

## American Farmland Trust

*Brian Brandt, American Farmland Trust*

*November 2015-October 2018*

**Project Title:** Establishing Pollinator Habitat through a Pollinator Habitat Credit Program on Permanently Protected Farms in Michigan

**Project in a Sentence:** This project will test the use of an adapted Pollinator Habitat Credit guidance protocol to enhance long-term agricultural productivity and environmental sustainability, stimulate development of environmental markets and leverage additional private sector funds for farmers participating in the Agricultural Land Easement (ALE) program.

**Project Elevator Pitch:** The loss of more than 30% of managed honeybee colonies during the last several years is a threat to U.S. agriculture because one third of our food supply relies primarily on honeybees for pollination and insect-pollinated crops were valued at \$20 billion in 2000. Also, the U.S. Fish and Wildlife Service lists more than 50 pollinator species as being threatened or endangered and wild honeybee populations have dropped 25% since 1990. Pollinator habitat is one of many ecosystem services that well-managed farmland can provide and AFT is initiating an effort to explore its market opportunities. This project will: 1) establish at least 40 acres of pollinator habitat (80 pollinator credits) on 20 new or existing permanently protected sites; 2) provide training on proven implementation techniques to local conservationists; 3) engage at least 15 private businesses in helping to fund establishment of pollinator habitat on selected sites through Payment for Ecosystem Services (PES); 4) learn how to efficiently blend the rules and requirements of local farmland protection programs, farmer contracts and PES programs; and, 5) use the resulting market framework and guidance to expand this effort to other states with active farmland protection programs. American Farmland Trust (AFT) is testing this approach in Michigan because of the state's farmland protection programs and reliance on pollinators to maintain its \$2 billion fruit and vegetable production.

### Deliverables:

1. Establish 40 acres of pollinator habitat on protected farms in Michigan.
2. Complete an adapted pollinator habitat guidance package.
3. Develop factsheets, marketing and informational materials for outreach to potential buyers.
4. Complete an economic analyses of pollinator habitat sites.
5. Produce a pollinator habitat market framework for tracking projects.
6. Develop credit buyer market and third-party certification requirements.

**Participating Partners:** Kieser and Associates; Grand Traverse Regional Land Conservancy; Dr. Rufus Isaacs and Dr. Douglas Landis, Michigan State University, Department of Entomology; Stearns County SWCD

**How We Are Advancing Conservation Finance:** The most important innovation of this project will be the opportunity to test the integration of public and private programs and funding sources for voluntary farmland protection and conservation efforts. In particular, the project incentivizes additional farmland protection by combining conservation easements with pollinator habitat creation, stimulating PES markets and exploring and testing integrated projects using different NRCS programs such as ACEP.

## The Climate Trust

*Peter Weisberg, Senior Investment Manager*

*November 2015-October 2018*

**Project Title:** Transforming the Economy to Value our Climate: Launching the Working Lands Carbon Facility

**Project in a Sentence:** The Climate Trust is launching an investment fund to provide upfront capital to early-stage agriculture and forestry projects in the United States that need to depend upon the long-term revenues generated by carbon markets.

**Project Elevator Pitch:** Lenders heavily or completely discount the future revenues agriculture and forestry projects can generate by selling carbon offsets, given the complexity of carbon markets and the perceived uncertainty around the future of carbon pricing. This significantly reduces the ability of carbon markets to mobilize capital for conservation projects. The Climate Trust, a non-profit organization with 18 years of experience working in domestic carbon markets, is in a unique position to manage the risks associated with investing in carbon projects. The Climate Trust is structuring its existing \$22 million of program funds to act as a “buyer of last resort” to assure project developers and investors a minimum value for future carbon credits. Backed by this risk mitigation and grant funding from the Packard Foundation and the United States Department of Agriculture, The Climate Trust is launching a pilot investment fund to provide \$5 to \$15 million of upfront capital to forestry, grassland conservation, and livestock digester projects, in return for partial ownership of the resulting carbon credits. After demonstrating success in this pilot, The Climate Trust will scale a carbon investment fund to the \$100 to \$250 million level to appeal to institutional and impact investors.

