An update on Broadband for the Shore

Broadband Board reduces rates, begins return of county startup funds

By Patrick Coady

In 2008, Accomack and Northampton Counties, with the help of the local Planning District Commission (A-NPDC), established the Eastern Shore of Virginia Broadband Authority (ESVBA). The Authority, with funding from various sources, has completed sections of a fiber optic “backbone” from Virginia Beach to the Maryland broadband system near the state line. Federal grants of $7 million, $2.4 million from the Virginia General Assembly, Congressional earmarks for NASA and county funding generated a total of $11 million for the project.

Patrick Coady served as the first Executive Director for the ESV Broadband Authority and guided the process of building the fiber optic cable “backbone” of the Eastern Shore broadband system. Coady is an experienced businessman who spent his career working in the technology industry. He started four companies of his own, one of which was a telephone company. He is now retired from the Eastern Shore Broadband Authority. At ShoreLine’s invitation, Coady reviews the progress and status of broadband service on the Shore.

At its January meeting, the ESVBA’s Board held a public hearing and voted to significantly reduce rates for connections below 200 megabits per second – for speeds between 2 meg and 40 meg, the reductions are greater than 30%. This reduction will help the private service providers and some businesses, but will still require “over-subscription” (explained later) service to bring the cost in range for many potential users.

The Authority Board also recently voted to make a first payment, returning to the counties the seed money allotted to form the Authority. At last October’s Harvest Festival, initial checks were presented to Accomack and Northampton County officials. This repayment, while extremely commendable, was an action that I opposed in letters to both Boards of Supervisors as I thought the funds could be better spent extending the network.

The Good News

To review briefly, the counties funded ESVBA in 2008 with $270,000 of seed money. There has been no additional local taxpayer support. The first contracts were let at the end of the 2008. In total, just under $11 million dollars were received in seven grants to construct the fiber optic cable system. The system began carrying traffic in early summer of 2010 and achieved positive cash flow in the fall of 2011. The network is now supporting all its costs including depreciation. If it were a commercial enterprise, it would be considered profitable. This accomplishment is in stark contrast to the reports of so many failed or “misspent” public broadband projects.

The Authority also leases circuits that extend around the lower Bay and to Baltimore in the upper Bay. In Accomack County, the grant-funded network segments include the Towns of Chincoteague, Onancock, Parksley and Belle Haven; in Northampton, the

See “Broadband,” Cont’d on page 2
Town of Willis Wharf, Exmore, Cape Charles, Eastville, Nassawadox and Cheriton have service. Many other towns and areas in both counties have access based on the main routes or builds made to service customers.

Both county seats and all public schools except Tangier are connected. Most health and mental health facilities and many cell towers have received service. Customers who previously had data circuits at T-1 (1.54meg) or higher have seen their speeds at least doubled at the same or less cost then previously available. For large data users, the network has been a tremendous boost. It allows agencies such as Rural Health to transmit radiology pictures and medical records on demand. It allows the school districts to undertake online testing and offer courses that could not have been supported previously. Reliability has been outstanding.

The current revenue rate is approximately $2 million/year. The Authority now has sufficient cash flow to continue to improve its staffing, diagnostic and service equipment to ensure that the network stays at peak performance, to maintain and replace major network components as required and to finance most connections to new customers.

**The Bad News**

The Authority does not yet have sufficient income to support a large bond issue (approximately $10 to $12 million) to quickly build out service for the “necks” and the remainder of the seaside. The current fiscal and political climate nearly guarantees that sizeable grants will not soon be available to assist these builds. However, it can be expected that as revenue increases, the Authority will continue to expand the footprint of the network and to reduce rates.

The cost structure will be an ongoing concern. The Authority’s financial model works because the original network was built with grant monies. The Shore has

Broadband is equally important to the well-being of all Shore residents. With more and more demands on Emergency Medical Services, the wonderful advances offered by tele-medicine breakthroughs need to be available to everyone — that is not possible without Broadband.

—Patrick Coady

neither the consumer nor business density to have supported private investment in the costly capital infrastructure required to provide an all-new fiber network. Even with grant funding, the revenue from major customers is required to keep the network fiscally sound.

A good comparison is rural electrification in the 1930s. The Shore started with many small generating companies in the towns, each serving only a small area. Some larger farms put in units of their own – mostly wind powered with battery storage. With the creation of the Rural Electric Administration (REA) in 1935, cooperatives such as ANEC were formed and obtained grants and long term, low interest bonds to build out their electrical networks, eventually absorbing the smaller existing networks. It was more than twenty years before ANEC’s network could be considered near complete and even longer before the debt and cash reserves reached the point that ANEC could offer capital credits back to its members. Without public policy and tax revenue support, many areas of the US might still lack network power and telecommunication. I suggest that broadband is no different and is equally vital to the economic and personal well-being of our citizens in the future.

