Keep the Seaside in the Bay Act
Bay Foundation weighs in on Northampton Zoning Proposal

The following letter from the Chesapeake Bay Foundation was sent by email to each member of the Northampton Board of Supervisors. It was also sent to CBES and other community organizations to keep us abreast of the Bay Foundation’s position.

June 17, 2014
To: Northampton County Board of Supervisors
PO Box 66
Eastville, VA 23347
Re: Proposed Changes to the Northampton County Code of Ordinances Chapters 154 and 158.

Dear Chairman LeMond and Members of the Board:

On behalf of the Chesapeake Bay Foundation (CBF) and its members, I submit these comments on the proposed amendments to the Northampton County Code of Ordinances (NCCO) at (new) Chapters 154.1 and 158 (“Proposed Amendments”). According to the Public Notice associated with the March 2014 Planning Commission meeting on the proposal, the Proposed Amendments will “consolidate, simplify and clarify” Northampton County’s current Zoning Code, providing more liberal uses, removing some shoreline setback requirements, reducing the number of uses that require a special use permit (SUP), and other changes.¹

After careful review, several features of the proposed Amendments stand out as very concerning. Most important, the Proposed Amendments remove seaside lands from the current Chesapeake Bay/Atlantic Ocean Protection Area overlay district with the result that development in the county’s seaside will no longer be required to meet the standards in the Chesapeake Bay Preservation Act (CBPA).² For the reasons set out below, CBF respectfully recommends that the Northampton County Board of Supervisors (Board) reject this and related aspects of the Proposed Amendments. At a minimum, the Board should defer any decision on adoption of the Proposed Amendments until a more thorough analysis of their anticipated consequences, including environmental impacts, can be completed and incorporated into the public discussion.

Chesapeake Bay Foundation in Northampton County

CBF is the largest regional nonprofit organization dedicated to saving the Chesapeake Bay and its tributaries. It has approximately 72,000 members in Virginia with some 300 residing in Northampton County. CBF, its members and myriad volunteers have long worked in Northampton County to help reduce the polluted runoff flowing into local waterways. In a recent CBF restoration project, for example, some 750 trees were planted to establish forested buffers along Nassawadox Creek, and earlier projects have involved wetlands restoration, upland buffer tree plantings and technical assistance. CBF, its members and partners have also transplanted oysters raised as a part of CBF’s oyster gardening program

¹ See County of Northampton Notice of Public Hearing, Proposed 2014 Northampton County Zoning Code text and map, Proposed Chesapeake Bay Preservation Areas text and map (collectively, “Public Notice”).

See “Keep Seaside,” Cont’d on page 2
“Keep Seaside,” Cont’d from p. 1

to locations in Occohannock Creek and in the Inside Passage near Fisherman’s Island. CBF has assisted County aquaculturists in support of oyster and clam aquaculture, has sponsored Clean the Bay Day to remove trash from sites in the county and elsewhere, and has hosted a rain barrel education event that added approximately 35 such devices to County sites. CBF also educates students, teachers and school administrators about Virginia’s local streams and the Bay with its acclaimed on-the-water field education programs. Students from Northampton County schools regularly participate in these programs.

From these activities and many others, it is clear that Northampton County residents deeply value the “unique harmony between mankind and nature” that the County’s website describes. The zoning changes reflected in the Proposed Amendments threaten to upset this unique harmony and to jettison the County’s historic and visionary leadership in natural resources protection in a bid to attract intensive coastal development.

Removing Chesapeake Bay Preservation Act Standards from Seaside Areas Is Not Supported By Science or Economic Studies

The Proposed Amendments would remove all lands in the County that drain to the Atlantic Ocean from the requirement of adhering to CBPA’s standards. That set of changes would mean, among other things, that: many smaller development projects could avoid erosion and sediment control standards; other projects in the resource protection area (generally speaking, the buffer zone 100 feet landward of mean low water) would no longer be subject to existing CBPA-specified performance standards protecting water quality and shoreline habitat by limiting polluted runoff; water quality impact assessments would not be required; and other related pollution-reduction measures, like required 5-year septic system pump-outs, would no longer apply.

