

The Climate Action Reserve Forest Project Protocol



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Background on the Climate Action Reserve



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- Chartered by state legislation in 2001
 - Mission is to encourage early voluntary actions to reduce emissions and to have such emissions reductions recognized
 - Initially focused on emission reporting and reductions by member organizations
 - Now on emission reduction projects generating offsets
- Balances business, government, and environmental interests



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What We Do

- Develop high quality standards
 - Convene stakeholders and lead development of standardized protocols for carbon offset projects
- Manage independent third-party verification
 - Training and oversight of independent verification bodies
- Operate a transparent registry system
 - Maintain registry of approved projects
 - Issue and track serialized credits generated by projects (CRT = Climate Reserve Tonne)

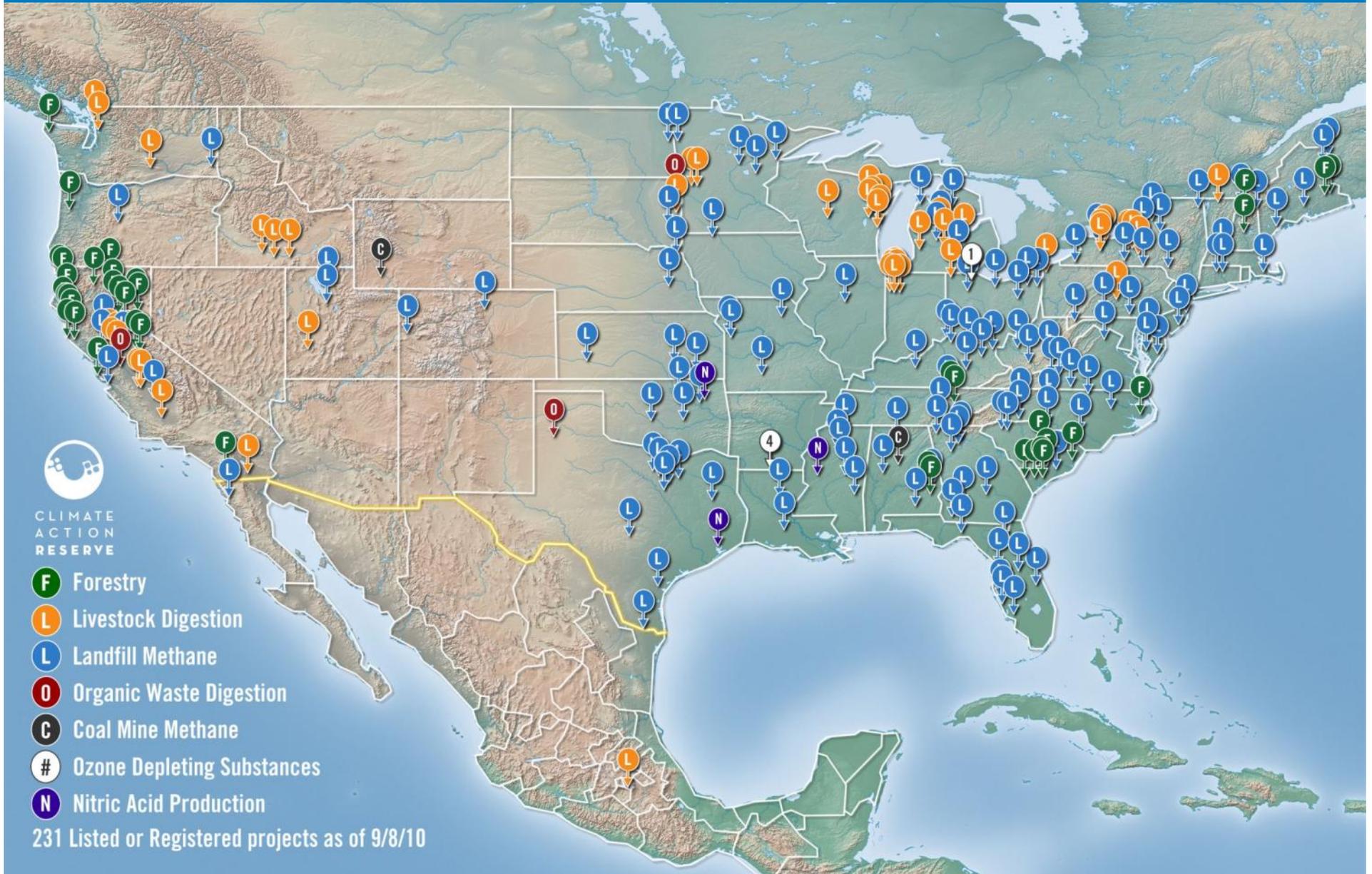


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Existing Protocols

- Forestry
 - Improved forest management
 - Avoided conversion
 - Reforestation
- Urban forestry
- Landfill gas capture (US & Mexico)
- Livestock methane capture (US & Mexico)
- Organic waste digestion
- Organic waste composting
- Coal mine methane
- Nitric acid production
- Ozone depleting substances (US & Article 5 sources)

