

Northumberland Association for Progressive Stewardship

“Northumberland is going to grow. Let’s help it grow with order and beauty.”



NAPS News

Winter 2007 Volume 16, Issue 1

ANNUAL MEETING

The NAPS Annual Meeting will be held at the St. Stephen’s (Anglican) Church Parish Hall in Heathsville on **Saturday, February 10th**, beginning at 9:30 a.m. with coffee and cookies. This year, past Northumberland County Supervisor and current NAPS Board Member, Tommy Tomlin, will educate us on the basic terminology of zoning...such as: how zoning flows from the Comprehensive Plan to the Zoning Ordinance to the Zoning Map and finally, to an individual parcel of land.

Since the Comprehensive Plan will be used by the Planning Commission to interpret and update the zoning ordinances, it is important for us to understand the nuances of the terminology. Decisions made by the Planning Commission and the Board of Supervisors affect us all in one way or another. Following the presentation, the Annual Meeting will be held and three new Board Members will be elected. Your attendance is important! See you there!!

WANTED:

Three bold people needed to replace three bold people who will be leaving the Board in February! The terms of Lynton Land, Lee Allain and Robert Holley will expire. Just because they are leaving the Board doesn’t mean they are leaving NAPS or their ‘babies’. If you would like to serve Northumberland County by serving on the Board of NAPS, please don’t be shy. You are surely needed. Call a member of the Board and volunteer to be nominated or ask a friend to nominate you. Many great things are happening, and it’s important that the citizens of Northumberland be a part of the process. NAPS is a good place to start. Do it now!!

Inside:

Stewardship Booklet.....Page 2
Grass Planting.....Page 2
Phragmites.....Page 2
Oyster Taste-Off.....Page 3

The Giving Tree.....Page 3
Bay Pollution.....Page 4
Out-door Classrooms.....Page 6
Free Light Bulbs.....Page 7
Groundwater.....Page 8

Cluster Housing.....Page 8
Education Committee.....Page 10
Membership Application...Page 11
Calendar.....Page 11
NAPS Board.....Page 11

NAPS ACCOMPLISHMENTS IN 2006

1) STEWARDSHIP BOOKLET. NAPS has published a new “Stewardship Booklet” that is available on our web site, www.napsva.org. We are publishing it page-by-page in local newspapers, and we have been distributing it to some of the Homeowners Associations who intend to include it in documents when property in their Association is sold. Also, several realtors are distributing it. We are in the process of identifying new homes being built and appropriate property that is changing hands, and will mail the new property owner the booklet with an invitation to join NAPS. There will be copies of the booklet available at the annual meeting on February 10. We try to recover the \$2.00 publication cost, but as one person put it, “The educational message the booklet sends is NAPS’ mission and we should look at the booklet in that light, and as ‘chum’.” If you can’t make the annual meeting, and you want a copy (or copies to distribute) please contact a board member. ☺

2) GRASS PLANTING. Aided by a \$3,000 grant from the Chesapeake Bay License Plate Fund, 41 “clients” were served. Six thousand (yes, 6000!) plants were planted in fringing or pocket marshes, with varying degrees of success. In some cases, most of the grass became established, especially if the property owner fertilized it lightly during the growing season. NAPS believes that the small amount of pollution caused by fertilizing the grass to get it started is more than offset by the benefits (habitat, erosion control, sediment trapping and nutrient removal) incurred by a healthy mature stand of grass. In the worse case, only about 10% of the plants survived because, according to neighbors, ‘geese had a feast’! We have received another grant for next year and already have 12 new “clients” for spring 2007 and will re-plant some of our less-than-successful 2006 efforts. Call Lynton Land at 453-6605 to get on the list for 2007. ☺

3) PHRAGMITES. The Chesapeake Bay License Plate Fund also supplied money to purchase herbicide to kill the invasive plant. Since *Phragmites* control began in 2002, nearly 100 “clients” have been served. In fall 2006, 86 sites were visited and 75 were sprayed. All the old sites are improving, so we are making progress. It is necessary to visit sites and spray individual plants until no *Phragmites* can be detected, or else “re-infection” will rapidly occur. The two photos show one of our real success stories. In the fall of 2005, the *Phragmites* was so tall a property owner in Northumberland Plantation could not see the water or the pier. The *Phragmites* was sprayed in September and the dead stalks removed that winter, as requested. By fall 2006, the water and pier are clearly visible, although many plants survived. Repeating the cycle of fall spraying and dead plant removal in winter, if necessary, will be required for several years, but it is easier each year and complete kill is only a matter of time. Contact NAPS at 453-6605 if you have a *Phragmites* problem. ☺