The Proposed Amendments’ retreat from County-wide CBPA standards is striking, given the historic recognition by Northampton County that the CBPA standards are critical to the well being of residents and the economic life of the region. Indeed, in 2009, the Board [of Supervisors] made specific “Findings of Fact,” and adopted them into the County Code of Ordinances, regarding the importance to the economy, the welfare of residents and the quality of life in the County of bicoastal application of the CBPA:

(1) The Chesapeake Bay and Atlantic Ocean...are two of the most important and productive estuarine systems in the world, providing economic and social benefits to the citizens of Northampton County. The health of the Bay and the Ocean is vital to maintaining Northampton County’s economy and the welfare of its citizens.

(2) The Chesapeake Bay and Atlantic Ocean waters have been degraded significantly by many sources of pollution, including nonpoint source pollution from land uses and development. Certain lands that are proximate to shorelines have intrinsic water quality value due to the ecological and biological processes they perform. Other lands have severe development constraints from flooding, erosion, and soil limitations. With proper management, they offer significant ecological benefits...as well as flood and shoreline erosion control. These lands together...need to be protected from destruction and damage in order to protect the quality of water in the Bay and Atlantic Ocean and consequently the quality of life in Northampton County and the Commonwealth of Virginia.

The Proposed Amendments also include so-called “Findings of Fact,” but the proposed version simply deletes all references to the Atlantic Ocean and the waters of the Atlantic Ocean. To our knowledge, however, the massive policy change reflected by this proposed deletion does not rest on any actual appropriate scientific studies, whether by the County or otherwise. Indeed, science overwhelmingly supports continuation of seaside applications of CBPA protections as critical to the reduction of polluted (nutrient, sediment and bacteria) runoff; the preservation of water quality in local, seaside streams and salt marshes; the success of county oyster and clam aquaculture and other commercial and recreational fisheries; and

3 See Northampton County’s home page, www.co.northampton.va.us/
4 See NCCO 154.101. Indeed, a statement explaining the importance of the CBPA protections on both coasts is broadcast on the County website. “Because of Northampton’s proximity to the fragile Atlantic Ocean marine marshlands, Bay Act protection regulations have been extended to the County’s seaside area as well.... The lands that make up Chesapeake/Atlantic Preservation Areas are those that have the potential to impact water quality most directly.... By carefully managing land uses within these areas, Northampton County can help reduce the water quality impacts of nonpoint source pollution and improve the health of the Chesapeake Bay and Shoreline habitat.”

5 See NCCO 154.164(c) stating purposes of the CBPA overlay district (i) protection of existing high quality state waters and restoration of all other state waters to a condition or quality that will permit all reasonable public uses and will support the propagation and growth of all aquatic life, including game fish, which might reasonably be expected to inhabit them; (ii) safeguarding the clean waters of the commonwealth from pollution; (iii) prevention of any increase in pollution; (iv) reduction of existing pollution; and (v) promotion of water resource conservation in order to provide for the health, safety, and welfare of the present and future citizens of Northampton County.

6 NCCO, 154.164(B)(1), (2).
7 Proposed Amendments, 158.101(B)(1), (2).
8 www.deq.state.va.us/Programs/Water/StormwaterManagement.aspx

See “Keep Seaside,” Cont’d on page 3
the protection of the shoreline from erosion, storms and rising sea levels.\textsuperscript{10}

Moreover, the evidence strongly suggests that water quality improvements, like those supported by CBPA standards, enhance and do not hold back reasonable economic development.\textsuperscript{11} Numerous studies evidence this conclusion.\textsuperscript{12} The experience of Accomack County, which also imposes CBPA standards on its bayside and seaside lands, may also be helpful in this regard.

Northampton has long been a leader in reducing nonpoint source pollution through its broad application of CBPA standards, and its leadership has had positive results in, for example, the vibrancy of its aquaculture industries. At this juncture, when other localities across the state have begun serious work on their nonpoint source pollution through new stormwater management standards and stronger polluted runoff permit requirements, a decision by Northampton County to abandon its historic, protective stance would be a step backward.

\textbf{Removing Chesapeake Bay Preservation Act Standards from Seaside Areas Contravenes the County Comprehensive Plan and other Planning Documents}

The proposal to remove seaside application of the CBPA standards would contravene the planning guidance found in the Northampton County Comprehensive Plan and disregard the shoreline management guidance legislatively required for the next comprehensive plan revision -- despite the fact that such action was not a recommendation of the Comprehensive Plan Advisory Committee Report.

