



## Esri Forestry GIS Solutions Conference

Hosted by the Esri Forestry Group | May 1–3, 2012

# Carbon Opportunities: *One TIMO's perspective*

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A topographic map showing green and yellow contour lines, representing elevation and terrain. The map is partially visible at the top of the slide.

## Who are we? The Forestland Group LLC (TFG) Profile

- Timberland investment management organization formed in 1995.
- Focus on management of hardwood forests and hardwood enterprises for institutional investors.
- Nine Funds closed to date with over \$2 billion in capital committed from institutions and family offices.
- Control more than 3.3 million acres.
- TFG is an FSC-certified resource manager.

A topographic map showing green and yellow terrain with contour lines. The number '5074' is visible on the map.

## The Forestland Group, LLC Profile, (cont.)

- TFG controls the largest hardwood portfolio in the US, and its total acreage ranks third amongst private landowners. Also, TFG manages properties in Belize, Costa Rica, and Canada.
- Operate two of the largest hardwood sawmills in the US—in Mississippi and Louisiana. The Mississippi sawmill is part of an integrated forest products operation (Anderson-Tully) which is the largest landowner along the Mississippi River and includes a global lumber sales system. Also, operate a modest sawmill in Belize.
- Investors include some of the largest and most prestigious institutional investors in the world, including university endowments, foundation endowments, insurance companies, pension funds, family offices, and supra national organizations.





## TFG: Strategic Dimensions

- **Forest-Type Focus:** Hardwoods represent about 90% of the portfolio.
- **Size-of-Deal Focus:** 20,000 – 40,000 acres, with occasional 100,000-acre and larger transactions.
- **Problem-Solving Focus:** Often pursue opportunities with embedded challenges/opportunities: sawmills, timber-supply agreements, conservation attributes, estate-planning constraints on the part of seller, etc.
- **Investor Focus:** Majority of capital comes from university endowments, foundations, and families.
- **Forest-Management Style:** Multiple hardwood silvicultural systems. TFG is an FSC-certified resource manager.

A topographic map showing green and yellow terrain with contour lines, serving as a background for the top portion of the slide.

## Why carbon?

- Forestry projects jump-started the global carbon offset market in the early 1990s when environmental NGOs and industrial companies initiated partnerships to conserve and plant forests hoping to balance greenhouse gas emission (GHG) by capturing carbon in trees.
- Today, regional regulatory development and voluntary markets are continuing to grow.
- A carbon project that guides the permanence and additionality of forest carbon through improved forest management and avoided conversion is a natural alignment of interest with The Forestland Group's third-party certified portfolio of properties and working forest conservation easements.
- In addition to mitigating climate change, forest carbon projects provide other co-benefits.



*"It's great! You just tell him how much pollution your company is responsible for and he tells you how many trees you have to plant to atone for it."*

# Carbon Markets, Historically

- **Lack of liquidity, low carbon price**
- **Policy uncertainty**
- **CCX failure**
- **Lack of clarity regarding Climate Action Reserve (CAR) 2.0, 3.1, 3.2 and the transition to the Air Resources Board (ARB)**
- **CAR Rules**
  - **No clear-cutting**
  - **Natural forest management**
  - **Assessment Areas**
  - **100 year encumbrance**



A topographic map showing green and yellow contour lines, with a small '500' label visible near the top center.

## Where are we now?

- **Voluntary “pre-compliance” markets**
- **Patchwork of regional compliance schemes**
- **US Federal system seems to have stalled**



# Offset Standards

- **Climate Action Reserve**
  - Offsets that meet these standards are Climate Reserve Tonnes (CRTs)
- **Verified Carbon Standard**
  - Offsets that meet these standards are Voluntary Carbon Units (VCUs)
  - VCS ensures voluntary market offsets are real, additional and verifiable.
- **American Carbon Registry**
  - Offsets that meet these standards are Emission Reduction Tons (ERTs).
  - First private voluntary registry in the US
  - Likelihood that ERTs will meet ARB compliance grade



