



Sustainable Forestry Revolving Loan Fund

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Prospectus

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INTRODUCTION

Encouraging the sustainable management of forests is one of our most promising strategies for conserving ecosystem services in the Mid-Atlantic. Forest management can provide income to landowners while conserving their forest-provided ecological services like water filtration. However, forest management often operates at thin financial margins and is easily influenced by external forces like global wood markets.

The loss of forestland or the occurrence of unsustainable harvests often happen when family forestland owners have a sudden need for cash (e.g. medical expenses).ⁱ This need is often exacerbated when forestland changes ownership due to outstanding debts, tax liabilities, competing interests of heirs, etc. This is important to the Chesapeake as nearly a third of all family owned forestland is expected to be sold, converted to another land use, or passed on to heirs in the next five years.ⁱⁱ

The substantial amount of funding that would be needed to protect these forest provided ecosystem services with traditional conservation tools like easements is not available, so other financing options will be needed. This prospectus assesses a financing mechanism to promote sustainable forests in light of these threats, a sustainable forests revolving loan fund.

The Chesapeake Bay watershed provides a useful example of the potential benefits of innovative financing mechanisms. In Forest Conservation Directive 06-1, the Chesapeake Bay Executive Council¹ stated that retaining and expanding forests in the Chesapeake Bay watershed is critical to the success of the restoration of the Bay. The Executive Council recognized the importance of forests because the Bay watershed is dependent on forest-provided ecosystem services:

- Sources of drinking water,

¹ Membership includes the governors of Maryland, Virginia, and Pennsylvania; administrator of the U.S. Environmental Protection Agency; mayor of the District of Columbia; and chair of the Chesapeake Bay Commission, a legislative body serving Maryland, Virginia, and Pennsylvania.

- Filtering and cooling water,
- Cleaning the air,
- Regulating climate, and
- Maintaining habitat and biodiversity.

Each year, forests in the Chesapeake Bay watershed provide at least \$24 billion in ecosystem service "value." This economic benefit was assessed for just carbon sequestration, flood control, wildlife habitat, and recreation.ⁱⁱⁱ Since it does not include water quality, air quality, water storage, and other valuable services, this is a considerable understatement of the total value of Chesapeake forests. Forests are also important to the quality of life and rural economies of municipalities across the region. The forest products industry provides 140,000 jobs, \$6 billion in income, and a total industry output of \$22 billion to the Bay economy each year.^{iv} Forests provide many other services that are beyond price and impossible to quantify.

The loss of forests to development and diminished health from unsustainable timber harvests restricts the ability of forests to provide these services. Conversion to housing subdivisions, highways, and shopping malls is particularly harmful since the effects are all but permanent. New development in a region also speeds up the loss of nearby forests since additional development will follow the investments in transportation and energy infrastructure. The Chesapeake region is currently losing forestland at a rate of 100 acres per day^v and 5.5 million acres of the most valuable forest for protecting water quality are at risk to development.^{vi} If all of these valuable and vulnerable forests were lost, the Bay would see an increase of 29 million pounds of nitrogen a year due to the loss of the natural filters.^{vii}

SUSTAINABLE FORESTS REVOLVING LOAN FUND

A revolving loan fund (RLF) is a self-replenishing pool of money. The interest and principal payments on old loans are used to issue new loans. Revolving loan funds have been primarily used for bridge financing to enable the expansion of small businesses. The financing mechanism has recently become a valuable tool for implementing environmental objectives like land conservation and non-point source pollution control. Examples include the U.S. EPA's Clean Water State Revolving Loan Fund and The Conservation Fund's Great Lakes Revolving Loan Fund.

A Sustainable Forests Revolving Loan Fund can provide low-interest loans with flexible terms to woodland owners in the Mid-Atlantic region. The loans would allow woodland owners to address short- to mid-term financial needs thereby alleviating the pressure to proceed with an unsustainable timber harvest or to sell their property. A revolving loan fund targeted towards woodland owners will provide a critical source of financing because these landowners face unique circumstances that are not adequately addressed from traditional private lenders and government programs. Four primary circumstances make forest management unique from other businesses:

- "Large capital tie-up—as forest gets older, the timber value becomes high but can only be realized when the timber is harvested. Consequently, the owner has a large potential

pool of money, but has no access to it as long as the trees are growing. Unlike agriculture, woodland owners are not able to generate annual income that can be used for property taxes, health care, and other uses.

- Risk—since the increasingly large capital in timber growing stock can be diminished by wind, fire, or insects. Even though such events are unlikely, the large potential loss of associate with such events makes them a high concern for landowners and financiers (e.g. local banks).
- Low liquidity—since the owner receives cash for the timber crop only when it is harvested. Owners often harvest their timber when young for cash flow, investment, or other reasons. Timber harvested at the wrong time does not provide the maximum return.
- Intrinsic values as well as timber—since woodland owners often have a personal attachment to owning their land, even though it generally must remain profitable to pay taxes.”^{viii}

Administering the Fund

A sustainable forestry revolving loan fund (RLF) administered at a regional level the Mid-Atlantic would allow for a large pool of funding to circulate in loans and deliver some economies of scale. Many land conservation bridge financing loans work at this scale. However, funds could also work at a state-level. A state focus may ease the ability of state governments to help capitalize the fund (e.g. MARBIDCO). The type of administering organization can vary, but would be best managed by organizations with both finance expertise and experience with rural landowners including conservation groups, development corporations, or commercial banks.