All localities are required by state law to develop a Comprehensive Plan\textsuperscript{13} to guide and accomplish “a coordinated, adjusted and harmonious development” of the locality in a manner that best promotes the health, safety and general welfare of residents. The General Assembly has accorded localities wide latitude as to the content of their Comprehensive Plans, but it has mandated the inclusion of certain subjects – for example, measures to ensure broad public participation in plan development and adoption\textsuperscript{14} and, for Tidewater localities as of 2013, coastal resource management guidance developed by the Virginia Institute of Marine Sciences. (VIMS).\textsuperscript{15}

The Proposed Amendments’ attempt to eliminate bicoastal application of the CBPA standards would amount to a sharp and unwise departure from Northampton County’s current (2008/09) Comprehensive Plan (NCCP).\textsuperscript{16} Notably, the NCCP repeatedly affirms the importance of subjecting bayside and seaside areas to CBPA standards,\textsuperscript{17} specifying that bicoastal application is a crucial strategy for protecting groundwater quality and quantity and for critical and unique “environmentally important areas for the general welfare of Northampton County citizens, for marine and wildlife populations, for the enjoyment of visitors, and for scientific and research opportunities.”\textsuperscript{18} County-wide application of the CBPA standards is also essential to the NCCP’s other adopted strategies: supporting “programs and initiatives that protect and conserve surface and groundwater resources, including wetlands”; protecting the County’s aquaculture industry with careful land use planning that ensures “coastal waters remain clean and protective and working waterfronts remain viable”; and directing development away from sensitive natural areas, including “sensitive waterfront lands, flood prone areas, and wetlands.

Moreover, the proposal to end seaside CBPA standards would amount to a “repubidation-in-advance” of what the 2011 General Assembly mandated be included in the County’s next updated comprehensive plan: VIMS’s guidance on sustainable shorelines and sea level rise. The 2012 VIMS report that responds to the legislative mandate addresses, among other things, recommended practices for upland areas to help protect sensitive shorelines on coastal areas.\textsuperscript{19} One such recommended practice – enhancing and maintaining 100-foot riparian buffers where new construction is discouraged and existing vegetation preserved – is a key standard under the CBPS. Stripping sensitive coastal areas of existing shoreline protection tools at the historical moment when the Commonwealth’s political and scientific leaders urge their adoption makes, we believe, little sense.

Finally, we find it significant that the Northampton County Comprehensive Plan Advisory Committee’s recent report, “Bridges of Hope: Strengthening the Economy of Northampton County,” did not recommend deleting bicoastal application of CBPA standards from the revised comprehensive plan or County ordinances.\textsuperscript{20} That report, which focuses on economic development to alleviate County poverty, identifies the need to ensure that “economic sustainability and environmental stewardship have equal footing.” Notably, the report affirms that an overwhelming majority – 64% of surveyed residents – believe that “the County needs to protect additional land and coastal areas from development in order to attract more tourists and help industries that depend on our natural resources.”\textsuperscript{21} To ensure any new plan for the future gains traction, it will be important to for leaders to heed residents’ strong voice on environmental stewardship.


\textsuperscript{12} See Accomack County Code, 106-378.

\textsuperscript{13} Va. Code 15.2-2223.

\textsuperscript{14} Va. Code 15.2-2225.

\textsuperscript{15} Va. Code 28.2-1100.

\textsuperscript{16} Notably, posted drafts from the 2013 Comprehensive Plan Review Update indicate that bicoastal CBPA application is contemplated to continue. See Part2, Section 6, Environment DRAFT 2013, at 6.9.4, www.co.northampton.va.us/departments/pdf/Part%202%20Section%206%20Environment%20DRAFT%202013.pdf

\textsuperscript{17}www.co.northampton.va.us/departments/pdf/Complete_Comp_Plan_Apr_2009.pdf

\textsuperscript{18} NCCP, 5.5.

\textsuperscript{19} http://ccrm.vims.edu/ccrpm/Guidance_General.pdf

\textsuperscript{20} See Northampton County comprehensive Plan Advisory Committee Report, presented to the Northampton County Board of Supervisors, February 12, 2013.