Another issue, which is inherent in all public/private utility projects, is the natural conflict between private providers justifiably complaining that they (as tax-paying entities) have to compete against a public body that doesn’t pay taxes and may have access to capital at terms and rates unavailable to the private company. The Broadband Authority needs sufficient revenue to achieve its founding purpose, while the private entity wants those same customers to bolster their business and capital needs.

In my opinion, there are two key considerations in that discussion as it relates to the Shore. First, the incumbent, franchised providers were all asked to step up and provide this or similar service, but they declined prior to the Authority’s moving forward. Second, the providers, both new and previously existing, who have chosen to utilize the Authority’s network and provide services over that network, would not have the opportunities they currently have if the Authority’s network did not exist. So while they have some competition with the Authority, they also have opportunities which would not exist but for the Authority. This conflict is one the Authority Board deals with constantly in an effort to strike a proper balance. The Authority’s current revenue derives from a majority of wholesale users supplemented by government and medical users. Retail user revenue is the smallest portion of ESVBA revenues.

Some other Virginia Authorities have chosen to use contracted operators and receive revenue only from other private providers/resellers. The oldest and most advanced of these networks has been surpassed by ESVBA in its capabilities, reach and revenue, as that older network has struggled with network operations and provider capabilities and stability. There is not one “right” model for public utility broadband – but the one chosen for the Shore is working.

The two primary Shore-based private providers to date have been Bay Creek Communications and eShore Communications. Some towns have run trial broadband programs offering a combination of wired and wireless service. Following the trials, which helped both the towns and the providers experiment with what may potentially work, several towns
have issued Requests for Proposals (RFPs) and let contracts for responders to provide services in the town. Both eShore and Bay Creek have won contracts from the RFP process. Given the low population density on the Shore and the lack of capital to bring fiber to all, a combination of fiber and wireless will have to serve many of us for the foreseeable future.

**What is “oversubscription”?**

Oversubscription means re-selling the same bandwidth several times over. An example of this would be purchasing 10meg of internet bandwidth and reselling it to 10 different customers as 10meg each for an oversubscription ratio of 10:1. This works because we don’t all hit <return> at the same instant when requesting a page or sending an email. When internet service providers (ISPs) had large banks of dial-up modems, over-subscription ratios from 40:1 to 20:1 were common. With the advent of large video files, internet service providers who care about quality have had to lower their over-subscriptions. The cable industry’s co-ax provides high bandwidth, and cable providers used to have as many as 200 or so users on one channel (an oversubscription rate of 200:1), which meant that at off-peak times one could get great speed, but at peak times the service could slow to a crawl.

The oversubscription of each provider up the line also counts in performance for the end-user. This means a significant advantage for ESVBA’s private providers because ESVBA does not oversubscribe and ESVBA connects directly to a “Tier One” provider in Baltimore and a Tier Two provider in Norfolk. This enables ESVBA’s downstream providers to use oversubscription to provide the margin required to enable their businesses to operate successfully and still provide great service. If a user performs a speed test to ESVBA’s servers in Exmore, he can be assured that he will normally receive that same speed all the way to the internet backbone.

**Wireless extension of fiber cable**

Since it is too expensive to extend fiber optic cable to all locations, many outlying areas are or will be served by wireless or radio extensions of the fiber “backbone.” But the wireless bands being used by ESVBA’s providers are not in the limited “Wi-Fi” bands—they offer far longer reach than standard Wi-Fi. However, in radio there is a strong trade-off between reach and penetration versus speed. Higher frequency waves are capable of carrying more data, but don’t penetrate trees and buildings well. The radios currently in use have good range and moderate to high speeds but don’t penetrate well. Therefore, the transmitting antennas need to be high to “aim down” to the customers, and window-mount or external antennas are required to pass reception into a building.

**Data service**

Cellular data services on the Shore (so-called 3G & 4G) have been improving or are being installed. For many, they may offer a reasonable alternative (on top of an existing cellular bill) for improved data speeds in comparison to DSL or satellite internet. DSL services on the Shore have been and are expected to remain limited. Satellite internet has improved in the past ten years; however, the latency of the long transmission time from earth to satellite and back is unavoidable. That latency doesn’t greatly effect downloads of large files such as video but is painfully slow when using secure servers (any time one sees “https:” on the URL browser line), which perform checksums on data received such as on-line shopping, banking and investments.

**What qualifies as “Broadband”?**

Some suggest, with tongue in cheek, that broadband is “Any speed significantly faster than what I’ve got!”

Wikipedia offers: “The term broadband refers to the wide bandwidth characteristics of a transmission medium and its ability to transport multiple signals and traffic types simultaneously.” But the question remains, at what speed?

