



# A BRIEF COMPARISON OF DOMESTIC PROGRAMS & PROTOCOLS FOR FOREST CARBON

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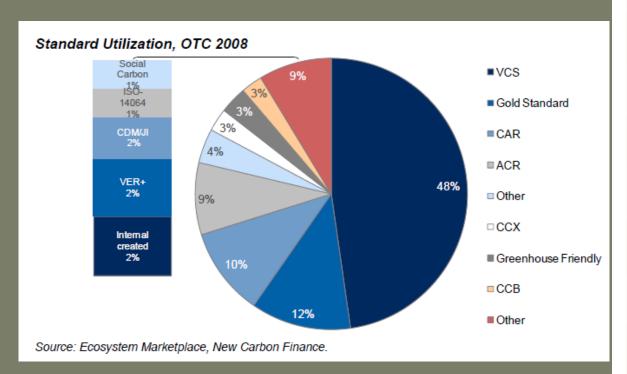
National Forests Climate Change Workshop

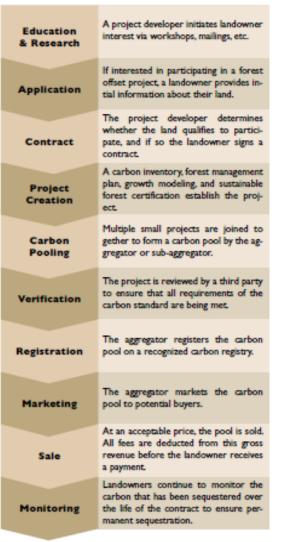
1/28 - 1/29/10

# Overview of Domestic Programs, Protocols & Registries

Name	Scope & Type of Initiative
US DOE 1605(b)	National; Registry
Regional Greenhouse Gas Initiative (RGGI)	Regional (Northeast); Protocol, Registry & Market (based on legally-binding targets for capping power sector emissions)
Western Climate Initiative (WCI)	Regional; in process of determining which pre- existing protocols to potentially accept for certain activities; will eventually represent a voluntary regional market, based in part on legal state requirements
American Carbon Registry (ACR)	National; Registry; supplies the nebulous OTC market
Voluntary Carbon Standard (VCS)	National; Protocol & Registry; supplies the nebulous OTC voluntary market
Climate Action Reserve (CAR)	National; Protocol & Registry; supplies the nebulous OTC voluntary market, future CA market
Chicago Climate Exchange (CCX)	National; Protocol, Registry & stand-alone Market (voluntary but legally binding)

## Voluntary Market: Standard Utilization





Source: Brooke et al, 2009.

## 1605(b)

- •Established by Section 1605(b) of the Energy Policy Act of 1992
- Developed for annual reporting of GHG emissions by businesses, institutions, organizations, households
- •Encourages voluntary reporting that is "complete, reliable, and consistent"
  - Public record
  - Initiate an informed debate
- •Encourages, but does not mandate 3<sup>rd</sup>-party verification
- emissions inventories & reductions
- •Expanded in 2002 to emphasize entity-wide GHG



•Projects: INCLUSIVE

# Voluntary Carbon Standard (VCS)

- •501 (c)(3) organization
- Domestic & International
- Provides both a protocol & registry
- Emerged as an effort to help standardize and bring transparency and credibility to the voluntary offset market
- •AFOLU:
  - •ARR, ALM, IFM, REDD



## Climate Action Reserve (CAR)

- •501 (c)(3) organization
- •"A national offsets program working to ensure integrity, transparency and financial value in the U.S. carbon market. CAR provides protcols and a registry for forest carbon projects."
- •AB 32 → uses "regulatory and market-based mechanisms" to achieve GHG reductions
- •CARB designing & will implement cap & trade program
- •CAR offsets will be compliant



What do these protocols cover? (what does a market require?)

