## Bay Bank & LandServer

Moving Markets to Protect Ecosystems of the Chesapeake Bay Region

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## Overview

- Vision for Bay Bank, LandServer, and Associated work
- Background & Process
- Bay Bank & LandServer Outcomes
- Challenges
- Future Work





## Vision for Bay Bank & LandServer

- "It shouldn't be hard for a landowner to join conservation programs"
- Connect landowners to new and existing conservation programs
- Test new approaches for engaging landowners and get better environmental outcomes







## **Market-Based Conservation**



- Reduces the cost of restoration or compliance
- Targets conservation actions
- Improves accountability & effectiveness of practices
- Expands revenue options for landowners
- Facilitates private investment
- Creates green business opportunities

...brings real, verifiable conservation to scale.





## Our process

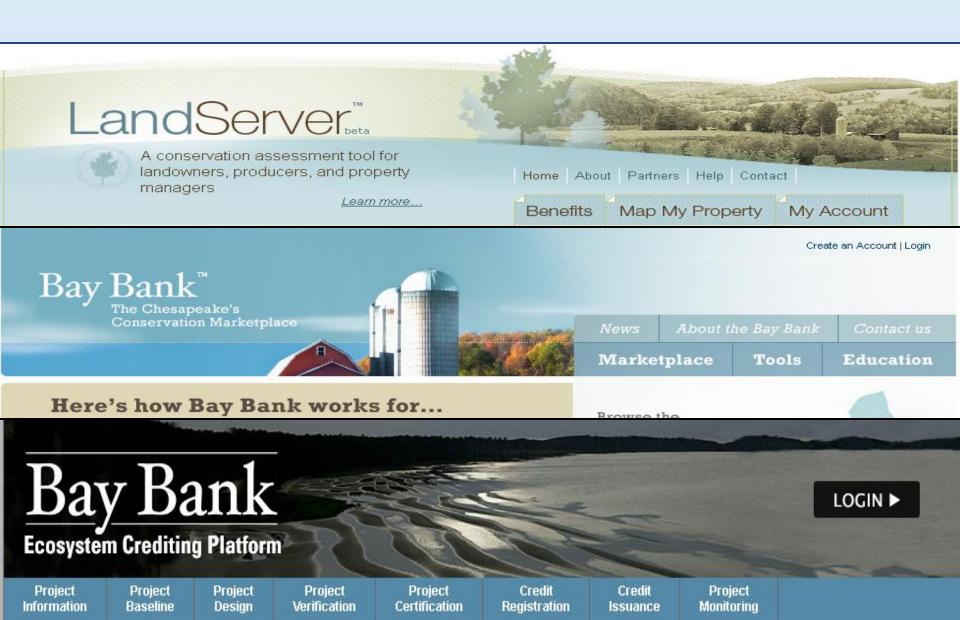
- Regulatory and voluntary demand analysis with Environmental Law Institute
- "Market area" working groups to identify ways we could facilitate landowner involvement
- Tool development to engage landowners and ease implementation
- Pilot projects to test tools and demonstrate new approaches

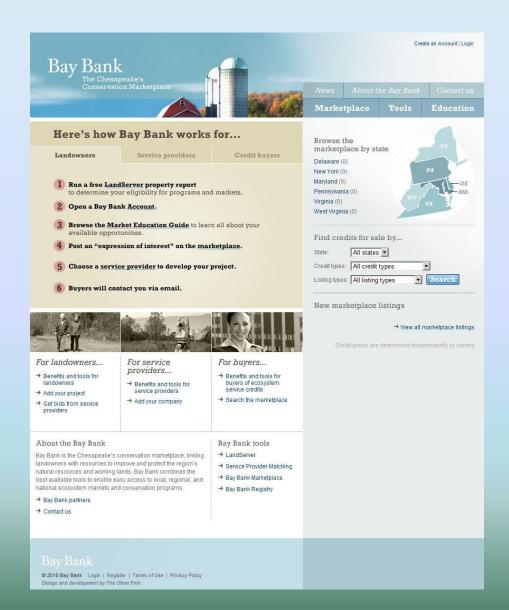






## Conservation Outreach and Implementation Tools











#### **Forest conservation**

#### Learn more about:

#### Benefits

→ Benefits overview

#### Market areas

- → Market areas overview
- → Forest conservation
- → Habitat conservation
- → Water quality protection
- → Carbon sequestration
- → Conservation programs

#### **Ecosystem credits**

- → Ecosystem credits overview
- → Property potential

How does this market work?