- According to Wikipedia: “Broadband refers to a communication bandwidth of at least 256 kilobytes per second.”
- USDA Rural Development seems to agree and still uses definitions of less than one megabit per second.
- FCC’s definitions are in the 1 to 5 megabit range.
- Korea is well on the way to bringing at least 50 megabits to everyone.
- Australia is committed to 100 megabits including the Outback—which makes the problem of delivering high-speed service to the rural western US look simple.

In this author’s opinion, the US funding and regulatory agencies have not yet come to grips with the reality that anything less than 10 megabits per second is not worth building![7](http://esvc.us/)

**How to get better service**

What can you, the resident or small business, do to obtain good service sooner? My suggestions are:

1. **Contact eShore** (http://esvc.us/) and **Bay Creek** (http://www.baycrk.com/) and let them know you are interested in service. If you know the speed you desire and your pain point (price willing to pay), that is extremely helpful information to the providers as they assess the viability of providing service. Ask to be put on their follow-up list as they expand. Follow up by seeing if your immediate community is interested in a joint effort to show a provider that you have sufficient takers to justify a build and provision of service in your neighborhood. For example: If 30 of the 50 residences on Wilsonia Neck agreed that they were interested, and 20 said their price point was $50/month and 10 said between $80-120/month for higher speed, then the provider can work their business case around approximately $2000/month income. In that case, putting in a $25,000 tower may be feasible with just over a year’s capital payback, while it simply can’t work if there are only five customers.

2. Whenever you have the opportunity, **let your elected officials know**, at all levels, that the **broadband issue is not solved for all and you need service** and you expect them to assist in getting it done. At the Federal level, finding more grants and long-term bonds at low interest are key to success. Likewise, removing impediments such as paying unreasonable charges for pole attachments, tower space, co-locations, etc. from existing providers is necessary. Finally, the definitions of “rural” and “broadband” need to be corrected and updated, particularly as used by USDA.

---

See “**Broadband**,” Cont’d on page 4
Zoning, Zoning – and still more Zoning
ShoreLine Staff Report

The January, 2014, issue of ShoreLine in general, the zoning articles in particular, generated an unprecedented amount of community interest and response.

- The Secrets of Successful Communities, by Ed McMahon, a nationally known land use planner and Fellow at the prestigious Urban Land Institute, was cited as a big picture reminder for our readers of the critical importance of careful land use planning to the future character and quality of a community.

- Many readers indicated that former Northampton County Planning Commissioner Mary Miller’s article, Zoning – a community’s operating manual, was the first explanation they’d had about how the proposed zoning revision would affect them, their property and their neighborhoods.

- Several other readers expressed concern about the elimination from the Zoning Code of guidelines, protections and supplemental ordinances affecting the county, its resources and its residents.

Correction

Although we indicated last month that Northampton does not have a certified professional planner, ShoreLine has been advised that the county’s Long Range Planner and GIS Administrator, Peter Stith, received professional certification from the American Institute of Certified Planners in early 2013 – a welcome addition to the county’s staff expertise. However, for the county to best benefit from this certified professional talent, Mr. Stith will have to be allowed to assume an active role in directing public process, establishing policy and adhering to good planning practice – including overseeing the proposed major changes to the Zoning Code. In a presentation of those major zoning changes to the Board of Supervisors last October by the Development Department staff, Mr. Stith participated only by displaying the mapping and descriptions of the district changes which had previously been finalized by the Development Department.

Meeting Reminders

As we indicated in January, two additional public information meetings on the proposed zoning revision have been scheduled. Supervisors’ minutes for January set the dates for the meetings but not the locations. The meetings will be on Wednesday, February 26, and Thursday, February 27, at 7 PM. The County website does not currently list information on locations for the meetings. As ShoreLine goes to press, the County website is still displaying a Zoning draft dated November, 2013.

A single joint public hearing on the zoning ordinance revision before both the Planning Commission and the Board of Supervisors is scheduled for Tuesday, March 11, at 7:00 pm. The public hearing is expected to take place in Eastville.

ShoreLine Comment. Development Staff members attended previous public information meetings held last November; however, no presentation was given, no sign-up attendance sheet was kept, and no public Question and Answer forum was held. A 150-plus page draft of the proposed Ordinance changes was available for the public to review – but that draft did not contain many of the changes which had already been approved by the Board. Consequently, attendees at the February meetings need to be reasonably well informed about the current version of the draft proposal in order to know what questions to pose. Comments at the March formal public hearing will likely be limited to three minutes, which also requires careful preparation in order to say something of substance. Get to work!