### Deliverables:

- a) *Carbon investment fund financial structures.* The Climate Trust will develop the financial structures to accommodate investment from private capital markets, invest in early-stage conservation projects and leverage a credit enhancement from The Climate Trust and the United States Department of Agriculture.
- b) *Project investments.* The Climate Trust will invest at least \$5.5 million over the course of two years into forestry and agricultural projects in the United States that generate carbon credits.

**Participating Partners:** The David and Lucille Packard Foundation (grant supporter and cornerstone investor in the fund), Calvert Foundation (advisor and potential investor in the fund), CAPROCK Group (advisor and potential investor in the fund).

**How We Are Advancing Conservation Finance:** By using The Climate Trust’s programs to mitigate the policy and market risks associated with emerging environmental markets, The Climate Trust’s investment fund will demonstrate how limited public support can be used to mitigate risks in order to leverage the investment of private capital at scale. Because investments are repaid through credits that represent a verified reduction in greenhouse gas emissions, The Climate Trust’s carbon investment fund will tie financial performance directly to verified environmental performance.

## Conservation Finance Network

*Leigh Whelpton, Conservation Finance Network*

*November 2015-October 2018*

**Project Title:** Advancing the Practice of Conservation Finance through Industry Roundtables

**Project in a Sentence:** Hosting regular gatherings of conservation finance practitioners to highlight key challenges and opportunities for growth in conservation finance.

### Project Elevator Pitch:

CFN will convene Conservation Finance Practitioner Roundtable meetings that create opportunities for the sharing of experience and the development of new techniques and strategies. Each roundtable will bring together 30-60 participants around a specific theme that is organized by topic, audience, or intended outcome. The momentum of the roundtables will be sustained through pre- and post-meeting engagement, by building and strengthening a networked community of practice among industry stakeholders, and by capturing and disseminating information on innovative approaches to funding and financing. CIG awardees will be invited to each meeting and required to attend at least one a year, providing a forum for sharing experiences, collaborating with industry leaders, and overcoming common obstacles.

### Deliverables:

- a) A minimum of seven roundtable meetings that offer participants the opportunities to share and exchange their experience and overcome obstacles in applying innovating financing techniques to working lands conservation practices.
- b) Produce survey results summarizing and assessing the needs of roundtable participants.
- c) Develop a minimum of one white one paper per year relative to roundtable sessions.
- d) Capture, develop, and disseminate content, ideas, case studies, and policy and legislative recommendations as appropriate to support and advance the objectives of the roundtable meetings.
- e) Produce an evaluation survey and summary report on the efficacy of the roundtables and any resulting actions. This will build into our project evaluation by assessing the success and broader applicability of our approach.

**Participating Partners:** The Climate Trust, Equilibrium Capital, The Conservation Fund, World Resources Institute, the Lyme Timber Company, LegacyWorks Group, Seale & Associates, Environmental Banc & Exchange, Encourage Capital, Dirt Capital, Sonen Capital, Duke University, the Nature Conservancy, the Trust for Public Land, Gordon and Betty Moore Foundation, Harvard Forest and the Open Space Institute.

**How We Are Advancing Conservation Finance:** By bringing together conservation finance leaders, government agencies, and other stakeholders to address common challenges and opportunities, the Roundtable will result in shared solutions, more positive outcomes from the CIG projects, and new ideas for increasing private capital investment in conservation.

**Ecotrust****Brent Davies, Ecotrust****November 2015-October 2018**

**Project Title:** The Swinomish Forest Bank, a Pilot Effort to Incorporate Private Financing in Conservation and Climate Adaptation

**Project in a Sentence:** Ensuring more climate-resilient communities by developing a replicable system in Indian Country that leverages new and scalable revenue sources for forest conservation and carbon sequestration.