Am I eligible to sell credits?

How do I generate credits?

How much money do credits sell for?

How much will it cost me to generate and sell credits?

What is required of me in order to generate credits?

Can I see my county's specific requirements?

I'm Interested, Now what do I do?

#### How does this market work?

Bay Bank connects forest landowners to Maryland forest conservation buyers. The state Forest Conservation Act (FCA) requires residential and commercial developers to replace trees cut during development. If a developer is unable to plant trees on the construction site, s/he may:

- Buy forest mitigation credits generated by landowner "forest mitigation banks"
- Pay a fee to the county that may then be used to buy forest mitigation credits generated by landowner "forest mitigation banks" or

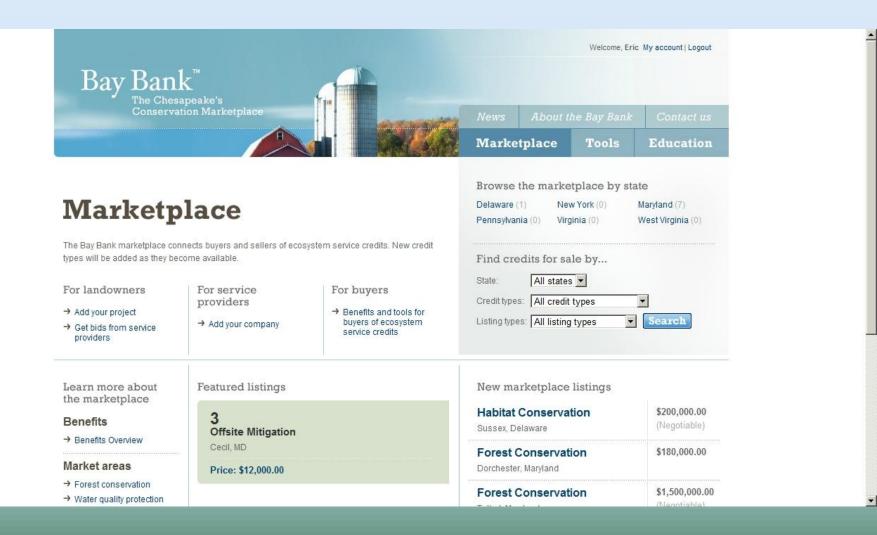


#### Bay Bank tools

- → LandServer
- → Service Provider Matching
- → Bay Bank Marketplace
- → Bay Bank Registry











Company:

#### Find credits for sale by... All states 🕶 State: Marketplace Credit types: All credit types Search Listing types: All listing types Learn more about Listed: February 16, 2011 the marketplace Credit #000007 Benefits **68** Forest Conservation credits → Benefits Overview Price: \$180,000.00 Contact the seller to inquire Market areas about purchasing these credits Expression of interest → Forest conservation Prices are determined independently by sellers. → Water quality protection Message: → Carbon sequestration Location: → More... Dear seller. Dorchester, Maryland I found your listing (#000007) on Bay Bank, and would Ecosystem credits Description: like to talk with you about purchasing these ecosystem Other types of credits may apply: Habitat conservation, → Property potential credits. mitigation, carbon sequestration. Property is 39% wetlands, → Selling credits 49% forested, 10% ag. Located within Nanticoke/Blackwater → More... River BioReserve. Property is within following Name: national/international designations: BioReserve of Critical Eric Sprague Importance, Important Bird Area, Wetland of International Email: esprague@pinchot.org Importance. Also within MD unprotected Targeted Ecological Phone:

Area and Nontidfal Wetland of Special State Concern. Supports many RTE species. Designated as a Sensitive

Concern.

