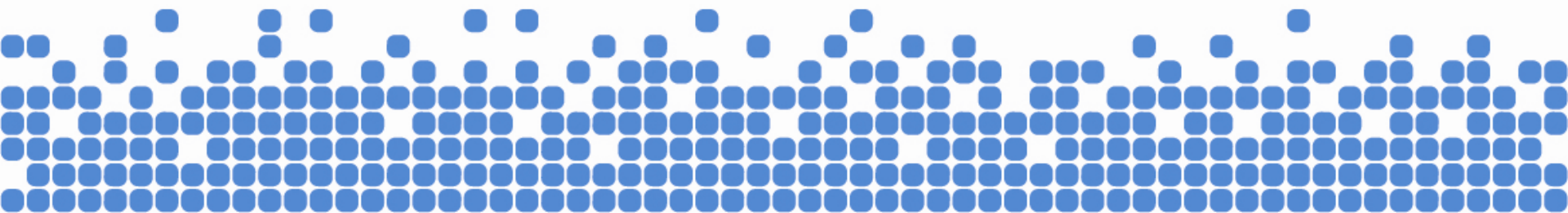




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ACTION
RESERVE

Forest Project Protocol Version 3.0 and Errata

Climate Action Reserve
Board of Directors
September 1, 2009





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



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- 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



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- 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



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- 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



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- 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

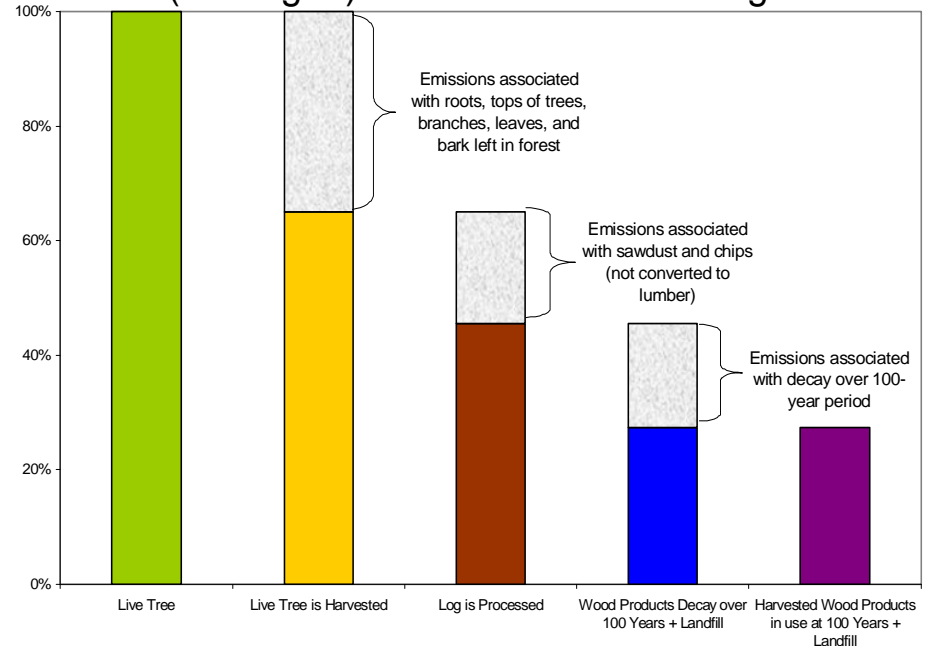
Harvested Wood Products – Staff Modifications



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- 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)

Wood Products with In Use at 100 years (Averaged) and Landfill Accounting



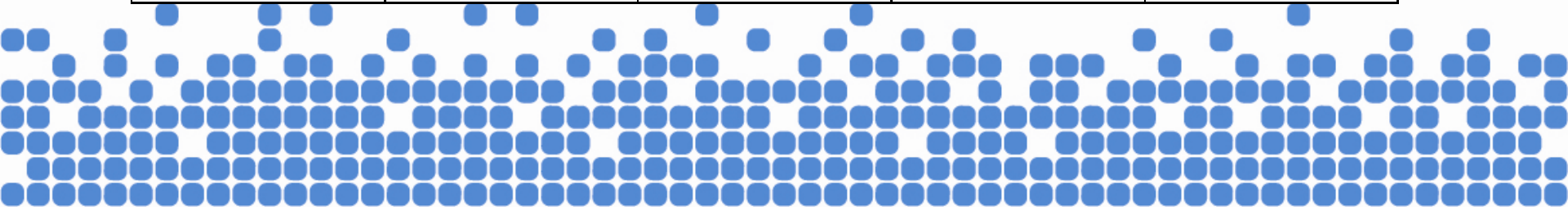
Harvested Wood Products – Staff Modifications



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- 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

Project Scenario	Treatment of Landfill Carbon	Baseline Carbon Storage	Project Carbon Storage	Climate Reserve Tonnes (CRTs)
Project A – Less HWP than Baseline	without landfill carbon	121	169	48
	with landfill carbon	127	169	42 <i>more conservative</i>
Project B – More HWP than Baseline	without landfill carbon	121	149	28 <i>more conservative</i>
	with landfill carbon	127	157	30

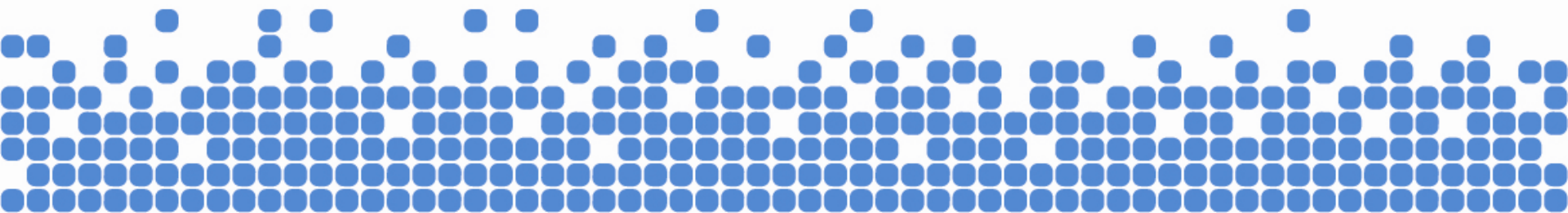


Improving Environmental Integrity - Staff Modifications



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- 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

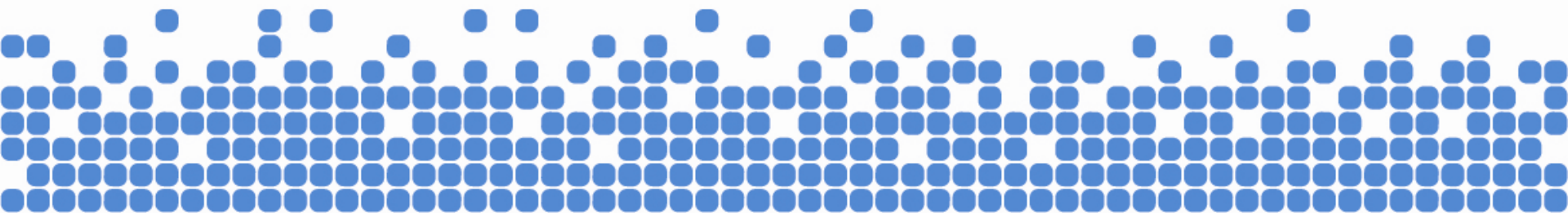


Other Revisions – Staff Modifications



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- 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



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- 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