

A Strategy For Aberdeen



A Property Owned by the Town of Purcellville

Prepared by



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Executive Summary



- Market based approaches to nutrient reduction are increasingly being used to achieve compliance with environmental quality regulations
- Water-quality trading provides a cost- effective approach for regulated entities to comply with the Environmental Protection Agency (EPA) Clean Water Act (CWA) requirements.
- In January 2003, EPA took a major step to advance water quality trading with the issuance of its Water Quality Trading Policy.
- The 1972 amendments to the Federal Water Pollution Control Act (known as the Clean Water Act or CWA) provide the statutory basis for the National Pollutant Discharge Elimination System (NPDES) 33 U.S. Code § 1342.
 - The permit program is the basic structure for regulating the discharge of pollutants from point sources to waters of the United States.
 - Section 402 of the CWA specifically required EPA to develop and implement the NPDES program.
 - EPA's policy specifically endorses the use of "water quality trading" for certain pollutants where it can help achieve CWA goals.

Legislation and the Marketplace



- The vast majority of states have assumed responsibility for the NPDES permit program and the state thereby becomes the permitting authority
- The legal framework for a nutrient bank is the National Pollution Discharge Elimination System (NPDES) where Permitted entities with an allocated pollutant load can use trading in lieu of investing in expensive onsite technological upgrades to more cost-effectively achieve their cap
- The Virginia Department of Environmental Quality (DEQ) has expanded its WQT (Water Quality Trading) program
- Now, in addition to trading between point sources (PS-PS) or between point and nonpoint sources (PS-NPS), it is possible to trade between nonpoint sources (NPS-NPS)
- The 2005 Chesapeake Bay Watershed Nutrient Credit Exchange Program legislation authorized nutrient trading in Virginia's portion of the Bay
 - This legislation required, as of July 1, 2005, permitted facilities to offset new or increased nutrient discharges to the Bay and its tributaries
 - The General Virginia Pollutant Discharge Elimination System (VPDES) Watershed Permit Regulation for Total Nitrogen and Total Phosphorus Discharges and Nutrient Trading in the Chesapeake Watershed in Virginia (9 VAC 25-820-10 et seq.), approved in 2006, defines new and expanded nutrient discharges and specifies how permitted facilities can offset new or expanded nutrient discharges to the Bay

Business Plan



Excellent Opportunity for the Aberdeen property

- Substantial financial and environmental benefits
- Town may capitalize on credits that are valued by DEQ and are available for trading
- Converting from crop/pasture to forest for environmental sustainability
- Continuing alignment with state clean water programs
- Protection of a dedicated recreational area in perpetuity
- Positive alignment with Purcellville's proposed Comprehensive and Strategic Plans

Strategic Partnership

- Through its sister company, Conservation+, ACRE Investment Management offers to partner with the Town
- Leveraging its experience in the carbon trading market through another sister company, GreenTrees
- Completing application with DEQ
- Preparing the site
- Planting the trees and managing their survival and growth
- Selling the credits and sharing the net proceeds with the Town

Revenue Stream Options

- Option A - 82.8 acres,
- Option B - 15.5 acres
- Option C - 25.9 acres
- Option D - Any combination of the first three Options
- From the gross revenues, projected expenses are deducted, and the proceeds distributed between Purcellville (70%) and Conservation+ (30%), as stipulated by the Nutrient Bank Land Agreement

Draft Nutrient Bank Land Agreement



Nutrient Bank Land Agreement (Attached) key elements:

- Final agreement would be a renewable lease lasting 4 years 364 days with the option to be renewed
- If agreed, and signed, we can schedule site preparation which includes ripping the ground in slim furrows that will accommodate the saplings planted (approximately 600/acre) in February, or March, after which the DEQ will verify the successful planting
- When approved (estimated 90 days to one year,) the estimated credits can then be made available to prospective developers operating in the area for purchase
- From the gross revenues, projected expenses are deducted, and the proceeds distributed between Purcellville (70%) and Conservation+ (30%)
- Site prep, sapling purchase, planting, successful growth (within DEQ standards) and continuing forest management (best practices) are the responsibilities of Conservation+, as explained in the Agreement.

Financial History, Position, and Financial Strength of Applicant



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Founded 16 years ago by partners W. Carey Crane and Chandler Van Voorhis, ACRE Investment Management, LLC is a wholly owned investment platform designed to drive growth and success across four distinct divisions. Using private capital, these entities form a connected system to further the mission of ACRE Investment Management:

- Big River Nursery
 - Creates approximately 4,000,000 cuttings each year to supply our various projects
- GreenTrees
 - Partner with landowners who grow the trees on their property that ultimately produce carbon credits
 - Partners with more than 500 landowners and has planted more than 42 million trees
 - Producing more than one million tons of carbon annually on more than 120,000 acres held under easement for a typical term of 40 years.
 - The world's largest reforestation program by credit issuance selling to Shell Energy, United Airlines, Duke Energy, Norfolk Southern Railway, and other corporations looking to offset their carbon footprint
- Conservation+
 - Monetizes ecological values for wetlands, streams, and nutrients, on private lands
 - Creating and growing new forests so that we can clean the water, as well as the air
- Forest Green
 - Focused on the transactional and commodity sides of building forests
 - Developed and utilizes a technology-driven Carbon Transaction Platform to empower all consumers to make carbon neutral purchases

Financial History, Position, and Financial Strength of Applicant



- ACRE, unique in the scope of our abilities, has been involved in both the carbon and nutrient trading markets from their inception and today manages more than 120,000 acres in its combined businesses
- The strength of our company is in the sale of carbon credits, a commodity The Wall Street Journal called “one of the world’s best investments” August 11, 2019.
- In 2019 alone, ACRE has sold more than one million credits
- Recognizing that growing trees is one of the most powerful planetary solutions to offset massive carbon emissions, Shell Energy has committed more than \$300 million over the next three years to nature-based solutions offsetting their carbon footprint
- After exhaustive due diligence, Shell Energy named our GreenTrees division a part of their “core global portfolio” in their attempt to recreate the American Amazon
 - Their analysis is a solid commendation of our company’s strength, financial model, and commitment to cleaner air and water.
- ACRE is the only company in the nation trading in both carbon and nutrient markets
- Offers the Town a diversified portfolio of tools useful to monetize the green assets of its other properties, including the Purcellville Watershed Property.

