Essex County Countryside Alliance













The Public Benefits of Land Protection

For Love of Land and Water

Rose Hill: An Afternoon with Prue Davis

Holding on to Wheatland

Bring Back the Bobwhites

Essex County 4-H Club

2011 Report

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Essex County Countryside Alliance 2011 Report

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The ECCA 2011 Report is published by The Essex County Countryside Alliance

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Hill Wellford



The Essex County Countryside Alliance (ECCA) was created in 2006 when Peter Bance, co-owner of Wheatland in Essex County, brought together a group interested in preserving the rural character of the region. Concerned by trends they had witnessed in other areas of Virginia, Bance and his associates realized that systematic steps were needed to promote responsible choices for preservation of farms, forests, waterways, and wildlife habitat. The organization was chartered as a non-profit corporation in February 2007.

ECCA was created to educate farmers and other owners of large tracts of land about options for maintaining their holdings intact. ECCA has worked closely with the Virginia Outdoors Foundation, the Virginia Department of Historic Resources, and other groups to help landowners place properties under permanent easement, guaranteeing the land will remain virtually unchanged in the future. Through workshops and individual meetings, ECCA has helped farmers navigate the tricky maze of laws and regulations governing the easement donation and tax credit sale process. Often owners are surprised to learn that significant tax advantages can replace the gains that might have been realized by selling land to developers.

By 2008 ECCA's efforts began to show results: approximately 8,000 acres in Essex County had been placed under easement. Two years later that total had risen to more than 12,000, some 7.6 percent of total county acreage. The number of donors supporting ECCA increased as well, from 60 in 2007 to 150 in 2009-2010. The organization's modest budget supports its education and outreach efforts and funds its publications, which serve as an additional tool for education and advocacy.

In 2009 ECCA extended its reach beyond the county, partnering with citizens in neighboring Caroline County to help organize the Caroline County Countryside Alliance. ECCA managed funds on their behalf until the fledgling CCCA became independent in July 2010.

ECCA recognizes that some growth is inevitable, but believes that by working with local government and private landowners it is possible to manage change responsibly. We believe that by working collaboratively, future growth can be accomplished without jeopardizing the traditional rural character of Essex County.



We're committed to helping your farm land stay that way.

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Letter From the President

Dear Friends,

This Essex County Countryside Alliance Fall 2011 report is being published on the fifth anniversary of the founding of the ECCA.

Much has been accomplished since September of 2006 when Andy Lacatell from The Nature Conservancy met at Wheatland with a small group of Essex County landowners looking for a fail safe way to protect the county's farmland. Out of that meeting grew a plan to preserve and perpetuate our unique and scenic Essex County countryside and way of life.

Over the last five years we have seen an additional 8,900 acres of Essex County land placed under easement in Virginia Outdoors Foundation (VOF). Currently there are applications with VOF for three more farms to be added to the list of land that will be preserved in perpetuity as unspoiled farm and forest.

Thanks to the hard work, tenacity and generosity of all of you, we now have for the first time:

- 1. 17 Board Members, ranging in age from their 20s to 70s
- 2. A budget of \$43,350
- 3. 11 Corporate Sponsors giving almost \$8,500
- 4. 116 Individual Donors giving between \$25 and \$2,500 or more annually
- 5. A magazine where most of the articles are written and pictures are taken by our members, board members and other volunteers

There is much going on behind the scenes as your board works to help us achieve our goal "to serve, to promote, and protect the rural character of Essex County." On Saturday July 16th, David Taliaferro, Jay Hundley and I met Cliff Fox, Assistant Director of Environmental Studies at Virginia Commonwealth University (VCU). We hope that, as a result of our discussions, a VCU graduate student will be doing a thesis over the next year on the Economic Impact of Agriculture on Essex County. This will be an exhaustive and in-depth assessment which I suspect will confirm agriculture's dominant impact on the Essex county budget.

Finally, our farmers and the Chesapeake Bay Foundation continue to work together to find common ground in an attempt to clean up the Rappahannock River and the Chesapeake Bay. We hope to find agreement that will serve as a model for every county in the Virginia Chesapeake Bay Watershed to emulate.

Thank you for all you do in support of the ECCA. If you get a chance, please thank our Corporate Sponsors for their generous contributions as well. We look forward to seeing you on October 7th at Brooke's Bank for the Fall Meeting.

Sincerely,

MaryMoss Walker Exceeding Expectations for ECCA

folis Coganice

Not only does MaryMoss Walker take care of all the daily details for me at Jones Brown, she is also the project coordinator behind this ECCA report and for many of the ECCA organizational activities. MaryMoss works closely with board members and others, coordinating the stories and images that appear in this report. She is the key liaison between ECCA and the agency producing the report, ensuring they have everything they need, when they need it. And that's no small task. Thank you, MaryMoss, for all you do.

Ainsley, Tracy, MaryMoss and Mckenzie Walker







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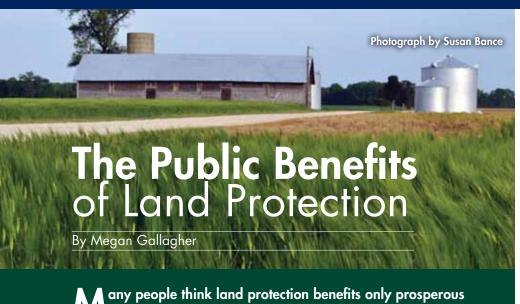
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any people think land protection benefits only prosperous landowners. A conservation easement may give the donor some significant short-term tax advantages. But the public shares in the lasting rewards realized by protecting our farm and forest land, valued open spaces and critical natural resources, like water quality.

Social Benefits

Much of the Middle Peninsula's historic culture is based upon natural resources. Fishing, farming, forestry, hunting and simply exploring our creeks, rivers and bays have captivated local residents for 300 years. Our historic buildings, settlements and landscape reflect the importance of these activities. You can still see that history today in market and harbor towns like Port Royal and Tappahannock.

Too much development of farm lands, forests and waterfront threatens these natural resources and the traditional activities they support. Permanently protecting productive lands through voluntary conservation easements also preserves the traditional land uses that Essex County residents find vital to their quality of life.

Environmental Benefits

By preserving open space and conserving farm and forest land, ecological integrity is maintained and often enhanced. Many conservation easement donors continue to improve the natural quality of their land. Stewardship includes rehabilitating wetlands from poorly drained agricultural lands, planting native plant species for wildlife habitat and expanding and improving waterfront buffers.

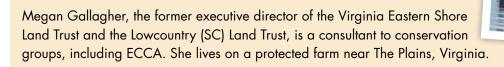
The positive environmental impacts do not end on the land that is improved; surface waters are made cleaner and groundwater recharge is increased. These environmental benefits have direct positive results on our local drinking water supply, as well as fishing, aquaculture and agriculture.

Economic Benefits

Local taxpayers and schools are the winners when productive rural land is permanently protected. Farm land demands little in public services (schools, roads, emergency services) and can generate surplus property tax revenue, while new houses require far more services, often at greater cost than the tax revenue generated. Basically, local taxpayers save money on farms and must pay a tax subsidy for new homes.

Formulas for state aid to counties for education also reward places with significant tracts of protected land. School aid is based upon the total fair market value of a county's real estate. Protected lands reduce the total value of land in the county and thereby increase the amount of state aid received. In turn, new residential development raises the total value, which lowers the amount of state aid to local schools.

Protected lands also help preserve core industries based on natural resources. Maintaining large and productive blocks of forest lands is critical to timber and paper production. High water quality is essential to fisheries, most particularly development of new oyster aquaculture techniques. Good stewardship practices in traditional land uses like farming and forestry support economic sectors that rely on healthy soils, open land and clean water.





Essex Farmers Practice Effective Conservation

By John Page Williams

Come people have farming in Their genes. Bob Baylor's family has been working Port Tobacco Farm since the seventeenth century. Jay Hundley comes from a multi-generation farming family near Center Cross. Now he, his father, and one brother work their Upper Essex farm, Clover Field, on Farmer's Hall Creek, plus rented land in Essex, Caroline, and King George Counties. David Taliaferro went to college and graduate school but returned to Montague Farms, where he had grown up between the Rappahannock and Dragon Swamp (Piankatank watershed) in Lower Essex, to farm with his brothers, Bill and Bryan, plus his son and nephew.

All three of these operations focus on soybeans, corn, and small grains, but they are strikingly different. Bob Baylor sells his crops to Perdue and Old Dominion Grain for poultry and livestock feed. The Hundleys raise seed that they sell through another brother's Hundley

Seed Company in Chance, near Occupacia Creek. Over the past twenty-five years, the Taliaferros have developed highly successful edible soybean markets for natto, tofu, sprouts, soy sauce, and similar products in Japan and other Asian countries. They also raise corn, barley, and wheat. But the one factor all three farmers have in common is a thoughtful, wholefarm approach that successfully blends profitability with strong conservation measures which work together to protect and enhance land and water resources.

Long-Term Protection

One valuable tool for these farmers has been placing conservation easements on parts of their lands. Bob Baylor, for example, has placed all of Port Tobacco under a conservation easement with the Virginia Outdoors Foundation and The Nature Conservancy, ensuring that the land will remain in agriculture in perpetuity. His son, Waring,



Four men who love Essex County farmland and the Rappahannock River (left to right): David Taliaferro, Bob Baylor, John Page Williams, Jay Hundley.

The one factor all three farmers have in common is a thoughtful, whole-farm approach that successfully blends profitability with strong conservation measures which work together to protect and enhance land and water resources.



The Alliance helps local landowners conserve their farm and forest lands by educating them about the conservation value of easements with organizations like the Middle Peninsula Land Trust and the Virginia Outdoors Foundation.

is already farming part-time with
his father while he studies at
Virginia Tech. Bob manages Port
Tobacco's 600 acres of woodland

under a forestry management plan with Essex County.

Likewise the Hundleys have placed easements on Clover Field. For the Taliaferros, easements are part of the family's long-term strategic thinking for Montague Farms, and they will be key factors in estate planning. Bob, Jay, and David believe in easements enough that they serve on the Board of Directors of the Essex County Countryside Alliance. The Alliance helps local landowners conserve their farm and forest lands by educating them about the conservation value of easements with organizations like the Middle Peninsula Land Trust and the Virginia Outdoors Foundation. The Alliance also highlights easements as valuable tools in estate planning. In only a few years, ECCA has assisted a significant number of Essex farm families in

Jay Hundley scouts a growing soybean crop on Clover Field Farm.

protecting thousands of acres from development in the Rappahannock watershed.

Restoring the Great Green Filter

There's an old saying that over the past four hundred years, we humans have converted much of the Chesapeake watershed from "The Great Green Filter" (virgin forest that caught and filtered rainfall on 95 percent of those 64,000 square miles) to "A Greasy Gray Funnel" of roadways, parking lots, and rooftops that concentrate stormwater and send it flowing directly to Bay tributaries with little or no treatment. When practiced with conservation in mind, though, farming can serve as a surrogate Green Filter.

One of the very best techniques for protecting waterways like the Rappahannock's network of high-value tidal creeks is planting buffers along field edges, especially where the soils are highly erodible. Twenty years ago, Bob Baylor



Wide buffers like this one protect the Rappahannock River at Bob Baylor's Port Tobacco Farm.

One of the very best techniques for protecting waterways like the Rappahannock's network of high-value tidal creeks is planting buffers along field edges, especially where the soils are highly erodible. enrolled a number of Port Tobacco's buffer areas in the Conservation Reserve Program (CRP) of the U.S. Department of Agriculture (USDA). He has just renewed the contracts for another ten years.

Bob does not, however, depend entirely on government cost-share funds. He has actually gone above and beyond the minimum, installing beautiful warm season grass buffers up to 100-feet wide. They are sown with weeping lovegrass (*Eragrostis curvula*) and switchgrass (*Panicum virgatum*). He also sows cover crops to protect his soils in the winter and soak up excess nitrogen and phosphorus left after crop harvests.

Jay Hundley crystallized "above and beyond the minimum" with the remark "It just seemed like the right thing to do." He was referring to fencing Clover Field's few head of beef cattle away from the shores of the farm's 32-acre pond that drains to Farmers Hall Creek. Jay might be accused of an ulterior motive there—he loves to fish for the big largemouth bass that live in that pond—but he simply cares about keeping the pond ecosystem healthy. His family's stewardship of the pond also shows in the healthy tidal freshwater marshes full of wild rice just below the pond's dam. Marshes like that one make this part of the Rappahannock a magnet for waterfowl each winter.

As with Port Tobacco, the land farmed by Clover Field Enterprises includes a number of grass waterways and buffers, though the latter are not as wide as Port Tobacco's broad swaths. The Hundleys plant cover crops and accept cost share funds for some of them, but some government programs do not make sense for their operations. "I don't

care whose money you're spending, you'd better spend it wisely," Jay remarked in a recent, wide-ranging conversation. He knows that cost-share funds are scarce and wants them spent as efficiently as possible, even if it means they go to other farmers and he plants buffers and cover crops without them.

The 1985 Farm Bill emphasized cost-shared planting of grass waterways and buffers, laid out around a whole-farm conservation plan. David, Bill, and Bryan Taliaferro rented a no-till drill and sowed warm-season grasses on 31 acres of their operation. David says that at first, he resented taking that much land out of production, but over time, he began to see how much these practices helped to retain soil. On a recent tour of Montague Farms, he showed off several grass waterways built on highly erodible soils in hilly fields. "We located

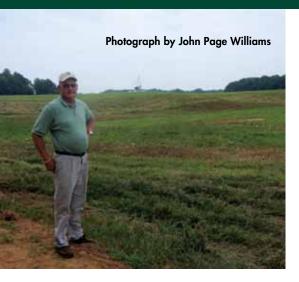
and shaped the waterways broadly so they'll hold water and retain soil," he explained. He maintains them carefully now. Preserving soil fertility has become one of his key farming goals.

Precision Conservation Tillage

The Baylors, the Hundleys and the Taliaferros all practice conservation tillage with registered nutrient management plans (NMPs). Port Tobacco, Clover Field, Montague and the waters to which they drain all benefit from no-till planting and crop management. For corn, all three operations incorporate split application of nitrogen, so the plants use it as efficiently as possible. The working rule is to inject the first third of the amount recommended by a nutrient management plan into the soil at planting time, then side-dressinject the balance when the tassels

Up close, Jay Hundley checks the blooms on soybean plants. Note the stubble underneath, left over from the winter's cover crop. Combined with no-till, this conservation practice helps to soak up any excess nitrogen applied the previous year but not taken up by crops, and it increases the organic content of the soil.





begin to form. Injecting nitrogen into the soil has proven to be much more efficient than spraying or dribbling it.