“Broadband,” Cont’d from p. 3

3. At the state level, not paying fees to VDOT and VMRC for access to what are already state-owned assets is one improvement the state can easily offer. In addition, the state can make loan funds available at low cost to both the public and private providers. While we all can love receiving grants, in general, I lean toward a higher loan to grant ratio except for brand new startups. There are two reasons: 1) Grants mean somebody else, usually a taxpayer, is paying. 2) If the business case isn’t sound a loan can’t be repaid. A repayment requirement automatically means a better look at the viability of whom you are funding. If the business case isn’t sound, one also has to ask why we are granting funds in the first place. In that instance, the public good has to be overwhelming. Loans can be structured to assist a new entity such as interest only for 5 years and repayment over 25 additional years.

4. On the local level, let your Supervisors know that you support whatever they can do to continue the expansion of broadband in a responsible manner. Also insist that they use any repayments from the local Broadband Authority to facilitate the extension of broadband service. An example would be placing a tower that serves both 911 services and broadband – thereby providing improved service for both needs.

Author’s Note. To get new ESVBA Rates go to: http://www.esvba/ESBA/AGEND_DOCS_files/Public%20Notice%20Proposed%20Pricing%20V2.0.pdf

Virginia Working Waterfronts Workshop: Exploring Issues that Impact Water Dependent Uses

Wednesday February 26, 2014 • 9:00 AM to 4:00 PM
Eastern Shore Community College
29300 Lankford Hwy • Melfa, VA 23410

Registration is FREE! Light breakfast and lunch provided.

You are invited to participate in an engaging discussion among watermen, water-dependent businesses and water-related organizations.

We will exchange ideas and suggestions about issues impacting Virginia’s water access and working waterfronts. Together we will discuss potential strategies to keep Virginia’s waterfronts working!

Space is limited, so register today. Contact Beth Polak, Virginia Coastal Zone Management Program, at 804-698-4260 or Beth.Polak@deq.virginia.gov.
Welcome to the Tightrope Act
Balancing Planning & Economic Development

By Della Rucker, AICP, CEcD

Della Rucker is the Principal of the Wise Economy Workshop, a consulting firm that assists local governments and nonprofit organizations with the information and processes for making wise planning and economic development decisions. This article was originally published on PlannersWeb.com, an online newsletter and resource for citizen planners across the US. It is reprinted here with their permission. For questions about PlannersWeb.com, visit their website or email: editor@plannersweb.com. The article was suggested to ShoreLine by Ed McMahon, author of last month’s ShoreFacts.

“You planning commissioners should stop getting in the way of business.”

“You know, you people on the planning commission can’t really make anything happen anyways. You all just react.”

Find Your Balancing Pole

If you’re [a planning commissioner], I bet you have heard one or both of these lines before – probably after a decision someone didn’t like. My 8-year old, with his exhaustive knowledge of “How to Spot a Bully in the Making,” would understand what’s going on here. When the economy isn’t where we all want it to be, hitting the planning commission’s ability, or lack of ability, to foster economic improvement is a bit of a sucker punch. And it reflects the over-simplified assumptions that many people have about how local economies (and planning commissions) work.

Anyone saying either of those lines has it wrong. What you do as a planning commissioner has a huge impact on your local economy, and your community needs you to make those tough decisions.

Your impact is critical because you are the ones who are thinking about the future, not just about today’s demands. Healthy economies depend on a complex interplay between the power of the market and the often quiet, sometimes vocal, needs of the community. It’s not a linear equation. It’s a dynamic, constantly-changing interplay between market forces and community needs. And as a planning commissioner, you are standing in center ring. So go find your balancing pole – the tightrope isn’t getting any thicker.

Planning and Local Economies

There is a reason it’s vital that we bring an economic perspective to planning – and vice-versa. As our local economies become increasingly unable to depend on financial support from state and federal agencies, and as we continue to deal with the unintended consequences of past planning decisions, it becomes more and more important for us to proactively safeguard our communities’ local and regional economic health.

More than ever, we need to have planning decision-making that builds economic robustness and fiscal sustainability, and we need to make economic decisions that create growth and improve quality of life for the community as a whole. Places and their economies are not separate islands – one is entirely dependent on the other. We know that today more than ever before.

As a result, it’s critical that planning decisions anticipate and address the community’s long-term economic needs. I think that decisions made explicitly to protect a community’s economic health are also becoming more justifiable than ever because of the erosion of financial assistance from federal and state governments.

This is why planning commissioners and their staffs are so critical. You are where planning and economic development come together. Your role is tougher than either planning or economic development alone. You are responsible for making decisions that bolster the long-term health, vitality and resilience of the community to which you give your time and effort.

On the High Wire

Planning commissions don’t always have the ideal tools to work with. The planning documents that you are required to base your decisions on are too often disconnected from the economic realities that you know in your lives. How much of the new commercial development shown on the future land use map does your community actually need? How much can it support?