Before



after

4) OYSTER TASTE-OFF A HUGE SUCCESS

By LEE ALLAIN – 1/5/07

The recent Oyster Taste-Off, held at Cowart Seafood Corp., on October 28, was the public's first chance to taste oysters of both types in quantity. Event sponsors included Cowart Seafood Corp., Northumberland Economic Development Commission, VIMS, NAPS, and Vision 2048. Thanks to many of you, the Taste-Off was a huge success. More than two dozen dedicated volunteers from sponsoring organizations made signs, sold tickets, directed cars, dispensed beer, served chicken, gave away commemorative oyster knives, announced events and did the myriad of tasks involved in hosting a large and enthusiastic crowd. Lake Cowart's employees, all with smiles, served fresh shucked and steamed oysters in abundance. Over one hundred and seventy attendees got to eat their fill of oysters of both kinds grown right here at home, in the Coan River.

Aquaculture cages containing both kinds of oysters were displayed, while A.J. Erskine, the project manager and field scientist, described the aquaculture process. A.J. noted that the native oysters were 12 months old, while the Asians were shucking size at only 4 months. Dr. Stan Allen, Head of the oyster hatchery at VIMS, talked with pride about his part in the development of disease resistant oyster seed for aquaculture.

After a lot of deliberation (eating oysters), Delegate Rob Wittman, RCC President Sissy Crowther, and Pam Russell, a Northumberland Supervisor – the official judges – decreed “both oysters taste great.” Most agreed that the two oysters are hard to tell apart. More than six dozen commemorative oyster knives were given as gifts and prizes to attendees. Near the end of the day, happy attendees broke into a chant. “Eat-More-Oysters, Eat-More-Oysters, Eat-More-oysters - - - - .” Smiles indicated that it was a good day.

You may wonder why NAPS is involved in a Taste-Off that seems more like a product promotion than environmental event. First, NAPS always promotes quality economic development, particularly when it is in keeping with our heritage. Second, NAPS believes that the more oysters in the bay, the better the water quality will be. Poor water quality is, of course, a root cause of most Bay ills. Oysters are filter feeders that filter as much as 12 gallons of water per day. Encouraging watermen to farm millions of oysters is win/win. While the watermen make money, millions of oysters are out there filtering tens of millions of gallons of water each day.

A prototype of a modern oyster farm is being built right here in Northumberland County. The Northern Neck's own Cowart Seafood Corp., in partnership with BEVINS Oyster Co., is in start-up on what is hoped to bloom as a major oyster aquaculture venture. They have started with a major 25' x 60' FLUPSY (FLoating UPweller SYstem) and pioneered large steel cages that are each capable of holding as many as 5 bushels of mature oysters. This year, the Partnership has more than 7 million native oysters growing in cages in the Coan and Yeocomico Rivers. A small experimental crop of the Asian oysters is also in the mix. The oysters eaten at the recent Taste-Off were harvested from last year's crop. Under A.J.'s care, this year's crop is also looking good. With supplies of oysters from the Gulf states always in question because of storms, shipping issues, and economics, local farming of oysters seems like a logical approach to renovate the local industry – while helping to clean up the bay.

This heritage industry, boosted by new aquaculture technology, will significantly help with bay cleanup while providing more local jobs. Like the Taste-Off attendees said, “Eat more oysters.” ☺

5) THE GIVING TREE. *Through generous contributions, fund raising efforts and Grants, NAPS has been able to give \$4000.00 to efforts in Northumberland County. MID-COUNTY RESCUE SQUAD: \$100; NORTHUMBERLAND PUBLIC SCHOOLS: \$1,000; NORTHUMBERLAND LIBRARY: \$200; RICE'S HOTEL/HUGHLETT'S TAVERN: \$200; SCHOLARSHIPS: \$2500. Thank you, one and all. ☺*

An article on BAY POLLUTION, published in the *Bay Journal*, written by our own President—
LYNTON LAND, PhD, Professor Emeritus of Geological Sciences, U. Texas, Austin

A Virginia Joint Legislative Audit and Review Commission (JLARC) recently released report No. 89, “Review of Land Application of Biosolids in Virginia”, which was rightly critical of the management of the land-application of municipal sewage sludge (“biosolids”) by the Virginia Department of Health (VDH). An Inspector General’s Report (2002-S-000004) and a report from the National Academy of Sciences (7-2-02) were similarly critical of EPA’s out-of-date and inadequate management and enforcement policies regarding sewage sludge. The reports concentrate on human health issues and ignore the environmental consequences of nitrogen and phosphorus pollution caused by the land-application of sewage sludge. Nobody questions the potential benefits of land-applying animal waste (poultry litter, manure and sewage sludge) to supply nitrogen, phosphorus and other nutrients, to increase soil quality and to reduce the cost of chemical fertilizer. But the cost to society of the pollution resulting from using such a very inefficient form of fertilizer must also be clearly understood.