Thus these farmers can reduce this increasingly expensive input, making their operations more profitable. Such efficiency is part of a recurring pattern: practices that improve net income tend to benefit both soils and waterways. Jay Hundley puts it well: "The more economical I get, the more environmentally sound my farm becomes."

David Taliaferro has a suggestion for the nutrient management planning process, though. He believes it is just as important to retain the nitrogen that remains in the soil after the crop is harvested as it is to prescribe application rates. The conventional recommended rate for corn is one pound of nitrogen per acre for each projected bushel of yield (about 150 bushels per acre at Montague). The problem comes in a year like 2010, when the yield crashed to 50 bushels because of spotty rainfall, leaving about 100 pounds of excess nitrogen on each acre. How to keep that precious, expensive nitrogen where it belongs? A thick cover crop would help. "Of all of our inputs, nitrogen is the most expensive now.

On Montague Farm, David Taliaferro shows off a 25 year old grass waterway installed in a hilly field on erodible soil with cost-share funds from the 1985 Farm Bill. He has learned to appreciate how much such practices help to retain soil.

Don't put it in there and lose it," David said.

Jay Hundley may have one answer to the issue of nitrogen inputs. For some years, he has volunteered to run test plots for Extension. "That's one of the best ways I learn," he said when we talked. "You can learn from talking with these people. Test plots teach us so much." (Endlessly curious, Jay also confesses that "I live and breathe farming. I just love it.") This time, he is participating in a USDA Conservation Innovation Grant partnership with Virginia Cooperative Extension, the Three Rivers Soil & Water Conservation District, and the Colonial Soil & Water Conservation District.

The grant allows the partners to compare performance of two technologies designed to maximize the amount of nitrogen delivered to the crop while minimizing losses to the environment. The experiment will compare a nitrogen injection system that Jay already uses with a sensor-based, variable-rate nitrogen application system known as GreenSeekerTM.

The GreenSeeker[™] delivers nitrogen to the soil surface at variable rates based on sensor feedback that detects how much the growing crop actually needs and adjusts the fertilizer rate accordingly. This system provides a precise application rate that takes into account the fact that yields typically vary across a given field. On average, the GreenSeeker™ reduces nitrogen application to corn by 21 pounds per acre in Virginia. On the other hand, nitrogen injection systems place fertilizer right at the root zone where growing crops can access it quickly, preventing nitrogen fertilizer from washing off when it rains or volatilizing into the air.

Jay and his project partners want to know which system does a better job of conserving nitrogen. This year he has run a few preliminary plots basing fertilizer injection rates on soil types in his fields, with promising results. The grant project begins in 2012 and will run through 2013.

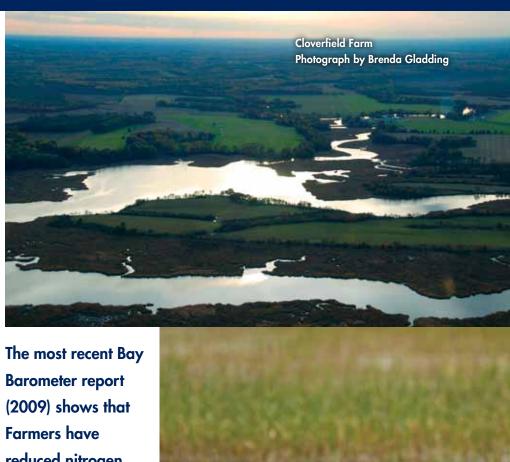
Evaluating these new precision nitrogen application technologies fits right into Clover Field's operation. The Hundleys already grid their fields—some 500 of them—into two-to-eight-acre sections according to soil type and annual yield patterns from the GPS-based monitors in their combines. They send out hundreds of location-referenced soil and plant tissue samples each year and their crop scout walks all of those fields regularly during the growing season, so they always have detailed, timely information to inform their nitrogen application decisions. That information also serves as the base for the extensive planning they do each winter to, as Jay puts it, "make our operation the best it can be."

"Farmers who don't pay such close attention to the cost of inputs like nitrogen may not have a long future because of economics," Jay suggested. "You have to be willing to spend a dollar now to get two back later on. Agricultural technology is giving us some very good tools to improve profitability and protect land and water at the same time. We need to take advantage of them." His comment underscores the need to educate the public about valuable farming practices that protect and enhance water quality. It's no surprise to find that the Taliaferros are also considering adding the GreenSeeker™ system to Montague Farms.

Restoring the Chesapeake's Health

"This view is my incentive for doing a good job," said David Taliaferro as he looked out over the broad Rappahannock from a bluff next to his mother's house. It's clear that his family, the Baylors, and the Hundleys all share a deep commitment to healthy land and water. Bob and Waring Baylor especially love the Rappahannock's waterfowl, and they are avid Bay anglers who trailer their 21' fishboat to launch ramps in search of flounder, trout, rockfish, and croakers. "The way we were going [losing fertilizer and soil], it was going to be a disaster," Jay Hundley said with some passion. "I want to get it [the Bay and its rivers] back the way it used to be, for myself, my kids, my grandkids."

Indeed, the EPA Chesapeake Bay Program's most recent Bay Barometer report (2009) shows that agriculture in the Bay watershed is making important, valuable progress. Farmers have reduced nitrogen pollution by 52 percent of the Bay Program's goals, phos phorus pollution by 50 percent, and sediment pollution by 50 percent.



Barometer report (2009) shows that Farmers have reduced nitrogen pollution by 52% of the Bay Program's goals, phosphorus pollution by 50%, and sediment pollution by 50%.

Those numbers represent very good news, for which everyone who loves the Chesapeake and its rivers should be grateful to the region's agricultural community. The bad news is that the Bay ecosystem is telling us it needs more pollution reduction from all sources—sewage treatment plants, urban and suburban stormwater and septic systems as well as agriculture. The challenge for those of us who like to eat is how to support the Bay region's farmers in their efforts to reduce their remaining 50 percent.

In the end, the Baylors, Hundleys, and Taliaferros walk their talk, farming in ways that reflect their love of the Rappahannock and its creeks, as well as their need to keep their operations appropriately profitable over the long term. The Rappahannock River and the Chesapeake Bay have certainly benefitted from their conservation practices. The question for them and the Chesapeake Bay conservation community at large is how to encourage other farmers to love their land and water the same way.

ECCA 2010 Fall Meeting











Helen Murphy, Tayloe Murphy, Helen Garnett, Muscie Garnett

Muscie Garnett, Jerry Dickinson, Jay Hundley

Charlotte Frischlorn, Mary Lou Seilheimer, Patricia Gallagher

Dale Critz, John Hutton, Lila Critz, Virginia Heiskill





Auction Alert

The auction committee for the upcoming ECCA annual meeting is working hard to present fun and exciting offerings. We welcome your ideas and would like to hear from our members about auction items you love to bid on or would like to donate. Be creative, we want this to be a productive and fun event.

> Please contact Charlotte Frischkorn at 804-353-3378 or Walker Box at 804-443-1668

ECCA 2011 Fall Meeting

Our Fall Meeting and Silent Auction will be held at 6:00 p.m. at Brooke's Bank, Friday October 7, 2011. We hope that you will join us to hear Charles G. Lane, Chairman of the ACE Basin Task Force.



Charles G. Lane is the managing member of Holcombe, Fair & Lane, a commercial real estate firm located in Charleston, South Carolina. Holcombe, Fair & Lane specializes in the brokerage and development of commercial properties in the immediate Charleston area. The firm has had a wide range of experience in conservation-type developments and also specializes in the sale of large tracts of land to conservation minded buyers. Holcombe, Fair & Lane has extensive experience with conservation easements.

Mr. Lane also served as chairman of the South Carolina Conservation Bank Board. This board was established during the 2002 South Carolina legislative session and will distribute approximately \$12 million dollars annually to historical, cultural and environmental projects. The board is an independent state agency. As chairman,

Lane is responsible for hiring staff and establishing operating procedures and grant guidelines.

Mr. Lane serves as chairman of the ACE Basin Task Force. The Task Force was established to provide land protection in the ACE Basin river corridor. This pristine area consists of approximately 350,000 acres. Since the Task Force was established 21 years ago, 208,000 acres of land have been protected primarily through private stewardship.

Mr. Lane has served on a variety of boards which include the Bank of South Carolina, the South Carolina chapter of The Nature Conservancy, Delta Waterfowl, Ducks Unlimited, Inc., and the South Carolina Coastal Conservation League. Mr. Lane received his Bachelor of Arts in Political Science from Clemson University in 1977. In 1998, he was awarded the distinguished alumni award.

Imogen Dickinson McElroy of Wheatland

By Marty Taylor

mogen Dickinson McElroy celebrated her 90th birthday in May at Wheatland, the seat of the Dickinson family since her grandfather, William Cooper Dickinson, purchased it from his uncle, Walton Saunders. Built between 1849 and 1951 by John Saunders, William Dickinson's maternal grandfather, the place had seen better times when Dickinson bought it. It became a self-sustaining farm under his care and that of Imogene's grandmother, Annie Daingerfield Lewis, who was the great, great granddaughter of George Washington's Sister Betty Lewis.

With its 700 to 1,000 acres of farmland, an important steamboat

Imogen Dickinson McElroy celebrated her 90th birthday in May.





"I remember seeing wagons coming down the road pulled by mules, sometimes six of them, and watching while stevedores loaded freight, livestock, lumber and grain onto barges. One time they loaded a bull and he twisted loose and jumped overboard. That was a commotion!"

wharf and a lumber mill, the Wheatland property was a hub of community activity. Crowds of people greeted the steamer when it docked regularly at Saunders Wharf. When steamboat transportation stopped in the early 1930s, commercial traffic continued, with barges pulled by tugboats continuing to haul freight from there to Fredericksburg, Baltimore, Norfolk and points beyond. This traffic didn't end until the 1950s.

Today Saunders Wharf is recognized as being the best preserved steamboat landing on the Rappahannock and lower Potomac Rivers. The harbor is deep and the landing sturdy. Although the farm's original acreage was divided between her uncle and father,

Forrest (Tosh) and Fielding, Jr., Wheatland continues to be one of the great estates of Virginia.

Essex County has seen huge changes over time as the Rappahannock River became more important for recreation than for life-sustaining activities. We thought of these early days as we drove along a tree-shaded lane on the outskirts of Gloucester to talk with Imogen, where she now lives beside her daughter, Nancy, and her family. The trees we passed were not as old as those of the home place, but the yard is well landscaped, and her new house, although small, has good bones like the classic Wheatland. And, we might add, good bones like the birthday girl herself.

Conservation Options Provide Income for Landowners, Protect Heritage

BY LEE STEPHENS, DEBORAH K. FOURNESS AND ROBERT ALLEN

Because of the downturn in the real estate development market, a number of landowners who originally intended to develop land are seeking alternative opportunities such as placing conservation easements on their property or restricting their property to meet the requirements for approval as a mitigation bank or both. They hope to derive economic benefit, and maybe even retire existing debt.

During the past few years, some landowners have found that they can realize an acceptable financial return from their property by conserving it. Farming and natural uses of real property, as well as protection of water resources, are afforded favorable treatment under certain laws of the United States and Virginia. This favored status is reflected by tax deductions, tax credits, and grant programs. Land preservation tax credits and mitigation credits may be sold in a growing marketplace. Landowners can receive these benefits while continuing to earn money from their land in a manner consistent with the restrictions placed on their property. Such benefits are a bonus for landowners who did not intend to develop their property and hope to keep it undeveloped.

This article will provide a general, non-technical overview of two conservation options attractive to Virginia landowners: conservation easements and mitigation banking.² Last Dec. 17, Congress renewed an enhanced tax incentive for conservation easements with increased federal tax deductions in the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (the "2010 Tax Relief Act"), which adds even more incentive to conservation of land.

Conservation Easements

A conservation easement is an enforceable land preservation agreement between a landowner and an easement holder, which may be a governmental body or a qualified charity. Such agreements are authorized by the Open-Space Land Act³ or the Virginia Conservation Easement Act.⁴ The purpose of a conservation easement is to protect agricultural land, timber resources, historical sites, and other valuable natural resources such as



Photo courtesy of Brenda Gladding

wildlife habitat, clean water, clean air, or scenic open space. Conservation easements restrict an owner from use of his land for such things as real estate development, commercial, and industrial purposes. For example, a landowner may give up the right to build a residential subdivision on the property, but keep the right to farm, harvest timber, and hunt, and in some cases reserve limited development rights.

The decision to place a conservation easement on property is voluntary and the restrictions bind forever current and future landowners. The landowner who gives up development rights on his property will continue to privately own and manage the land, and additionally may be eligible to receive significant state and federal tax advantages. By accepting the conservation easement, the easement holder assumes the responsibility, similar to a trustee, to monitor future uses of the land. The holder must ensure compliance with the terms of the deed of easement and enforce those terms if a violation occurs. If a landowner decides to place a perpetual conservation easement on his property, several tax benefits may be realized:

Property Tax. Many Virginia localities that have adopted taxation pursuant to Virginia Code § 58.1-3231 offer property tax incentives to conservation easement donors, a so-called

"land use" value assessment of the property.⁵ Land use taxation recognizes that farms, forestland, and openspace have a lower fiscal impact than do residential subdivisions, and therefore a lower tax rate for undeveloped land is justified. After placement of a conservation easement on the property, annual property tax payments are lowered.⁶

Virginia Income Tax Credits. Of a dozen states that offer tax credits for land conservation, Virginia is the most generous. Virginia allows taxpayers to sell Land Preservation Credits ("LPC") enabling landowners to get cash after making a conservation gift. Credits amount to 40 percent of the value of the conservation easement, after approval by the Department of Taxation. Virginia LPCs are capped at approximately \$106 million per year, see the conservation of the and in 2010 this amount was exhausted by July. Virginia permits taxpayers to use up to \$50,000 per year of tax credits for the first year claimed plus 12 years carried forward.9 If the taxpayer cannot make use of his LPCs, or chooses not to use them, the tax credits may be sold to taxpayers with Virginia income tax liability. Once the LPCs are brokered, most landowners realize 73 cents of each dollar of conservation value. This can provide the taxpayer with liquidity that may be used to pay for costs of the easement, retire debt,

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save or invest, create an endowment for the property, or acquire life insurance.

Federal and Virginia Income Tax Deductions. Both federal and state income tax returns may be reduced by deductions for Virginia taxpayers. Landowners who donate a conservation easement to a qualified land protection organization under § 170(h) of the Internal Revenue Code may be eligible for a federal income tax deduction equal to the value of the donation. The value of the easement donation is calculated as the difference between the fair market value of the property before and after the easement takes effect. A qualified appraiser must determine the value of the restrictions on development. This is the diminution in value of the land from which the tax benefits flow.