Listed & Registered Projects





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Reserve Stats

Launch date	May 2008
CRTs registered	7.15 million
Account holders	345
Projects submitted	365 (141 Forestry)
<i>Registered</i>	62 (4 Forestry)
<i>Listed</i>	170 (35 Forestry)
<i>New</i>	133 (111 Forestry)
Current market info	\$2-7 per CRT



Forest Project Protocol

Lompico Headwaters project (the Sempervirens Fund)



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Development History

- Developed With Broad Stakeholder Input
- Version 1.0 Adopted in 2005
- Version 2.0 Adopted in September 2007
- Version 2.1 Adopted October 2007 by California Air Resources Board
 - CARB instructed Reserve (then CCAR) to expand applicability and address additional issues
- Version 3.0 Adopted September 2009
- Version 3.2 Completed September 2010
 - Likely to form basis of California compliance protocols
 - May be basis for Western Climate Initiative protocols



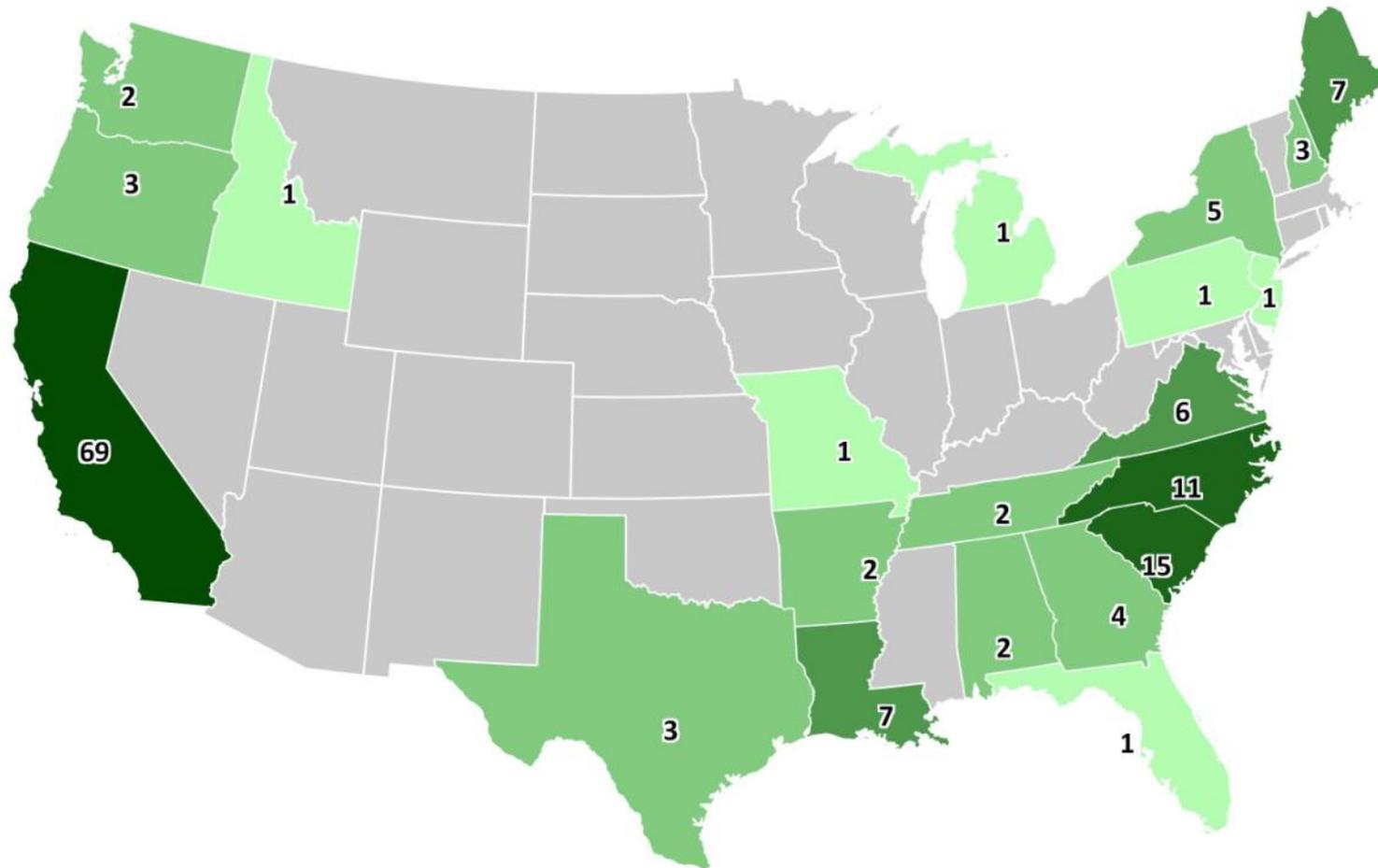
Forest Project Types

- **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
- **Improved Forest Management**
 - Activities that increase forest-based sequestration and/or decrease emissions

Forest Project Submittals



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Chris Kelly

Case Study: Garcia River Forest



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Garcia River Forest

- Mendocino County, CA
- Project Developer/Forest Owner: The Conservation Fund
- Start Date: February 1, 2004
- 24,000 acres
- One of two parts of a sustainable management program that includes 40,000 acres and 388 million board feet of timber
- Dual certification under SFI and FSC
- 715,268 CRTs issued, vintages 2005-2009



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Project Goals

