



Carbon Cents: Markets for Conservation

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WHY

Our planet faces the dual crises of **rapid climate change** and **biodiversity loss**. We have years, not decades, to address these existential threats.

CLIMATE CHANGE

Three quarters of the carbon dioxide emissions driven by humans has occurred since 1950.

BIODIVERSITY LOSS

There has been nearly a 70% average decline of birds, amphibians, mammals, fish, and reptiles since 1970.



Forests: A Natural Solution to Climate Change

Forests filter our drinking water, provide homes for wildlife and improve our health. Forests also fight climate change in many ways.

Wildlands

Forest reserves, managed by nature and without harvesting, remove large amounts of carbon pollution from the air and store it in tree trunks, leaves, roots and soils. Protecting forests and allowing them to grow for centuries means they can store more carbon each year.

Woodlands

With careful planning and management, most forests can produce wood products while also increasing the carbon stored in the forest over time. Locally harvested wood can replace building materials that have a larger carbon footprint, like steel and concrete, reducing carbon emissions.

Sometimes, forests have been so damaged by poor forest management, invasive species, or disease that they aren't storing as much carbon as they could. Restarting these forests by harvesting damaged and diseased trees may store more carbon over the long term.

Carbon exists in several places and forms:



In the air: At high concentrations in the air, carbon dioxide is a pollutant and a greenhouse gas that warms the planet.



In plants: Plants turn carbon dioxide into sugar (glucose). In this form, carbon is food for plants and other organisms in the forest.



In wood: Trees and shrubs turn carbon into cellulose. In this form, carbon can be stored long-term in tree trunks or in lumber.



The Green Path to a Stable Climate

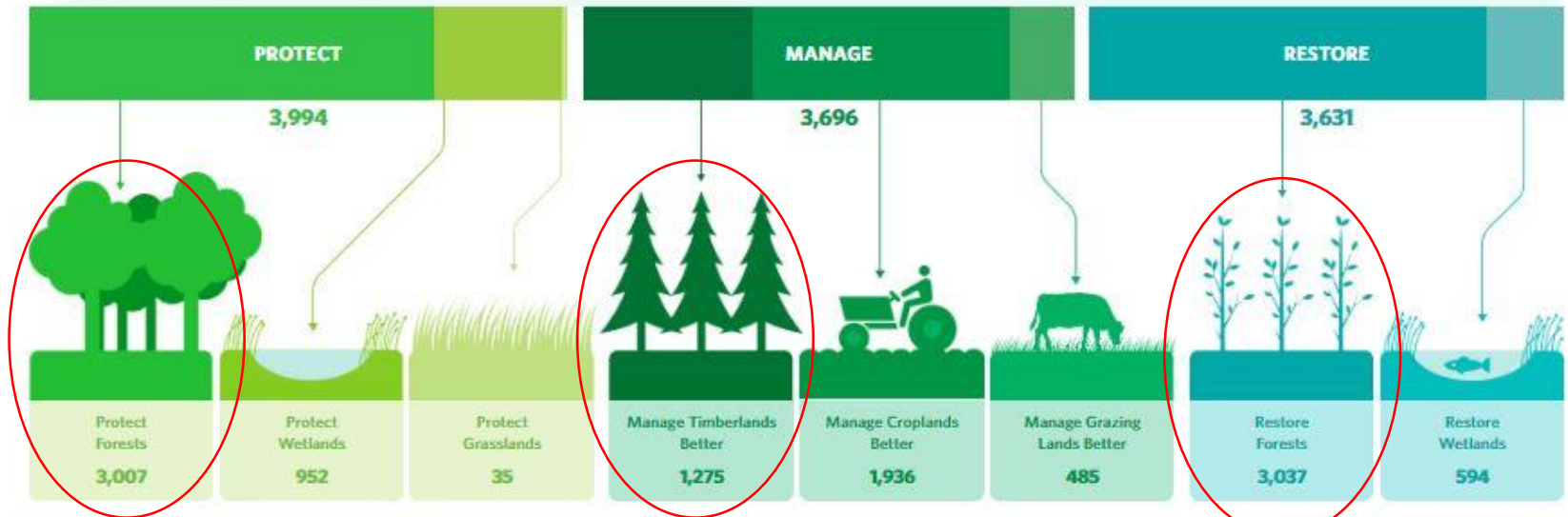
We Must Cut 30 Gigatons A Year Of Carbon Emissions By 2030 If We Are to keep global temperature increases well below 2 degrees Celsius, (3.6 degrees Fahrenheit). Nature can reduce more than one-third of the emissions needed to hit this goal if countries invest in carbon-storing forests, grasslands, wetlands and farmlands.



