

Protecting nature. Preserving life.

# TNC Forest Carbon Programs

Kevin Yoder Conservation Forester Pennsylvania

# Working Woodlands—A Unique Partnership

Opportunity for landowners to generate revenue, address climate change and protect their forest

#### Forest certification

We help landowner to actively manage their forest in a sustainable way, including updating management plans and providing forest certification.

The Nature Conservancy More carbon is sequestered and stored, which can be sold as carbon offset credits to generate new revenue for landowner.

Forest carbon

Forest protection

We work with landowner to design flexible working forest protection mechanism keep their forest as forest.

### **Project Development Process**

- 1.Present program overview to landowner
- 2.Conduct a rapid carbon assessment
- 3.Complete a carbon feasibility study with revenue projections
- 4. Finalize easement terms
- 5.Complete carbon inventory
- 6.Develop forest management plan
- 7.Execute easement and forest certification
- 8.Market and sell carbon credits



### Carbon Project Revenue

- Revenues are highly project specific depending on size, initial carbon stocking and project constraints
- Total value to landowner from first 10 year period can range from \$150 \$200+ per acre of land enrolled (e.g. 2,500 acres might net landowner \$375K-\$600K+ over 10 years)
- Majority of revenue comes in years 1-10, but carbon can continue to be sold for project duration if markets are favorable



# Moving Forward

- Forest Carbon Aggregations/Co-ops—Vermont Land Trust model in northern VT, aggregation projects with multiple landowners
- Family Forest Carbon Program—American Forest Foundation in partnership with TNC
- New Types of Landowners—Industrial forest owners, tribal lands
- Leveraging in NY and Beyond—exporting lessons learned, supporting land trust partners, carbon development partners



# The Family Forest Carbon Program

#### An Opportunity to Achieve Climate Mitigation and Other Vital Co-Benefits

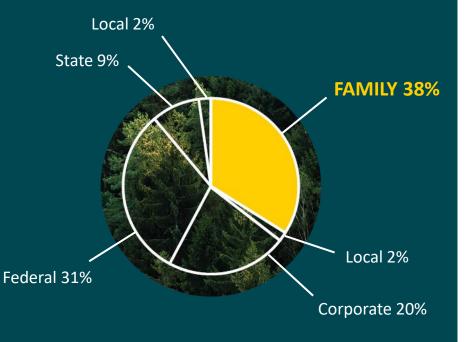
October 19, 2020





American Forest Foundation

#### Family-owned forests are critical in the fight against climate change



- Families and individuals own the largest portion of U.S. forests
- BUT, the average acreage of a family woodland is 67 acres, too small to participate in traditional carbon projects.



# FAMILY FOREST CARBON PROGRAM

- Adopts a PRACTICE-BASED APPROACH that offers incentives for specific forest management practices which have been scientifically demonstrated to enhance carbon sequestration.
- ENGAGES FAMILY FOREST OWNERS with natural resources professionals to provide technical assistance through forest management plans
- Promotes **MULTIPLE BENEFITS** of forest management including timber production, enhancing wildlife habitat, and protecting water resources.
- Built on a **FINANCIAL MODEL** that is scalable and utilizes funding from mostly private sources.





### Key Innovations that Enable Family Landowners to Participate in Carbon Markets

'TRADITIONAL' CARBON MARKETS	FAMILY FOREST CARBON PROGRAM
Pays landowners for carbon sequestered	Pays landowners to implement specific practices
Monitors carbon values on every property	Monitors practice implementation on every property; monitors carbon values on a landscape level using random sampling
High costs for monitoring on a per-property basis	Monitoring costs are high but spread across participating properties
Permanence addressed through 100 year contracts	20 year contracts; permanence addressed on program / landscape scale through long-term monitoring.

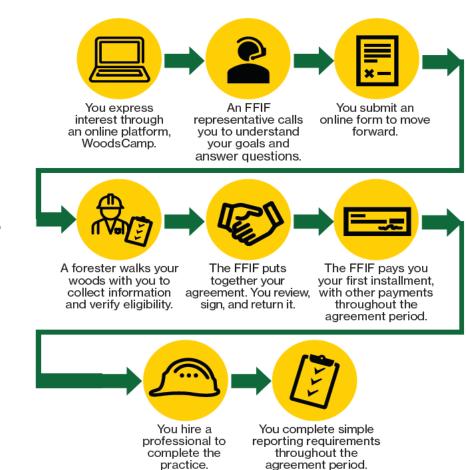
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#### Landowner Eligibility

- Non-Industrial Private Landowner owning 30
  - 2,400 acres within one of the Learning Pilot Geographies
- Forests originating from natural regeneration (e.g. plantations are ineligible)
- No restrictions on the land that exclude timber harvest activity (local ordinances, conservation easement, designated no harvest areas)
- Additional eligibility criteria tied to the specific practices

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#### How It Works for the Landowner

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FAMILY FOREST IMPACT

## Growing Mature Forests Practice

- 20-year contract
- Practice specifications:
  - Develop two property-wide, 10-year forest management plans
  - Harvests are allowed but restricted:
    - No thinning from above ("highgrading")
    - No more than 35% of basal area may be removed
- Payment covers part of the opportunity cost



#### **Growing Mature Forests**

Payment Rates (total payment)\*

Deard Fast nor Asia	FFCP Per-Acre	
Board Feet per Acre	Payment Rate	
2000 – 3500	\$120.00	
3501 – 5000	\$180.00	
5001 – 7500	\$270.00	
7501 +	\$400.00	

Payment based on timber volumes (International  $\frac{1}{4}$ " inch) at time of contract based on the most recent forest inventory.