- To acquire large tracts of intensively-managed coastal forests and show that they can be returned to sustainable timber production
- Model a new approach to timber management that could be replicated across the region
- Restore and foster the ecological vitality of the forests, including restoration of 55 miles of salmon spawning stream



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Registering with the Reserve

- One of the first projects submitted (2007), and one of the first two forest projects to complete verification and earn CRTs (2008)
- Needed
 - New management plan
 - New inventory – protocol requires +/- 5% standard error at 90% confidence to avoid penalty
 - 100-year baseline modeling and HWP modeling
- Project verified by SGS and Scientific Certification Systems
- CRTs sold to Pacific Gas & Electric for use in their voluntary ClimateSmart program



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It Works

- This project has demonstrated that the Reserve forest protocol can be implemented on a working forest
- TCF continues to harvest timber from the property, while simultaneously increasing long-term carbon storage and improving ecosystem health



Photo: Douglas Steakley



Photo: Chris Kelly



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Significant Updates in Version 3.0

- **Protocol Applies Throughout the United States**
- **Public Lands Projects Are Now Eligible**
 - No restrictions for state or local govt. lands
 - Federal lands eligible subject to legislation or rulemaking
- **Standardized Baseline and Accounting Methods**
- **New Requirements for Permanence**
 - Conservation Easement no longer required
 - But must sign 100-year commitment to maintain carbon
- **Detailed Natural Forest Management Criteria**