Weighty Matters

A gigaton equals 1 billion metric tons — the equivalent of about 3,000 Empire State Buildings. Carbon figures below are in **millions of metric tons**.

Of the 30 gigatons of excess carbon in the atmosphere each year, 11 gigatons could be removed using nature itself.



Current Carbon Markets in the United States

- Voluntary
 - Corporate commitments to emissions reduction
 - Government bodies and universities
 - Individuals
 - Value – highly variable- charismatic nature of project important

- Compliance – California Air Resources Board (ARB)
 - Large emitters – i.e. utilities, refineries, etc
 - Institutional investors – i.e. hedge funds, commodity traders, etc.
 - \$13/ton – Story matters less

Carbon Markets Opportunities

- Forest Carbon Projects
- Forest Carbon Co-ops
- Family Forest Carbon Program



Burnt Mountain Carbon Project



Burnt Mountain Natural Area



Calavale Brook @ Burnt Mountain



Burnt Mountain Carbon Project

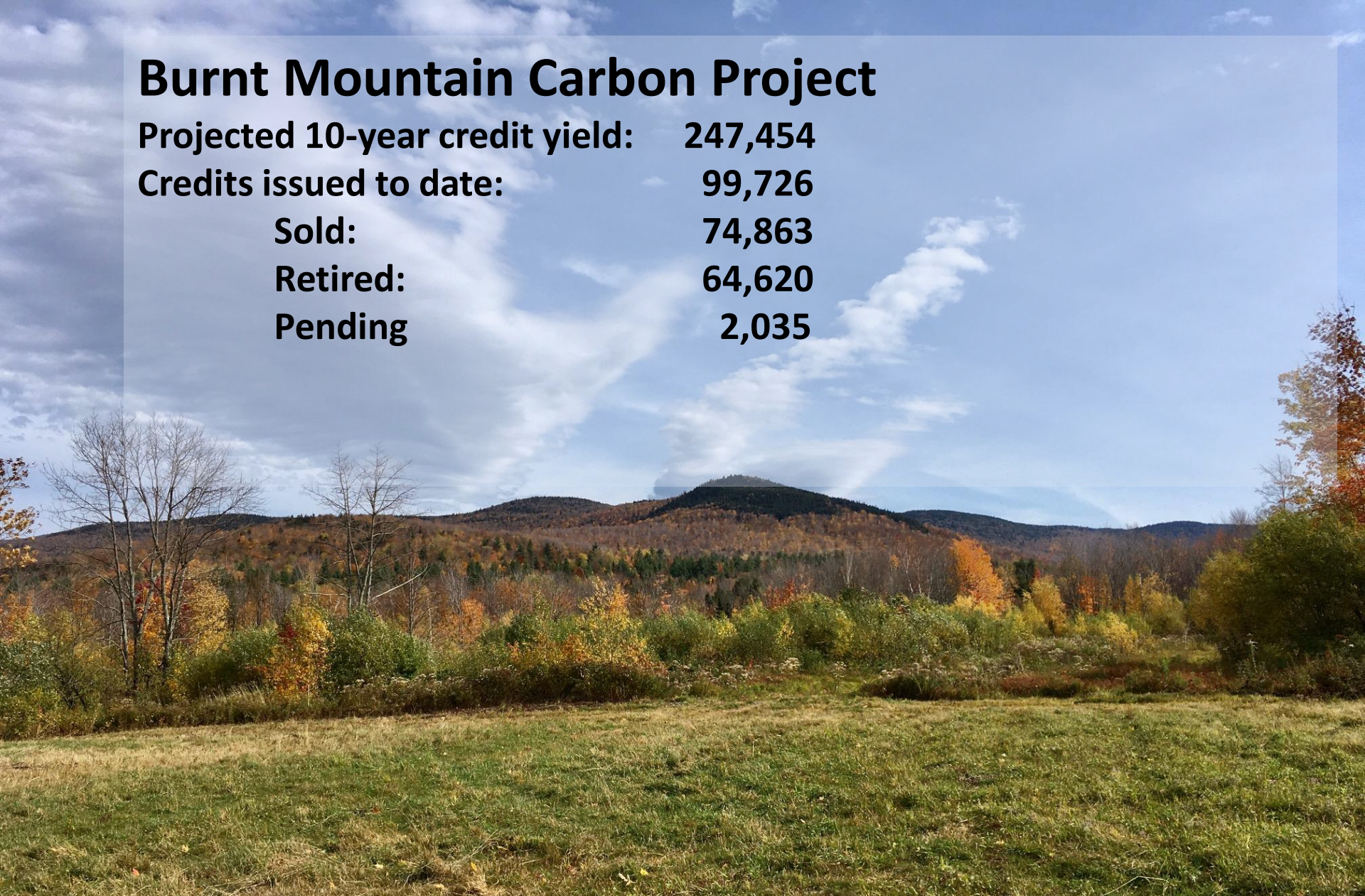
Projected 10-year credit yield: 247,454

Credits issued to date: 99,726

Sold: 74,863

Retired: 64,620

Pending 2,035



Emerging Opportunities

- Forest Carbon Co-ops
Carbon Aggregation
- Family Forest Carbon
Program
Practiced-Based Carbon



Why Family-owned Forests?



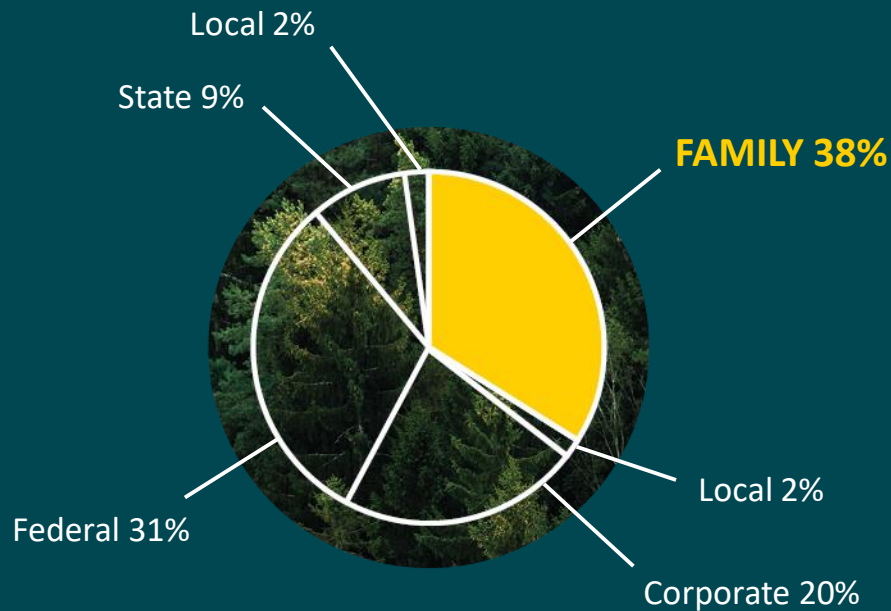
The Nature
Conservancy 

Protecting nature. Preserving life.