The Chesapeake Executive Council, EPA and even the Chesapeake Bay Foundation have not addressed this issue seriously, always siding with agricultural interests. Chesapeake Executive Council Directive 04-3 (2004) proposes six “...solutions for reducing nutrient pollution from animal manure and poultry litter.” None of the “solutions” are mandated and some are meaningless, not unlike the “promises” in a previous Chesapeake Executive Council Directive (98-04 in 1998) that have not reduced nitrogen or phosphorus pollution after eight years. In “Assessing the State of Chesapeake Bay Agriculture, 2005” CBF claimed that “...farmers are managing commercial fertilizer more efficiently and substituting manure for commercial fertilizers, a smart move if manure is applied based on careful soil testing.” Based on what is presented below, referring only to practices in Virginia, the reader can judge whether or not using animal waste as fertilizer is a “smart move” if the goal is to improve water quality in Chesapeake Bay. A more thorough discussion and links are posted at www.VaBayBlues.org.

The JLARC report states that 232,000 dry tons of sewage sludge were spread on roughly 50,000 acres in Virginia in 2004, resulting on cost savings for farmers of about \$56 per acre. This tonnage of sewage sludge, more than half of it from out-of-state, is similar to the tonnage supplied to me by the VDH and the Department of Environmental Quality for 2003. The Department of Conservation and Recreation (DCR) quantified the tons of poultry waste and manure land-applied in 2003. Here are the pounds of the three forms of animal waste (dry weight) land-applied in Virginia in 2003 according to the three state agencies. The fractions of the nitrogen in the animal waste and the fractions of the nitrogen not used by crops are from DCR’s “2005 Nutrient Management Standards,” Tables 8-2, 8-3, 8-4 and 9-1, on which Nutrient Management Plans are based. It is presumed that Nutrient Management Plans are being followed, which is certainly true for sewage sludge, but is not true for all the poultry litter derived from out-of-state, either because Nutrient Management Plans are not required or because they are not being enforced.

	<u>Pounds applied</u>	*	<u>fraction N</u>	*	<u>fraction N not used</u>	=	<u>pounds N pollution</u>
Sewage sludge	494,648,000	*	0.02	*	0.45	=	4,452,000
Poultry litter	1,115,268,000	*	0.03	*	0.30	=	10,037,000
Other manure	468,509,000	*	0.03	*	0.50	=	<u>7,028,000</u>
							21,517,000

Approximately 22 million pounds of nitrogen was land applied beyond what was needed to support the growth of crops in 2003, even if Nutrient Management Plans were followed. For perspective, 22 million pounds is similar in magnitude to the 26 million pounds released annually by wastewater treatment plants in Virginia. Not all of the excess nitrogen from biosolids and animal manure reaches waterways. But a significant amount of the excess nitrogen will eventually find its way into local streams, and eventually the Chesapeake Bay.

EPA is now claiming, to nobody’s surprise, that the touted nutrient reduction goals for Chesapeake Bay will not be achieved by 2010. That is because neither EPA nor the states have mandated

that wastewater treatment plants be modernized immediately to reduce nutrient release, but more important, because voluntary agricultural fertilization (cont'd on page 5) **efficiency has not improved significantly watershed-wide. Irrespective of claims that "...farmers are managing commercial fertilizer efficiently...", the Bay acreage covered by submerged aquatic vegetation has not increased significantly and the volume of Bay water in the summer "dead zones" has not decreased. Water quality is not improving. It has been known for one-third century, since the EPA's original Chesapeake Bay study in 1983, that agricultural practices are the largest source of nitrogen and phosphorus pollution of Chesapeake Bay. The land-application of animal waste is the most egregious and easily addressed source of agricultural pollution.**