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Risk Assessment & Comprehensive Plan Alignment



Risk to the Landowner

- Limited Risk to Landowner
 - Conservation+ takes on the responsibilities on site prep, sapling purchase, planting, along with the DEQ application and management of the new forest in the future
- Shared Risk and Rewards
 - No one can predict the demand for nutrient credits when the credits are verified and released for sale, so the amount paid will fluctuate in a range of high and low amounts depending upon economic conditions and the prospects for new development
 - Present demand is strong in this region and inventory has an average shelf life of a 3-4 months.

Comprehensive Plan Alignment

- While the Town's Comprehensive plan is in the process of being adopted, this project is in alignment with any attempt to:
 - Protect wetlands, floodplains, and streams as well the scenic, natural and rural landscape surrounding the Town.
 - Mitigate nutrient pollution and greenhouse gas emissions.
 - Substantially increase the Town's canopy of trees with native species and improved forest management.
 - Enhance open space areas as passive nature parks.
 - Increase public recreational areas for pedestrian, biking, and equestrian activities.
 - Use easements and restrictive covenants to protect the land so that future generations may enjoy what we have in perpetuity, a core value of Purcellville.

Questions & Answers



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Town Questions	ACRE Investment Management, LLC Answers
1) Are Municipalities allowed to sell nonpoint credits to other municipalities and/or developers?	The DEQ has not developed any guidance that specifically permits localities to participate in the program, but that generally, localities are not able to participate in private marketplaces.
2) For a land conversion from cropland to forest, how recent does the property have to have been in crop?	We will determine the classification from the FSA, or tax records, but the controlling year is 2005. There may be some additional negotiation with DEQ for classification in this regard, and we are searching for records regarding that property to support the classification which ultimately determines conversion rate for acres to credits.
3) What additional deed restrictions will be placed on the area for the nutrient banking project?	The restrictive covenants are designed to be held in perpetuity. That said, the language of the current easement on the Aberdeen property specifically encourages "the preservation, protection, and management of forest resources for their economic and environmental benefits." As well, to "fully protect, through easement ... the lands that are critical to the quality of key water supplies," and to "promote the planting and preservation of trees as a means to improve air quality. The restrictive covenants will be adapted to your specific needs as long as the management of the trees we plant is protected. Trails through the forest, well heads (and necessary pipes to access,) and other features that do not affect the specific management and survival of the trees can be defined in any new restrictive covenants as they are also encouraged by the current easement language protecting "outdoor recreational and educational, watershed protection, natural, scenic, and open space values."
4) Who submits the application, application fees, and other related costs?	This is covered by Conservation+
5) Who develops and submits the multiple plans required?	This is covered by Conservation+ as the sponsor, if required in the plan by DEQ.
6) Does a nutrient bank require additional property insurance for the bank's replacement, operation, and maintenance costs for the life of the bank?	The State requires a LOC, bond, or pledged account for the replacement of the bank and the purchase of temporary short-term credits, as well as the annual inspection. Conservation+ requires a title policy search to determine any prior encumbrances, a cost borne by the landowner.

Questions & Answers



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Town Questions	ACRE Investment Management, LLC Answers
7) What reports, renewals, inspections, etc. are required and submitted over the life of the nutrient bank? What are the future permit fees associated with a nutrient bank? Are there future maintenance costs, or other future expenses?	Each sale is uploaded into RIBITS, a clearing house for the promotion and sale of nutrient credits, and a 6% fee is paid to the state from the sales. We would have an ongoing maintenance and monitoring of the installed seedlings for the 10-year time frame. Thus, we would need at least one, or two, extensions of the lease prior to the project close out with DEQ.
8) What are the Town's expected setup costs, labor costs, and expectations? Who would be purchasing the trees? What type of trees? How many trees per acre would be planted? Who would be preparing the soil? Who would be maintaining the trees? Who would be responsible for replanting the trees to maintain the required survivorship standards? What are the survivorship standards?	Conservation+ would be responsible for all of the above. Through our sister company, GreenTrees, we have extensive experience and knowledge in this area. Our sister company, Big River Nursery is a tree nursery growing more than 4 million trees for planting each year. The species selected would be native to the region. From our standard planting regime, 604 trees/acre would be planted of which the DEQ requires survival of an average 400 trees/acre across the total stand of new forest planted.
9) Revenue is not generated until the nutrient credit is released and sold. What is the expected time frame? What is the current rate for a credit? Time frame for all credits sold? How many acres does it take to generate a credit?	If the Council approves the project, we would prepare the ground as soon as possible and plant in February with as much as 12 to 15 months to get DEQ approval of the project. From that time it should take 3-4 months to generate revenue for the Town. There is no "crystal ball" for the rate of sale and absorption. That said, this watershed is one of the fastest growing, and we have seen prices from \$18,000 to \$25,000 in the representative service area of the Town of Purcellville.
10) Can an equestrian and pedestrian trail along the perimeter of the property, and drone testing coexist with the proposal?	Yes
11) The property has 3 wells that the Town may in the future bring online. Will this interfere with the ability for the Town to bring these additional wells online.	No.