To qualify for this income tax deduction, the easement must be: (a) perpetual; (b) held by a qualified governmental or non-profit organization; and (c) "exclusively for conservation purposes," which means that the property must have a significant natural, scenic, historic, scientific, recreational, or open space value. The conservation purpose is the most important and most difficult qualification to establish

The 2010 Tax Relief Act provides to landowners who donate a qualifying conservation easement substantial financial benefits in the form of increased federal tax deductions. The enhanced initiative is retroactive to Jan. 1, 2010, and it expires Dec. 31, 2011. Specifically, when an easement meeting the IRS requirements is donated, the landowner may deduct the value of the gift at the rate of 50 percent of his adjusted gross income ("AGI") per year. A corporate donor may deduct 10 percent of its taxable income. Any amount of the donation remaining after the first year may be carried forward for 15 additional years or until the amount of the deduction has been exhausted.12 This federal deduction has a corresponding effect on the donor's state tax liability. Landowners who meet the IRS definition of qualified farmer or rancher can deduct 100 percent of their AGI with a 15-year carry-forward period. 13 Significantly, this deduction is free from the Alternative Minimum Tax (AMT) calculation, making it especially valuable to high-income taxpayers.

There is an effort to make the enhanced benefit permanent. Last year, H.R. 1831 and S. 812 had substantial bipartisan congressional support. However, there is no guarantee that

ABOUT THE AUTHORS

Lee Stephens, a shareholder at the Spotts Fain law firm, has represented dozens of donors throughout Virginia who have successfully placed conservation easements on their property. Appointed by Gov. Mark Warner to the Foundation for Virginia's Natural Resources, Mr. Stephens serves on the Northern Neck Land Conservancy, and is a member of the Environment, Natural Resources & Energy Law Section.

Deborah K. Fourness, a Spotts Fain director, has represented owners of mitigation banking businesses, donors of conservation easements and financial institutions holding security interests in properties used for mitigation banking and conservation.

Robert Allen is an associate with Spotts Fain. A significant portion of his practice is devoted to representing landowners who wish to conserve their land. He sits on the board of the Essex County Countryside Alliance and he is a member of the Environment, Natural Resources and Energy Law Section Council.



Glenthorne Farm Stream Restoration

the enhanced tax benefits will be extended beyond 2011. Sen. Max Baucus (D-Montana) and others have submitted S. 339 this year, and the House of Representatives is still gathering co-patrons for a bill. With the unknown political landscape, landowners considering a conservation easement should consult with their tax advisers and attorney to determine whether they should make the donation in 2011.

Estate Tax Reductions and Exclusions. For landowners who leave sizable land holdings in their estates upon their death, the financial impact of a conservation easement may be a reduction in estate taxes. Estate taxes often make it difficult for heirs to keep land intact and in the family, because of the burden of estate taxes and the tempting development value of land. Many think it necessary to subdivide or sell land for development to pay these taxes, which is often not the desire of the landowners or their heirs.

Conservation easements may be a useful tool in estate planning. In spite of the passage of the 2010 Tax Relief Act, the future of the estate tax beyond 2012 is unclear. Under current law, donating a conservation easement can

reduce the amount of estate tax due on the real property in an estate. ¹⁴ For land subject to a qualified conservation easement, an executor may also elect to exclude from the gross estate the lesser of (1) \$500,000 or (2) the applicable percentage of the value of land subject to a qualified conservation easement reduced by the amount of any deduction under Internal Revenue Code § 2055(f), which is up to 40 percent of the easement value. ¹⁵

Mitigation Banking

Farming and timbering are businesses undertaken by the landowner to profit from the use of land. So, too, is mitigation banking. It is not passive, as is granting a conservation easement. To the contrary, mitigation banking requires creation, restoration, enhancement, and preservation of aquatic resources, ordinarily streams and wetlands. Unlike conservation easements, where the benefits stem from taxes and can be readily forecast, mitigation banking depends on projects that have an impact on aquatic resources in the watershed or neighboring areas with similar hydrology, and which require

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purchase credits from a "bank."

To obtain permits to develop, construct structures, or otherwise make improvements to property when such activities will result in environmental losses to certain streams and wetlands from unavoidable impacts, people must compensate for such losses by purchasing credits through mitigation banks or in-lieu fee programs¹⁶ or by other means of permittee-responsible mitigation. The regulations suggest that use of a mitigation bank can help reduce the risk that adequate compensatory measures will fail because mitigation bank credits are not released until the mitigation bank meets specific conservation milestones.15

The restricting of land for compensatory mitigation projects does not preclude the possibility of a conservation easement overlay. This approach would reserve the right to perform compensatory mitigation and enable a landowner to potentially receive the benefits discussed above as well as the benefits from the sale of mitigation credits

A mitigation project such as a stream bank or wetland bank begins with a determination that the property has the correct environmental attributes to create, enhance, restore, and preserve wetlands or streams. 18 This analysis should be made by a qualified environmental engineer. The landowner obtains project approval from an Interagency Review Team (IRT), which in Virginia comprises the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish & Wildlife Service, Virginia Department of Environmental Quality, Virginia Department of Game & Inland Fisheries, and Virginia Department of Conservation and Recreation. 19

As a practical matter, a landowner may derive economic benefit from determining the value of the mitigation project from an engineer and marketing the prospect of the bank to an existing umbrella bank, an entity that buys mitigation banks, or another party that could assume the role of Sponsor."20 Otherwise, the landowner will need to obtain IRT approval of its Mitigation Banking Instrument (MBI) and thereafter record restriction on that portion of the property on which the compensatory mitigation project will be located. These restrictions often limit the possible use of the project area more strictly than conservation easements, including the limitation of agricultural activities, construction, and timbering.

The mitigation project, like any construction or development project, involves costs to meet the milestones required in the approved MBI for the release of credits. Although there is an initial release of mitigation credits upon approval of the MBI and the recordation of approved restrictions, the Sponsor must set forth financial assurance provisions for completing and monitoring the project in the MBI.

With the satisfaction of financial assurance requirements,²¹ the MBI allows for an initial release of credits not to exceed 15 percent of the total number of credits anticipated. In addi-

Mitigation banking is a business with commensurate risks and rewards.

tion to the financial assurances, the MBI template suggests creating a maintenance and monitory fund with 8 percent of the cash proceeds of credit sales, a long-term management fund to manage the project after the 10-year monitoring period, and a catastrophic event fund. The long-term management of the project can be delegated to a qualified steward and such delegation may result in an increase in credits allocated to the project.

While financial benefits for conservation easements come from taxes, which may be forecast based on the appraisal, mitigation banking is a business with commensurate risks and rewards. In addition to the legislative risks and the operational risks to attain milestones for credit releases, the Sponsor faces a market driven by supply and demand in its service area, usually determined by a watershed approach. Therefore, in areas in which development or infrastructure projects are slated to be completed, the Sponsor may be able to project sales sufficient to meet economic requirements.

The current regulatory community favors the purchase of credits by developers to offset environmental impacts, rather than the developer performing on-site or off-site mitigation, which was preferred some years ago. In fact, if credits are available in the service area, the U.S. Army Corps of Engineers permit now may require the designation of a bank from which the developer intends to purchase credits, a copy of the bill of sale, and an affi-

davit from the mitigation bank before it will release permits for development. This change holds promise for mitigation banks within watersheds pressured by development.

The market for selling mitigation credits is unregulated, driven by supply and demand, and uncertain as to the timing of credit releases and sales. This may present an interesting business model with sufficient upside economic benefits to attract local landowners and investors in environmental projects.

Conclusion

Conservation easements and mitigation banking are two options for landowners seeking to profit from their land while preserving the natural characteristics of their property. Conservation easements can yield significant financial benefits from tax deductions, tax credits, and may be an important component of a landowner's estate plans. For the more entrepreneurial landowner, mitigation banking can generate substantial income. Each option provides an avenue for a landowner to harvest income from land conservation instead of from traditional forms of development.

NOTES:

- 1. There are more than 80 conservation programs from various governmental entities, which programs are designed to incentivize landowners to take certain actions for the benefit of the environment. Upon request, Spotts Fain will provide additional information about these programs and the authors would commend the reader to refer to the Private Landowner Network as an excellent resource to learn more about available grants.
- 2. This article is not to be considered legal or tax advice which may only be rendered in reference to the particular facts and circumstances appropriate to each situation. Whether conservation easements and mitigation banking may be used in conjunction with other programs is not always clear and using a conservation easement and mitigation bank on the same property is a delicate process. A landowner should seek competent advice from an attorney and certified public accountant practicing in this field before committing their land to a conservation easement or mitigation bank.
- Va. Code Ann. §10.1-1700 et seq.
 Va. Code Ann. §10.1-1009 et seq.
- 5. See Va. Code Ann. § 58.1-3233(3) (2010) (land "subject to a recorded per-

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petual easement that is held by a public body, and promotes the open-space use classification" is eligible for land use taxation.

6. Va. Code Ann. § 58.1-3231 (2010).7. Va. Code Ann. §58.1-512(A) (2010).

See generally Virginia Land Conservation Easement Incentive Act, Va. Code Ann. §58.1-510 et seg.

8. Va. Code Ann. §58.1-512(D)(4) (2010).

9. Va. Code Ann. §58.1-512(C)(1) (2010). After 2012, this increases as Virginia will permit each taxpayer to use up to \$100,000 per year of tax credits for the year recorded and 10 years carried forward. *Id.*

10. 26 U.S. C. §170(h)(1)(C) (2010).

11. 26 U.S. C. §170(h) (2010).

12. 26 U.S. C. §170(b)(1)(B) (2010).

13. 26 U.S. C. §170(b)(1)(E) (2010) (the special provisions for conservation contributions expired Dec. 31, 2009). A qualified farmer or rancher is a taxpayer whose gross income from the trade or business of farming is greater than 50 percent of the taxpayer's gross income for the taxable year. 26 U.S. C.

§170(b)(1)(E)(v) (2010).

14. An executor for an estate may also elect to value "qualified real property" according to its use rather than its fair market value. 26 U.S.C.S. § 2032A(b)(2) (2010). This election applies, for example, when land is used as a farm for five out of eight years preceding the decedent's death, the land passes to a qualified heir, and the adjusted value of the property represents a large percentage of the adjusted value of the gross estate. *Id.* This election under § 2032A reduces the value of the estate and may help keep the value of the estate under the applicable exclusion amount (currently \$5 million).

15. 26 U.S.C.S. § 2031 (2010).

16. "In-lieu-fee" mitigation occurs in circumstances where a permittee provides funds to an in-lieu-fee sponsor instead of either completing project-specific mitigation or purchasing credits from an approved mitigation bank. U.S. Department of the Army, U.S. Environmental Protection Agency, U.S. Department of Interior, and U.S. Department of Commerce. Federal Guidance on the Use of In-Lieu-Fee Arrangements for Compensatory Mitigation under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. 2000.

17. 33 C.F.R. § 332.3

18. Nutrition banking is also growing in Virginia. This is a new science where the landowner sells stormwater offset credits to developers who cannot achieve the runoff of phosphorous from a building site. Stringent stormwater regulations are in the process of being finalized, and may be losing political support.

19. Mitigation banking is a highly regulated field and is discussed in this article in general terms without reference to specific regulations. The primary applicable statutes regulations are found at 23 U.S.C. § 103, 133; 23 C.F.R. § 777 et seq.; 33 C.F.R. § 332.1 et seq.; 40 C.F.R. § 230 et seq.; Federal Guidance for the Establishment, Use and Operation of Mitigation Banks (60 Fed. Reg. 58605 (Nov. 28, 1995).

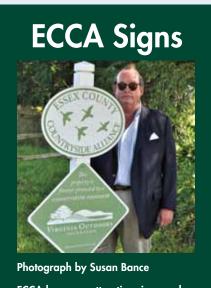
20. 33 C.F.R. § 331.2

21. The 15 percent calculation excludes credits associated with stream buffer preservation. The financial assurance must be sufficient to acquire replacement compensatory mitigation to offset the initial release in the event the Sponsor defaults and fails to reach the milestones set forth in the MBI in a timely manner. See Mitigation Banking Instrument Template dated Feb. 5, 2010.

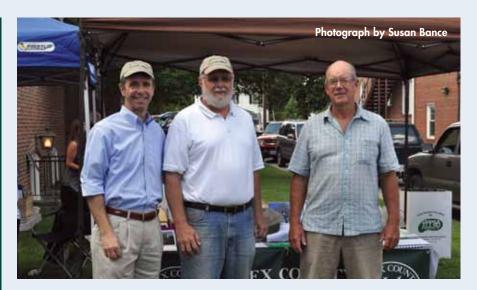
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ECCA has very attractive signs and custom cut posts made by Box and Co. for installation on your Essex County Easement Property. Please contact Walker Box at 804-443-1668 to arrange for installation. A contribution of \$160 is encouraged to help defray costs.



Tappahannock Farmers' Market

The ECCA Education Committee members have found a receptive audience at the Tappahannock Farmers' Market, a new venue this year for our outreach activities. Visitors attracted to our tent with its bold banner, photos, maps and educational materials have lingered to ask a question and to engage in in-depth discussions of our mission. The markets continue through October. Mark your calendar for September 17 or October 15 and stop by the court house green for a visit. Pictured are Rob Wittman, Cliff Fox and Ed Haile.

Rose Hill: An Afternoon with Prue Davis

By Amy Childress

As I drive up the long gravel driveway, I am welcomed by lovely rolling green pastures full of buttercups and Black Angus cattle. Rose Hill, a magnificent 600+ acre farm awaits me. Prue Davis is the owner of Rose Hill and a long time farmer and member of the Essex County Board of Supervisors. She is also a member of the Essex County Countryside Alliance and a proud advocate of land conservation and preservation in Essex County.

Prue immediately greets me with a charming smile and invites me to have a seat in a white rocking chair on her porch. I take in more of the scenic views of the farm while a steady breeze filters the crisp May air. Rose Hill Farm has been in Prue's family since the 1600's. She has lived on this farm all of her life. When asked what her childhood was like, she chuckles because she grew up with four other sisters. "My sisters and I all had to help out on the farm growing up," she says. "There was a time I could bail hay better than any boy in Essex!" Currently, Prue resides in the "old office" of the estate, which she has had remodeled. Her son and his family live in the big house which is located directly behind Prue. The "old office" used to be an old dentist's office and later a boarding school for children.

With its inherent historical

Photograph by Dawn Howeth Prue has lived on Rose Hill Farm all her life.

value, Rose Hill is just one of the many privately owned farms in Essex County. Currently, Prue is able to keep a commercial herd of Black Angus cattle on the land while her brother-in-law, Ben Ellis, farms corn, soy and wheat there. Prue cherishes Essex County and is proud of her home. "Essex is near and dear to me because we've always been here," she says.