American Forest Foundation

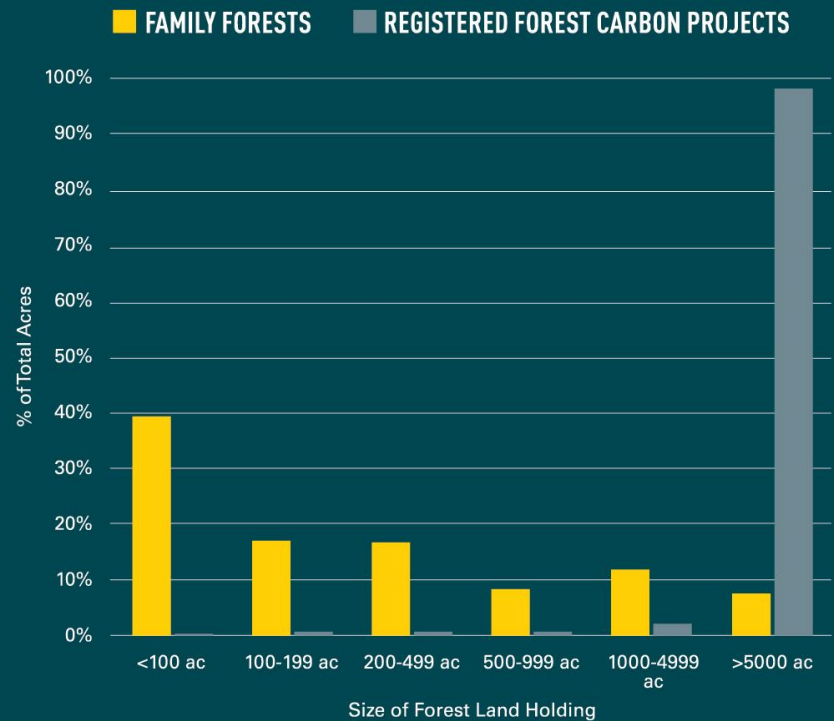
Family-owned Forests are Key



- Families and individuals own the largest portion of U.S. forests
- More than the federal government or corporations
- This ownership group is vital for achieving meaningful conservation impact at scale

Forest Carbon Projects vs. Forest Ownership Size

Ownerships less than 1,000 acres account for 80% of the acres, or less than 1% of the projects.



Cold Hollow Aggregation Pilot

VLT-SIG-TNC partnership with
Cold Hollow to Canada Regional
Conservation Partnership (RCP)

Internationally important wildlife corridor

8,543 acres: 10 Landowners: manage 12
woodlots for carbon

429,740 credits over 10 years

212,000 credits sold or contracted to date
70% of net review paid to landowners



The Family Forest Carbon Program: Leveraging Climate Finance to Support America's Family Forest Owners

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FORESTER MEETS WITH LANDOWNER: DISCUSSES GOALS, APPLICABLE CARBON-FRIENDLY MANAGEMENT PRACTICES AND SELECTS ELIGIBLE PROJECT AREA.



LANDOWNER RECEIVES AND SIGNS CONTRACT, RANGING FROM 1-20 YEARS DEPENDING ON PRACTICE.



FFCP PAYS LANDOWNER FIRST INSTALLMENT TO COMPLETE THE PRACTICE.



LANDOWNER HIRES CONSULTING FORESTER TO PLAN FOR AND COMPLETE PRACTICE.

FFCP REPRESENTATIVE VERIFIES THE COMPLETION OF PRACTICE.



CO₂
CARBON AND OTHER BENEFITS ARE QUANTIFIED ON A LANDSCAPE SCALE THROUGH FULL MONITORING ON A RANDOM SAMPLE OF PARCELS.

LANDOWNER COMPLETES SIMPLE MONITORING REQUIREMENTS AND IS PAID INSTALLMENTS THROUGHOUT CONTRACT PERIOD.



CONTINUED ENGAGEMENT AND LONG-TERM RELATIONSHIP



After learning about program benefits and verifying eligibility with FFCP representative, landowner signs up to participate.



FAMILY FOREST CARBON PROGRAM (FFCP): HOW IT WORKS





[nature.org/en-us/about-us/where-we-work/united-states/vermont/stories-in-vermont/forest-carbon/](https://www.nature.org/en-us/about-us/where-we-work/united-states/vermont/stories-in-vermont/forest-carbon/)

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