Species Project Review Area, USDA NRCS priority watershed for nitrogen and phosphorus and State of MD Wetland of





Send Message

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Project Information Project Baseline Project Design

Project Verification Project Certification Credit Registration Credit Issuance Project Monitoring



#### Welcome to the Bay Bank's Ecosystem Crediting Platform

This tool helps land managers translate environmental restoration and conservation actions into conservation credits. Users can map their projects, create multiple project designs, and manage their projects through approvals for select conservation programs.

#### Interested in using the ECP?

If you would like to begin developing conservation projects register your organization as a service provider at <a href="https://www.thebaybank.org">www.thebaybank.org</a> and then request access by sending an email to us at <a href="mailto:info@thebaybank.org">info@thebaybank.org</a>.

#### Still Have Questions?

Browse the FAQ's »
Contact Us »

#### How It All Works...



#### About the Bay Bank

Bay Bank (www.thebaybank.org) is the Chesapeake's conservation marketplace, linking landowners with resources to improve and protect the region's natural resources and working lands. Bay Bank combines the best available tools to enable easy access to local, regional, and national ecosystem markets and conservation programs. Bay Bank is managed by the Pinchot Institute for



Welcome Eric

My Projects

My Account/Admin Dashboard

Add a Project

Logout

**Project** Information

**Project** Baseline Project Design

**Project** Verification

Project Certification

Credit Registration

Credit Issuance

**Project** Monitoring

PROJECT!

Brown Conservation and Habitat Over ...

Design Boundary

Map Units Design Data

Credit **Estimates**  Release Schedule

Submit Design



#### Credit Estimates

The list below contains the credit estimates for this project design scenario. These are estimates only, and do not factor in any credits withheld for insurance purposes or other market specific requirements. The final credits associated with a final design will not be confirmed until the project is verified and certified. These estimates serve to inform you of the likely outcomes of the proposed project design scenario.

If you would like to create different design scenarios, click on the Project Design tab and proceed. Once completed, select your preferred design to submit to Bay Bank to be verified.

#### Zone 1: Habitat Market: Brook Trout

ESTIMATED CREDITS. 5,353.89 credits

#### Wins: LandServer

- Online education and outreach tool
- Natural resource
   assessment and
   conservation program
   eligibility filter
- 4,000 unique visitors/1,100 reports
- 25% conversion rate (web standard 1%)



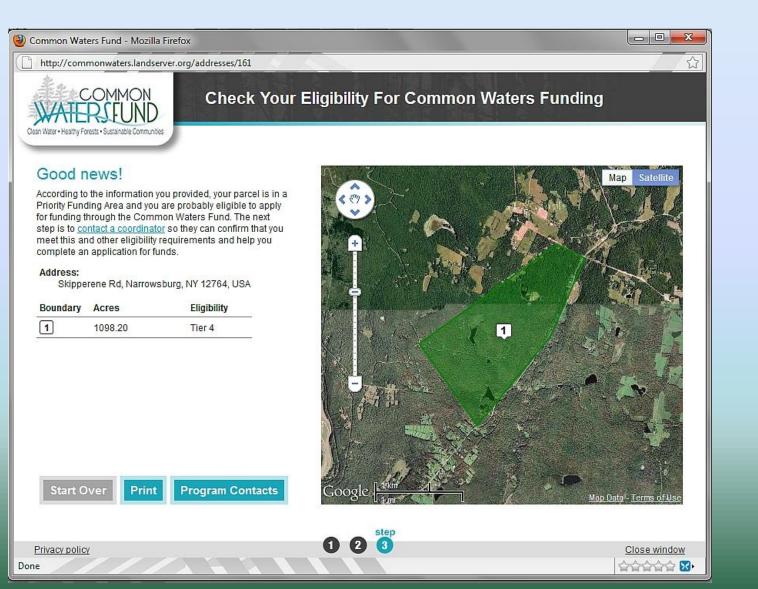
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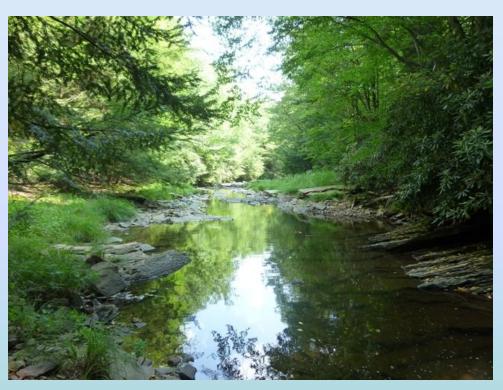