When asked about her family, Prue admits that she loves to brag about her sisters. Prue is the oldest of five sisters. Frances Ellis was the Treasurer of Essex County for several years. Ann Eubank was an elementary school teacher and is in the process of forming an Artists' Guild in Tappahannock. Dorothy Miller owns Miller's Greenhouses and is an expert on native plants. Elizabeth Harper is a line engineer with Dominion Power. Prue's son and daughter and their families reside in Essex County. She has four grandsons and one granddaughter.

An ambitious citizen, Prue Davis has achieved many goals in her lifetime. She worked as the clerk for the Essex County School Board from 1969-1995. She has been on the Essex County Board of Supervisors for sixteen years and is planning to run again this year. Prue was the first woman to ever run and be elected on the board.

When asked what piqued her interest to run for the board, she retold a story of her past. "Peyton Hundley, my father, was chairman of the Board of Supervisors for many years. One morning, I was reading the local paper and I looked at my husband Wayne and told him he should run for the Board. And Wayne said, 'No Prue, you should.' So, I did!" Prue won by one vote the first year she ran.

During her first year serving on the board, Prue attended a conference on purchasing development rights. This sparked her interest in land conservation and land easement. Prue said that Essex County only recently approved regulations on crop land which provides a lower tax rate. Paying lower taxes on crop land is an incentive for farmers not to sell to developers.



Rose Hill Farm has been in Prue's family since the 1600s. She has lived on this farm all of her life.

Prue supports this program and added, "This is a tool to keep the farmers on their land and not run them out of business."

Prue believes that we have an opportunity to put a significant amount of county land in conservation easements. The easements will keep our land open and unscathed. When I asked Prue what she hopes to achieve during her upcoming years serving on the board, she said, "I think we need to rewrite our comprehensive plan and tweak the zoning on the Dragon Run. We have done an excellent job in Essex County with our zoning. If we can back it up with easements, then we will be in better shape. We need growth, but it needs to be in the right places."

Education and awareness are essential components to understanding the future of land conservation. Prue believes that residents need to be educated about land conservation and how it works. Once an easement is put on land, the easement remains with each owner. Prue stated

that "we [as residents] need to keep Essex County as it is. We need to support agriculture and forestry. We need to progress but we need to grow smart so we don't jeopardize what we have." She emphasizes that we have ample residential acreage, a hospital, businesses, the Rappahannock River and the Dragon Run, which supports wildlife.

In addition to Prue's time contribution with the Board of Supervisors, she is also a member of several other committees, including the following:

- Rappahannock River Basin Commission
- Middle Peninsula Planning District Commission
- Dragon Run Steering Committee
- Agriculture Environmental Steering Committee for Virginia Counties
- Board of Virginia Land Conservation Foundation Board of Trustees
- Middle Peninsula Land Trust
- Essex County Countryside Alliance

Essex County Women's Club
 -Prue's grandmother, Frances
 Hundley, was the first woman to start this club in Essex County.

Serving on the board has brought many rewards. Prue recalls when the county purchased the old Beale Memorial Church, a historical landmark in Essex. The old Beale Church was the original Essex County courthouse and now serves as a great place for public meetings and special occasions. An upcoming project, if approved for 2013, will be the renovation of Essex High School. The high school is in desperate need of being updated and renovated. Prue says it is wonderful to have a hand in what goes on in the county and she feels privileged to be a part of the Board of Supervisors.

When she isn't involved in meetings or community events, Prue enjoys spending time with her family. For fun, she and her sisters cater small events and parties. Prue also enjoys her two cats, Frank and Biscuit.



By Amy Childress

tephanie Stiles has been the **U**part-time 4-H Program Assistant for Essex County for thirteen years, but has been working with children her entire life. Twenty-four hours a week doesn't seem like enough time to accomplish all of her goals, but Stephanie puts her heart into her work to ensure that the 4-H mission is met. According to the Virginia Cooperative Extension website, the 4-H mission is to "assist youth, and adults working with those youth, to gain additional knowledge, life skills, and attitudes that will further their development as self-directing, contributing, and productive members of society. The 4 "H's" stand for:

- Head
- Heart
- Hands
- Health

The 4-H motto is "to make the best better."

4-H camp is held annually at the 16 acre Jamestown 4-H Educational Center in Williamsburg, Virginia. This year, camp was held during the week of June 20-24.

Planning for one week of 4-H camp is a year-long process. Camp experience is constantly under evaluation by leaders such as Stephanie to determine how to make each year better than the last. Essex County partners with James City County

to serve children at the Jamestown 4-H Educational Center. Together, volunteers, leaders and children spend the week building friendships, participating in classes and learning skills that will last throughout their lifetimes.

Children are placed in activities and classes based on their interests. 4-H camp offers a total of 31 classes to choose from, including canoeing, kayaking, marine science, outdoor living skills, archery, forestry, acting and photography just to name a few! Teens 14-18 years old may apply and interview to become a teen leader; leaders must be 14 years by January 1st. A 13-year old may be considered for a CIT (counselor in training) position and shadow a teen leader during camp. Teen counselors, volunteers and leaders give their time and dedication to these children year after year. All 4-H camps have received ACA (American Camp Association) accreditation. It is at these camps that children form an instant sense of community and feel a part of something larger.

Stephanie stated that "the biggest benefit of camp is the equal footing that every child stands upon regardless of socioeconomic background. It is important that we as leaders make sure that each child feels special and that we encourage all of

Photograph by Stephanie Stiles

them to do what they enjoy doing." She also added that "a child's time is as valuable as an adult's." 4-H camp strives to build confidence in decision making skills and independence. It is important that children learn to take ownership of their decisions and learn how to deal with the consequences of their actions.

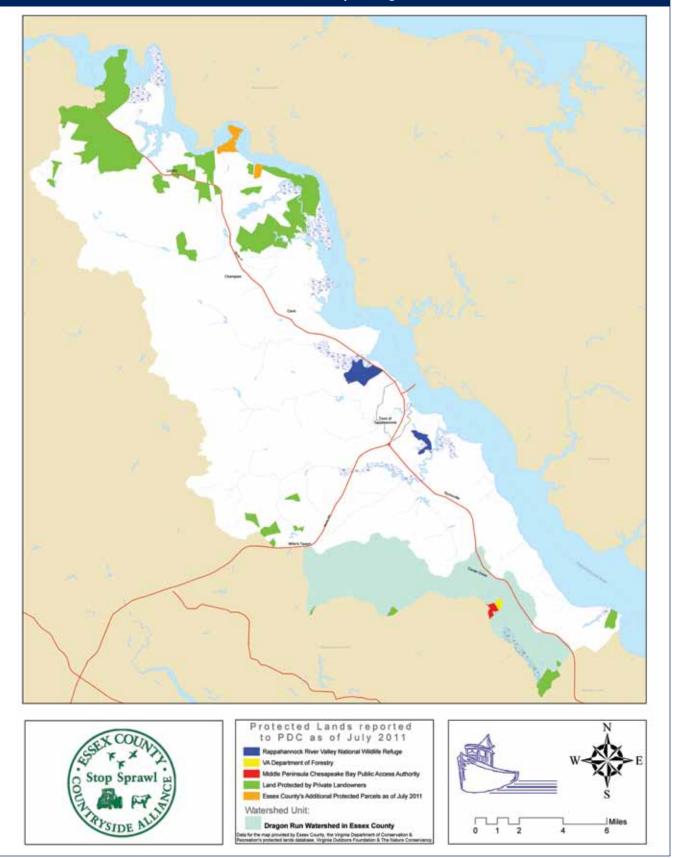
Budget determines several factors for the 4-H program. Essex County donates \$1,000 each year to the Jamestown 4-H Center. All donations to the 4-H program are always graciously accepted, including material items such as fabric, sewing or art supplies for craft making. On May 25, 2011, Bob Baylor presented a \$500 donation check to Stephanie Stiles, 4-H Program Assistant for Essex County, on behalf of the ECCA to help support the 4-H camp for Essex County children.

Stephanie admits that because of the ECCA's generous donation this year, two children who could not originally afford to come to camp this summer are now able to come. She graciously extended her gratitude by saying, "I am thankful for this donation from the ECCA. One of these children has never been to camp before. It is at camp that lives are changed and normalized."

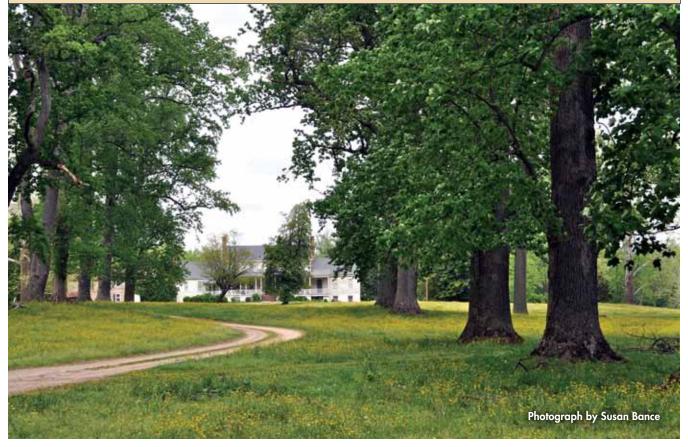
On May 25, 2011, Bob Baylor presented a \$500 donation check to Stephanie Stiles.



Protected Lands 2011 Essex County, Virginia



County	Acres under Easement	Total Acres	% in Easement
Clarke	20,089.32	113,036.62	17.77%
Albemarle	78,770.94	462,469.68	17.03%
Rappahannock	28,631.00	170,604.53	16.78%
King and Queen	19,490.43	202,406.08	9.63%
Essex	13,016.16	164,972.54	7.89%
Westmoreland	7,058.41	146,674.97	4.81%
Richmond	5,81 <i>7.7</i> 1	122,534.21	4.75%
King George	4,256.20	115,199.82	3.69%
Middlesex	2,349.63	83,391.87	2.82%
Lancaster	2,015.83	85,209.47	2.37%
Northumberland	2,516.53	123,071.81	2.05%
Caroline	5,092.51	340,812.27	1.49%
Gloucester	1,471.71	138,630.18	1.06%
Mathews	432.90	54,835.11	0.79%





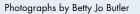
Ode to a Dragon

April 25, 2011

Fierce and dark she lay supine
Amidst knees and vines sublime.
Wait she did for the paddlers—
Twelve they depart, saddlers
In the midst of their flotilla,
Angling down with agility
'Til passages are cleared from beaver
Blocking overnight, in their fever
Of work revealed, with obstacles
Armored, not mere particles.
Guides lead on who know the route
Mindful of the Dragon's false moats.

All around the waters flow, pushing
Middle Peninsula directors 'til sluicing
They enter a quiet flow where Dragon's
Teeth of plants abound like overflowing flagons.
Time enough for lunch, time to float,
Open the beer and savor with hope
Another creation of one's mate,
Someone willed to impart the Dragon's fate.
So we pause in the sunny shade
To become at last a part of that maid
Simmering quietly within the Dragon's fiery nature,
Departing, all twelve denatured!

Walter S. Rowland Middle Peninsula Land Trust Outing Cherry Walk Farm





Bring Back the Bobwhites

By William Haile

Unfortunately, the little bird has all but disappeared not just from Essex, but from its entire range throughout the southeastern United States.

We have a proud tradition of hunting in Essex County and our most treasured game animal is the Bobwhite Quail. Few types of hunting can match the excitement of an explosive covey rising in front of a brace of staunch pointing dogs, and no other game comes close to quail on the dinner table.

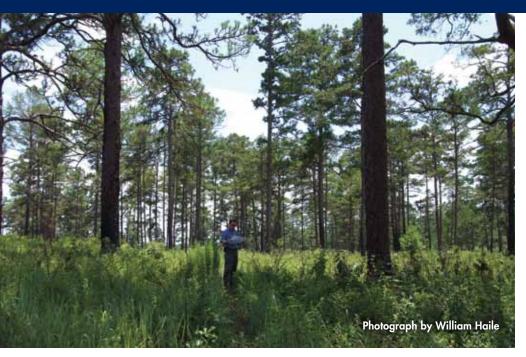
Many of our old quail hunters brag of shooting a hundred birds in a season. It was not uncommon to find a couple dozen coveys in a day.

Unfortunately, the little bird has all but disappeared not just from Essex, but from its entire range throughout the southeastern United States. This is due to land use changes and an explosion of predators. Gone are the small fields and hedgerows overgrown with weeds and briars. Chickens and turkeys are now raised in large

enclosures and no longer require protection from the barnyard predators that feed on wild birds instead. These practices, while essential for farmers to survive in today's competitive markets, are detrimental to the quail.

By the time I was old enough to carry a shotgun this process was well underway, but the quail were still plentiful enough for me to stumble upon them while chasing other game. One day about fifteen years ago I stepped into a huge covey like I had heard stories about. Something about that experience got me fired up about learning how to restore their population. I read everything I could get my hands on about quail management and drove thousands of miles to attend seminars. Unfortunately, most of what I saw was disappointing. Nothing seemed to be working.

Then one day I happened upon a 3,500 acre property in the low country of South Carolina. This piece of land was being managed primarily for quail hunting and boasted quail populations that exceeded my wildest dreams. The land had only been purchased in 2003 and at that time had been maintained as a tree farm with only a small native population of quail. By the time I arrived in 2009, careful management had increased the population to over 200 coveys. I knew the owners were doing something right and decided right then that I wanted to learn as



Thinning a pine forest to this density encourages a brushy understory that the quail hide in during the winter months.

many of their secrets as I could. It turns out they were short on help, so I began working on a part-time basis, and in the spring of this year became a regular employee.

This property was practicing the methods of quail management which were developed in southeastern Georgia, which is known for the finest quail hunting in the world. While there were many components to the management plan, the principal methods consisted of wintertime burning, ragweed planting, year-round food supply and year-round predator control. There is nothing complicated about these practices, all of which could be applied in Essex County. In fact, they used to be by-products of traditional farming.

Winter time burning

Every year we burn over half of the 3,500 acres to create a perpetual low, brushy type of cover. This cover resembles cutover timberland for the first few years after harvest. The exception would be the presence of a low density of pine trees that are maintained for income and an aesthetic shooting experience. The quail use this cover to nest in and hide from predators during the winter months. Burning removes the previous year's dead vegetation that eventually becomes an impediment to quail movement. The hot fire also kills the young saplings that shade out the grasses and brush and would otherwise grow back into a forest. We create a network of firebreaks with a small bulldozer and keep them open with a farm tractor and disk.

The property is burned late in the winter to keep the cover available to the birds as long as possible. It has to be done before the spring green-up, however, or the green leaves would cause the fire to burn out. In South Carolina this is typically between March 15 and April 15. The fire exposes a seedbed which sprouts to form the next year's vegetation. By the following winter the knee-high vegetation is once again suitable for the birds to hide in.