\textsuperscript{21} Id.
“Business Friendly” for Whom? – A Study in Irony
By John Ordeman

I

t is ironic that the Northampton County supervisors, who claim to be supporting the zoning regulations that are being promoted by Director of Economic Development Charles McSwain because they want to make the county more “business friendly,” have already taken actions that are harmful to the county’s foremost business, agriculture, and are now may be preparing to pass new zoning regulations, which would put the county’s other most important business, aquaculture, in jeopardy.

A “Cost of Community Services Study” conducted by the American Farmland Trust revealed that the owner of farmland received only about 30 cents’ worth of county services for each dollar he paid in taxes; whereas, the owner of residential property received well over a dollar’s worth of county services for each dollar he paid in county taxes. The farmer is, in effect, subsidizing the homeowner. In order to make taxation fairer for the farmer, virtually all counties in Virginia have adopted “use-value assessment” for purposes of taxation, thereby taking into consideration the monetary value of the crops that can be raised on farmland. The alternative basis for taxation is a property’s “best and highest use,” the amount land would sell for if the land owner were willing and able to sell it to a developer – even though there is no potential buyer offering to purchase the land.

A decade ago, after receiving an “Impact of Use-value Assessment Study” from Virginia Tech, Northampton supervisors voted to adopt “use-value assessment” as the basis for taxation. Recently, however, the Board of Supervisors reversed their position and adopted the “best and highest use” for taxation assessment for all county real property. The reasoning behind this decision was that an owner of farmland could avoid having to pay a higher assessment by putting his property in an Agricultural and Forestal District (AFD), a program which assigns the owner of farmland a lower assessment in exchange for his giving up the opportunity to develop the land for a period of ten years. So long as landowners of qualified property had this option, taxes on their farm property were reasonably fair.

The current Board of Supervisors, however, has made it clear that they will not grant AFD status to new applicants or renew it for present AFDs when they expire. All farmland is to be taxed on the “best and highest use” assessment regardless of the income received by farming the land. Owners of farmland are rightly concerned that their income from farming will not be sufficient for them to pay their taxes, and they may be forced to sell their property under duress for whatever a developer is willing to pay. The supervisors’ refusal to either re-establish “use-value assessment” as the basis of taxation for farmland or grant AFD status for qualifying property will be friendly to the real estate development business but devastating to the agriculture business.

“It is the policy of the Commonwealth,” according to the Virginia ‘Declaration of Policy Findings and Purpose’ pertaining to AFDs, “to conserve and protect and to encourage the development and improvement of the Commonwealth’s agricultural and forestal lands for the production of food and other agricultural and forestal products. It is also the policy of the Commonwealth to conserve agricultural and forestal lands as valued natural and ecological resources which provide essential open spaces for clean air sheds, watershed protection, wildlife habitat, as well as for aesthetic purposes.” The Board of Supervisors apparently does not believe that these policies of the Commonwealth of Virginia regarding AFDs have sufficient merit to warrant their consideration in Northampton County.

Existing regulations designed to ensure water quality essential for the propagation of shellfish on the seaside have been deleted from the proposed zoning regulations. The proprietors of aquaculture businesses and scientists in the shellfish biology field have spoken out unanimously in opposition to the elimination of Chesapeake Bay Preservation Act regulations on the seaside, and it would seem that the supervisors may be responding to the clamor. They have agreed that, before they vote on the matter, they will listen to presentations of scientific evidence – something that was apparently not considered by those who wrote the proposed zoning regulations.

The Northampton supervisors are well-intentioned in their efforts to make the zoning code more “business friendly,” for the county would certainly benefit if new businesses were to be established here, and everything that is reasonable and prudent should be done to encourage and facilitate the process of establishing a business. It is ironic, however, that in their efforts to bring new businesses to the county, they have already taken actions that are proving harmful to the agriculture and are contemplating actions that would be harmful to aquaculture.

“Business friendly” should also apply to the businesses that are traditionally and currently the foundations of the Eastern Shore economy, and efforts to bring in new businesses to the Shore can and should be undertaken without making changes in the zoning code and taxing policy that would be detrimental to agriculture and aquaculture.

