Draft Forest Project Protocol
Version 3.0, August 2009

Public Workshop
August 17, 2009
History

• Version 1.0 - June 2005
• Version 2.0 – June 2007
• Version 2.1 adopted by ARB in October 2007
  – Directed CAR to consider further revisions to allow greater participation from industrial working forests and public lands
  – CAR also sought to expand geographic application and improve technical aspects
• New workgroup convened in November 2007
Public Process

• Workgroup Meetings
  – Every 3 weeks in day-long sessions
  – Meetings open to public observers

• Public Review and Comment
  – Two separate drafts (12/08 & 4/09)
  – Two specific issue documents
    • HWP – 2/09 and PIA – 6/09)

• Four public workshops (7/08, 12/08, 2/09, 4/09)
Public Process
• Written Comments
  – All written comments on both drafts and on special issues posted to website
    • Written responses to all comments prepared and also posted to website (~ 300 pages)
• Board Hearing – July 1, 2009
  – Public session to address the board on issues and concerns
    • Provide direction to staff on steps to finalize
Current Steps

• Final Draft Protocol released on August 3, 2009
• Workshop held for small landowner interests on August 12, 2009
• CAR Board Meeting on September 1, 2009 to consider adoption
• ARB Board Meeting on September 25, 2009 to consider adoption(?)
  – For recognition of early voluntary actions
Key Updates to the FPP

• Expands applicability of protocol
• Improves baseline calculations
• Refines definition of “natural forest management”
• Includes harvested wood products
• Better addresses permanence
• Better leakage accounting
• Improve cost-effectiveness
• Other clarifications and enhancements
Increasing Participation by Improving Cost-Effectiveness

• Verification efficiencies
  – Annual report verification and 6-year site audit plus increased direction to verifiers

• Inventory efficiencies
  – Landowner-friendly inventory updating and plot monumenting
  – Inventory of project lands only, not entire forest holdings
Increasing Participation of Small Landowners

• Protocol updates represent improved economies of scale for all

• Further improvements sought by developing aggregation systems for small landowners
  – Recommend to Board at September meeting that a small landowner work group convene to develop aggregation rules with public workshop and comment period
Increasing Participation of Public Landowners

- Public lands eligible for all project types
- Updated protocols removed previous barriers for public lands (entity reporting, conservation easements, baseline approaches)
- Public lands contribution to buffer pool recognizes low reversal risk
Staff Changes from Workgroup

• Include landfill carbon when necessary for conservativeness (not for crediting)
• Impose policy on management of deadwood, including deadwood following catastrophic events
• Impose restrictions on site preparation activities for reforestation projects
• Modify approach to leakage on IFM projects from 100-year assessment to annual assessment
Baseline Calculations

- *Reforestation* now eligible on lands that have undergone a recent natural disturbance
  - Previously only forest land that was unforested for longer than 10 years qualified
  - Projects must occur where reforestation is not likely under baseline conditions
  - Projects must account for site preparation activities (including management of dead pools and remaining live stocks)
Baseline Calculations

- *Improved Forest Management* baselines is standardized, applies throughout U.S.
- Approach uses national dataset (FIA) and assesses:
  - Initial stocking levels
  - Common practice on surrounding lands
  - Legal constraints
  - Financial constraints
Baseline Calculations

- *Avoided Conversion* baseline is more standardized
  - Option to use default baseline conversion rates associated with different alternative land uses
  - Requires “uncertainty discount” to compensate for baseline uncertainty where difference in expected land use values is not large
Natural Forest Management

• Must employ defined sustainable harvesting and natural forest management practices
• Three options for sustainable harvesting
• Natural forest management demonstrated by meeting, or showing progress toward, standard criteria, including
  – Mixture of native species and age classes
  – Requirement to manage for dead wood recruitment/retention
Harvested Wood Products

- Accounting for carbon in harvested wood products is now required
- Accounting is based on the average amount of carbon expected to remain stored in wood products over 100 years (Data from US DOE)
- Two main “pools” of HWP carbon:
  - Carbon in “in-use” wood products
  - Carbon in wood products sent to landfills
- Accounting depends on whether wood product production is increased or decreased
Project Carbon Accounting

Conservativeness Principle:
Where there is uncertainty, err on the side of under-estimating net reductions
Project Carbon Accounting

