



CLIMATE
ACTION
RESERVE

Forest Protocol

Protocol Update Effort Goals and Objectives

- CAR adopted the Forest Protocols in 2005
- CAR Board directed staff in 2007 to:
 - Initiate a stakeholder process to develop additional approaches and reduce barriers for participation
 - for public lands
 - for private commercial forests not associated with a land trust
 - for private non-timber forests (oak woodlands)
 - Improve protocol clarity, accuracy, conservatism, environmental integrity, and cost effectiveness

Protocol Update Effort Goals and Objectives

- Update process also an opportunity to:
 - Reflect advances in science and methodology
 - Improve guidance for calculations
 - Improve the efficiency and cost-effectiveness of methods
 - Develop applications for entire United States

Forest Protocol Workgroup

- Group size chosen to foster dialogue and be effective
- Comprised of:
 - Private landowners, large and small
 - Public landowners
 - Environmental organizations
 - Scientists/Academics
 - Regulators
 - Verifiers

Public Process

- **Work Group Meetings**
 - Every 3 weeks in day-long sessions
 - Meetings open to public observers
- **Public Review and Comment**
 - Three separate drafts (12/08, 4/09, and 6/09)
 - Two specific issue documents (HWP – 2/09 and PIA – 6/09)
- **Four public workshops (7/08, 12/08, 2/09, 4/09, 8/09)**

Results

**New Climate Action Reserve
standard brings US forests into the
carbon market**



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**Forest Project Protocol
*Version 3.0***

September 1, 2009

What is a Carbon Offset Project?

- A carbon project is a focused activity that has a climate benefit
- A forest project either *increases sequestration* or *decreases emissions*
- A project must be:
 - Additional
 - Measurable
 - Verifiable
 - Above Business as Usual
 - Permanent

Key Components of Offset Projects

- **Additional**
 - project is yield a real climate benefit, above and beyond 'business as usual'
- **Measurable**
 - A project must be able to correctly calculate the benefit it is providing to ensure that it is real.
- **Verifiable**
 - Project stocks can be verified as accurate
- **Business as Usual**
 - What would have happened in the absence of the project
- **Permanent**
 - The project reductions must be equivalent (to the atmosphere) to the emissions the project is offsetting

The CAR Forest Protocol

- Accounting Guidance for the Key Components
- Also Addresses:
 - Eligibility Requirements
 - GHG Assessment Boundaries
 - Quantification
 - Co-benefits

CAR Forest Project Types

- Improved Forest Management
 - Activities that increase forest-based sequestration and/or decrease emissions
- Reforestation
 - Less than 10% canopy cover for at least 10 years, or following a significant natural disturbance that has removed at least 20% of the trees
- Avoided Conversion
 - Removing a significant conversion threat to non-forest use and dedicating the forest to continued forest cover.