Even conventional fertilization using chemicals rather than animal wastes causes a great deal of pollution. Worldwide, the Nitrogen Use Efficiency of cereal crops is estimated at approximately 42 percent according to a well-referenced article in the 1999 Agronomy Journal (Volume 91, pages 357-363). In Northumberland County, the NUE is better. The average yield for corn is 130 bushels of grain per acre and 130 pounds of chemical nitrogen fertilizer (usually ammonium nitrate) is typically applied per acre to grow the crop. A bushel of corn weighs 64 pounds and contains about 15 percent moisture and 1.5 percent nitrogen on a dry-weight basis. This means that about 106 pounds ($130 * 64 * 0.85 * 0.015$) of nitrogen is removed from each acre of the field with the grain so that the Nitrogen Use Efficiency in Northumberland County is about 82 percent ($106 / 130$.) What happens to the other 24 pounds ($130 - 106$) of N? Some is converted to nitrogen gas, and some is intercepted by wetlands and riparian buffers, but a significant portion ends up in local streams. The bottom line is that even chemical fertilization, under the best of circumstances, is "leaky" and typical single-application rarely releases less than about 1/4 of the applied nitrogen to the environment

When animal waste (poultry litter, manure or municipal sewage sludge) is used as fertilizer, pollution is greatly increased because about half the nitrogen is not "crop available." Approximately twice as much nitrogen is land-applied using animal waste as would be applied using conventional chemical fertilizer, to grow exactly the same crop.

I observed the land-application of sewage sludge in Northumberland County in March of 2004. Based on the submitted Nutrient Management Plan, 24,770 pounds of nitrogen were spread on 72.4 acres in accordance with Table 9-1 in DCR's "Nutrient Management Standards." If chemical fertilizer had been used, 7,431 pounds of nitrogen would have been applied. Lime-stabilized sewage sludge is applied on the basis that 30 percent of the nitrogen is crop-available the first year, 10 percent the second and third years, and 5 percent the fourth year. Fifty-five percent of the nitrogen is presumed to be crop-available over four years. The nitrogen application rate is determined by dividing the chemical fertilization rate by 0.3, or the amount of nitrogen available to the crop the first year ($24,770 = 7431 / 0.3$). This specific application to 72.4 acres caused at least 11,000 pounds of nitrogen (more than 2000 50 pound bags of 10-10-10) to be applied with no benefit for the crop.

Farmers know that roughly twice as much nitrogen is applied using animal waste as would be applied using chemical fertilizer, to grow exactly the same crop. As long as the land-application practice is sanctioned, or even promoted, how can we expect farmers to voluntarily apply Best Management Practices (BMPs) such a split fertilizer application and unfertilized winter cover crops, which reduce their profits, and which increase Nitrogen Use Efficiency less than the inefficiency involved in the use of free or inexpensive animal waste? The specific fate of the excess nitrogen applied when animal waste is used as fertilizer (denitrification, ammonia volatilization, NO_x release, etc.) as a function of soil type, rainfall, etc., and the amount of the nitrogen consumed by riparian buffers can be studied forever, and although interesting scientifically, scientific uncertainty is not a reason for inaction. There is no getting around the simple fact that conventional chemical agricultural fertilization is far from 100 percent efficient, and can be improved significantly. If the amount of nitrogen applied to the land is doubled to grow the same crop by using animal waste, the pollution is increased.

Everyone must recognize that the cost savings involved in the land-application of animal waste for poultry-growers (and poultry-purchasers), a few farmers, and the profits of the land-application industry come at an immense cost to society in the form of massive and unnecessary pollution of lakes, rivers and Chesapeake Bay. Pollution resulting from land-application is quantitatively ignored in the JLARC report and submerged in verbiage in favor of agriculture by the Chesapeake Executive Council, EPA and CBF. I doubt that politicians would be elected if they advocated the existing government policy that "Continued profits for special interests (poultry growers, land-appliers and a few farmers) are more important than improving water quality in Chesapeake Bay." Until people demand an end to cheap but highly polluting agricultural fertilization practices and are willing to shoulder the economic consequences for less polluting alternatives, resulting in more expensive poultry and

food grown with mandated BMPs, there can be no significant improvement in water quality in Chesapeake Bay. Water quality in Chesapeake Bay cannot improve until the major source of pollution, agricultural fertilization, is addressed meaningfully. ☺