Similarly, economic development can too easily fall into the “penny wise, pound foolish” category. If you permit that development, how much is it going to cost to provide water, police, snowplowing, etc.? Is it going to generate enough income to cover those costs, or are we creating future budget shortfalls?

For many communities, the planning commission is the last line of defense against bad ideas, no matter where they come from. It is your diligence, and sometimes your willingness to go out on the high wire without a net, that sets the stage for your community’s future.

What you do is about more than setbacks and landscaping. Your unique role is to connect the dots between the physical and functional environment we create today, and the economy that you and your neighbors will face tomorrow.

ShoreLine comment. Although this article was written primarily for planning commissioners and staff, it brings up questions that all residents and stakeholders need to ask themselves and their elected officials, especially when changes to county planning and zoning are being considered. Public hearings on Northampton County’s proposed revisions to its Zoning Ordinance will be announced in the near future. It will be important for all who are interested in the “balancing act” expressed in Rucker’s article be involved in the public discussion of its future success.

Groundwater Workshop

February 12, 2014 • Kiptopeake Elementary School

For more information, please contact Curtis Smith at csmith@a-npdc.org or call 757-787-2936 ext. 114.
Students Explore the Eastern Shore through Creative Writing
By Hannah Rogers

"Water rising, plants changing, salt encroaching." Emily Beacham’s six-word memoir describes the rising sea level issues she learned about at the Eastern Shore this winter in a University of Virginia class. In the direct style of Ernest Hemingway, Emily expressed her observations and ideas about the results of these changes for coastal Virginia. Her classmate, Fred Umland, composed a poem about an invasive species he learned about on the Eastern Shore entitled “The Invader.” It concludes:

Invasive species you are,
Small fluff at your peak,
Very visible from a car,
But eaten by no bird’s beak,
So pack up your bags,
And go away from us,
Because no one brags,
About their beautiful field of *phragmites australis*.

University of Virginia students presented their creative writing at the Barrier Island Center (BIC) on Thursday January 9, 2014. The presentation concluded a January term course, A Sense of Place, which exposed students to a variety of science and nature writers, including Thomas Cole, Henry David Thoreau, William and Dorothy Wordsworth, John McPhee, Rachel Carson, Wendell Berry, and Mary Oliver. The students discussed their experiences at the UVA Anheuser-Busch Coastal Research Center and some of the class highlights including visits to Chincoteague National Park, Wreck Island, Savage Neck Dunes Preserve, and the Chesapeake Bay Bridge-Tunnel. Field trips were followed by evening writing workshops where students composed flash fiction, observational and environmental essays, and poems. The undergraduate course was designed as a collaborative project to bring together creative writing and environmental issues for engineering students. The class was led by Dr. Hannah Rogers of UVA’s Engineering & Society Department and ABCRC site director Dr. Art Schwarzschild.

Schwarzschild has created a series of opportunities to think about the arts in relation to the environment through the Ecological Reflections program, linking art with place, based on the research being conducted through the Virginia Coast Reserve Long Term Ecological Research Program. For the past 3 years, the ABCRC has held *Plein Aire* and Observational Drawing workshops for art teachers from across the Commonwealth. Participants in these workshops have learned and practiced art techniques while also being introduced to the beauty and ecology of the Eastern Shore. Art pieces and essays created by the workshops participants and visiting artists have been on display at exhibitions held at the Barrier Islands Center, Eastern Shore National Wildlife Refuge, the ABCRC and in the Brown Science and Engineering Library on the grounds of UVA. For more information about the ABCRC’s activities and the Ecological Reflections program, visit: http://www.abcrc.virginia.edu/siteman1/?q=Teachers.

Community Unity Breakfast dedicated to CBES past-president
January 20, 2014

CBES past-president John Ordeman and NAACP president Jane Cabarrus listen as Dr. Dawn Goldstine, former Superintendent of Northampton County Schools, talks about the genesis of Community Unity Day, held annually on Martin Luther King, Jr. Day and praises Ordeman’s dedication to the event. The 21st Annual Community Unity Breakfast was dedicated to Ordeman, “a true leader who has given freely of his time and talent. He has earned this recognition for his efforts to improve the local community and to promote the ‘unity’ of the King Day event.”

CBES has been a co-sponsor since the event’s inception, and continues to provide volunteers. This year, CBES president Arthur Upshur, past-president Nancy Holcomb, John and Ive Chubb and others helped to serve a hearty breakfast to community residents and guests. Thanks to the efforts of the NAACP, CBES and other organizations, Community Unity Day will continue to be an important opportunity for residents to celebrate the life and legacy of Martin Luther King, Jr.
General Assembly 101

The following primer on how the Virginia legislature works is provided by the Virginia Conservation Network (VCN). VCN works to help concerned citizens engage in the legislative process and to educate legislative leaders about conservation issues. VCN also monitors legislation as it passes through the General Assembly and endorses or opposes bills “when appropriate.” Learn more about the Virginia Conservation Network at their website www.vcn.org.