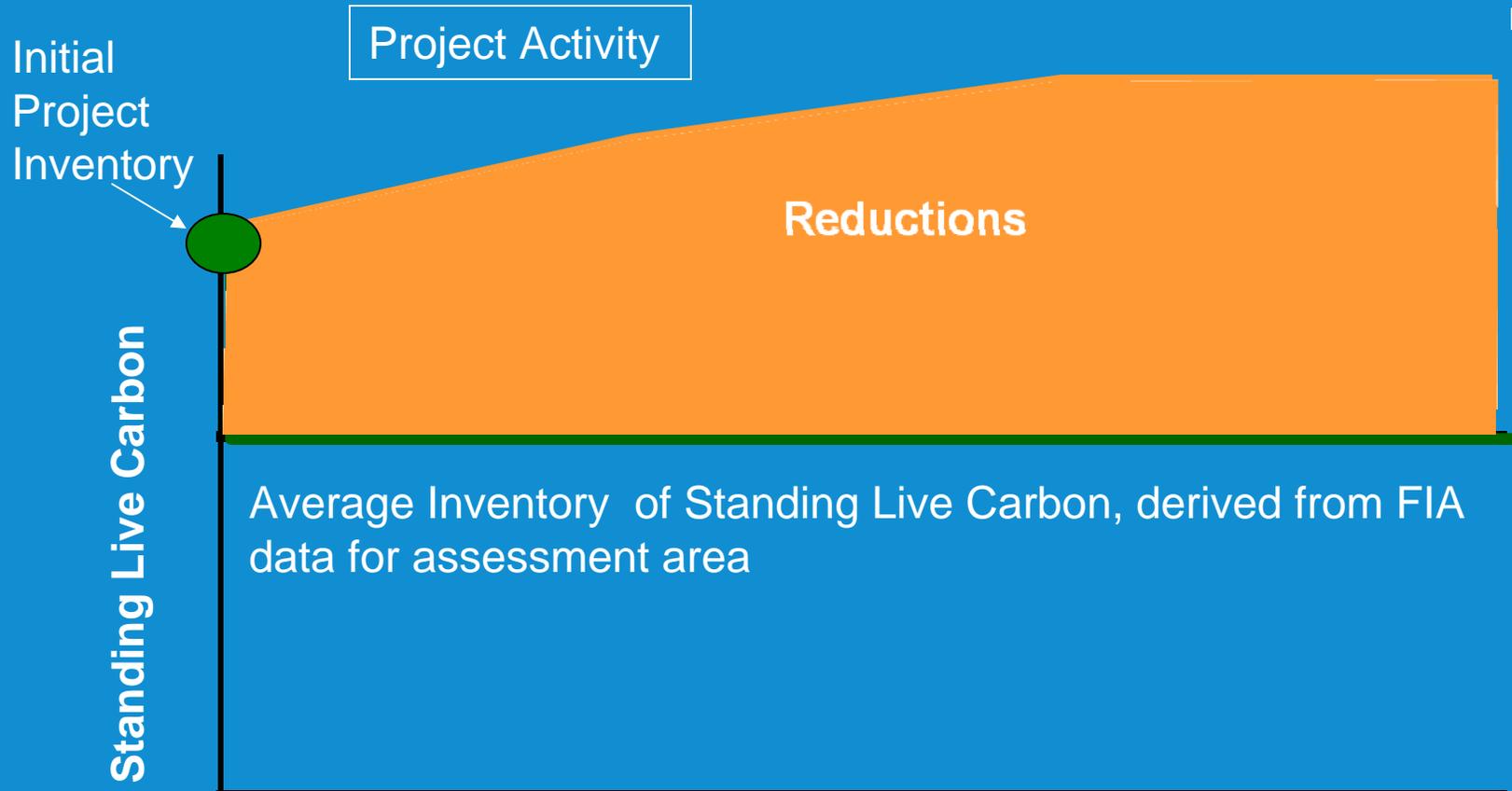
Forest Project Baselines

- Credits Are Issued for Exceeding Baseline Carbon Storage
- Baselines Are Established for 100 Years (100-Year Crediting Period)
- Baselines must incorporate all legal requirements, including any requirements to:
 - Reforest
 - Buffer watercourses
 - Protect for endangered species
 - Manage under a binding deed restriction or conservation easement
- Other Requirements Depend on Project Type