**Project Elevator Pitch:** This partnership project between the Swinomish Indian Tribal Community and Ecotrust. Like many Native American Tribes, the Swinomish are encumbered by a legacy of federal land allotment policies that fragmented Reservation lands into a checkerboard of many Indian and non-Indian owners. This mixture of ownership complicates any landscape approach to forest ecosystem management and challenges the Tribe's efforts to coordinate the locations, scope, and timing of forest management actions. The Swinomish have a long and well-documented history as innovators in climate change policy and adaptation, yet the current outdated and fragmented management objectives and practices cannot meet the Tribe's goal to achieve community resilience in the face of a changing climate. Ecotrust and the Swinomish Tribe will launch a "forest bank" that transforms the current forest model into one that serves as an innovative, catalytic, and transferable model of conservation finance. The forest bank will leverage ecosystem service markets and incentives by channeling private investment capital and public funding to forest owners and results in landscape-level conservation and restoration. We will create a menu of conservation financing, operation structures, and forest management opportunities from which the Tribe can select the combination that best meet their needs and that results in: 1) the coordination of forest management across its 7,500-acre Reservation; 2) periodic and reliable payments in lieu of harvest for landowners; and 3) the repatriation of land management decision-making to the Tribe.

**Deliverables:**

- a. A revised Forest Management Plan, including numerous metrics for evaluating forest management and ecosystem service outcomes.
- b. Detailed review of selected certification options will be prepared and submitted to Tribal committees.
- c. Implementation of a forest carbon pilot project, upon Tribal approval.
- d. Definition of Forest Bank candidate models: a briefing document of the primary alternatives for governing and capitalizing a Forest Bank will be completed and submitted to the Tribe.
- e. Market demand assessment and report.
- f. Stakeholder engagement plan, including a Focus Group of Tribal members.
- g. Regular reports, at least two articles, and a final summary of findings.

**Participating Partners:** The Swinomish Indian Tribal Community.

**How We Are Advancing Conservation Finance:** By defining and testing a new model that uses ecosystem service markets to fund conservation and coordinate management across different ownership and forest types, and by creating a replicable and scalable model that is applicable on Native American reservations and on private land.

## Environmental Defense Fund

*Robert Parkhurst*

*November 2015-September 2018*

**Project Title:** Demonstration of a Scalable Nutrient Management Project to Reduce Nitrous Oxide Emissions and Generate Voluntary or Compliance Carbon Credits

**Project in a Sentence:** Create a large-scale nitrogen fertilizer management project that increases access to environmental market incentives by reducing barriers for growers to participate

**Project Elevator Pitch:** The California and Quebec cap-and-trade programs offer an opportunity for the agriculture and forest sectors in the U.S. and Quebec to participate in meeting California and Quebec's goals of reducing GHG emissions to 1990 levels by 2020. Current econometric analyses indicate that there will be an allowance shortfall of "200 million to 230 million by 2020."<sup>1</sup> Coincidentally, the cap-and-trade regulations allow for approximately 220 million metric tons of offsets through 2020. This underscores the important role offsets play in the North American carbon market as an alternative compliance instruments for regulated entities. Despite these market realities, buyers and sellers of carbon offsets have been stuck in a stalemate, with few credits created and no direct market signal from the California Air Resources Board on the development of a nitrous oxide reduction compliance-grade protocol.

This CIG will catalyze the market for agricultural offsets from nitrogen fertilizer optimization, providing conservation finance professionals with new investments that make good business sense. Leveraging EDF's experience developing offset protocols for the compliance market coupled with our network and relationships with producers, their professional organizations and their supply chain partners, the CIG team will set the stage for a large-scale project. By removing agricultural information technology and carbon market education barriers highlighted by previous nitrogen management CIGs, this project will minimize currently prohibitive agricultural project costs and risks and increase engagement. That way, this CIG will prime the market by demonstrating project viability and driving down costs in order to attract the capital needed to jumpstart a virtuous cycle of investment and return.