New Ideas and Upcoming Projects

Out-door Classrooms

By LYNTON LAND

As the nature trails behind the schools have developed, we decided to build two pavilions or "outdoor classrooms", one near the elementary school above the beaver pond, and later, a second one near the new school. The Chesapeake Bay License Plate Fund has granted \$7,000 to the school for construction materials, and NAPS has offered to make up any shortfall. So we will need some help next spring! The first step is to dig footings for posts. Ten footings are needed and we can probably use the school tractor to dig the holes, 2 feet square and 2 feet deep. After putting reinforcing bars in place, concrete will be poured about a foot deep. Then round forms will be cut to the correct length, placed over the protruding reinforcing bar, topped with anchor bolts and then filled with concrete and backfilled. The anchor bolts will support plates to which 6x6 pressure-treated posts will be attached, and connected with headers and wind bracing. Then, prefabricated trusses will be erected and a standard ply/paper/ shingle roof built. If anybody has suggestions for improving on the design (signed off by a qualified engineer), please contact Lynton Land at 453-6605. More important, if you can help this spring, even if it only means helping to carry material in to the site, please volunteer. We plan to have construction finished in time for fall 2007 classes, and then seek funding for a second structure.

...And as long as we're talking about the new school...

...The floor plans for the new school are available on the school division's website (www.nucps.net) and plans for the exterior of the building should be up soon. The architects on the project have worked to design a building that is unique to Northumberland County, one that incorporates features of our local architecture and nautical heritage. The School Board and Superintendent welcome the input from the community as we continue to work on this. Here is a recent, but hardly final, building design. ☺



Free Light Bulbs – a NAPS Environmental Experiment

By LEE ALLAIN – 1/6/06

Participants: First 200 Interested Households in Northumberland

Would you like to help the environment (and yourself) by performing an experiment?

Over the last couple of years, small fluorescent light bulbs that replace old style incandescent bulbs have come available on the market. You have probably seen the strange looking helical bulbs. The 60-watt *equivalent* bulb uses only 13 watts, about 25% of the power required by a true 60-watt incandescent bulb. The fluorescent bulb lasts about 8000 hours, or about 8 times the life of the typical incandescent that only runs for about 1000 hours. It also runs cooler. The electricity makes light, not heat.

Yeah, but it costs more – right? Well, the initial investment is a little more, but you can save money pretty quickly too. The cost of these 60-watt light bulbs at many hardware stores has gone from almost \$10 to about \$1.65 a bulb. Incandescents are inexpensive, at near 25 cents a bulb. At 1000-hour life though, incandescents pop like popcorn. 1000 hours is only 42 days for the bulb that is on all the time in your hall or closet. Just the annoyance of having to replace that bulb all the time is also “cost” to you, but we will not add that to our calculations. The fluorescent, at 8000 hours, will last almost a year (333 days) in that same hall or closet. The eight incandescents that you might have used would have cost you \$2. You have saved 35 cents just on bulb cost in about a year. Not only that, but you have saved most of the electricity cost as well. It costs about 60 cents to power an incandescent bulb for 1000 hours. The equivalent fluorescent only costs 13 cents for the same time resulting in a savings of 47 cents for every 1000 hours. Over 8000 hours that savings becomes \$3.76. Add that to the 35-cent original savings and you are now at \$4.11 total savings in a little less than a year (333 days). Factored to a year, that becomes about \$4.50/year. Multiply that times the number of bulbs burning in your house, and you start to make this all worthwhile.

If you only burn bulbs in the evenings, say for 5 hours a day, then the fluorescents will seem to last for ever. Actually, on average, they will last more than 4 years as nighttime lighting, rather than the six months of an incandescent.

Reduced power means reduced environmental impact. Your power plant has to generate about 400 kwh (kilowatt hours) less each year for each light socket filled with a fluorescent normally left on in your home. With a 1000 of your neighbors, that equates to 400,000 kwh or 400 mwh. That translates directly into oil or coal not burned and reduced air pollution. The actual savings in energy over a year from only 1000 sockets is equivalent to 235 barrels of crude oil or 66 tons of coal. Since air pollution is a major pollution source to the Bay and the carbon dioxide released is a direct contributor to the greenhouse effect, this ultimately improves Bay water quality and reduces the potential for global warming.

Using fluorescent bulbs in your home seems like win, win, win. Help us determine the facts. NAPS is providing FREE 60-watt (*equivalent*) fluorescent bulbs to the first 200 households who sign up. Bulbs will be available at the NAPS Annual Meeting scheduled for 2/10/07 at St. Stephens Church in Heathsville and all subsequent NAPS events. What are the issues? Sign up for a free bulb and tell us. When your bulb burns out, shoot us a note with your comments at NAPS, Box 567, Heathsville, VA 22473 or send an e-mail to lralla1n@crosslink.net . We will publish representative comments and results in the NAPS News. ☺

(The article on pages 4 and 5 was published in the *Bay Journal*, a monthly newspaper published by the Alliance for the Chesapeake Bay. It is available free, and is a "must" if you want to keep informed about Chesapeake Bay issues. To subscribe (a good use of your tax dollars through EPA) email: subscribe.bayjournal@earthline.net or write the *Bay Journal* at P. O. Box 222, Jacobus PA 17407-0222. It is also available on-line at www.bayjournal.com. If you are interested in some Bay-related topic, a good place to start is to search the *Bay Journal* web site for an article on the topic of interest.)