## Other Uses of LandServer





#### **Wins: Habitat Conservation Credits**



- Permanent protection and management for >100 acres of high quality and priority habitat
- Developed new metric for evaluating habitat value
- Investigating with multiple partners ways to integrate approach





## Example: "Brook Trout Credits" Location

- EBTJV Priority Watersheds
- Trout Unlimited Conservation Success Index
- Proximity to riparian areas and occupied streams

## **Habitat Quality**

- Vegetative composition and structure (98% forest cover)
- Local threats and management

## **Project Duration**

• Permanent = 100% of credits



#### **Eastern Brook Trout**

Salvelinus fontinalis

- 2% of its historic range in the Chesapeake Basin
- Coldwater streams
- Private landowners
- A shared federal, state, conservation priority
- Need a common currency
- Credits...





#### **Additional Action/Condition**

Must be new conservation and not required by law

#### **Credit Terms**

- Contracts for life of project—minimum of 20 years
- Protects site from degradation
- Assigns liability for intentional loss
- Assigns rate for unintentional loss

## Planning, monitoring, and maintenance

 Must develop and implement a habitat conservation and monitoring plan





## **Other Priority Habitat Credit Markets**







#### **Bog Turtle**

Glyptemys muhlenbergii

- Wetland complexes
- Interface between farms & streams
- Troubled habitat
- Federally listed, state priority habitat

#### **Delmarva Fox Squirrel**

Sciurius niger cinerus

- Mature connected tracts of hardwood & pine
- 87% range on private lands
- Federally listed, state priority habitat

#### **Indiana Bat**

Myotis sodalis

- Diverse forests, mature trees for roosts, and cave & other formations for hibernation.
- Federally listed, state priority habitat





## Challenges

- Establishing role in nutrient trading, carbon sequestration and wetlands mitigation
- Tool adoption
- More pilot projects & demonstrations







## **Ongoing Work**

Provide Education, Outreach and Communication on Marketbased Conservation Opportunities.

Conducting outreach to conservation buyers and state and local governments on the benefits of using forest-based practices and "habitat conservation credits" to achieve Chesapeake restoration goals.

#### Implement Market-based Conservation.

Facilitating landowner involvement in existing and developing forest-based mitigation and offset programs





## **Future**

- "Field partner" model
  - Alliance for the Chesapeake Bay: Uses tools to implement forest mitigation programs and engage private forest landowners
  - Trout Unlimited: Uses habitat conservation credits to raise funding for priority land conservation deals
- Connect landowners and other users to grant programs, farm bill programs, etc
- Encourage landowner outreach groups to use tools: circuit riders, watershed groups, land trusts, etc





# Education, Outreach and Communication on Market-based Conservation Opportunities. Habitat Conservation Credits

- Connect landscape level priorities with site level actions
- "Credits" through restoration, protection and management
- Leverages funding sources







#### **Assess Credit Potential**

- Forest habitat (FIDs, brook trout, etc)
- Riparian forest
- Forest cover
- Nutrient removal
- Growth Offsets
- LEED

## Connect Landowners to Buyers

- Home builders/Developers
- Utilities/transportation
- State and Local governments







## Implement Market-based Conservation.

Forest-based mitigation and offset programs











## **Discussion Points**

- A well-functioning centralized marketplace will require buy in by governments, conservation groups and businesses. Is this achievable?
- If yes, what are your thoughts for better integrating our work with existing efforts?
- If no, are there pieces of this work that have a role on their own?
- Do you see other ways that these tools and approaches could be useful?



