR Mexico Forest Protocol

Consider for tonne-year accounting approach

Additional Protocols Considered



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Non-Candidate Protocols for Adaptation

Duke Urban Forestry Protocol

CAR Urban Forest Tree Planting Protocol 2.0

ARB CA Compliance Offset Protocol (2011)

Candidate Protocols: Criteria for Evaluation



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Criterion Theme	WCI Criterion Requirement
Jurisdiction	Ontario & Quebec
Quantification	<ul style="list-style-type: none">• Protocol clearly states project boundaries• Quantification methodology based on recognizable scientific sources• Emission factors are appropriate
Uncertainty & Accuracy	<ul style="list-style-type: none">• Protocol provides guidelines to reduce uncertainty / bias• The protocol discounts to adjust for high uncertainty• Protocol requires that the proponent institute quality assurance measures in data management
Conservativeness	<ul style="list-style-type: none">• Protocol provides a principle of conservatism• Parameter values are selected so as to underestimate rather than overestimate the calculation of emission reductions
Leakage	<ul style="list-style-type: none">• Protocol identifies sources of leakage• If leakage is a concern, quantification / qualification and management of leakage are required• If leakage is qualified as opposed to quantified, the protocol justifies why quantification is not possible

Candidate Protocols: Criteria for Evaluation (Continued)



Criterion Theme	WCI Criterion Requirement
Additionality	<ul style="list-style-type: none"> Assessed via a performance test that is appropriate for the jurisdiction Protocol requires that the project is not required by law Protocol meets criteria for start date and crediting period
Permanence	<ul style="list-style-type: none"> Protocol assesses the risk for reversal Protocol establishes or requires that the project proponent establish: a monitoring system, a risk mitigation approach, and a contingency plan for a reversal Protocol has the legal means to enforce the contingency plan Requires that the plan is adequate for the risk of reversal over a 100 year time span
Verifiable	<ul style="list-style-type: none"> Protocol requires documents, evidence and data be available for 3rd party verification
Criterion Theme	Reserve Criterion Requirement
Baseline Approach	<ul style="list-style-type: none"> Protocol employs a baseline approach with a high degree of standardized elements.



Benefits of Standardization

- Clarity for verifier – reduced costs for verification
- Reduced difficulty in assessing on project by project basis
- Reduces potential for bias from project developer (standardized inventory methodology)
- Greater market clarity

Urban Forest Candidate Protocol:

CAR Urban Forest Management Protocol V1.0



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Criterion	Met	Analysis
Jurisdiction		<ul style="list-style-type: none"> Needs adaptation for Ontario & Quebec
Quantification	✓	<ul style="list-style-type: none"> GHG SSRs identified for each project type Methodologies for creating and updating inventories and estimating CO2e based on transfer functions developed from ground sampling of trees
Uncertainty & Accuracy	✓	<ul style="list-style-type: none"> Randomly placed plots re-inventoried every 10 years Requires the transfer functions generated through sampling meet or exceed +/-20% at a 90% CI for the combined strata Conservative materiality threshold to account for discrepancies between the project developer and verifier values (between 1% and 5%, depending on the number of offset credits earned) Verifier to review tools and methodologies used for measuring canopy cover for statistical accuracy and appropriateness Holds baseline trend steady after 20 years to reduce uncertainty
Conservativeness	✓	<ul style="list-style-type: none"> Standardized quantification and baseline methodologies ensure a degree of conservativeness
Leakage		<ul style="list-style-type: none"> No accounting for leakage, no secondary effects included in SSRs

Urban Forest Candidate Protocol:

CAR Urban Forest Management Protocol V1.0



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Criterion	Met	Analysis
Additionality	✓	<ul style="list-style-type: none"> • Legal Requirement Test • Performance Standard Test is to exceed the project baseline • Crediting period of 25 years
Permanence	✓	<ul style="list-style-type: none"> • Permanence requirement is 100 years • Legal agreements with Offset Project Operator to ensure enforcement of replacing credits in the event of a reversal • Standardized contribution to buffer pool (6%)
Verifiable	✓	<ul style="list-style-type: none"> • Clear details for what must be included in the inventory methodology, sampling, etc. • 3rd party verification required • Site verification required at the end of every 5th reporting period
Baseline Approach	✓	<ul style="list-style-type: none"> • Trend line is developed by calculating a historic estimate of carbon stocks and a recent estimate of carbon stocks • Estimates are developed by estimating tree canopy with remotely sensed data and developing a ratio of CO₂e to tree canopy area from ground sampling • Resulting trend is extended 20 years into the future, after which the baseline is held steady until year 100 • Legal constraints must also be accounted for

Technical Issues



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- Ownership
- Project Boundaries
- Permanence and Tonne-year Accounting
- Baseline development
- Quantification Methodologies
- Environmental Safeguards

Next Steps

- Please submit additional comments via email:
 - John Nickerson: john@climateactionreserve.org
 - Amy Kessler: akessler@climateactionreserve.org
 - Sarah Wescott: swescott@climateactionreserve.org
 - Jon Remucal: jremucal@climateactionreserve.org

Thank you for participating!!