Things to Think About

Groundwater is on the table again

By LYNTON LAND

The legislature decreed that water supply plans must be formulated, and the four counties of the Northern Neck and municipalities have banded together, with the help of the Northern Neck Planning District Commission, to formulate a plan. Rev. Gayl Fowler, Dr. Frank Fletcher and I are advisory members of the committee. The process is just beginning, but I have advised the committee that I believe the plan should have three goals:

1) First and foremost, the artesian aquifer must be managed more seriously. The Groundwater Management Area that encompasses the southern part of the Virginia Coastal Plain must be extended to include the Northern Neck. It must be recognized that depletion of the artesian aquifer is caused more by withdrawals outside the Northern Neck than by use within the Northern Neck. The profligate water users, especially the paper mill at West Point, must be addressed. The mill withdraws 20,000,000 gallons of artesian water each day, enough for 200,000 Virginians at a typical usage of 100 gallons per day. That means that every day the paper mill operates, 200,000 Virginians will be out of water at some time in the future. To the north, Maryland uses much more artesian water than Virginia and wells in Virginia have already gone dry as a result (www.napsva.org/va_dry_wells.htm). The USGS and DEQ will likely be installing a monitoring well network in the near future, but we desperately need more monitoring wells as there are only two in the entire Northern Neck. If anybody knows of a deep artesian well that is being abandoned, PLEASE contact Lynton Land at 453-6605 immediately. If the well is appropriate it can be added to the network with no possibility of contaminating a replacement well, and saving the owner the expense of abandoning the well according to Health Department requirements.

2) A second, important thrust is to advocate the use of shallow, large bore wells, which can provide a safe and sustainable source of potable water for scattered homes. Working with SAIF water, Frank

Fletcher and I are working on new criteria for installing a well so as to prevent bacterial contamination. Current requirements by the Health Department are not, in our opinion, adequate.

3) And finally, reservoirs will eventually be necessary and planning should take place now for their construction. In both Northumberland and Lancaster Counties the demand for potable water is on the shorelines of the Potomac and Rappahannock Rivers, and especially on the Bay. But the best reservoir sites are in the center of the "Neck." This means that the reservoirs must be connected. Connections between reservoirs along highway corridors could initially serve public and private water supplies, and large developments further removed from the corridors could be supplied as the situation warrants. Just as we can never supply sewage treatment to all scattered homes, we can never supply reservoir water everywhere. Many homes will need to continue to rely on artesian water or on shallow wells, and the best we can do is to reduce the demands on the artesian aquifer as soon as possible and as much as possible. This is also the reason that the profligate water users must be addressed now and the use of shallow wells promoted. ☺

Cluster Housing –Conservation Design

By LEE ALLAIN – 1/6/07

In context with the new Comprehensive Plan, the Northumberland Board of Supervisors has decided to start first in 2007 with renovation of the zoning ordinances concerning cluster housing. This article is provided as a short refresher on that issue.

When Ed McMahon was here, back in September of '04, he talked about how everybody wanted to live on a golf course – without the intrusion of golf balls. He recommended what he referred to as 'conservation design'. Others have referred to it as 'green/green design' and even 'incentive design'. 'Green/green' refers to first its environmental values, and second to the fact that development costs are reduced and value of real estate is enhanced so that developers make more money. 'Incentive Design' provides an incentive for developers by allowing the number
(cont'd on page 9)

of units constructed and sold to increase somewhat beyond normal density as the percentage of green-space is increased. In its simplest form, this approach involves "clustering" homes in any development so as to leave 50% to 70% of the land green, undeveloped and under Conservation Easement – an imaginary golf-course-like environment. The number of dwellings, under incentive design, may exceed what the classic Northumberland 2 acre grid-square layout provides, but the value of 50% or more green area is inestimable.

Currently, most development in our county proceeds along a conventional path. A site plan is eyeballed and roads set in place that access all possible lot locations. Then the land is divided up in traditional checkerboard fashion that consumes all but un-developable "common" area. This results in a sprawl that consumes conservation landmarks, and affords no respite to wildlife, the environment, or even the local homeowners.

