Background

• Forest Project Protocol, 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
  – Ongoing since November 2007
    • open to public

• Public Workshops - (5 total)

• Public Draft Review - (2 total)

• Specific Issue Documents - (PIA and HWP)

• Written Comments - (~300 pages)

• Board Public Hearing (July 1)
Current Process

- Workgroup draft completed July 31, 2009
- Staff draft Protocol posted on August 4, 2009
- Meeting of small landowner interests on August 12, 2009
- Public Workshop held August 17, 2009
- Errata released August 25, 2009

- 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
- Addresses issues of cost-effectiveness
- Improves baseline calculations
- Improves management of permanence
- Provides definition of “natural forest management” and adds criteria for verification
- Includes harvested wood products
- Updates leakage accounting
Increasing Participation by Increasing Eligibility

- Standardized *Improved Forest Management* baseline applies throughout U.S. private lands
- *Reforestation* now eligible on lands that have undergone a recent natural disturbance (previously limited to lands out of forest cover for 10 years)
- Increased application of *Avoided Conversion* based on risk of conversion (previously limited to a site-specific immediate threat)
Increasing Participation by Improving Cost-Effectiveness

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

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

• Verification efficiencies integrated for small landowners
• Further improvements sought by developing aggregation systems for small landowners
  – Will continue to meet with small landowners and other stakeholders to develop aggregation
  • Any proposed revisions will go through a public workshop and comment process
Increasing Participation of Public Landowners

- Public lands eligible for all project types
- Removes previous barriers for public lands (entity reporting, conservation easements, baseline approaches)
- Public lands contribution to buffer pool recognizes low reversal risk
Improving Environmental Integrity

• 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 recruitment / retention of 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, i.e., *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

• Avoidable Reversals must be compensated by Forest Owner
  – Surrenders CRTs (project or purchased) equal to CRTs reversed

• Contribution to buffer pool reduced for conservation easement, qualified deed restriction or public ownership

• 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

• Enforcement and longevity secured through provisions that require:
  - Counterparty to seek assignment of PIA to subsequent forest owner
  - Recording of notice of PIA on title to inform potential purchasers
Leakage

• Accounting for the effect of shifting emissions to other areas off the project’s site has been improved:
  – Leakage accounting has been broadened to take into account broader activity shifts across multiple owners and market effects
  – Default factors are used to estimate how the entire market will respond, depending on the project type
Staff Changes from Work Group

- Sought to limit changes from workgroup except where necessary to:
  - Improve accuracy and conservativeness
  - Refine or enhance environmental integrity requirements
  - Streamline or clarify language or provisions

- Include landfill carbon
- Refine deadwood requirements
- Impose restrictions for reforestation projects
- Modify approach to leakage on IFM projects
Harvested Wood Products – Staff Modifications

- Two main “pools” of HWP carbon:
  - Carbon in “in-use” wood products
  - Carbon in wood products sent to landfills

- Highest carbon value is always achieved in live trees (no incentive to harvest trees)
Harvested Wood Products – Staff Modifications

- Inclusion of landfill carbon depends on whether wood product production is increased or decreased
  - In no case is landfill carbon credited to a project, but it can be deducted to prevent overcrediting

<table>
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<tr>
<th>Project Scenario</th>
<th>Treatment of Landfill Carbon</th>
<th>Baseline Carbon Storage</th>
<th>Project Carbon Storage</th>
<th>Climate Reserve Tonnes (CRTs)</th>
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<td>169</td>
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<td>169</td>
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<td>– Less HWP than Baseline</td>
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<td>127</td>
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</tbody>
</table>
Improving Environmental Integrity - Staff Modifications

- Staff added specific quantifiable metrics to remove ambiguity about commitments
- Staff added a provision to ensure that structural elements are maintained at higher levels following natural disturbances
- Added threshold criteria for when soil quantification is required
Other Revisions – Staff Modifications

• Added table defining and explaining assessment boundaries

• Modified eligibility for public projects on recently acquired private lands

• Added provision for transition into qualifying regulatory program
Conclusion

• Forest Protocol is pioneering work and is a significant advancement for this sector

• All protocols are dynamic and continue to be refined and improved through use

• Adoption represents a milestone in the evolution of a protocol, not an endpoint
  – Important to get real world experience by using and learning from its use