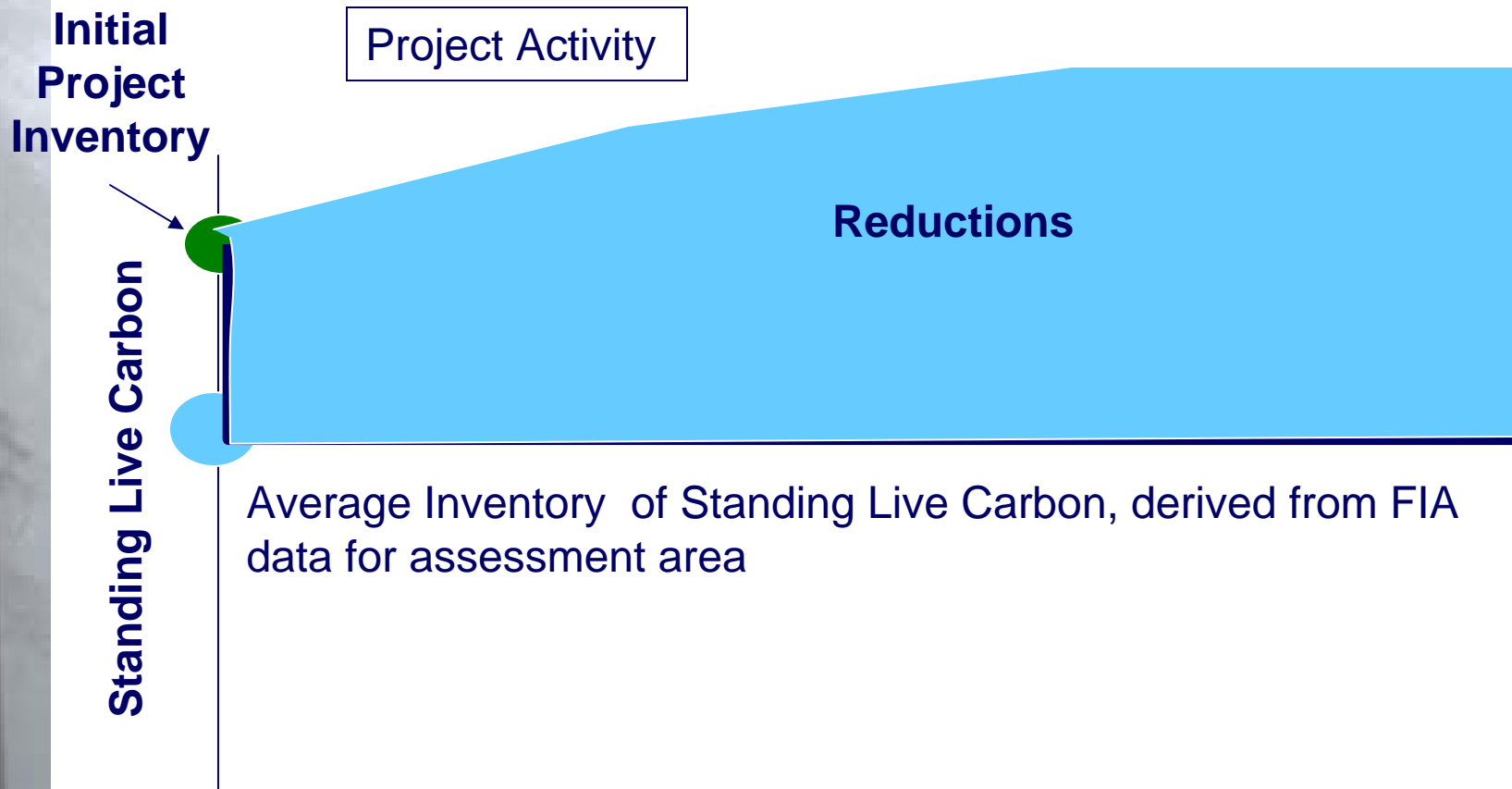
Crediting and Additionality

- 100- year crediting period
- All projects must exceed all legal requirements, including any requirements to:
 - Reforest
 - Buffer watercourses
 - Protect for endangered species
 - Manage under a binding deed restriction or conservation easement
- Voluntary agreements that can be rescinded are not considered legal requirements