When Mr. Arendt, the author of "Growing Greener: Putting Conservation into Local Codes," was here in June of '06 he talked many of us through a 4 step process of Conservation Design. He argued that the first action always should be a walk-thru of the property under consideration for development by the Board of Supervisors. At issue here is gaining an on-the-ground appreciation for the special features and conservation issues at the site. Hills and streams, meadows and old growth forest and trees, cemeteries, historical markers, access, existing structures – all may influence Conservation Design of the property. Providing the developer feedback on what is deemed worthy of conservation is an important early design factor.

Mr. Arendt recommends turning the conventional process on its head by starting with features and views to be preserved and placing roads near the end of the process. He recommends that at least 50% of the land be left green and preserved in a conservation easement. To this end, Mr. Arendt has developed a 4-step process for Conservation Design.

- 1) Identify the conservation areas. (Embed a BOS walk-thru in the ordinance.)
- 2) Site homes backing to woodlands or hedgerows and fronting to common meadow, field or marsh areas.
- 3) Align streets and footpaths through the open space to connect the neighborhood.
- 4) Plat the home lots so that, in total, they consume not more than half the buildable site space.

Taken with the conservation area, the desired overall density is achieved. The result is an attractive park-like (OK – golf club-like) setting where houses sell faster at premium prices. Still, costs are minimized since road, electric, water and sewage lines are minimized. In some communities with forward thinking, planning ahead has resulted in interconnected greenways and footpaths between developments that run for miles.

Mr. Arendt advocates setting a dwelling density consistent with a lot size less than one half that size. For instance, one-half to one acre maximum lot size with a density not to exceed one dwelling per every two acres meets his criteria. The extra acres that accrue because of the difference between desired average density and maximum lot size provide privacy and extra value to the entire community. It also leaves space for trails and wildlife habitat.

Mr. Arendt goes one step further. He advocates this form of green space development be “by right” in the zoning regulations. He recommends that any developments using the standard lot checkerboard layout be subjected to conditional use review.

If you wish a more complete discussion of Conservation Design, go to www.greenerprospects.com, or purchase one of his books. When Mr. Arendt was here, several developers and real estate people were heard making positive comments. One said: “we have finally figured out why so many people who don’t play golf buy homes on golf courses!”

Conservation design – environmentally sound, high quality-of-life housing with an economic kick – is surely the way for Northumberland to go. ☺

NAPS Education Committee at Work in the High School.

By SUE LINDSEY

Every year, NAPS awards scholarships to college bound seniors from Northumberland High School. In 2006 the scholarships were increased from four to five; five will be offered again in 2007.

Traditionally, this is the time of year for most seniors to start working on college applications. They need to be made aware of the variety of scholarships available, the time-line required by the application process, and the specific focus of each scholarship. For the last couple of years, members of the NAPS Education Committee have gone into the school and met with the seniors in an attempt to encourage them to apply for college and to suggest strategies for financing on-going education. This year, two such sessions have again been planned. In late November, NAPS Director and School Board member Myrtle Phillips was instrumental in bringing two distinguished academics, Dr. Kimberley Phillips of the College of William and Mary and Dr. Nanette Smith of J. Sargeant Reynolds Community College, into the High School to discuss with the seniors in the Beta Club the scholarship application process and approaches to financial aid. On January 29, two of the NAPS scholarship interview team, Susan Stubbs and Joe Thompson, will go into each of the Government classes to meet with all the seniors to talk with them about “Life Skills”. Joe will review the interviewing process and Susan will discuss ways students can enhance their prospects by creative networking, such as how to ‘open and close doors’. In previous years this approach has been very effective,

as it gives the students a fresh perspective and some new insights on how they can help themselves to achieve their ambitions. By offering guidance on interviewing and life skills, the NAPS team seeks to show students how they can utilize various activities to enhance their resumes and promote their eligibility for specific scholarships, such as those offered by NAPS.

The NAPS scholarships give preference to those students whose extra-curricular activities demonstrate both their desire to conserve the ecological well-being of our County and an awareness of environmental issues. While last year’s applicants demonstrated a high level of academic excellence, impressive community involvement and were thoroughly deserving of their awards, it was somewhat disappointing that only five members of the senior class completed the application forms and participated in the interview process. The Education Committee hopes that these sessions will inspire more students to apply for the NAPS scholarship.