**Deliverables:** (i) scientific review of nitrous oxide protocols; (ii) economic analysis of various stakeholder businesses cases; (iii) streamlining of data tools to facilitate improved market access; (iv) outreach and education to growers and trusted agricultural advisors; (v) protocol refinement and preparing the market for the sale of compliance credits through outreach and education of buyers

**Participating Partners:** Almond Board of California - American Carbon Registry - Applied Geosolutions - Carbon Credit Solutions - Climate Action Reserve - Coalition on Agricultural Greenhouse Gases - Delta Institute - K·Coe Isom - United Suppliers - UC Davis - Viresco Solutions

**How We Are Advancing Conservation Finance:** By helping to create pathways for conservation finance investment through partnerships with information technology providers and agricultural networks.

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<sup>1</sup> CaliforniaCarbon.info, "Analyst Note: Supply-demand position for electricity importers under California cap and trade," June 11, 2014.

## Farmland LP

*Mark Lambert, Farmland LP*

*November 2015-October 2017*

**Project Title:** Catalyzing Impact Investment in Sustainable Agricultural Lands and Practices

**Project in a Sentence:** Improve tools to catalyze investment in sustainable agricultural lands and practices by creating metrics for environmental outcomes of farm-scale management practices.

### Project Elevator Pitch:

Farmland LP, a sustainable agriculture investment fund, purchases conventionally managed farmland and converts it to organic, sustainably-managed farmland using crop and livestock rotations. There is a growing need for consistent and transparent metrics for monitoring and reporting the environmental performance of this sustainably managed farmland in order for ecological benefits to be properly communicated and valued in the marketplace. This project will address that need by providing sustainable agriculture investors with the ability to assess the impact their investment in conservation management practices have on farm-level ecological and asset values. The project team will adapt and utilize Earth Economics' Ecosystem Valuation Toolkit (EVT) to quantify and report on the suite of environmental benefits accruing from the management practices taking place on Farmland LP land. The outcome of this project will be to scale the engagement of private capital as a partner in conservation practices, and to demonstrate a new model for protecting productive farmland while delivering benefits on multiple scales.

### Deliverables:

- a) A comparative balance sheet showing line item budget differences across conventionally managed, transitional, and fully operational Farmland LP farms.
- b) An updated EVT customized to Farmland LP's current sustainable agriculture management practices with platform in place to expand to additional practices as needed.
- c) Detailed farm-level reports on the relevant regulating, provisioning, supporting, and cultural ecosystem services provided by sustainable agricultural practices on Farmland LP's properties.
- d) Online, customizable dashboards that compile farm-level reports to provide clear and accessible metrics on environmental outcomes associated with management practices.
- e) A written report summarizing major findings, key ecological economics concepts, and recommended applications (including infographics and case studies) for prospective investors, policy-makers, and general interest stakeholders.

**Participating Partners:** Delta Institute, Earth Economics

**How We Are Advancing Conservation Finance:** The project aims to produce a set of rigorous but easy to understand impact reports detailing the near and long term environmental benefits of the sustainable and regenerative farming practices on Farmland LP's properties. These reports and metrics will provide existing and potential investors (as well as other stakeholder groups such as farmers, food consumers and the academic community) with the information to assess both farm- and ecosystem-level environmental impacts of their investment in Farmland LP's funds.

## **The Nature Conservancy - NatureVest**

*Tom Hodgman, Director of Conservation Finance*

*November 2015-November 2020 (Project Dates)*

**Project Title:** Prairie Potholes – Protecting Grasslands using Carbon Finance

**Project in a Sentence:** Permanently protect grasslands in the Prairie Pothole region that are at high risk of conversion to cropland using carbon finance funding for conservation easements.

### **Project Elevator Pitch:**

TNC and its partners developed a carbon offset methodology that allows landowners who protect their grasslands with a permanent conservation easement to obtain carbon offsets. The Conservancy is working in partnership with public agencies to acquire conservation easements and carbon rights from landowners. The Conservancy will then develop the carbon project and sell the offsets to corporate and other voluntary buyers seeking high quality carbon offsets to help them meet their greenhouse gas emissions goals. Net proceeds from offset sales will be used to create a funding stream for additional conservation easements in the Prairie Potholes region.