Conservation groups

There are many examples of conservation groups managing revolving loan funds to provide up-front funding for land acquisition. Few of these examples focus on landowner stewardship, however. Conservation groups are good candidates to manage a revolving loan fund for a number of reasons:

- Many groups have well established relationships with landowners
- The fund can target loans to forests with high conservation value. This gives conservation organizations a chance to engage in conservation discussions and the ability to acquire valuable land in case the landowner defaults on the loan.
- Potential investors, such as charitable foundations through program related investments, are more willing to accept lower returns on their capital. This allows the fund to offer lower interest rates to landowners.

Economic development corporation

Development corporations are quasi-public entities that support various markets (e.g. agriculture) that have a public interest. In Maryland, the Maryland Agricultural and Resource-Based Industry Development Corporation (MARBIDCO) developed a sustainable forestry

emergency loan fund and is currently seeking investment. These organizations have strong ties to both public and private investment.

Commercial banks

Given loan programs are a core service of commercial banks, they have potential to administer a revolving loan fund as well. Banks that have experience with working lands would be in a good position to participate in a sustainable forestry revolving loan fund. There are a few examples of commercial banks that cater to the needs of rural landowners like the Federal Land Bank, the Planters' Bank, and the Cattlemen's Bank.^{ix}

Capitalizing the Fund

The initial funding, or capitalization, of the revolving loan fund can come from a mix of public sources, such as local, state, and federal governments, and private sources like financial institutions and philanthropic organizations. Funding acquired for capitalization is usually the equivalent of a grant—it does not need to be paid back. Interest paid by landowners allows the revolving loan fund to maintain a pool of funding and, therefore, encourage investment by socially conscious organizations like foundation program-related investments. A few potential sources of funding are illustrated below:

Foundation grants

The Pacific Forest Trust manages the Conservation Capital Fund. The Fund was launched with a grant from the Surdna Foundation. The Conservation Capital Fund demonstrates how financing can be used to address the unique economic circumstances faced by private forest landowners. The Fund makes investments to:

- Support forest management activities while a landowner pursues funding for a conservation easements (i.e., bridge financing),
- Pay for operating costs or otherwise provide cash between harvests, and
- Help landowners gain Forest Stewardship Council certification.

Federal grants

The Clean Water State Revolving Loan Fund (CWSRF) provides low-interest money to landowners for non-point source pollution control. The U.S. Environmental Protection Agency capitalizes state run programs through grants. CWSRF loans can have interest rates as low as zero percent and repayment periods up to 20-years.

The U.S. Environmental Protection agency also makes funding available to drinking water systems to finance infrastructure improvements. States may set aside a portion of their grants to fund activities that encourage enhanced water system management and help to prevent contamination problems through source water protection measures like land conservation.

Program related investments

Program related investments are a way that foundations and other donors invest their dollars in ways that support their organizational missions. These investments usually carry low interest

rates and provide “patient” capital for projects like forestry that need time to generate revenue. The Open Space Institute administers the New Jersey Conservation Loan Fund, launched in 2003 with program related investments from the Geraldine R. Dodge and William Penn Foundations. This fund provides low-cost interim capital to enable conservation buyers to act quickly, while providing time to coordinate complex financing packages from multiple funding sources. As of January 2004, the fund had loaned more than \$3 million to protect over 10,000 acres of open space in New Jersey.

Potential Loan Terms and Conditions

The Pinchot Institute and The Nature Conservancy, Pennsylvania developed the following loan terms and conditions for a sustainable forestry revolving loan fund:

Lender—Options include conservation organizations, development corporations (e.g. Maryland Agricultural and Resource Based Investment Corporation), or other qualified organizations. The lender must have experience managing loan programs with knowledge of woodland owner needs a plus.

Eligibility—Financing is available to landowners who are facing cash needs that might otherwise force a land sale. These needs range from health care, forest management, to education. A full list of eligible actions should be developed and clearly communicated to woodland owners. To justify a low interest rate, the loan must provide for the public good.

Amount—Loans will be in amounts up to \$100,000 or 50% of the conservation value of the land, whichever is less. Traditionally financing on raw land is treated as a higher risk loan than income producing properties like rental properties. Due to this distinction, this term will be required due to the associated market risks.

Loan terms—15- and 30-years. Subject to the loan amount restrictions above, credit market loan terms from 15-30 years are standard practice on raw land.