Cont’d from p. 4

Conclusion

Chesapeake Bay Foundation is very respectful of the work of the Northampton County Planning Commission, the Northampton County Comprehensive Plan Advisory Committee, and the Northampton County Board of Supervisors in thoughtfully addressing the needs of the County’s residents. We are concerned, however, that the current proposal to jettison the County’s historic protections for its seaside riparian streams and marshes as embodied in the current Chesapeake Bay/Atlantic ocean Protection Area overlay district would be a mistake with serious and potentially irreversible consequences for the County. We urge you, therefore, to reject or at least to delay taking action on the Proposes Amendments. A thorough scientific study of the likely environmental and economic impacts should first be undertaken, with the results taken to County residents who then can actively engage in a thoughtful, scientifically-grounded discussion of the best future for the County.

Please do not hesitate to call me with any questions or concerns at 804-780-1392. My colleagues at CBF and I look forward to the opportunity to discuss these issues with you.

Respectfully submitted,
Margaret L. Sanner
CBF Virginia Assistant Director and Senior Attorney
Eastern Shore Tourism Opportunities

By Sarah Morgan

On a recent morning, I sat down with Kerry Allison, Executive Director of the Eastern Shore Tourism Commission, and Bobbie Walker, the Virginia Tourism Corporation’s regional representative for an area that includes the Eastern Shore, Northern Neck, Middle Peninsula, and all of Hampton Roads. My goal was to determine benefits for local Eastern Shore tourist-oriented businesses and specifically how the Virginia Tourism Corporation (VTC) differs from the ES Tourism Commission.

Bobbie Walker, who recently moved to Cape Charles, is one of four Tourism Development Specialists in the state. She works with local governing officials and the ES Tourism Commission and says that much of her job consists of building relationships with tourism-related businesses as well as town and county leaders. She stresses the fact that towns want to establish their own identities rather than being lumped together, and that one of the biggest challenges for developing tourism on the Shore is establishing communication among local governments and businesses, which tend to be entrepreneurial and individualistic.

The Virginia Tourism Corporation is a state-funded agency and does not charge communities or tourism-related businesses for technical assistance. Walker says that a major benefit offered by her organization is the ability for tourism-related businesses to register on the Corporation’s website (vate.org), which has in excess of 800,000 unique visitors each year. The site helps to steer tourism to those businesses free of charge, and also offers services including help with writing press releases and applications for grants. The VTC also can help with development of social media presences and reducing advertising costs through cooperative advertising and “buying down” media, which involves buying media in bulk and reselling it to individual businesses at less cost. The VTC can also research specific visitor activities so that businesses can make informed decisions about potential services and products.

Walker says that sometimes tourism can grow exponentially as an offshoot of an entirely different type of business expansion. She describes the opportunities opened up as a result of the Space Flight Adventure Camps held each summer by the Virginia Space Flight Academy in cooperation with the Mid-Atlantic Regional Spaceport for children ages 11 through 15. In addition, launches such as the recent Antares rocket mission to the International Space Station, regularly bring visitors to the area.

Both Walker and Allison mention the recent push to establish the Eastern Shore Artisan Trail, which is in its formative stage after raising the $15,000 required to initiate the effort. The Trail is one of several developed under the auspices of the Artisans Center of Virginia (artisanscenterofvirginia.org). According to their website, “the trail will give visitors a comprehensive guide to local artist studios, farms & vineyards, waterman & aquaculture, arts & cultural attractions, recreational activities, shopping for locally grown and hand-crafted items, and unique lodging & restaurants.” As of this writing, the ES trail is undergoing a naming exercise and is still accepting members who will be included in its first printed advertising brochure.

The mission of the Eastern Shore of Virginia Tourism Commission is to attract visitors, stimulate economic development and protect the region’s unspoiled ecosystems and local communities. As to what the ES Tourism Commission offers to local businesses, Allison says she is involved in developing opportunities for tourism growth in different areas. She cites the potential for “shoulder-season” activities that occur or could be designed for spring and fall weekends as one way to increase tourism dollars on the Shore; specifically, the organization of a master calendar to promote various culinary events such as oyster roasts, with strategic marketing plans and coordination.