- •Offsets that are:
  - •real, additional, verifiable, permanent, enforceable
- •In practical terms, this means we need accounting rules for:
  - •Baselines, additionality, permanence, leakage

So, how does our selection of programs & protocols cover these issues?

## 1605(b)

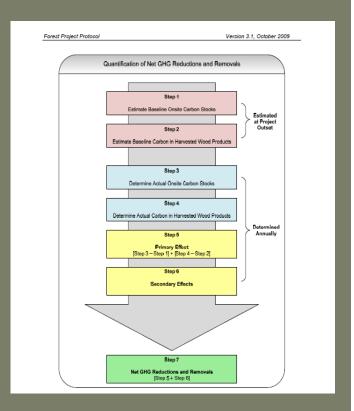
- •All inclusive any project type, simply has to meet the reporting requirements
- Base-period: 1-4 years, determines avg annual base emissions/sequestration; not a projection
- •Risk buffer: data uncertainty factor implied in userbased reporting options
- Leakage: system-wide deduction

### CAR

### **BASELINE**

- Private lands
  - •applies a standardized set of assumptions to project specific conditions
  - FIA data used as a proxy for common practice
- •Public lands
  - •If stocks declining: 10 yr C stock average
  - •If stocks increasing: modeled growth trajectory -> achieve parity with lands not harvested in 60 years

ADDITIONALITY: Practices > Baseline



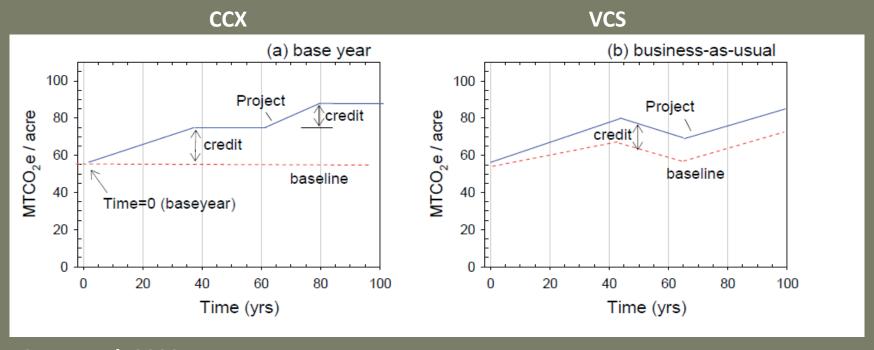
### VCS

#### **BASELINE**

•Create a counterfactual BAU condition from the past 5-10 years of forest management data

#### **ADDITIONALITY:**

Practices >Prior (& legal requirements)



Gunn et al, 2009.

Accounting for Reversals (The "Permanence" Issue)

- Minimum time commitment
  - •CAR = 100 years + monitoring!
- •Reversals: unintentional vs. intentional
- Assessment of risk:
  - •Unclear land tenure, risk of financial, technical, mgmt failure, rising land opportunity costs that cause reversals, political/social instability, fire, pests, disease, extreme weather, geological risk
- Creation of buffer withholdings:
  - •VCS: 10-60%

## What makes a protocol useful?

- •Regarding CCX, "It seemed a little suspicious that we could get money for doing nothing." Charles Norkis, ED of Cape May County Municipal Utilities Authority. "Pollution credits let dumps double dip" Wall Street Journal. Oct 20, 2008.
- •VCS is the most popular voluntary C mkt standard, "offering C credibility, ease of use, and medium-range prices" Lopes, 2009. "Review of Forestry Carbon Standards development of a tool for organizations to identify the most appropriate forestry carbon credit." www.carbonpositive.net/fetchfile.aspx?fileID=159)
- "Whatever the political outcomes for cap and trade in the US, CAR's future as a widely-used carbon verification marque seems assured." (Carbon Positive

10/22/09: <a href="http://www.carbonpositive.net/viewarticle.aspx?articleID=1661">http://www.carbonpositive.net/viewarticle.aspx?articleID=1661</a>