Conservativeness Principle:
Where there is uncertainty, err on the side of under-estimating net reductions
Harvested Wood Products

Projects That INCREASE Production of Wood Products

- Actual Landfill HWP Carbon
- Actual In-Use HWP Carbon
- Baseline In-Use HWP Carbon
- Baseline Landfill HWP Carbon
- Net Reductions

Tons of CO₂-equivalent
Harvested Wood Products

Projects That INCREASE Production of Wood Products

Applying the conservativeness principle…

Actual Landfill HWP Carbon
Actual In-Use HWP Carbon
Baseline In-Use HWP Carbon
Baseline Landfill HWP Carbon

Tons of CO₂-equivalent

Net Reductions
Harvested Wood Products

Projects That INCREASE Production of Wood Products

Actual Carbon in Trees

Baseline Carbon in Trees

Net HWP Carbon

TOTAL Net Reductions
Harvested Wood Products

Projects That DECREASE Production of Wood Products

Applying the conservativeness principle…

Actual Landfill HWP Carbon

Actual In-Use HWP Carbon

Baseline In-Use HWP Carbon

Baseline Landfill HWP Carbon

Net Reductions

Tons of CO₂-equivalent
Harvested Wood Products

Projects That DECREASE Production of Wood Products

Actual Carbon in Trees

Baseline Carbon in Trees

TOTAL Net Reductions

Net HWP Carbon
Addressing Permanence

• The Issue:
  – Carbon stored in forests can be released back to the atmosphere (i.e., “reversed”), negating carbon offset claims

• FPP Approaches:
  – Long Term Monitoring and Verification
  – Compensation for reversals

• Two Types of Reversals
  – Unavoidable: fire, pests, disease, wind, etc.
  – Avoidable: over-harvesting, financial failure, project termination
Addressing Permanence

• Unavoidable Reversals
  – Establishment & Operation of a Buffer Pool
    • Contribution to pool based on risk assessment of project
    • Reserve to administer (using third-party)
    • CRTs retired from pool to compensate for unavoidable reversals
    • Reserve seeking re-insurance
Addressing Permanence

• Avoidable Reversals
  – Project developer must surrender (retire) CRTs equal to the amount of CO$_2$ reversed
  – Can be own CRTs, or CRTs purchased from other forest projects
  – Failure to do so results in project suspension and/or termination
    • Other legal remedies can be applied
Addressing Permanence

• Project Implementation Agreement
  – Protocol enforced by requiring forest owners to enter into a long-term contract with the Reserve
  – Requires adherence to the terms of the Forest Project Protocol, including
    • Specifies remedies in the case of an “avoidable” (intentional) reversal
    • Specifies conditions under which projects can be terminated prior to the end of their 100-year commitment under the FPP
Addressing Permanence

• Conditions for Project Termination
  – All projects must retire a number of CRTs equal to the total quantity issued to them
  – For improved forest management projects, CRTs must be paid back at a greater than 1:1 rate if termination occurs before 50 years
    • Special clause for termination to enter state or federal regulatory program where ongoing permanence is guaranteed by government
  – All CRTs retired to compensate for termination must come from forest projects
Addressing Permanence

• Ensuring Contract Enforceability/Longevity
  – Requires that counterparty seek assignment of PIA to subsequent forest owner
  – Requires recording of notice of PIA on title to inform potential purchasers
  – Requires additional contribution to buffer pool to address risk of financial failure

• Contribution is reduced if forest owner:
  – has a qualified conservation easement or deed restriction, or is publicly owned
  – subordinates all other agreements to PIA
Leakage

• The Issue:
  – Reducing harvests in one area can lead to increased harvesting somewhere else
  – Reforesting on crop or grazing land could lead to clearing of other forest land for those uses
  – Avoiding conversion on one piece of land could lead to conversion somewhere else
Leakage

• Approach:
  – Leakage accounting has been broadened to take into account market effects
  – It is no longer required to look at shifts in activity on a particular forest owner’s own land
  – Default factors are used to estimate how the entire market will respond, depending on the project type
Other Changes

- Clarification of project start dates
- Standardization of required carbon pools
- Improved guidance for estimating the risk of land use conversions (avoided conversion projects)
- Clarification on the definition of the project area
- More specificity for modeling and monitoring carbon stocks
- Clarifying monitoring, reporting, and verification requirements