### **Deliverables:**

- Goal to enroll 50,000 acres of rangeland, encompassing approximately 100 ranches, into a carbon offset program by layering perpetual conservation easements and direct carbon payments
- Target perpetual conservation easements to areas most threatened by conversion and areas with highest carbon storage in soil
- Complete market assessments required by ARC methodology to extend carbon offset program to nine additional counties in North Dakota
- Certify first round of carbon offsets for sale on voluntary market
- Generate new revenue for additional rangeland conservation – approximately \$4.2MM over 20 years
- Avert approximately 750,000 t CO<sub>2</sub>e emissions over the 20 year life of the project

**Participating Partners:** The Nature Conservancy, US Fish and Wildlife Service, The Climate Trust, Ducks Unlimited, Foundations, American Carbon Registry, USDA.

**How We Are Advancing Conservation Finance:** By recognizing the ecosystem service values of permanently protecting grasslands in the Prairie Potholes we are providing an additional financial incentive to landowners to protect grasslands and creating additional funding resources for conservation easement acquisition and future carbon rights purchases. Through piloting this project we are helping to identify inefficiencies in the carbon offset methodology for avoided grassland conversion to make these markets more efficient for all participants – reducing transaction costs and uncertainty.

## **Terra Global Capital**

*Leslie Durschinger, Terra Global Capital*

*November 2015-October 2018*

**Project Title:** Creating Value for Producers and Impact Investors through Marketable GHG/Environmental Credits on Range and Pasture Lands

**Project in a Sentence:** Build market-based approaches to conservation for range and pasture land managers by enabling greater access to the carbon market and facilitating new investment capital for the sector.

### **Project Elevator Pitch:**

This project will engage a diverse group of range and pasture land managers across five states, including veteran and other historically underserved ranchers. It links those implementing NRCS conservation practices with the technical support to understand the opportunities and gain access to GHG markets, where possible, stacking credits for water quality and conservation banking. An innovative and modular GHG quantification protocol to be developed to more efficiently support generating emissions reductions from a broad set of NRCS practices relevant to range and pasture lands. Educational support is provided to demonstrate the viability of GHG markets through the verification of credits for an aggregated group of ranches. In addition, this project will facilitate development of conservation-based metrics used to attract new investment capital for range and pasture lands to quantify impact and investment value. Through partnering directly with range and pasture land managers, as well as with a board spectrum of organizations who support land managers, this CIG ensures meaningful participation, coordination and adoption across the ranching community in the West.

### **Deliverables:**

Under this CIG, Terra and its partners will produce the following:

- 1) 20-30 rapid assessments of marketability of GHG benefits/environmental credit stacking potential across a multi-dimensional set of range and pasture lands that include public and private lands, large, small and underserved ranchers, and owned and leased covering the five project states
- 2) Training and engagement materials on the GHG/environmental market benefits from conservation practices for CCI to build capacity within producer engagement organizations CRT, FVC, MESA, 6-10 RCDs and CRCC.
- 3) 15 training sessions with producer engagement organizations
- 4) Comprehensive range and pasture land market GHG protocol under CAR to cover the broad spectrum of GHG-beneficial NCRS practices
- 5) Validation, verification and monetization of 2-10 aggregated ranch/farms under the new CAR range/pasture land protocol
- 6) Development of at least one stacked environmental credit on a GHG project, to demonstrate multiple revenue streams
- 7) Formalized engagement for the adoption of the GHG protocol under CA AB-32 cap-and-trade and for local CEQA compliance through CAPCOA or air districts directly
- 8) Increase awareness and demand for the GHG protocol/credits with states outside of CA, to identify and build demand for GHG credits from range/pasture lands from regulatory and voluntary sources

- 9) Sustainability impact investment metrics for range/pasture lands for use by Farmland Fund, LP capital raising and to provide input to the AFOLU and Water Working Group of the Climate Bond Standard
- 10) Consumer branding approach for Five Dot to demonstrate the conservation and sustainability of products and promote premium pricing
- 11) Range/pasture land producers platform, through the extension of the CIG funded Rice Grower's Platform and/or COMET-FARM to include range/pasture land protocol requirements for producer's and supporting data collection and model quantification.