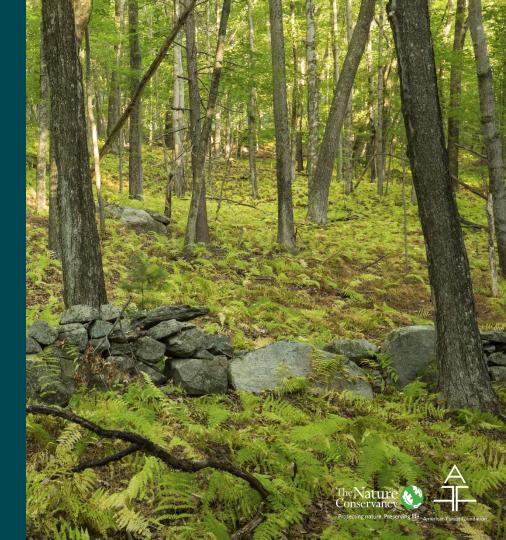
2,000 Board Feet per Acre ≈ 35 12" DBH Trees per Acre

\*Subject to change

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## Enhancing Future Forests Practice

- Former or future regeneration harvest site, where there is significant invasive or other undesirable competing vegetation
- 10-year contract with 30 years of carbon benefit
- Payment helps cover treatment of competing vegetation to encourage successful regeneration
  - \$50/acre \$245/acre



#### **Enhancing the Future Forest**

Payment Rates (total payment)\*

Level of Competing Vegetation	% Coverage of Competing Vegetation	Payment Per Acre*
Light	30-49%	\$50
Medium	50 - 100%	\$110
Complex	50-100% AND there is competing vegetation both	\$280
complex	above and below 15' tall.	<b>Υ</b> 200

#### Landowner Outreach

- WoodsCamp
  - -Online tool to recruit new landowners
  - -Landowners pick their property, receive a basic report on resources, and links to opportunities for technical and financial assistance.
  - Landowners interested in FFCP but not currently working with a forester will be linked to a consultant for a site visit and planning.
- Landowner Networks and Groups
- Existing Clients
- Planned Timber Harvests
- DCNR Service Foresters

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# Participating and Approved Foresters (Consulting Foresters)

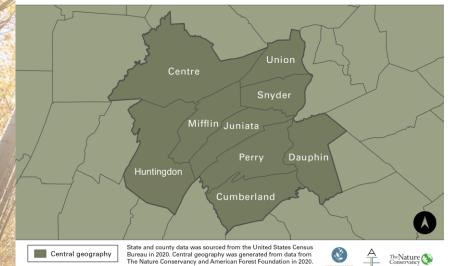
- FFCP-Participating Foresters
  - Sent qualified landowners generated from outreach efforts
  - Provides FFCP with areas they are committed to working within
  - Agrees to FFCP's timeline of landowner follow-up
  - Submits timely landowner and project info through online tool

- FFCP-Approved Foresters
  - Can plan FFCP projects for existing clients but will not be sent any new landowners from FFCP outreach efforts.
  - Submits timely landowner and project info through online tool (preferred)

#### To enroll, email Elizabeth: evranas@familyforestimpact.org

# Pennsylvania Pilot Eligible Geographies

#### FAMILY FOREST CARBON PROGRAM PENNSYLVANIA PILOT: CENTRAL GEOGRAPHY



Last updated: May 29, 2020, by Lynn Riley, Iriley@forestfoundation.org

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#### FAMILY FOREST CARBON PROGRAM PENNSYLVANIA PILOT: NORTHWEST GEOGRAPHY



Northwest geography

State and county data was sourced from the United States Census Bureau in 2020. Northwest geography was generated from data from Audubon Pennsylvania and American Forest Foundation in 2020. The Nature (Conservancy

Last updated: May 29, 2020, by Lynn Riley, Iriley@forestfoundation.org



## **Learning Pilot Numbers**

Goal: 123 Landowners/9,000 Acres Enrolled

#### <u>Current</u>

- 30 signed contracts totaling 4,593 acres
- More "in the works"
  - 22 contracts being reviewed by the landowner
  - 115 landowners signed up for a forester site visit
- 532 landowners, representing 67,511 acres, have responded to our marketing and signed up to receive more information about the program

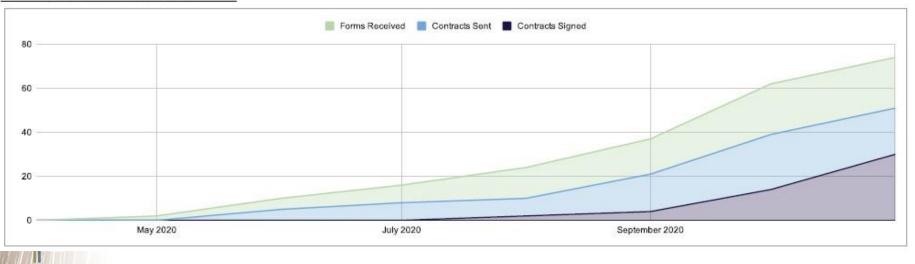
## **Learning Pilot - Early Findings**

- On average larger properties enrolling than expected
  - Average GMF project size is 161 acres. EFF average is 44 acres.
- We have adequate forester capacity, but limited availability. While foresters are signing up to be Participating Foresters, getting timely site visits can be a challenge
- Having too many staff involved can be overwhelming. Consistency in the "point person" for each landowner is important.

## **Learning Pilot - Early Findings**

There is an initial delay in program success until local trust in the program builds





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# Thank You Kevin Yoder Kevin Yoder@tnc.org 717-330-7609

www.familyforestcarbon.org www.nature.org/workingwoodlands