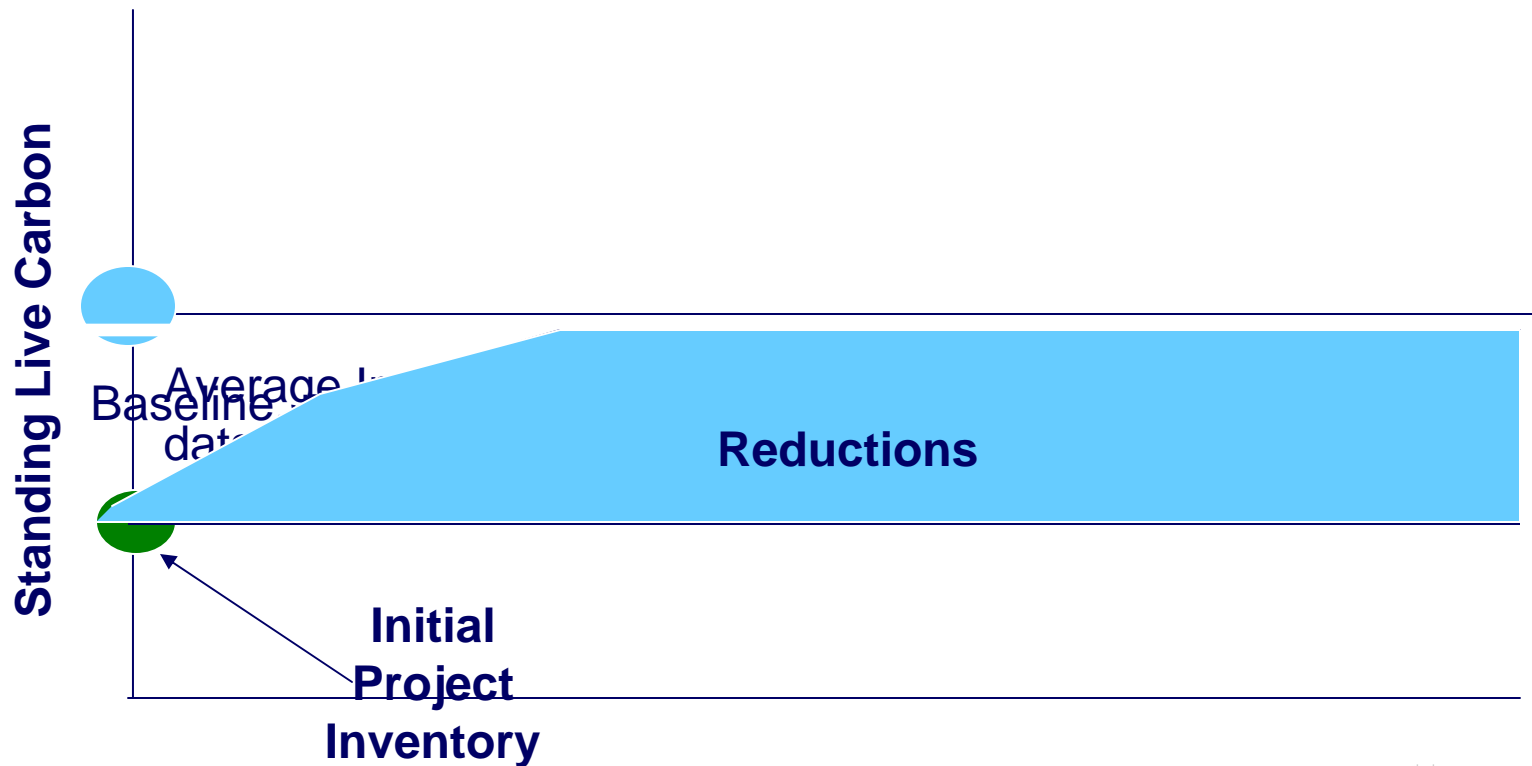
Improved Forest Management Baseline

- Project-level modeling conducted to determine a baseline that:
 - Exceeds legal requirements
 - Is financially viable
 - Does not follow a period of rapid depletion
 - Does not decline below regional measures of 'Common Practice'
- Protocols provide standardized guidance for modeling
- Project stocks above baseline are credited

Improved Forest Management Baseline



Improved Forest Management Baseline



Public Lands Forest Management Baseline

- Quantification of baseline using an historic (10-year) review of:
 - Retention standards
 - Rotations
 - Other practices determined by statute, regulation, policy, and budgets
- The review provides the basis for forward modeling. Project stocks above forward-projected baseline are additional

Baseline for Avoided Conversion

- Baseline is based on likely effects of conversion as substantiated by an appraisal and similar regional practices
- Other required criteria include:
 - Suitability of project area for conversion
 - Legal permissibility of conversion
 - Assessment of risk of conversion as determined by disparity in value from appraisal

Reforestation Baseline

- Baseline is simulated future characterization of carbon stocks if cover >10%, or narrative description if <10%
- Project allowed if project land base has undergone significant natural disturbance and the landowner is not required by law to reforest
- Economic evaluation required to determine that reforestation activity would not have otherwise happened

Risk-management: Leakage

- Each project type has its own worksheet that assesses the risk of leakage and provides a corresponding leakage risk factor
- This risk factor or leakage percent must be assessed annually and deducted from the calculations of net carbon sequestration or avoided emissions

Environmental Integrity

- Projects required to:
 - Live trees be maintained or increased over project life
 - Manage for diverse native trees with multiple age classes
 - Even age harvesting limited to 40-acre units
 - No more than 40% of project area can be in age classes less than 20 years
 - Demonstration of long-term sustainability
 - Manage for structural elements
 - Requirements for lying and standing dead wood

Managing for Permanence

- Permanence defined in protocol as ‘out of atmosphere for at least 100 years’
- Long Term Monitoring and Verification
 - Identifies impermanence or reversals
- Reversals (2 types) must be compensated
 - Unavoidable: fire, pests, disease, wind, etc.
 - Avoidable: over-harvesting, financial failure, project termination

Managing for Permanence

- Unavoidable Reversals compensated from Buffer Pool administered by Reserve
 - All projects contribute to pool based on risk
 - Risk (financial) reduced with qualified conservation easement or deed restriction or public ownership
- Avoidable Reversals compensated by Forest Owner
 - Surrenders CRTs (project or purchased) equal to CRTs reversed
- All compensation of reversals must be from forest CRTs

Managing for Permanence

- Project Implementation Agreement
 - Adherence to the protocol enforced by requiring forest owners to enter into a long-term contract with the Reserve
- Specifies remedies in the case of an “avoidable” (intentional) reversal
- Specifies that projects must retire CRTs equivalent (with penalties in some cases) to the total amount issued in the event of project termination

Managing for Permanence

- PIA Enforcement and Longevity Secured Through Requirement that:
 - counterparty seek assignment of PIA to subsequent forest owner
 - recording of notice of PIA on title to inform potential purchasers

Monitoring and Verification

- Initial 3rd party verification includes site visit
 - Subsequent annual monitoring reports can be verified.
 - Periodic (6-years) site verification
- Verified stocks above baseline are awarded CRTs

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