## The California Market

- In October, 2011 The California Air Resources Board officially approved the state's cap and trade program.
- Offsets are allowed to cover up to 8% of emissions.
- Only four types of offsets currently approved:
  - Ozone Depleting Substances
  - Agriculture Methane
  - Forestry and Urban Forestry
- Timing
  - January 2012: Official Program start date
  - August 2012: First Allowance Auction
  - Mid-late 2012: First opportunity to register ARB offsets
  - January 2012: Beginning of first compliance period



## California: Cornerstone for North American markets

- Scale: Volume and prices means California is large enough to put meaningful capital to work in a 2012-2015 time frame.
  - Thompson Reuters and Point Carbon estimate 2012 market of \$1.7b, \$10b in 2016
- CA is short for market offsets. CA is intentionally designed to create demand for offsets and margins in the development and sale of them.
- CA is anchor/foundation for an incrementally growing North American regional market and the cornerstone of the Western Climate Initiative which includes Ontario and BC coming into compliance 2012.
- CA is exploring other links . . . REDD+

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## Forest Project Types: Climate Action Reserve

- **Improved Forest Management:** Forest project that are based on commercial or noncommercial harvest and regeneration of natural systems and natural forest management practices.
- **Reforestation:** Forest projects that are based on the restoration of native tree cover on lands that were previously forested, but have been without tree cover for at least ten years.
- **Avoided Conversion:** Forest projects that are based on specific actions to prevent the conversion of native forests to non-forest use.

# California Prices Estimates

## California Carbon Market Analyst Price Forecasts

<b>Barclays Capital</b>	<b>Allowances</b> will start at <b>\$12</b> in 2012, average <b>\$40</b> from 2015-2018 and <b>\$73/allowance</b> from 2018-2020
<b>Reuters</b>	<b>Allowances</b> will average <b>\$36/allowance</b> from 2012-2020
	<b>Offsets</b> will average <b>\$7-10</b> from 2012-2014, <b>\$13-24</b> from 2015-2017, and <b>\$24-46</b> from 2018-2020
<b>Bloomberg</b>	<b>Allowances</b> will average <b>\$37</b> from 2012-2020

Current ARB-eligible CAR forestry offset prices are ~\$9.00

Current ARB offset future contract prices are \$11 for delivery in December 2013

A topographic map showing green and yellow contour lines, with a small '5074' label visible in the upper left. Below the map is a grey gradient background.

# Identifying Qualified Properties

- Good carbon projects can usually be identified where large amounts of unaccounted biomass and wood fiber exist.
- Most timberland portfolios contain non-strategic lands (conservations easements, SMZs, bottomland hardwoods, view sheds, inoperable lands).
- Often a natural alignment of interests between current management regime and a carbon project. It's not either/or.

# Improved Forest Management: Eligibility Criteria

Baseline	A forest project baseline defines the business-as-usual trend, the emissions that would have occurred in absence of the project. It is to this baseline that additional offsets are calculated. Provisions for determining future baseline carbon storage could depend on historical practices or practices of similarly-situated neighbors.
Additionality	Data indicates that sustainable forest management results in higher carbon stocks than conventional forestry. Emissions are avoided by evidence of the cutting period and a contractual commitment to sustainable forestry practices as evidenced by third party certification(e.g. FSC).
Leakage	Leakage is the displacement of greenhouse gas emissions from a project area to other lands, a result of continuing market demand for forest products. Leakage outside the site is not an issue. Monitoring of timber operations is done and certified by a third party to insure that carbon savings are real.
Permanence	The climate benefits of forest carbon sequestration may be compromised through harvests or through a disturbance, such as fire or insect infestation. Both the proposed California Climate Action (CCAR) require that forestry offset projects store carbon for 100 years and require project developers to insure against reversals.



A topographic map showing green and yellow contour lines, with a small '5074' elevation marker visible.

## Conclusions

- Risk and uncertainty
- Impacts from perpetual deed restrictions
- Impacts on future management regimes
- Additional revenue streams
- Co-Benefits (watershed, biodiversity, etc.)
- Improve education and awareness of human impacts and dependence on ecosystem health.



# Questions?

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