Before the advent of herbicides

and heavy equipment, burning used to be much more common in Essex. The burning was a simple and inexpensive method to control unwanted brush piles and keep hedgerows from encroaching upon the crop fields. When I was a boy, my neighbor used to burn his hedgerows and ditch banks every few years, inadvertently creating excellent quail habitat. He had about six coveys on his ninety-acre farm.

Ragweed

A significant portion of the property is deliberately planted in ragweed to form what I call the "baby quail factory." Although the bane of allergy sufferers, it produces fantastic habitat for quail chicks. Ragweed is unique because it forms a dense canopy of leaves while remaining relatively open at the ground level. This shields the birds from overhead predators while allowing freedom of movement for the tiny chicks. And its lush green growth attracts lots of proteinrich insects so essential for the growth and development of the voung birds.

As soon as the last chick hatches from the nest, the parents lead the babies to the ragweed where they will fatten themselves up all summer long. Surprisingly, all of this cover must be destroyed in the fall. Ragweed produces a delicious seed for the quail, but when the leaves drop the plant no longer provides adequate overhead cover. Left to stand, these areas become deathtraps for the quail by exposing them to hawks. Instead, the ragweed is thoroughly disked under in November after it goes to seed. Disking at this time reseeds the plant for the following year.

Before we had chemical fertilizers it was common practice to leave farmland fallow every few years. Typically, after the last crop was brought off in the fall, the land was turned over with a plow or disk. This timing just happened to be perfect for reseeding ragweed. As a result, the soil was replenished with nutrients and the field edges were replenished with quail.

Food

In the summertime a quail's diet is mostly made up of insects, but the rest of the year they are seed-eaters. While they can subsist on natural seeds, they thrive on waste grain from agriculture. That is why they are so often found in field edges and hedgerows and are considered farm game. Our property is low and wet, making the cultivation of crops impractical. Instead, grain sorghum is broadcast from an agricultural spreader throughout the property in accordance with local game department regulations.

Before the widespread use of herbicides, it was common for the outer rows of crop fields to become infested with weeds, impenetrable to the vintage combine harvesters. As a result, the outer fifty feet or so often went unharvested. This left a buffet of grain and weed seeds for the quail.

Nest predator control

These animals include the usual array of southern varmints that used to end up in the pot—raccoons, opossums, skunks and bobcats. In the old days, these critters didn't last very long if they got anywhere near the henhouse. Also, before radio, television, and the Internet the old time traditions of 'coon and 'possum hunting were

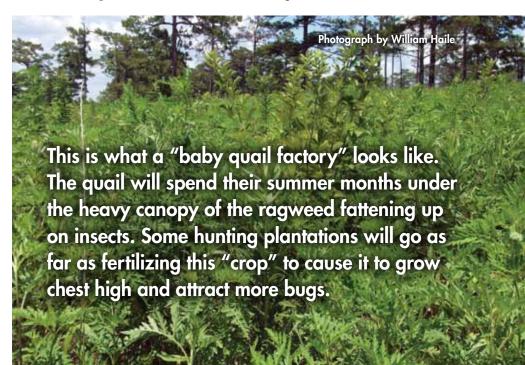
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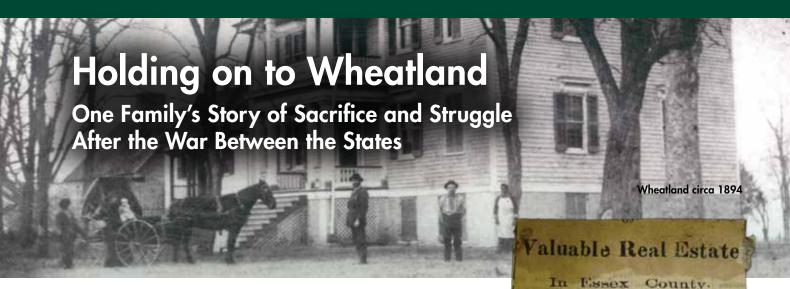
about the only source of nighttime entertainment we had. These days, properties maintained for wild quail shooting control predators with a year-round trapping program. The use of box-style "live catch" traps prevents injury to non-targeted animals such as neighborhood pets, which are returned to their owners. The traps are fitted with a radio trap monitoring system, which cuts down on the time required to check each trap every single day of the year. When the radio receiver indicates a trap has been tripped, the animal is relocated to another property or otherwise disposed of in a humane manner.

There is nothing complicated about these practices, most of which can be conducted with common farm equipment or ordinary hand tools. Some special permitting might be required for controlled burning or trapping outside the normal Virginia seasons. Although Essex County isn't in the Deep South, we are well within the traditional range of the Bobwhite



which used to extend up into the northern states. There are actually some advantages that we have over the Deep South. We don't have to hunt in 80 degree weather which is hard on bird dogs and hell on scenting conditions. Besides, I'd rather hunt land that isn't infested with fire ants and rattlesnakes. Our booming small grain agriculture could certainly provide adequate supplemental wintertime food. We are also blessed with large tracts of undeveloped farmland and timber which, with the incorporation of subtle management changes, could support healthy quail populations. With a little bit of effort we can make that old familiar "bob-white" whistle as much a part of the Essex landscape as it used to be.





By Susanne Derieux

What follows is one of three cases in Essex Chancery brought by the Baltimore grocers' firm of McConkey & Parr against an Essex merchant. The other two involved Thomas R. Waring of Edenetta, and the firm of Dillard & Fauntleroy at Center Cross. The details surrounding the suit against John Saunders of Wheatland provide some insight into the difficulties faced by residents of the region after the Civil War. Prior to 1861 Essex County had been a thriving commercial center. Wharves along the river brought goods to merchants and planters and took away commodities to markets in the United States and abroad. But after 1865 the area was in ruins. What happened to Saunders provides some insight into how hard life was for those who tried to rebuild their homes and their fortunes, and how hard they had to fight to hold on to what they had left.

ohn Saunders, born in Caroline County in 1800, was the son of John Saunders and Mary (Polly) Dickinson. He married Sophia Bentley in 1826, and they would have four sons, Robert S., Walton S., Peter R. and John E. and four daughters Virginia, Martha/May, Sarah/Sallie and Ellen. In 1832 he purchased a store lot, located on the main road from Laytons to Vawters, from John L. Cox for \$1,000; in 1844 he bought two acres called Loretto adjoining it from Henry Waring for \$200. Two years later he bought 447 acres called Hawkins from the estate

of William Gray for the sum of \$6,825. He built (or rebuilt) the wharf, and ran a thriving mercantile business between the wharf and store. In 1860 Loretto was assessed in the county tax records at \$2,000, and Hawkins at \$12,457.50. The buildings at Hawkins were valued at \$4,000, but this would have included all buildings: house, kitchen, barns, stables, granaries, wharf and cabins. Saunders had built a new house² for his family, and renamed the property Wheatland. In 1860 John Saunders was a rich man.

In 1865 John Saunders and all

Passant to becree of Court in the Chang systems of farrys, Samises, i will sell in from of the Unitin In Papahamnock, on Sebruary Jounny Court day,
FERRUARY 21st, 1851,
the tract of land called

WHEATLAND,
lying in the upper portion of Sessic starty, Virginia, and prop ity called

LORETTO,

in said county,
WHEATLAND is assessed as containing 433 acres of land. It lies on the banks of the Rappahamnock river with a spacious dwelling seated in the midst of a spacious lawn planted in every rens, all accessing outcomes within one has dried yards of the dwelling, where the steamers from Balti nore to Fredericksburg stop four times weekly. It is a promising position in the steamers from Balti nore to Fredericksburg stop four times weekly. It is a promising profit in a continuous and attractive as well as promising profit from the start stire as well as promising profit farm.

Dylkel't) or sixts of two and a half acres of land with a large dwelling, storehouse and granary on it. It is the best stand for a mercentib business in Essex county. It is about one and and miles from sylmatical, and surrounded by thrifty and inhastrons planters, many of whom cautivate large transit amploy many latterers. The lite is portedly called and some security and inhastrons planters, many of whom cautivate large transit and only many latterers, who and three years for the residue security and title rotaleed until faily paid the part and security and title rotaleed until faily paid the

Notice from Chancery Suit printed in local newspaper.

his neighbors, like the rest of the South, were flat broke. Saunders however, was deeply in debt. He had allowed his accounts with Northern merchants to accrue and had signed more than a few bonds³ for a great deal of merchandise ordered in 1860-61. Perhaps he thought there would be no war, or that it would be over soon, and he could sell and pay. Perhaps he thought the South would win, and he wouldn't have to pay at all.

On November 18, 1865 he wrote his son Robert, then living in Selma, Alabama:

...We are ruined here - Completely ruined - I am too old to go into business now & even if I had the capital the people have no money...I don't know what to do - I want to pay off my debts ...I suppose my creditors at the North will soon be pressing upon me...I dread to see this place pass into the hands of strangers... if it must go I want some one of you to buy it...

Robert responded in December 1865

...allow me to assure you that...
nothing would give me more
pleasure...than preventing the old
homestead from passing into the
hands of strangers...I would make
any sacrifice to avoid it because
I know how painfully distressing
it would be to mother to have her
home on which she has expended so
much labor and care sold & be...set
adrift as it comes on her old age...

One of Saunders' largest creditors was the Baltimore firm of McConkey & Parr. He had done business with them for years, shipping his crops and furs to them, and ordering finished goods for his family and the store. His last letter to them in April 1861 comments on his debt and the coming war:

...I had a lot of corn...would ship as soon as I get it in...you shall receive in the course of the year every dime I owe you - I repeat — you will get [all] I owe you - whether Maryland hitches herself to Lincoln or the South — no man who calls himself a Virginian...will never repudiate [his debts]...

His correspondence with McConkey & Parr resumes in the summer of 1865:

... Yours dated the 21st before me⁴ ... nothing has given me more pain and trouble during this unnatural Civil War...than my indebtedness to the North - at the beginning I held in my warehouse 2000 bus. wheat & @ 2500 bus. corn...all was lost...burnt at Fredericksburg or taken by the Gov....[if] I can make arraignments to pay my creditors in small installments... if I am pressed, I shall have to press them that owe me...time and patience must be the only course... I have four sons which will pay every dime which I owe...I shall give you my bond provided you ... will not press it for payment...I think by this time you ought to know whether my word is good... if I were to give a deed of trust to you it would cause an immediate ruin...my whole property belongs to all my creditors...

Saunders wrote the bond August 23, 1865 for the amount of \$7,556.75. McConkey & Parr did not, or could not, continue to wait for payment. They filed suit in Essex Court in April 1866, and won a judgment against Saunders in August. Sheriff John T. Boughton carried it out, but returned it saying, "I can find no goods or chattels unencumbered on which to levy this judgement...," because Saunders had made two deeds in January 1866 to his son Robert, selling him Wheatland for \$9,000 and Loretto for \$1,000. He made a deed to his son Walton, placing all his personal property (livestock, tools and furniture) in trust for five years, and if his debts were still unpaid at that time, the personal property was to be sold, and then the real estate if needed. John had also purchased Mt. Nebo (168 acres) from William L. Waring in 1866 for \$4,800, and had the deed made to Walton, but had not finished paying for it. Walton would buy Wheatland and Loretto from Robert in January 1868 for \$12,000.

McConkey & Parr filed suit in Chancery Court⁵ in October 1866, and stated in their Bill that Saunders was withholding payment due, that he had encumbered his property with fraudulent deeds to a non-resident and placed his property in trust in order to defraud and hinder his creditors. After this Bill was filed, 33 other creditors entered their petitions against Saunders and his sons. Most of these were mercantile firms of Baltimore, but nine were neighbors; L.C. Gatewood, John J. Wright, William and David Dishman, Asa and Absolom Gouldman, Philip Gray, Alfred Garnett, and Mary Weaver.

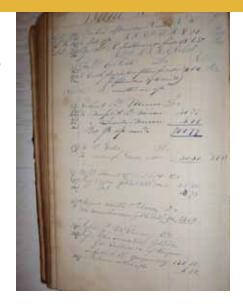
Saunders' clerk, Mortimore Gravatt, was also named as a defendant. He had worked for Saunders as a clerk since he was twelve, starting in 1834, and was owed \$9,859.04. Saunders wrote him a bond on 15 April 1865 for the amount, and Gravatt then entered into agreement with Robert Saunders, assigning him the bond. In exchange, Robert would pay him \$3,000 and give him a store and capital to stock it, in Alabama.

John Saunders died in February 1867 without leaving a will, and Sophia took over administration of the estate. Sales of the personal property netted \$419.92, which went to the creditors. In April 1867 the court ruled that the deeds from father to son were to be put aside, and ordered that Commissioner James M. Matthews was to report all the debts and credits of Saunders. The total of debts, including Gravatt's bond, was

\$33,278.36.6 Loretto was valued at \$1,500, and Wheatland at \$12,000.

The suit dragged on. The death of James McConkey was entered in November 1870, and in November 1871 the death of Robert Saunders. Sophia Saunders' death was acknowledged in July 1874. Walton asked the court to appoint the Sheriff of Essex, William G. Newbill, to take charge of the estates, and the suit was refiled as Israel Parr, Surviving Partner and others vs. William G. Newbill, Sheriff, Committee Administrator of John Saunders, Comm Administrator dbn of Sophia Saunders, and Committee Administrator of Robert Saunders and others.

In July 1874, Judge James Jeffries impaneled a jury out of Chancery to decide several questions; whether the deeds from father to son were bonafide, were they made for a fair consideration, and when were they executed, whether Saunders was indebted to Gravatt at the time of the deeds, when Gravatt's bond was assigned to Robert Saunders and if or when Mortimore Gravatt was ever a partner with John Saunders, because if he had been, this would erase the debt Saunders owed him. The jury deadlocked, and another was impaneled in November, composed of R.G. Dillard, E.M. Ware, Booker Garnett, R.B. Boughton Jr., R.C. Phillips, J.W. Phillips, James R. Cox, R. Saunders (no relation), J.R. Broocke, R.V.



Brizendine, J.A. Pynes, and J.W. Smith. This jury returned a verdict on November 14, 1874, stating, "We the Jury do believe the two deeds from John Saunders to R.S. Saunders were bonafide on the part of John Saunders, but not on the part of Robert Saunders, that they were not made for a fair consideration, but were executed at the date written, that Saunders was indebted to Gravatt, that only a nominal partnership existed between them and Gravatt's bond was assigned to R.S. Saunders after the deeds were written."