The Virginia Legislature is a bicameral legislature called the General Assembly. The General Assembly is one of the oldest democratically elected legislative bodies in the world. Each January, lawmakers convene in the Virginia Capitol building designed by Thomas Jefferson himself. In years which lawmakers must approve a biennial budget for the Commonwealth, they meet for 60 days. In the intervening years, the legislature’s “short” session is a mere 40 days.

The General Assembly is composed of two chambers: the State Senate and the House of Delegates. Forty senators serve four-year terms, while 100 delegates stand for re-election every two years. Delegates can serve unlimited two-year terms, and Senators can serve unlimited four-year terms. Elections for members are held in November, with terms commencing in January.

In order to review the thousands of bills presented each year, each chamber uses committees. A bill must pass through a committee before being considered by the full Senate or House of Delegates in a “floor” vote. The bill must be approved in committee by the midway point of the legislative session, known as “Crossover,” in order to be considered by the other chamber. If passed by both houses, a bill is subject to amendments or veto by the governor. The General Assembly reconvenes each April for a “Veto Session” to accept or override the governor’s actions.

The General Assembly’s chief responsibilities are to represent citizens in the formulation of public policy, enact laws of the Commonwealth, approve the budget, levy taxes, elect judges and confirm appointments by the Governor.

Legislators have the power to introduce bills, decide funding for state agencies, serve on committees and subcommittees, hold public hearings and vote to enact bills into law. The House of Delegates has 14 committees, including Agriculture, Chesapeake and Natural Resources Committee and the Transportation Committee. The Senate has 11 committees, including the Agriculture, Conservation and Natural Resources Committee and the Local Government Committee. The Legislative Meeting Schedule, available on the General Assembly’s website at http://virginiageneralassembly.gov, contains information about these committees, such as dockets, agendas, and information concerning scheduled meetings.

When out of session, many legislators hold regular office hours in their home district offices as well as town hall meetings.

---

CBES Membership 2014

I would like to receive ShoreLine by email: □ Yes □ No

Name__________________________________________ Phone ________________________________

Address________________________________________ email ______________________________

City___________________________________________ State ________________ Zip ____________ - ___________

My volunteer interests are: __________________________________________________________________________

Enclosed is $______________ for the following:

* ________ Regular Membership (includes ShoreLine) $ 20

* ________ Life Membership (includes ShoreLine) $ 200

* ________ Optional Additional Contribution of $ ________

* ________ ShoreLine subscription without CBES membership $ 20

* ________ Gift subscription to ShoreLine for a friend (write name and address on reverse) $ 20

For our membership records, tell us how many there are in your home 16 years or older: ____________
### SHORELine
Community Calendar - February 2014

*Note: Please verify times and places prior to attending meetings.*

<table>
<thead>
<tr>
<th>CBES and Other Activities</th>
<th>Northampton County</th>
<th>Accomack County</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feb 5</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIMS Public Seminar</td>
<td>Board of Zoning Appeals</td>
<td>Board of Zoning Appeals</td>
</tr>
<tr>
<td>7:30 PM, Wachapreague</td>
<td>1 PM, Conference Room</td>
<td>10 AM, Sup. Chambers</td>
</tr>
<tr>
<td><strong>Feb 11</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBES Exec. Committee</td>
<td>Planning Commission</td>
<td>Planning Commission</td>
</tr>
<tr>
<td>5 PM, CBES Office</td>
<td>7 PM, Sup. Chambers</td>
<td>7 PM, BOS Chambers</td>
</tr>
<tr>
<td><strong>Feb 12</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ES Groundwater Workshop</td>
<td>Board of Supervisors</td>
<td>School Board</td>
</tr>
<tr>
<td>10 AM, Kiptopeke ES</td>
<td>7 PM, Sup. Chambers</td>
<td>7 PM, BOS Chambers</td>
</tr>
<tr>
<td><strong>Feb 13</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shorekeeper Meeting</td>
<td>Wetlands Board</td>
<td>Board of Supervisors</td>
</tr>
<tr>
<td>1 PM, Barrier Islands Center, Machipongo</td>
<td>TBA, Conference Room</td>
<td>6 PM, BOS Chambers</td>
</tr>
<tr>
<td><strong>Feb 18</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBES Board Meeting</td>
<td>School Board</td>
<td>Wetlands Board</td>
</tr>
<tr>
<td>7 PM, Eastville</td>
<td>5:30 PM, Sup. Chambers</td>
<td>10 AM, Sup. Chambers</td>
</tr>
<tr>
<td><strong>Feb 19</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOS Work Session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 PM, Sup. Chambers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

www.cbos.org
President Arthur Upshur directed our Annual Giving Campaign in 2013. Over the year, we received gifts totaling over $19,000 from our members and friends. This broad financial support from our community helps CBES continue to be a strong organization, and it demonstrates to potential grantors that CBES is a community-based, grassroots organization with robust community support. A hearty “Thank You” to all our donors!