Interest rate—Interest will accrue at market rates defined as the current prime rate applicable to a 30-year fixed mortgage rate. At the beginning of 2011, the market interest rate is around 7.5%. Investment capital from philanthropy or other sources would allow the revolving loan fund to drop interest rates to 2%. The low interest rate on the loans is intended to make them as widely accessible as possible to woodland owners, but at the same time provide modest income to the revolving loan fund for maintenance and long-term success. The low interest rates provided by the Fund are justified by the multiple economic, social, and environmental benefits that forests provide to the region's residents.

Debt service—Payments will be calculated based on 25% of the market interest rate. The remaining 75% of the interest will accrue in a separate account. At the end of the loan term, the accrued interest will be forgiven. Cash, timber, non-timber forest products, or ecosystem services may be used to satisfy the debt obligation in certain circumstances.

Conservation value—Eligible land must contain high economic, ecological, or cultural value as defined by the lender. This requirement helps ensure that the loans are providing a public good.

Service area—Property must be located in a lender designated priority area. This requirement helps ensure that the loans are providing a public good.

Application review—Loans will go through standard underwriting regarding creditworthiness of the borrowers. Additionally, the environmental value of the land will have to be certified.

Collateral security—Loans will be secured by title to the land. A working forest conservation easement will also be required during the period the loan agreement is in effect. Loan to value ratio up to 60% will be accepted. The low loan to value ratio requirement will allow the fund to offer lower interest rates and accept higher risk landowners (e.g. low credit scores).

Right of first refusal—A right of first refusal requirement will help lenders, particularly conservation organizations, justify the costs of administering a loan fund. With this requirement, the lender will hold the right of first refusal to purchase a property if a borrower decides to sell the land during the terms of the agreement. Since the property was selected for the fund, in part, due to its conservation value, the chance to purchase a priority parcel helps lessen the burden of loan default by the landowner.

Land management—During the term of the loan, the landowner will be required to maintain the land in order to protect the environmental services provided to the public:

- Not allow the land to be sold (except to a conservation buyer);
- Not allow development or other exploitation of the land except for sustainable forest management;
- Maintenance of a state approved plan or third party certification (i.e., Forest Stewardship Council or American Tree Farm System) is required. A plan will ensure that environmental goals are protected during harvests and other management actions.
- Actively engage in conservation discussions with lender.

Default—Upon either default of the terms above or non-payment of the loan, the loan plus the accrued interest will be immediately due and payable.

Financial Analysis

With the above loan terms, a 15-year loan for \$50,000 would result in monthly payments of approximately \$460 at 7.5% and \$325 per month at a 2% rate. Depending on the administering organization, the financing of the loan program will differ.

Conservation organization or development corporation

If the revolving loan fund is administered by a conservation organization or development corporation like the Maryland Agricultural and Resource-Based Industries Development Corporation, investments can be considered “conservation investments” and the investors will accept returns on their capital equal to either (a) the actual interest earned less expenses of running the program, or (b) zero. This feature allows the revolving loan fund to offer low interest rates to landowners (i.e., 2%).

If the fund was capitalized with \$5,000,000, the loan program could allow more than 100 loans averaging \$50,000 to be outstanding at once. There is potential for additional outstanding loans once money starts being repaid each month. Assuming 80% of the money is outstanding at any one time, the revolving loan fund would generate \$80,000 in interest annually to pay for the administration of the program and provide a minimal return to investors. Any interest derived through penalties could add to this amount.

Commercial bank

The revolving loan fund could be capitalized by a commercial bank. In the current financial and lending climate, they are not always interested in “conservation investments.” A commercial bank would need to assess a market interest rate and assuming this rate is 8%, investments of \$60,000 per year to the revolving loan fund would allow \$1 million in loans to be outstanding at one time.

ⁱ Catherine M. Mater. “2007 Pennsylvania Private Forestland Owner Offspring Study.” Pinchot Institute for Conservation, 2008.

ⁱⁱ Brett J. Butler and Earl C. Leatherberry. “Preliminary Data on the Woodland Owners of the Chesapeake Bay Watershed.” USDA Forest Service, National Woodland Owner Survey, 2005.

ⁱⁱⁱ Kevin Breuning. 2003. Losing Ground-At what Cost? In, Massachusetts Audubon Society, <http://www.massaudubon.org>. (Accessed 2005). Edited by Eric C. Sprague.

^{iv} IMPLAN, Susan Winter. 2003. USDA Forest Service, Inventory Monitoring Institute. Edited by Eric C. Sprague, 2005.

^v Elizabeth LaPoint and Tom Frieswyk. “Forest Inventory and Analysis.” Edited by Eric C. Sprague. USDA Forest Service, 2005.

^{vi} Vulnerability Model, Resource Lands Assessment. Chesapeake Bay Program, Annapolis, MD.

^{vii} Community Watershed Model. Chesapeake Bay Program. Annapolis, MD. 2003.

^{viii} Chadwick D. Oliver et al. “Making Private Forest Ownership and Rural Forest Communities Viable.” 2006.

^{ix} Chadwick D. Oliver et al. “Making Private Forest Ownership and Rural Forest Communities Viable.” 2006.