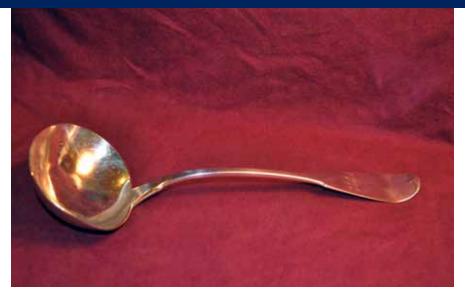
Robert Saunders paid Mortimore Gravatt one payment of \$500 and he went to Alabama to stay with Robert in 1866, but Saunders never followed through on any other promise. Gravatt returned to Essex in 1867, and went back to work for Walton at the store. He died in early 1880, age 58, leaving seven sisters and four brothers. Walton paid his estate \$3301.36, but it is unclear whether this was money Robert owed him or what Walton owed him.

In July 1875, Judge Jeffries ruled that the plaintiff had failed to make his case of fraud as to the deeds to Robert and Walton, and the bill was dismissed. He did decide that



Saunders had defrauded his creditors with the purchase of Mt. Nebo, and ordered a sale of the property. Thomas Croxton, Counsel for the Plaintiffs, put Mt. Nebo to auction and Walton bought 139 acres of it in May 1876 for \$663.25, receiving a deed in January 1879 when it was paid off.

Israel Parr, along with Thomas Croxton and certain other creditors, appealed the decision of the Essex Circuit Court to the Virginia Supreme Court of Appeals, which dragged the case out for another five years.8 This court issued their decree in August 1880, and overturned the Essex court's decision. They ruled the deeds from John to Robert were fraudulent, and the deed from John to Walton for Mt. Nebo was fraudulent, since he had purchased it with money that should have gone to his creditors. Thus the title of Mt. Nebo was to "be vested in Walton Saunders in trust for the creditors of John Saunders until a proper sale of the same could be made," voiding Walton's purchase in 1876. The cause was remanded to Essex to oversee the sale of Loretto and Wheatland for the benefit of John Saunders' creditors. The creditors could also ask for a full accounting



Wheatland soup ladle with initials VGS – Virginia Gravatt Saunders – daughter of John and Sophia Saunders

of all the rents and profits Walton had received for Wheatland, Loretto and Mt. Nebo, but had to credit him for improvements he had made, including repairs to the south side of the house when it burned, and the planting of 250 "choice" apple trees. Essex ruled that no resale of Mt. Nebo was necessary, since the sales of Wheatland and Loretto would pay off the creditors that were left.9

Walton, fed up, wrote to Thomas Croxton on November 11, 1880:

From the moment I heard that the Appellate Court has deprived me of Wheatland & Loretta I resolved to close up my business...let the balance of the real estate go to pay the unjust debt that has been forced upon me, and to leave Virginia forever...you have placed an extravagant estimate on the value of this property...only about 120 acres [of Wheatland] are good, the [rest] a sorry medium, 50 very bad...the dwelling house and granary are in

dreadful condition...the Steamboat Co. will not stop [at the wharf] without its repair...if you will give me your assistance & abstain from running up the property...I will pay you a fee I am sure you will be satisfied with...I...felt all along... you had ruined me, completely broken me up...

Croxton wrote to the attorneys Braxton & Mullins on January 14, 1881:

You will see...that Wheatland & Loretto are to be sold...I have written my clients Parr & Jenkins to run the property to its value... Gordon is disposed to unite with Parr to make the place sell...they can get some \$5,000 for rents and profits and the property should sell for \$10,000....

Thomas Croxton, who had worked on this case for over ten years, keeping it on the docket and petitioning the court for his payment twice, made sale of both properties at auction on February 21, 1881. Walton bought Loretto for \$1,300 and Wheatland for \$6,700, a total of \$8,000. Of this sum, Thomas Croxton would get \$2,000, more than any other creditor. The final deeds were made to Walton on March 6, 1884, when the properties were paid off, and the case was finally stricken.

Walton had married in 1882, and he and his wife alternated living at Wheatland and their home in Baltimore. In 1892 he sold Wheatland and Mt. Nebo (598A) for \$15,000 to his nephew William C. Dickinson of King George, son of his sister Virginia and John F. Dickinson. He sold Loretto to Thomas Coates in 1894 for \$2,150. Walton and his family moved west in the late 1890's, and he died in San Francisco on February 2, 1902, leaving a widow Mary Frances, and one daughter, Mary Walton Catherine Saunders, age eight.

Walton, in his father's words, was a true Virginian. He never repudiated either his debts or those of his father, fighting for fifteen years to keep his land together and keep it in the family.

¹ All children are from census records of 1850, 1860 and 1870, and names and ages are not consistent.

²The closest comp to the new house would be (what is now) the main part of St. Margaret's Hall, valued in 1860 at \$2,500.

³ A bond was a promissory note which carried a date to pay, and usually carried interest. It bound the heirs and estate of the signatory.

⁴No letters from McConkey & Parr to Saunders are in the file.

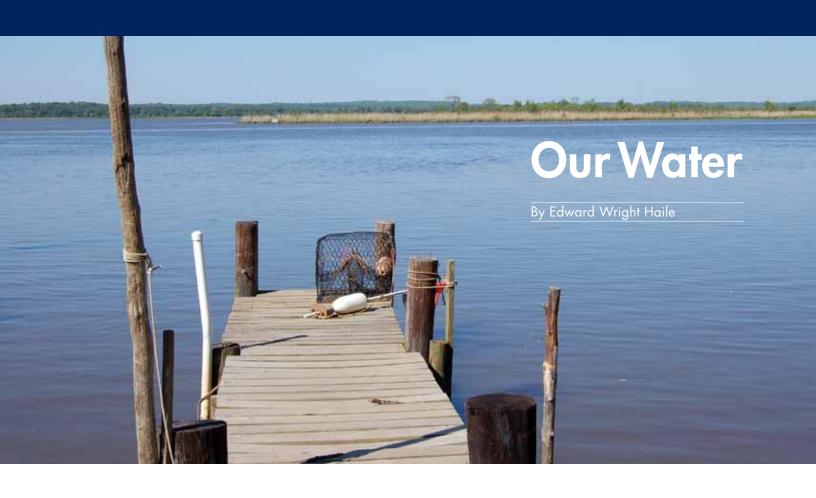
⁵Chancery is a Court of Equity, which hears certain kinds of civil causes, to render an equitable judgment for all parties.

⁶In 2008 money this would be \$466,000.

⁷Robert would fail in business in Alabama and file for bankruptcy in 1868, owing his creditors \$25,000.

⁸This appeal is not here, but can be found on microfilm at the State Library.

⁹Most of the creditors had long since died or given up; only the big firms and Croxton were still invested in the case.



Two rivers flow through Essex—one on the surface in diurnal tides, one underground in a millennial creep. They are two parts of the same river called the hydrologic cycle, though barely connected. It is hard to say which of them is more vital to our health and wellbeing.

Surface Water

The Rappahannock is an estuary, a sea arm, all the way to the fall line. In dry years the salt advances until you can taste it in Portobago Bay and measure it to the Route 1 Bridge. In wet years so much fresh water runs off locally and down the river's vast piedmont drainage that stinger nettles disappear, the sea is forgotten, and the river above Wares Wharf offers an unlimited source of fresh water. It's why the oysters can't stand it above Rusts Rock.

The source is abundant but problematical. The early settlers

tried to use river water straight and got dysentery and salt poisoning (the "bloody flux"). Moreover, the fresh water/salt water alternation is phased against crop irrigation. Tidal water is freshest in cold weather when evaporation is at a minimum, but farming is also minimal. If the growing season is wet, the river continues fresh but crops don't need irrigation. If dry, the salt moves up. It's a narrow window and only for farms fronting the river and for farms above Blandfield Point.

As for other needs—home, municipal, commercial, industrial—the river is, or will be, despite our Colonial experience, completely reliable. It will require purification and salt filtration. The latter will increase as more and more water is withdrawn. If other communities make use of our river (inter-basin transfers), and they will, it will bring an ecological change such that the fish and flora of the

upper Rappahannock will come to resemble those of the lower.

It may mean reclamation of old millpond sites for reservoirs, some still dammed, such as Farinholts, Essex, Croxtons, Latanes, Scotts, Warings, Cheatwood, Crittendens, Joneses, Hunters, and so forth. The future of swimming and ice skating is bright. We will all then be on water mains and hit with the water bill. But the Rappahannock is our ace in the hole. The water is there in quantity. We'll have to pay for it in quality.

The only public reservoir on the Middle Peninsula so far is the Beaverdam in Gloucester. The King William project has been dropped.

Also abundant but limited by comparison, ground water quality is suffering and levels are dropping with present use. Essex ground water occurs in three deep aquifers that lie under a shallow water table fed by surface runoff.

Shallow Water

Rainwater and river and stream water seeping into the ground through unconsolidated material, meaning subsoil that is porous—fine sand, coarse sand, gravel—puddle above a stratum of impermeable clay to form a water table. When you dig a surfacerunoff well you generally go ten to fifty feet before you hit one of these puddles. You might dig right through one or two little puddles on the way. They are the ones that ruin your chance for a good septic tank drain field. But if your well digger keeps digging, he will reach a good household flow within fifty feet. On the other hand, since a shallow well is recharged right where it sits, when the weather gets dry the well may follow suit and vou will be without water until it the next hard rain.

Artesian Water

The shallow water zone is simply the first of several alternating layers of porous material sandwiched between layers of clay that make up the geology of the Virginia coastal plain. Each porous layer is saturated by a river of ground water. We call such a river an aquifer. We call the water artesian water (although in King and Queen County and the Northern Neck it's called artistic water). Bureaucrats say that the water has to spurt to deserve the name (more about that ahead).

Hydrologists use the term unconfined aquifer for shallow, or surface-runoff, water (one clay stratum underneath) and confined aquifer (sandwiched between two clay strata) for artesian water. Well diggers call it deep water because it's too deep for them to get to by shovel. You need a well driller because in Essex you don't get to artesian water until a hundred feet of drilling and usually much more.

The Fall Zone

Nor does the artesian water table have anything to do with the weather. The rains that gave us our deep water fell long ago and west of us in what is called the fall zone, beginning at the fall line, or the interface between the piedmont and the coastal plain. We get virtually no ground water seeping out of the geology of the piedmont itself.

On the Rappahannock River the fall line is at the Route 1 bridge at Fredericksburg, running north and south. The term refers to the fact that bedrock, on or near the surface in the piedmont, at a point east of U. S. Highway 1 begins to fall, or dip, below the surface. Essex bedrock is already 1,200 to 1,800 feet under us, measured west to east. At Temperanceville, Virginia, at the Atlantic coast, it has been struck at over 6,000 feet below sea level.

That sounds like a steep descent, but let's look. Temperanceville and the Route 1 bridge at Fredericksburg are 107 miles apart. A drop of 6,000 feet between them is little more than a one percent slope, or one foot per hundred feet. A jogger would hardly notice.

Our coastal plain water sandwiches (shall we now call them wafers?) are also sloped west to east, but less steeply than bedrock. Each begins as a thin wedge in the fall zone and gets steadily thicker towards the Atlantic coast as the bedrock plunges. By contrast, land elevation drops only 250 feet over the same distance.

The artesian water we drink today fell in the fall zone as rain-



The Rappahannock flows in the distance behind Dragon Run. Photograph by Brenda Gladding.

drops to become surface water (an unconfined aquifer) that percolated and puddled directly over bedrock or an intervening clay stratum. No sooner did it begin to obey gravity and seep eastward down the slope than it got sandwiched by another clay stratum and bingo, there's your confined aquifer.

The water was captured between clay layers and eternally pushed, or pressurized, by more surface water that has come behind it over the eons. When you drill a well below the elevation of the fall-zone source of a confined aquifer, it spurts out—in theory, at least. When I was a kid it was already down to the dribbling stage. Nowadays, you have to pump it out because nowadays everybody else is pumping it out a little faster than you are ... though I am told there's still a well point at Muddy Gut that has positive pressure.

Three Aquifers

There are three water sandwiches under Essex, called the Piney Point, the Aquia, and the Potomac aquifers, in order of depth. The Potomac is additionally a "Dagwood sandwich" composed of three sub-aquifers—upper, middle, and lower.

Piney Point, in Maryland just west of the mouth of the St. Mary's River, must have had a nice gush of

artesian water years ago to lend its name to a small underground river of saturated sand that includes us in its creep west to east from 50 feet above sea level to as much as 300 feet below the ground where you sit or stand to read this article.

The recharge area for us is just west of Supply (doubtless an explanation of a local place name) from the clays along Peumansend Creek in Caroline county, the eastern limit of our artesian fall zone. The post-development water table here has been sucked down 30 feet. However, from Otterburn marsh upstream on the Rappahannock, the water table is exposed by the river valley and some Piney Point water actually seeps right into the river and tributaries. What a waste! But that's Mother Nature for you. It regularly supplies the Supply neighborhood (and the coastal plain) with over five million gallons a day, including holidays, but making up less than 5 percent of total withdrawals.

Deeper yet is the Aquia aguifer, named for a restaurant that used to serve pretty good food late at night on Route 1. For our purposes it catches its waters from the clay up-dips in the western fall zone (Spotsylvania, Stafford, western Caroline) and inclines under us, saturating a thin layer of coarse sand, from a minimum of 50 to 350 feet below sea level. Post-development tables have surrendered 40 feet. It too seeps directly into the river, but further up, from Hicks Landing to Maryton, better known as Skinkers Neck (even better known as The Camel). It is thinner than Piney Point, usually no more than 50 feet through, so there's not much left. It yields a couple of million gallons

a day, less than one percent of the regional total.

Plenty of individual and town systems make profitable use of these two aquifers. However, the champion and granddaddy, carrying most of the ground water as well as the very oldest and deepest of the paleo-waters of the Virginia coastal plain is the Potomac aquifer, named for an army commanded by General U.S. Grant. It is reached 200 to 450 feet below sea level and extends all the way down to bedrock. It furnishes the coastal plain with 95 million gallons daily or 89 percent of the total (my figures are four years old). How much is 95 million gallons? That amount of water would fill a swimming pool six feet deep covering 50 acres. Total use from all three aguifers would cover closer to sixty acres. Every single day and Christmas!

Flow Rate

In the pristine past, it once took a mere half our average rainfall to keep it all charged up to max. That was before development in the twentieth century. There's still good news. There is a small ocean down there, yes, an unbelievable amount of clean fresh water. The not-so-good news is that we are also using a small ocean and the recharge in the fall zone (44 inches of rain annually) is not exactly keeping up with the pace. And even if it was, it wouldn't get to a town once called Hobbs Hole until ...

... well, hold onto your wing chair. The newest artesian water arriving under the Occupacia District—in the Piney Point aquifer—has been on its way at least 10,000 years. The oldest

would be 40,000 years underway, inching down to the end of the Rappahannock District in the lower Potomac aquifer. While this is still faster than the traffic on Interstate 95, it is up to 1,600 generations of even the first and finest families of Virginia before we replace what you just—.