Allison also mentions that the ES Tourism Commission is holding a free Tourism Workshop at the Eastern Shore Community College on October 7, 2014. The focus of the workshop is Social Media Marketing using Facebook and blogs, plus website management information for small business owners. Although admission is free, there is limited seating available, so interested participants should send an email to Allison at kerryallison@esvatourism.org to reserve space.

Services offered by the Commission to ES businesses and organizations include the use of the ESV A logo and tagline at no charge, as well as free listings on the Eastern Shore Tourism website (www.esvatourism.org), and inclusion in the website’s event listings. For $50 a year, businesses can increase exposure by getting a link from the Eastern Shore Tourism website to an individual business website. The Commission is also responsible for the maintenance of the Welcome Center at the Chesapeake Bay Bridge/Tunnel, and provides avenues for business promotion through brochure racks as well as other placement opportunities to its partners.

The Virginia Tourism Corporation and the Eastern Shore Tourism Commission offer various types of services to businesses and organizations, and both Bobbie Walker and Kerry Allison are eager to work with local governing bodies as well as individuals who currently operate tourism-related businesses or who are interested in developing business plans for the future. They welcome inquiries, ideas, and requests, and look forward to helping tourism grow on the Eastern Shore of Virginia.
“Food, Glorious Food…”
...but how secure is a community’s food system?

By Mary Miller

Farm stand season is here – local festivals and markets are featuring fresh picked corn and tomatoes, honey, eggs and berries, and artisanal foods and wines. Facebook and Twitter have brought some of our new young farmers, seafood vendors and local food producers squarely into the 21st century as they make one of the best possible marketing uses of social media. They’re baking pies and bread, roasting coffee, churning ice cream, smoking barbecue and turning out crab cakes and clam fritters – and then marketing them in innovative new ways. The corn and tomatoes are barely out of the fields, the clams still dripping sea water, and the customers are waiting at the gates.

The venerable Eastern Shore food culture has found a whole new audience. The farm-to-table movement, the slow food revolution, the new generation of chefs trained to treasure local ingredients, have all combined to create a new and growing demand for fresh, locally grown food, local wines and artisanal products. And it goes without saying that Shore residents themselves have always understood the importance, the value and the satisfaction of being able to sustain themselves with the products of the land they live on and the waters that surround them.

Planning to protect the local food system.

But just how secure is the local food system? What would make it vulnerable? And what is the responsibility of residents and local governments to protect it? The American Planning Association (APA) has issued a report to planning professionals, especially those in rural areas, that puts forward a blueprint for responsibility – the APA Policy Guide on Community and Regional Food Planning. Emphasizing the importance of understanding that the local food system represents an important part of community and regional economics, the policy guide seeks to strengthen connections between traditional planning and the emerging field of community and regional food planning.

Local food system planning guidelines:

• Strengthen the local and regional economy by promoting local and regional food systems.
• Support food systems that are ecologically sustainable.
• Support food systems that preserve and sustain diverse local traditional food cultures.
• Integrate food system elements into the economic development plans.
• Identify and implement planning mechanisms that integrate land use, economic development and agricultural preservation.
• Integrate land use planning policies, economic development, land taxation and development regulations that enhance the viability of a locality’s agriculture/aquaculture.
• Adopt policies to protect agricultural land from sprawl, protect productive ag soils and support sustainable water supplies.
• Develop or modify policies, regulations, and other tools such as agricultural land preservation zoning to protect prime agricultural land.
• Protect valuable ecosystems (forests, wetlands) which support habitat for fisheries.
• Support initiatives in marketing and in technical and business development assistance for small-scale farms, local food-processing and regional food retail enterprises.

The community’s food culture and food production sustainability continues to depend on local government’s policies and decisions, guided by the community’s professional planners, and informed by good planning practices. The viability of a community’s food system and the contribution it makes to the locality’s economy depend on safeguarding essential resources.

The APA report concludes: “Diverse local and traditional food practices contribute to a sense of place and help achieve the economic, environmental, and health goals of communities.”

USDA Warns of Food System Vulnerability.