(Donor names are presented in the manner in which the donor responded on solicitation forms. Please notify the CBES office at info@cbes.org or 757-678-7157 regarding omissions or other changes. We apologize in advance for any such errors.)

**Peregrine Falcon**

Over $500

Anonymous
Donald Brennan
Ronnie Franks
Barbara & Steve Johnsen
Dr. & Mrs. Michael Peirson
Ann Hayward Walker & SEA Consulting Group
Dave & Chris Wilson

**Piping Plover**

$101 to $500

Anonymous
Betty B. Badger
Curtis & Lynn Badger
Wayne & Jannie Bell
Virginia Morgan & Debbie Belote
Barrett & Teri Betz
Mr. & Mrs. Robert S. Bloxom
Tim & Susie Brown
Walter & Randy Childs
Mary Jane Dodson
Chip & Keith Dodson
Parker & Maureen Dooley
Eleanor Gordon
Elizabeth & Croxton Gordon
Eugene & Patricia Hampton
Dave Harris

(Piping Plover, cont.)

George & Wilma Heinrichs
Pam & Rick Holley
Tom & Patti Host
Lynn & Elaine Howell
Peter & Jane Kafigian
James & Linda Mehne
Jenny & Charlie O’Neill
Mr. & Mrs. John T. Ordeman
David Outten
John H. Price, Jr.
Jeanne & Bill Reynolds
Mr. & Mrs. R.L. Rich
Janet & Haydon Rochester
Ann S. Rowe
Carol Sabo & Barry Groves
Tommie Savage
Mr. & Mrs. Richard Schreiber
Arthur Schwarzschild
Jane & Rick Smith
Stephen & Julia Stone
Terry Swain
Elizabeth B. Tankard
David & Lisa Tankard
Norman Thibodeaux
Giles C. Upshur, Jr.
Camden Whitehead & Mimi Sadler
Mrs. Richard Barton
David & Nadine Costenbader
W.G. Cridlin, Jr.
Scottie Franklin
Mr. & Mrs. Bill Hudgins
Christopher & Lucinda Kellam Jones
Mr. & Mrs. E. Polk Kellam, Jr.
(Piping Plover, cont.)
Michele Leatherbury
Bowdy & Penny Lusk
H. Turney McKnight
Mr. William K. Neal II
Mr. & Mrs. Thomas Rayfield
George & Virginia Savage
    Judy Smith
Philip B. Tankard
Mr. & Mrs. Pete Terry
Jeff & Lee Walker
Scott Walker, Jr.
John W. Wescoat

(Sanderling, cont.)
Mr. & Mrs. Clyde Morris
Jan Neville & Terry Ewell
Patrick F. Noonan (for Vic & Lila Schmidt)
Tony & Shirley Picardi
Wallace & Hannah Pickworth
Mr. R. Jeffrey Poulterer
    Mark Raymond
Edward Reynolds
    Fred Rosen
F.V. Schmidt
Ace & Betsy Seybolt
Ann & John Snyder
    Collins Snyder
Mark C. & Ellen Y. Stromdahl
Anne R. Tankard
    Samuel Taylor
Eleanor & Arthur Tross
    Margaret Van Clief
Will & Darlene van Werkhoven
    George & Janis Walsh
    Hank & Franci Wayland
    Joan Wehner
    Tom & Linda Zieger

(Sanderling, cont.)
Anonymous
Jacqueline L. Baldwin
    Sara Baldwin
Jeffrey Barrett & Shirley Zamora
Mr. & Mrs. John D. Beck
    John & Joanna Bell
Dr. & Mrs. William F. Bernart
    Wes & Susan Brown
    D.S. Burlin
    Beth Chance
    John & Ive Chubb
    Dick & Ann Conrad
Mr. & Mrs. John Cooper
    Les Darling
    Randy & Dawn Diamond
In Memory of Suzanne Wescoat by Lacy Dick
    Mr. & Mrs. Charles Dickinson
    Susan R. Enzastiga
    Janice & Rick Felker
    G. Fred Floyd Jr.
    Toby & Joanna Frescoln
    Megan Gallagher
    Jong-on Hahn
    John & Lloyd Johnston
    Laurie Jones
    Barbara Kellam Latham
    Joan E. Marshall
    Randy & Judy McKnight
    Katty Mears