Okay, but where does it go if we don't use it? It goes, after a few bends and detours, out to sea and fills itself with Atlantic salt, completing round one of the hydrologic cycle. That's Mother Nature for you.

Permits Not Required

Thus the pressure, a direct function of the supply, is dropping right along with the water table. However, nobody on the Middle Peninsula or the Northern Neck is required to obtain a ground water withdrawal permit regardless of how much water he or she uses, except in King William County. Our reserves are quite adequate for now. A permit is required on the Eastern Shore and south of the York and Mattaponi for withdrawals in excess of 300,000 gallons a day. Nobody around here uses that much water anyway except the town. The most recent town figure I could get was 335,000 gallons a day.

Town Water

The first town well in Tappahannock was drilled about 1938 when a matching federal grant for a modern water and sewer system was obtained. It was beside the river shore to the right of the old Downing Bridge. The new bridge took the site in 1962 and it was capped and abandoned. You can still see a slab. Four more wells have been drilled in 1956, 1960,

1993, and this year, 2011, at various dispersed locations within the town limits, one of them being directly under the water tower. All four continue in operation and range in size from eight to twelve inches in diameter, averaging 600 to 650 feet deep, which puts them, along with the first well, nicely in the lower Potomac aquifer. The water there is very old and very soft.

I remember how the original well used to bring up a sweet, soapy-tasting water that would barely rinse soap lather and that I heard was tested and found to be the softest water in the United States. It was also naturally fluoridated and was slowly putting the dentists in town out of business as kids grew up drinking it.

It turns out this is no myth but a characteristic of the Potomac aquifer. One part fluoride per million is considered sufficient for toughening a child's tooth enamel. Hobbs Hole water has shown natural levels of from 1.04 to 1.8 ppm from all five wells for the last sixty years. The three wells operating in 2010 tested at 1.47, 1.46, and 1.66 ppm. Fluorides, by the way, do nothing for adult teeth.

As for softness, or alkalinity, town water indeed has stayed at a pH of 8 throughout the decades, on the high side of a recommended pH range of 6 to 9. Accordingly, the town decided in the interest of playing safe to begin chlorination in the late 1980s. There was nothing wrong with the town's mains. They are cast iron and will last just about forever. The problem was in individual service lines. The old ones are galvanized pipe and soft water, being mineral poor, eats it. In addition, a single test at that time was positive for tiny amounts

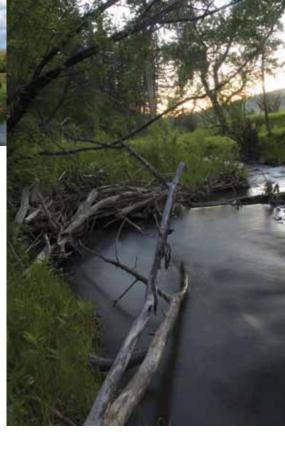
of coliform bacteria. Regular testing has turned up nothing positive since then.

Giant Sucking Sound

County or town, neither overdraws our ground water resources. We are rural, we are kind. Nor does the city of Richmond make any demands in our direction. Richmond water is surface water and comes out of river and reservoir. Instead, our water is getting spoken for south of here, namely by the paper mill at West Point built by the Chesapeake Corporation and currently operated by Smurfit Stone. The Middle Peninsula as a whole (the six counties north of the Pamunkey River and east of Caroline) was withdrawing 29 million artesian gallons a day in 2002. Smurfit Stone in West Point was using 19 million of that to make paper, and is expected to use 21 million by 2010.

The other major regional draw, the Franklin mill, south of the James, operated by International Paper, shut down a year ago. Bad news for jobs. Overwhelmingly good news for water.

It is hard to measure land elevation precisely, but the change in flora on the Pamunkey marshes betrays, I am told, ground subsidence due to a cone of depression created by ground water withdrawals concentrated at West Point. The cone is estimated at



thirty miles in diameter and was intersecting the similar-size one created in Franklin. No surprise, then, that the ground water in Williamsburg and Hampton Roads requires desalination. There are even brackish wells reported in King William. We don't use as much water as they do, but we're trying.

Did I forget to mention the saltwater wedge? It is under all the good water in a wedge tilted the opposite way, or east to west, and in 1984 it was already under parts of the Northern Neck, 1,400 feet below sea level. I don't have current figures, but one well-driller told me the Reedville area requires desalination in all aquifers. Another driller indicated the shallower aquifers are still pretty good. Even so, when visiting the Northern Neck, politely prefer something sparkling.

Some Local Statistics

Statistics are often unreliable because they conflict, and even the best of them age quickly. For that matter how can we know how many people bathe once a day versus once a week like the rest of us? But here goes.

Seven in ten homes in Essex get water from a private well. One in four is a surface-runoff well; the rest are artesian. Locally the remainder of residential dwellings, about a third of households, get their water from the municipal wells of Tappahannock, which are artesian. Furthermore, runoff wells, being of limited and intermittent capacity, supply a mere one percent of our water use. Private wells, whether shallow or deep, account for one fourth of the withdrawals in the coastal plain. Total daily demand in Essex was just under a million gallons in 1995, a third or perhaps half of it town water. Per capita daily demand in the county was 74 gallons. Per capita in the town was 135 gallons. People in the county tend to take more baths in the millponds.

The State Water Control Board estimates that when our needs, in all uses, reach somewhere between

32 to 57 million gallons a day in the Middle Peninsula, we will be switching to beer. Or rather surface water.

Pollution Threat

Surface water is polluted by everything every day.

Ground water is polluted by new wells drilled hastily and improperly sealed against polluted surface runoff; by old wells of iron pipe corroding; by salt-water intrusion as a result of overuse; and by one more cause.

Years ago, when it was easy, dozens and dozens of small artesian wells, pipes usually no more than an inch or an inch and a half in diameter, were driven along the river shore where the Piney Point table is high. I remember them. The water spurted out just enough for you to slurp pure, sweet, cold water, winter or summer. Two things have happened. The river shore has eroded so most of those pipes are offshore and rusted off at the river bottom and, second, they no longer have positive pressure. Many were plugged by the State. Unfortunately they were plugged, I am told, with wood instead of concrete. One day soon, if and

when there is sufficient drawdown resulting in negative artesian pressure, these never-plugged and the plugged-but-unplugging conduits will suck river water directly into an aquifer.

There is a common perception that ground water, if it is not polluted (and very little of it is), is pure water, since it is fit for drinking right out of the spigot. On the contrary, our best drinking water is still unfit for many industrial purposes without further purification and is actually bad for nursery plants such as boxwood and azaleas. With saline levels only slightly higher than at present, and still within drinkable levels, it won't even do for washing cars.

In Conclusion

A community on the coastal plain of Virginia could not possibly face a dearth of water resources under any conceivable scenario of rural, urban, or suburban development, given the choice we have between both surface and ground reserves. This is not Arizona. Rather it's a question of which is purer. Ground water has been so up to now, but the gap in Essex is closing.

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A Pollution Diet Spurs a New Green Industry:

Nutrient Banking

By John H. Brooks, III, PWD

Would you like to know how to put your land to work in a green initiative, and have it generate income as a result? Why not develop a nutrient bank?

What is Spurring the Need for Nutrient Banks?

Trimming down is not a new idea for Americans. In fact, many New Year's resolutions involve a promise of a healthier life through a reduction in caloric intake. However, the idea of a "pollution diet" is a new concept for the United States. In December 2010, the Environmental Protection Agency (EPA) unveiled a pollution diet for the Chesapeake Bay in the form of a quota for point and nonpoint discharges of pollutants. The pollution diet is called Total Maximum Daily Load (TMDL). The TMDLs stem from years of trying to reduce pollutant loads (e.g. "calories" in this analogy) into the Chesapeake Bay and the resulting consent decrees issued to Virginia and the District of Columbia dating from the late 1990's.

In order to meet the new TMDLs, the EPA has mandated reductions in discharges of pollutants such as nitrates, phosphates, and other contaminants for each stream reach that flows into the Chesapeake Bay. Like most diets, a plan for implementation, goals and a set of measurements had to be established. Once the plan is in place, the day-to-day execution of the diet starts. Every diet has a limit on daily intake, and in the case of TMDLs the concern is with limiting pollutants into the Bay.

First the total pounds of discharge

for each targeted pollutant must be calculated for each creek, stream, river and waterway leading to the Chesapeake Bay. Then those discharges are broken down to each discrete waterway and further to each discharger on a given waterway. Then reduction methods are applied to each discharger in order to reduce the daily discharge of pollutants into a given waterway so that waterway can meet the state water quality guidelines.

Not unlike diets with which we are all familiar, this is a complex and difficult process of reduction and at some point a plateau will be reached that stops the continued reduction of pounds. When this happens, another method to continue the reduction must be applied. Exercise is generally one method of reduction applied to move past a plateau in a diet. Similarly, TMDLs implement a reduction method called Nutrient Banking to further reduce nutrient loading.

What is a Nutrient Bank?

New roads, housing developments, shopping areas, etc., all contribute to the nutrient loads in our waterways; hence, methods for mitigating for these increases were developed. Nutrient banking, similar to wetland and stream banking, was established to offset nutrient increases associated with the continuing development and growth of our society through the sale of nutrient credits. Nutrient banks use changes in land use, agricultural methods, and other inventive measures to reduce sources of pollutants such as

nitrates and phosphates. The reductions in pollutants are then calculated in pounds per year and converted to credits. These credits can then be sold to offset or mitigate for nutrient load increases resulting from the actions of developers, municipalities, and counties elsewhere in the watershed. Even the Virginia Department of Environmental Quality has been authorized by the General Assembly to purchase nutrient credits.

Could my land be right for a Nutrient Bank?

Almost any property can be suited for use as a nutrient bank. Assess your property by asking the following questions:

- 1.ls your property currently or recently agricultural, currently or recently used as pasture, or partially or fully developed for another use (i.e. golf course, camp ground, etc.)?
- 2.Are you willing to establish a conservation easement over that portion of your property?
- 3. Are you willing to either improve your agricultural process to be more environmentally friendly or plant trees to establish a forest?
- 4. Would you like your land to provide you income and still have the option to continue to use it agriculturally and for its future silvicultural potential?

If you answered yes to the questions above, your property may have the potential for establishment as a nutrient bank (and a source of income). Should you wish to pursue further evaluation of your property's potential to serve this important conservation role, consult a professional experienced in nutrient bank establishment.



It's a clear, crisp June morning. Out across the river bright sunshine and a light breeze mingle in an energetic dance on the water's surface. Up Portabago Creek, life bustles among the lily pads and red maples of forested wetland. There's no confusion, no sore spot on the horizon – just water and trees and grasses, their colors and curves folding into each other. Everything makes sense.

This is what draws us here. This is the Rappahannock.

Essex County boasts more than 320 miles of river shoreline, packed with both the forested and grass wetlands that offer a wide range of topographic features. Compared to all other major tributaries of the Chesapeake Bay, the reach of the Rappahannock River between Tappahannock and Port Royal remains the most pristine. From bald eagles to swamp sparrows, wild rice to rose mallows, life overflows.

Most of that life would cease to exist, however, were it not for the marshes that bank the Rappahannock. The river's wetlands sustain wildlife by providing food and shelter, prevent erosion, improve water quality and form buffer zones that help prevent flooding. The diversity among them is astounding.

At the upper end of the county nearly 78 percent of shoreline is marshland, according to the Essex County Shoreline Situation Report. Here is by far the most pristine part of the Rappahannock River in Essex. From Portabago Bay to Horse Head Point, fresh, tidal woodland marshes rule, with bright

flowering plants that change with the seasons.

Bob Baylor can speak for the beauty that abounds in the marshes on this part of the river. A fourth generation farmer, he's hunted and fished here his whole life. "There are so many different kinds of vegetation in these marshes that provide food for small mammals, marsh birds and migrating birds," he explains. "They're valuable because of their diversity."

That's to say nothing of what lurks in the water. The first major populations of Yellow Pond Lilies appear here, providing feeding areas for fish and offer feeding and shelter for other aquatic animals. Fish also use these marshes as spawning and nursery grounds.

Freshwater marshes continue downstream, but woodland surrenders to grass in one of the county's largest and most abundant marshes, Otterburn, also called Hunter Marsh. Stands of pickerelweed, cattails and wild rice thrive, attracting masses of ducks and geese. Beneath the surface, the uniqueness continues.

"The salinity level is low enough to support fresh water fish such as bass and high enough to support blue crabs," says Hill Wellford, an advocate for marshland preservation and landowner in Essex. "That mix also allows for a wide range of fresh water plant life to thrive – plants like marsh fern and royal fern. The whole system is rare."

Things continue to change subtly but are no less dynamic below Otterburn. As the salinity increases, however slightly, so too does the plant life. A complex of creeks and marshes emerge, the largest being Occupacia Creek and Beverly Marsh, which separates Paynes Island from the mainland. Sweet flag, a water hungry herb, dominates Occupacia with its vibrant greens and heavenly smells. Among the marsh, wild rice and cord grass are king among a variety of perennial flowers like marsh marigolds and mallows. Here too begins one of the largest concentrations of migrant bald eagles in eastern North America. In fact, it's rare not to see one soaring above.

With all the beauty the Rappahannock holds, it's easy to believe that it's always been this way and it will always be this way.



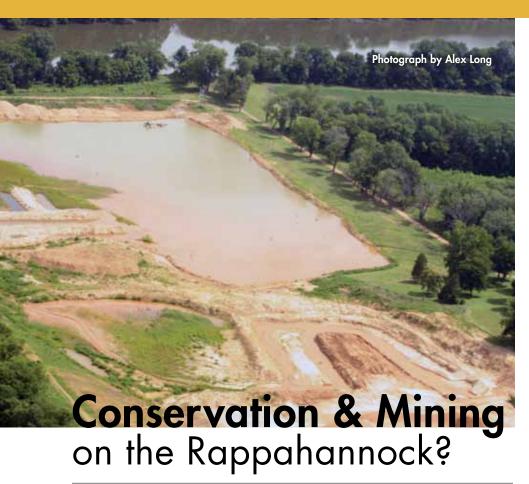
But obviously, that's not the case. The marsh is constantly changing. Sometimes that's okay. And sometimes, especially if it's the result of too much human interference, that's not.

There's a natural ebb and flow, Wellford says, and nature generally does a good job of keeping things in check. For reasons not completely known, water levels are rising, he notes, encroaching on the marshes. "In the last ten years, blinds that we had on the edge of the marsh are actually out in the water," he said. That means less marsh, but higher water ponds within what's left of the marsh that support ducks, geese and other waterfowl.

The real threat, Wellford believes, is development. "It's so critical to be smart," he says. In the last ten years, there's been a surge of interest in the Rappahannock, drawn in part from the resurgence of the bald eagle population. Groups like Friends of the Rappahannock, ECCA and the U.S. Fish & Wildlife Department are working hard to preserve the area's biological diversity and rural character. "Every species in this river system depends on every other species. It's a delicate balance."