Improved Forest Management Projects



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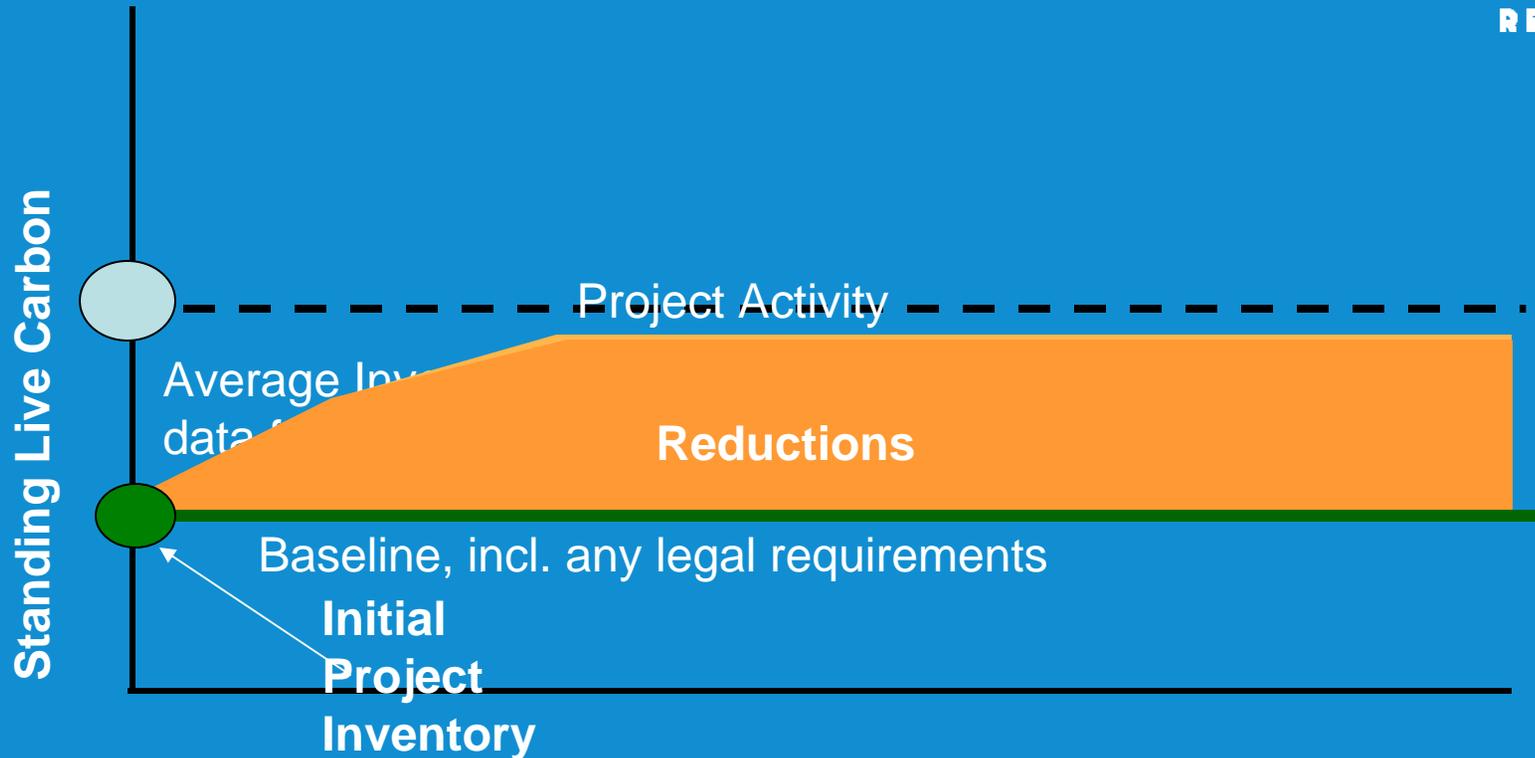


- In this scenario, the project will generate credits for both stock retention and growth

Improved Forest Management Projects



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- In this scenario, the project will generate credits for growth only



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Addressing Permanence

- All credited carbon must be maintained for 100 years from the time of credits are issued
- Must surrender CRTs to compensate for lost carbon (aka “reversals”)
- **Unavoidable Reversals** are compensated from Buffer Pool administered by Reserve (e.g., fire, wind)
- **Avoidable Reversals** must be compensated by Forest Owner



Environmental Integrity

- Projects are required to:
 - Demonstrate long-term sustainability
 - May be met with SFI, FSC, or ATFS certification (terms of certification must require verification over time)
 - 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
 - Manage for structural elements
 - Requirements for lying and standing dead wood
 - Maintain or increase carbon in trees

Small Landowner Aggregation



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- Project aggregation guidelines approved on August 31
- Objective is to reduce transaction costs for smaller landowners
 - Applies to projects < 5,000 acres
 - Allows for reduced inventory requirements
 - Statistical confidence maintained at aggregate level
 - Allows less frequent verification schedule (with audits)
- Projects still must sign legal agreement with Reserve and follow all other requirements of the Forest Project Protocol



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Current Status & Future Plans

- 141 projects submitted to date
 - 100 Improved Forest Management
 - 22 Avoided Conversion
 - 19 Reforestation
- Currently adapting the protocol for use in Mexico
 - Completion in 2011
- May adapt for use in Canada
- California Air Resources Board planning to rely on protocol for cap-and-trade regulation
 - May further evaluate mechanisms to enforce permanence, or make other minor changes



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For Questions or Assistance

- Full Information Available on Our Website
 - www.climateactionreserve.org
- Contact the Reserve
 - Call the Policy Team at (213) 891-1444
 - Or email questions to: policy@climateactionreserve.org
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