



Proposed Adoption of Climate Action Reserve's Forest Project Protocol for Greenhouse Gas Accounting

September 24, 2009



California Air Resources Board

California Environmental Protection Agency



Today's Proposed Action

- **Staff proposes the adoption of the Climate Action Reserve's updated Forest Project Protocol for voluntary purposes**



2007 Board Adoption

- Current Forest Project Protocol adopted on Oct. 2007
- Board directed ARB staff to:
 - Reduce barriers to provide more opportunities for other landowners to participate
 - Focus on public lands and industrial working forests



Protocol Update Process

- ARB contracted with Climate Action Reserve
- Protocol Workgroup
 - Participation of environmental organizations, public and private landowners, scientists and government agencies (including ARB)
 - Four public workshops
- Updated Protocol adopted by the Reserve's Board on September 1, 2009



Basic Accounting Criteria

- **Provides approaches for estimating carbon stocks and emission reductions**
- **Credited reductions must be:**
 - **Real**
 - **Additional**
 - **Permanent**
 - **Verifiable**



Eligible Project Types

- **Reforestation**
- **Improved Forest Management**
- **Avoided Conversion**



Key Protocol Updates

- **Expanded Applicability**
- **Improved methods:**
 - **Baseline calculation**
 - **Additionality**
 - **Permanence**
 - **Leakage**
- **Demonstration of sustainable harvesting**
- **Requires “natural forest management”**
- **Inclusion of harvested wood products**



Expanded Applicability

- **Reduce barriers to participation**
 - Conservation easement no longer only means to participate
 - Less burdensome forest inventory requirements
- **Forest projects eligible throughout US**
 - Protocol relies on US-specific data sets
 - International projects not currently eligible
- **Public lands now eligible**
 - Require approval by appropriate government agencies

Cuyamaca State Park

- Project underway, working to register with Reserve
 - Reforestation of conifer forest on landscape dominated by shrub species in foreseeable future
 - 2500 acres burned in 2003
- Will provide critical habitat for native and endangered species, reduce erosion risk and spread of invasive species





Baseline and Additionality

- **Baseline**
 - Estimation of carbon stocks under “business as usual” scenario
- **Additionality**
 - Reductions not required by law or regulation, and would not otherwise occur
 - Beyond “business as usual” baseline
- Update improves methods for determining baseline & additionality for all project types



Key Permanence Improvements

- **Requires forest owners to compensate for avoidable reversals (over-harvesting, conversion)**
- **Buffer-pool created for unavoidable reversals (fire, disease)**
- **Project Implementation Agreement**



Leakage Improvements

- **Leakage refers to increased emissions outside a project area as a result of the project**
- **Update provides simplified method for addressing leakage risks by using standardized factors**
- **Expands scope to address risk of market leakage**



Sustainability and Natural Forest Management

- **Requires sustainable harvesting practices**
- **Promotes natural forest management**
 - Maintaining or increasing live tree biomass
 - Managing for diversity of native species and age classes to support functioning habitat
 - Managing to conserve structural elements (dead wood recruitment/retention)



Harvested Wood Products

- **Strong stakeholder support for including in-use harvested wood product accounting**
- **Accounting based on average carbon remaining in wood products after 100 years**
- **Highest carbon value always in live-tree biomass in the forest**
- **Landfill carbon accounted for when conservative to do so (not credited)**



Staff Recommendation

- **Adopt the Climate Action Reserve's Forest Project Protocol (version 3.0) as a non-regulatory GHG accounting methodology to promote voluntary early action projects**
- **ARB staff will continue to work with the Reserve to make further refinements to the forest protocol**