Bob Baylor agrees. "I work this land. I live on this land. My life is here. Why wouldn't I want to do the right thing for it?"





Hayfield Plantation in Caroline County is being mined now.

Conservation easements clearly prohibit industrial and commercial activities other than those that support traditional rural land uses, such as farming, forestry, viticulture, and aquaculture.

By Megan Gallagher

The idea that Black Marsh Farm on the Rappahannock River in Caroline County could be mined for sand and gravel and still qualify for a conservation easement is recklessly inaccurate.

Yet Vulcan Minerals' Tom Carroll made that claim in an opinion piece in the Caroline Progress in April. He wrote that the owner of Black Marsh Farm could place an easement on a third of the property, dig out the sand and gravel on the rest over twenty years (eliminating half the prime agricultural soils and permanently altering the hydrology) and place an easement later on the altered land.

But conservation just doesn't work that way.

I don't know a land trust in Virginia willing to risk the public's trust by accepting a partial easement on Black Marsh Farm, then standing by to see two-thirds of the property devastated by mining activities prohibited by federal and state standards.

A land trust has a duty to document every conservation asset on a property, such as productive farm and forest land, wildlife habitat, historic resources and views enjoyed by the public from scenic roads or waters.

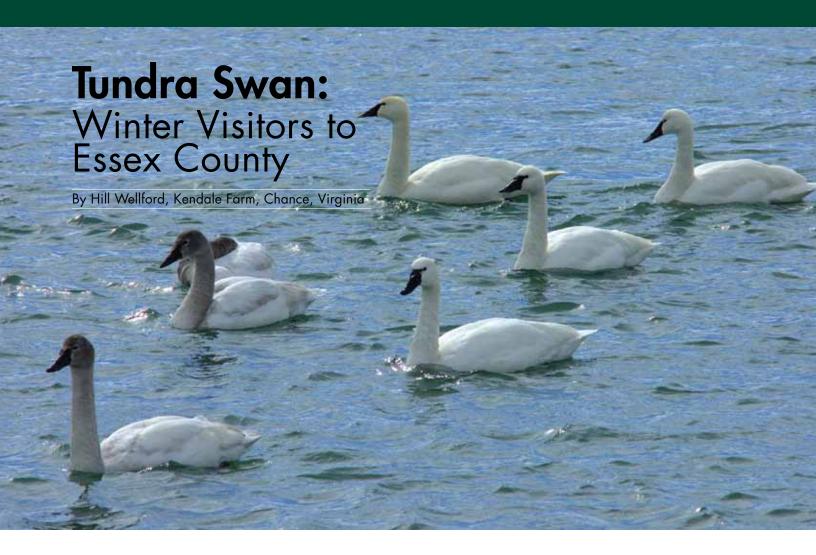
The land trust must draft an easement with the restrictions needed to ensure all of the

conservation values are maintained over time, not just a few at a time on just some of the acres.

Conservation easements clearly prohibit industrial and commercial activities other than those that support traditional rural land uses, such as farming, forestry, viticulture, and aquaculture.

Finally, federal rules mandate that conservation easements contain a clause like this one from the Virginia Outdoors Foundation: "Surface mining, subsurface mining, dredging on or from the property, or drilling for oil or gas on the property is prohibited."

Land trusts don't cherry-pick conservation values for the convenience or commercial gain of the landowner. Instead, land trusts work with real stewards who wish to preserve all of the conservation values on their land in perpetuity.



try to go duck hunting with my cousin, Carter Wellford, at least twice a year. We are compatible hunters because we are both more interested in watching waterfowl than shooting them. This is what happens to most hunters when they get a little age on them. Carter and I usually try to hunt when the conditions are right....an afternoon hunt with an incoming tide when it is not too cold. I learned a long time ago that you can have a good hunting experience without being miserable.

One hunt with Carter is particularly memorable. It was a brisk day in December but not uncomfortable, with high tide scheduled for 5 p.m. Carter had arrived a little after noon and by 1 p.m. we were already in one of the blinds in our marsh on the

Rappahannock. The ducks were active and by 3:30 p.m. we had four mallards in hand and had decided to pick up our decoys. After all, the best way to finish a hunt is with a little bourbon in front of the fireplace.

We arrived back at the house a little before sunset and were settling in when it occurred to me that we might want to vary our routine by toasting the hunt while watching flights of geese and Tundra Swan come in to roost in Occupacia Creek. Carter never turns down an opportunity to observe wildlife. A few minutes later, we parked the truck near the bank on Occupacia and watched the first of several flights of geese arrive. As the sun descended, the swan began to arrive as well. At first they appeared as small dots on the horizon, growing

steadily larger as they glided towards the roosting area. Their flight pattern was from the west, so we could see them illuminated against a sky with shades of red, pink and blue. They came in groups of ten to thirty birds with a few flocks even larger. As each group arrived, they would call to each other with a flute-like whistling call that is truly unique. The chorus of swan and geese calling at the same time with a few duck quacks in the background is a little like an out-ofcontrol orchestra warming up. The whole experience was mesmerizing. Carter and I estimated that we must have seen 300 or more swan land in Occupacia that evening.

For those who have never observed Tundra Swan in flight, it is an experience that should not be missed. Fortunately, with a little



effort we have that opportunity in Virginia and particularly in Essex County. Commencing in late October or early November, Tundra Swan start arriving along the coast of Virginia and the tributaries of the Chesapeake Bay. The Tundra Swan is among the most beautiful and majestic of the waterfowl that migrate to Virginia and winter in our tidal waters. We are fortunate in Essex County to have a flock of several hundred that have chosen the Rappahannock as one of their favorite resting spots.

There are actually two species of Tundra Swan. The one we see in North America is often referred to as the Whistling Swan. The other is the Eurasian Swan which is seen in Europe and Asia. Both have white plumage, but the Eurasian has a yellow beak with a black tip. Our North American Whistling Tundra Swan has a black bill, a small yellow mark below the inside corner of the eye, and black feet. It has a wing span of approximately 70 to 80 inches and typically weighs between 15 to 20 pounds. The Tundra Swan is one of seven species of swan who visit North America and is sometimes confused with the Trumpeter Swan or the Mute Swan. If you see a large white swan who looks like a Tundra but sounds like a French horn, it is likely to be a Trumpeter. The Trumpeter lacks the distinguishing yellow mark of the Tundra, can weigh up to 30 pounds, and has a wing span up to 8 feet. The Mute Swan can weigh up to 25 pounds, but is less likely to be confused with the

Tundra because it has an orange bill.

The global population of Tundra Swan is estimated to be about 300,000. Approximately 200,000 migrate to the United States each year, traveling roundtrip over 3,700 miles. The eastern population has been estimated to be between 100,000 and 110,000, whereas the western population is about 90,000. Most of the eastern population frequents the Atlantic coastal areas and tidal rivers of Maryland, Virginia and North Carolina. The western population winters on the coastline and tidal rivers of the Pacific. It is not clear how many Tundra Swan visit the Rappahannock each year, but it seems reasonable to estimate that the number must be at least 500 or more.

Tundra Swan feed on underwater flora, eel grass, widgeon grass, sago pond weed, tubers, roots and shell fish. In recent years they have expanded their diet to include wheat shoots and leftover grains from harvested soybeans and corn. It is not unusual to see flocks of them resting or foraging in the large grain fields that border Route 17 between Tappahannock and Fredericksburg. Tundra Swan typically stay in Virginia until mid-March, when they mass for the return trip to their nesting areas on the tundra in Northern Canada and Eastern Alaska. They leave Virginia about the same time that Osprey start to arrive. They fly in V-shaped formations, much like geese, and in strong winds have been clocked at a flight speed of up to 100 miles per hour. Whereas you can often

hear the wings of geese grinding in flight, Tundra Swan seem to fly effortlessly with almost no perceptible sound of their wings as they pass overhead.

Except during the summer breeding season, Tundra Swan sleep in large flocks on the water. They mate for life and choose their mates about a year before breeding. They are usually three to four years old before pairing up. When a Tundra Swan loses its mate, it typically will not breed again for several years. The male swan is called a Cob, the female is a Pen, and the babies are called Cygnets. The nesting area on the open tundra which they stake out and patrol can be over a half square mile in size and is usually near a water source. They build their nests of grasses and sticks; both male and female participate in the construction of the nest. The female lays 4 to 5 eggs, which hatch in about 30 days. It is the male's responsibility to protect the nest from foxes, weasels, and other predators.

Tundra Swan are strong and aggressive birds and are capable of dissuading many predators who might otherwise pose a threat to the nest. I found out how strong they are one evening when I tried to rescue one who had an injured wing. After several minutes of trying to pull the injured swan into my boat and being assaulted for my efforts, I was forced to give up and hope that it would recover on its own.

Tundra Swan are legal to hunt in Virginia, but only by a special permit in a small number of counties east of I-95. Permits are awarded based on a drawing administered by the Virginia Department of Game and Inland Fisheries (VDGIF). In 2010, the VDGIF issued 600 permits for the special swan season which ran from December 1, 2010 to January 31, 2011. A hunter with a permit can bag one Tundra Swan per season. Unfortunately, Essex is one of the counties where Tundra Swan can be hunted.

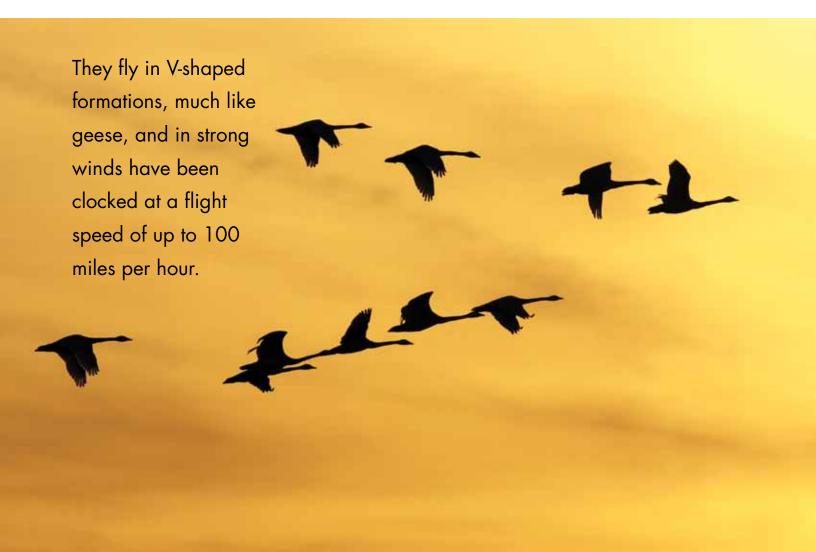
The VDGIF is participating with the game commissions of Maryland, Pennsylvania and North Carolina and with Cornell University to study the migration patterns and winter ecology of Tundra Swan. A number of swan have been trapped and fitted with collars or banded, and a few have been equipped with radio or satellite transmitters. Because the population of Tundra Swan is stable, these beautiful birds are not on the endangered list.

Although the flock of Tundra Swan on the Rappahannock migrated back to their nesting areas in March, at least one has stayed for the summer. We saw this swan swimming near our dock during the first week of June. A few hours later when I was giving my Flatcoated Retrievers a boat ride, this swan flew over our boat about 100 yards off the water, almost as if it were saying hello, and headed up river.

I suspect it may be Swan # 10-2299, a juvenile Tundra that was rescued last December and cared for at the Virginia Wildlife

Center in Waynesboro by Dr. Kelly Flaminio until it was ready to be released. Dr. Flaminio and Jackie Estes, a volunteer, took this swan to Essex County on February 11, 2011, and with the help of Sandy Spencer of the U.S. Fish & Wildlife Service, released it near the Rappahannock National Wildlife Refuge so that it could join the flock of Tundra Swan that winter on the Rappahannock.

A description of the successful release of this swan is in an article that can be found on the Internet under the title "Virginia Wildlife Center, Tundra Swan Release." Keep your eyes open and have your camera ready if you travel up the Rappahannock this summer. You may have an unusual photographic opportunity.



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ECCA Board Reports

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Your Directors would like to take this opportunity to thank our members for your generous donations over the last year, with special recognition for our corporate donors. Your continued support enables the ECCA to continue its mission of educating and informing Essex County landowners on the various options available to them through conservation easements. While the current times continue to be difficult, your generosity and support has not gone unrewarded. Over the last year, over 425 acres in Essex County have gone under easement and an additional 1700 acres are currently in the easement process. These results could not

have been accomplished without you, thank you for your support and thank you in advance for your continued support as we close out the year.

The last twelve months have been a time of growth and improvement for the ECCA. In 2010, our primary goal was to attract and retain corporate donations and sponsorship opportunities with those businesses in our community that have an interest in the success of our organization. We were supported by \$11,350 in corporate donations in 2010, and are building upon that base in 2011. At press time, we had secured \$8,250 in corporate donations for 2011 and expect to continue to receive support during the remainder of the year. Corporate donations are the primary offset to our annual magazine and annual meeting costs, while the generous donations of our individual members, combined

with newly targeted foundation grants, provide the foundation for our educational programs and literature.

Our 2012 goal is the continued improvement and evolution of the ECCA. Our primary focus is the pursuit of foundation grants, which are vital to organizations like ours. These grants will be used toward expanding our educational efforts and materials, working on projects that have a positive impact on our environment and community, and researching future impacts of development in our region. Thus far we provided scholarships to a local 4-H camp, as we believe a key for our future is the continued education of our youth in environmental stewardship. We are confident in our organization and our mission; it is only a matter of time before our foundation grant pursuit becomes reality.

April ECCA Board Gathering at Flip & Ginny B. Sasser's Duck Shack.

Peter Bance, President; George Dickinson, Website, Lindsay Dickinson, Robert Allen, Nominating Committee; Bob Baylor,VP, Outreach; Bud Smith, Board of Supervisors; Jeanette Baylor; Tripp Taliaferro, Treasurer and Development; Frances Ellis, Outreach; Betty Jo Butler, Registrar; Charlotte Frischkorn, Silent Auction; Virginia Heiskill, Prue Davis, Outreach and Government Affairs; Alice Wellford, Pris Wellford, Hill Wellford, Board Members; MaryMoss Walker, Book Keeper; Flip Sasser, Board Member; Ginny B. Sasser; Vance Spilman, Secretary; Carter Wellford, NNLC representative. Board Members who could not be present: Walker Box, Silent Auction; Hylah Boyd, Education; Muscie Garnett, III, Grants; Ed Haile, Education; Jay Hundley; David Taliaferro.





Betty Jo Butler, Registrar Essex County Countryside Alliance 748 Tidewater Trail Supply, Virginia 22436