The US Department of Agriculture is beginning to voice its concern about the vulnerability of localities’ food systems and has released two comprehensive reports which indicate how climate change is affecting US farms, forests, grasslands, and rural communities. The reports are particularly directed towards farmers and fish and seafood producers as they will be on the frontlines of change as they adapt to shifting circumstances. “These reports present the challenges that US agriculture and forests will face in this century from global climate change,” said William Hohenstein, Director of the Climate Change Program Office in USDA’s Office of the Chief Economist. “They give us a framework for understanding the implications of climate change, in order to meet our future demands for food, feed, fiber, and fuel.” The following overview is provided to food producers. Data below is from the US Census Bureau, US Climate Change Science Program and the US Bureau of Economic Analysis.

Aquaculture and Fisheries:

• Fisheries will be affected by changes in water temperature that shift species ranges, make waters more hospitable to invasive species, and change lifecycle timing.
• Warmer water temperatures are likely to cause the habitat ranges of many fish and shellfish species to shift, which could disrupt ecosystems.
• The ranges of many fish and shellfish species may change. Many marine species have certain temperature ranges at which they can survive. However, moving into new areas may put these species into competition with other species over food and other resources.
• The world’s oceans are gradually becoming more acidic due to increases in atmospheric carbon dioxide (CO₂). Increasing acidity could harm shellfish by weakening their shells, which are created from calcium and are vulnerable to increasing acidity.
• Acidification may also threaten the structures of sensitive ecosystems upon which some fish and shellfish rely.

Agriculture and Food Crops:

• Severe warming, floods, and drought may lower yields.
• More extreme temperature and precipitation can prevent crops from growing.

See “Food, Glorious Food,” Cont’d on page 7
“Food, Glorious Food,” Cont’d from p. 6

- Dealing with drought could become a challenge in areas where summer temperatures are projected to increase and precipitation is projected to decrease.
- As water supplies are reduced, it may be more difficult to meet water demands.
- Many weeds, pests and fungi thrive under warmer temperatures, wetter climates, and increased CO$_2$ levels.
- The need for increased use of pesticides and fungicides may negatively affect human health.

ShoreLine Comment. Stress on local food systems, especially on food producers, may well be mounting. At the same time, the

Northampton County Board of Supervisors appears to be moving forward with plans for new policies which have great potential to undermine both the agriculture and aquaculture segments of the local economy, and have the potential to imperil the local food system. The Code of Virginia (§ 15.2-2284) contemplates that changes in policy at the local level be supported by “reasonable consideration for...the current and future requirements of the community as to land for various purposes as determined by population and economic studies and other studies.” It would be reassuring to know that local county officials have referenced the US Department of Agriculture studies and the American Planning Association Policy Guide cited above.

From the Eastern Shore food system...

To remind our readers of just how glorious Eastern Shore foods can be, we excerpt the following recipes and the author’s commentary from a well-loved, but now out-of-print, local cookbook – Kitty Caters (Second Edition ©2000) by Catherine K. Kellam.

Clam Fritters

“This is the recipe the men of the Cheriton Methodist Church use each year...they start by having a day on the water to dig the clams...they fire up their grills early and get ready to serve all morning and into the early afternoon...” CKK

• 1 pint clams, ground
• 1 small onion (if you like onion in your fritters)
• 2 eggs
• ½ cup pancake flour
• Pinch of baking powder

Mix all ingredients into a batter. Grease a heavy pan or grill and spoon a bit of the batter onto the hot surface. Cook one side and flip to cook the other side. (This is quite similar to making pancakes.)

Stewed Tomatoes

“There are as many recipes for stewed tomatoes as there are cooks on the Eastern Shore. Serve them with lima beans or corn for a great summer dish.”

• 6-8 fresh tomatoes, peeled and cored
• 2 Tablespoon Flour
• 1 Teaspoon salt & pepper to taste
• Enough water to make paste with flour

Put tomatoes, sugar, butter, salt and pepper into a saucepan and cook over medium heat until blended and tomatoes are cooked. Make a paste with flour and a bit of water and add to cooked tomatoes. Cube two slices of day old bread and add to the mixture. Continue to cook, stirring frequently, until mixture thickens and becomes shiny. Serve hot or cold.
# Community Calendar - August 2014

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

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<th>Accomack County</th>
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[www.cbes.org](http://www.cbes.org)