Curlew
$26 to $50

Brian & Joyce Hickman
Mike & Jennifer Ash
Nelda S. Badger
Anita and Daniel Bilicki
Jim & JoAnn Clark
Don & Price Clark
Mr. & Mrs. William N. Colonna
Jerry N. Doughty
Jim & Gail Drebos
Sharon & Mike Dunnagan
    Susan H. Gibb
Mr. & Mrs. Arthur P. Grothouse
Laura & Melvin Hess
    Rex Ingram
    Vernon Lewis
    Roland & Heather Lusk
    Terry & Judy Malarkey
    Wendy Martin
(Curlew, cont.)
Dr. & Mrs. James L. McDaniel
Mark & Martha McNair
Cliff & Joyce Mendel
Sarah Morgan
William & Laura Neal III
Louis & Thelma Negretti
Carol & Linda Nordstrom
Dr. & Mrs. Arnold Oliver
Meriwether Payne
Charles Rhyne
Floyd & Judy Robbins
Richard Roberts
Karin Rush-Monroe
George & Doris Southern
Daniel T. & Lois K. Spotten
Bill & Diane Stramm
M.J. Sullivan & Co., Inc.
Paul & Nicki Tiffany
Peg Snowden Volk

(Avocet, cont.)
Frank & Sallie James
Clara Ann James
W.A. Johnston IV
Mr. & Mrs. Keith D. Kellum
David & Sandry Kelly
Jeff & Laurie Klingel
Terry & Karen Kolet
Diane Langley
Anouk LeFur
Robert & Sarah Lentz
Michael & Teri Loring
Lotts’ Arts & Things
Mr. & Mrs. Frank M. Lusk, Jr.
Phil & Marji McCabe
Florence U. Mears
Kathy Merritt
Pat Morrison & Dorothy Perrucci
Marion & David Naar
Chris & Conny Needels
Robert C. Phillips
Elizabeth Pinder
John Reuther
Sally Richardson
James Roe
Beverly W. Rykosky
Mark Sauer
Yvonne Schultz
Linda Schulz
Sherman & Nancy Stairs
John & Martha Stewart
Mrs. James A. Stuart
Sam Tankard III
Margaret Trail
Frederick H. Turner, Jr.
Ruta Vaskys & Martin Freed
John H. Verrill
Russell & Susan Vreeland
Herman & Mary Walker
Mr. & Mrs. Kenneth Webb
Janet Whitehead
Doris F. Wilcox
Jim & Bev Wills
Mr. & Mrs. Kenneth Wollny
Mr. & Mrs. George W. Young

Avocet
Up to $25
Scott & Heather Banks
Bill & Kathy Bender
Carter & Larry Bernert
David & Natalie Berry
Joe & Catherine Chaddie
Mr. & Mrs. Donald H. Chapman
Elizabeth W. Cherry
Tommy & Ann Custis
Marlene & Charles Donnell
Graha Driscoll
Ray Dueser
Tamsey W. Ellis
Susan Emerson
Tilly-Jo Emerson
Kimberly & Joseph Fehrter
Jay & Tatum Ford
Lou & Norm Gladden
Kemper Goffigon III
Mr. & Mrs. William J. Harvie
Elvin & Ann Hess
Patricia W. Holland
W.A. Hughes
SPONSORS
Bike Tour
American Shellfish Company
Appleseed Porch & Garden
Atlantic Animal Hospital
Cherrystone Family Camping Resort
Eastern Shore Events & Rentals
Edward Jones
H.M. Terry Co.
Island House Restaurant
Great Machipongo Clam Shack
Maplewood Gardens
Salisbury Cycle & Fitness, Inc
Tankard Nurseries
The Blue Crow Antique Mall
The Gallery @ Eastville
SunTrust Bank
Weichert Realtors Mason-Davis
Wescoat Nurseries, Inc.

SPONSORS
Pig Roast
American Shellfish Company
Appleseed Porch & Garden
Dave’s Nursery
Eastern Shore Dog
Eastern Shore Nursery of VA
Machipongo Trading Co.
Major Excavating
Maplewood Nurseries
Moonrise Jewelry
Northampton Lumber
Jack & Mary Ordeman
Pfeiffer Training Stables
Shore Handyman Services
SouthEast Expeditions
Sunnyside Garden
Tankard’s Nurseries
The Nature Conservancy

SILENT AUCTION DONORS
Pig Roast

DONORS
United Way of the Eastern Shore

SUPPORTING BUSINESSES/ORGANIZATIONS FOR EVENTS

Town of Nassawadox
Chesapeake Bay Bridge Tunnel
Northampton County Sheriff’s Department
Sharp Culligan Water