**Participating Partners:** Five Dot Land and Cattle Company, California Rangeland Trust, Farmer Veteran Coalition, Multinational Exchange for Sustainable Agriculture, The Nature Conservancy, Carbon Cycle Institute, Vitality Farms LLC, University of California-Davis Department of Plant Sciences, Climate Action Reserve and Farmland Fund

**How We Are Advancing Conservation Finance:** Demonstrate and develop integrated value chains that produce agricultural products, emissions reductions and where possible other environmental credits. Create range and pasture land-specific impact investment indicators to bolster capital raising, support investment decision making and investor reporting.

## World Resources Institute

Todd Gartner

January 2016-October 2018

**Project Title:** Unlocking Green Bonds for Natural Infrastructure in the United States Water Sector

**Project in a Sentence:** This project will help secure water resources by building needed frameworks, partnerships, and know-how to issue green bonds and other innovative financing mechanisms for natural infrastructure.

### Project Elevator Pitch:

WRI and partners will advance impact investments in U.S. working lands conservation. In particular, this project will help secure water resources by building needed frameworks, partnerships, and know-how to issue green bonds and other innovative financing mechanisms for natural infrastructure. This project connects investors, utilities, water-dependent companies, municipalities, EQIP eligible landowners, and environmental groups to build replicable templates and processes that unlock private sector financing for conservation, restoration and enhanced stewardship on America's farms, forests and ranches. The initiative will generate innovative pilot projects that put these processes into practice, increase conservation investment on private working lands, and enable scaling of natural infrastructure stewardship for enhanced water security – a shared interest amongst all sectors. As a result of this project, new financing will flow to agriculture and forestry producers, boosting environmental and economic resilience of the rural economy while simultaneously safeguarding communities, utilities and companies against intensifying climate and water risks.

### Deliverables:

Deliverables
<b>1. Assessment</b>
<b>a. Replicable screening process/site selection and documentation of approach</b>
<b>b. Diagnostic on enabling conditions for high priority sites</b>
<b>c. Natural Infrastructure Scenarios for selected sites - report</b>
<b>d. Green-Gray Analysis - economic comparison of scenarios</b>
<b>e. Natural Infrastructure Plans &amp; Feasibility assessments for high priority sites</b>
<b>f. Recommendations for capturing economies of scale</b>
<b>2. Legal support and policy analysis</b>
<b>a. Partnership Agreements – may include Public Private Partnership</b>
<b>b. Legal review/workplan and templates for investment readiness</b>
<b>c. Natural Infrastructure Finance Model roadmap and templates</b>
<b>3. Information dissemination and outreach</b>
<b>a. Report on Lessons Learned that captures the process</b>
<b>b. Sector specific policy briefs and training materials</b>
<b>c. Natural infrastructure finance toolkit</b>
<b>d. Outreach activities (trainings, webinars, conference participation)</b>
<b>e. Journal articles</b>
<b>f. Participation in Conservation Finance Bootcamp</b>
<b>4. Project Management</b>
<b>a. Quarterly financial reports</b>
<b>b. Semi-annual and Final reports to NRCS</b>

**Participating Partners:** American Water Works Association (AWWA), National Association of Clean Water Agencies (NACWA), Nestlé Waters North America (Nestlé Waters), Rockefeller Foundation's 100 Resilient Cities (RC100), Troutman Sanders, US Endowment for Forestry and Communities (US Endowment) US Water Alliance and Conservation Finance Network (CFN)

**How We Are Advancing Conservation Finance:** This project connects investors, utilities, water-dependent companies, municipalities, EQIP eligible landowners, and environmental groups to build replicable templates and processes that unlock private sector financing for conservation, restoration and enhanced stewardship on America's farms, forests and ranches. The initiative will generate innovative pilot projects that put these processes into practice, increase conservation investment on private working lands, and enable scaling of natural infrastructure stewardship for enhanced water security – a shared interest amongst all sectors.