Last years winners of the NAPS scholarships have now all moved on to the next phase of their education and their lives. The NAPS Education Committee and all members of the organization extend every best wish to Mercer V. Basye II, Veronica Hart Brennan, Colin Christopher Smith, Leanne Watrous and Amanda Marie Wilkins. The 2007 applicants will soon be preparing to follow them in the pursuit of further learning and new careers. ☺



Just for your information -- Membership, for the year ending in 2006, stands at 205 addresses, 7 of these are businesses, 57 are individual members, and 119 are family memberships. Of these addresses, 19 are at the Sustaining Level and three are at the Patron Level. Within the 205 addresses, 15 are new. We lost 37 membership addresses for various reasons; seven more than last year. Sadly, six members of long standing passed away during 2006, as well.

NAPS 2007 Calendar

The NAPS Board meets at the Northern Neck State Bank in Burgess at 9:00 a.m. each month on the Wednesday immediately preceding the Northumberland Board of Supervisors meeting (second Thursday). NAPS members and prospective members are always welcome. Join the group and find out about NAPS' accomplishments.

- February
 - 7 NAPS Board Meeting
 - 10 NAPS Annual Meeting
- March
 - 7 NAPS Board Meeting
- April
 - 11 NAPS Board Meeting
- May
 - 8 NAPS Board Meeting
- June
 - 12 NAPS Board Meeting
- July
 - 10 NAPS Board Meeting
- August
 - 9 NAPS Board Meeting
- September
 - 11 NAPS Board Meeting
- October
 - 10 NAPS Board Meeting
- November
 - 13 NAPS Board Meeting
- December
 - 12 NAPS Board Meeting

Officers & Board Members
 Northumberland Association for Progressive Stewardship
 P. O. Box 567, Heathsville, VA 22473

NAPS Officers

President	Lynton Land	453-6605	jandl@rivnet.net
V. Pres.	Steve Tallent	453-6832	talent@crosslink.net
Secretary	Shirley Smith	580-8911	sss@haloisp.net
Treasurer	Bob Holley	580-4090	reholley@rivnet.net

NAPS Board of Directors

Terms expiring 2/2007

Lynton Land	453-6605	jandl@rivnet.net
Lee Allain	529-5491	lralla1n@crosslink.net
Robert Holley	580-4094	reholley@rivnet.net

Terms expiring 2/2008

Tommy Tomlin	580-7112	tommytomlin@rivnet.net
Susan Lindsey	580-4137	Kingdon@keyisp.net
Steve Tallent	453-6832	talent@crosslink.net

Terms expiring 2/2009

Susan Stubbs	580-4110	stubbs@crosslink.net
Mike Ahart	580-9289	mikeahart@riversbay.com
Myrtle Phillips	580-8097 ...	myrloo@keyisp.net

NAPS News Editor

THINGS TO DO –

- 1 – Attend the NAPS Annual Meeting on February 10**
- 2 – Read the NAPS Newsletter to find out about important issues and projects in which NAPS is involved**
- 3 – Plan to get actively involved in NAPS and the County happenings**
- 4 – Attend the Board of Supervisors Meeting on the second Thursday of each month**
- 5 – Go on a long and fun-filled vacation!!!!**

MEMBERSHIP APPLICATION

Name(s) _____

Address _____

City _____ State _____ Zip _____

Phone (____) _____ Fax (____) _____

E-mail _____

Membership Category * (check one):

- | | |
|--|--|
| <input type="checkbox"/> Individual \$15 | <input type="checkbox"/> Sustaining \$100 |
| <input type="checkbox"/> Family \$25 | <input type="checkbox"/> Patron \$250 |
| <input type="checkbox"/> Student \$1 | <input type="checkbox"/> Business \$ _____ (min. \$50) |

Please fill out application,
cut page at dotted line,
place into No. 10 envelope
with a check made out to
"NAPS," and mail to:

NAPS
P.O. Box 567
Heathsville, VA
22473

*(Please pass this
application along to
interested parties.)*

I would like to participate in:

- _____ Adopt-A-Highway
- _____ Environmental Education
- _____ Finance
- _____ Fund Raising
- _____ Grass Planting
- _____ Monitoring County Boards
- _____ Membership
- _____ NAPS Exhibits
- _____ Phragmites Problems
- _____ Publicity and Newsletter
- _____ Special Events Coordination
- _____ Any Project Assignments
- _____ Other _____

*Internal Revenue Service has determined that NAPS qualifies as a tax-exempt organization
under section 501 (c) (3) of the Code. As such, dues and contributions to NAPS may be deductible by donor for tax purposes.*