

# NAPS News

Northumberland Association for Progressive Stewardship  
"Northumberland is going to grow. Let's help it grow with order and beauty."

Fall 2014

Volume 23, Issue 4



## Welcome to the Fall Issue of NAPS News. Here's what's inside:

**Ida Hall Named 'Highliner' Waterman.** NAPS Board member, Ida was recognized as "a respected voice for Virginia watermen." But we already knew that! » » »

**NAPS Presents Distinguished Citizen Award.** Sue Lindsey advised that small contributions add up in the community.

**Drones in our Future?** Thanks to a gift from NAPS, the future is now at Northumberland High School, Lee Allain reports.

**NAPS Earth Day Event Progresses.** Saturday, April 18, 2015 is the day at the Tavern Farmers Market. Put on your running shoes for the 5K race.

**NAPS Endowment Details.** The endowment will provide long-term funds for scholarships at the Northumberland High School, Greg Haugan reveals.

**So You Want to 'Go Solar'** Lee Allain describes cost factors, deterrents, and positive payback from installing solar energy systems.

**Climate Change in Virginia.** Read Dr. Greg Haugan's review of a book that focuses on the Dominion State.

**CCL Update.** Greg Haugan covers five aspects of events of importance to the Citizens Climate Lobby.

**Help Wanted: Light Highway Work.** Boy, do we need help, says Janice Mahoney looking back on the October 29 highway clean up.

**Financial and Membership Reports.** As of November 29, NAPS is minus \$431.11. Membership is holding steady.

**Memo from Bill.** NAPS President Bill Estell comments on all things considered. (Sorry NPR.)

**You do not see NAPS napping.**

**To keep up with NAPS on a regular basis, check out our web site: [www.napsva.org](http://www.napsva.org).**

- Jay Walker, Editor

## NEWS

### Ida Hall Honored

By Jay Walker

The citation reads: "...over time, as she's consistently spoken out at public hearings and meetings regarding commercial fishing issues and worked to improve the industry,

she's become a respected voice for Virginia watermen." That person is Ida Hall, named one of three 2014 "Highliners" by National Fisherman magazine, the nation's largest trade publication for commercial fishing.

As an active member of NAPS, a board member, and our secretary, we know Ida as a voice speaking out against environmental destruction in the Bluff Point development plan. The magazine's focus was on Ida's first love – fishing on the waters of the Bay.

Among her achievements, National Fisherman Field Editor Larry Chowning reported, "In 2002, Hall was appointed to the Potomac River Fisheries Commission, which regulates Virginia and Maryland recreational and commercial fisheries on the river's main stem. Her willingness to advocate for her beliefs led to her appointment as the first woman from Virginia to serve as an at-large representative to the commission. This year she was named its chairman."

In Chowning's summary of the award, Ida said, "Personally, I don't think the majority of the people love our coast and our waterways enough. I believe it will be the passionate voices of the Chesapeake watermen

and fishermen nationwide who love the water and working on it, who will demand that our workplace be productive, clean, profitable, and sustainable."

The magazine pointed out that Ida has advocated a united front of watermen, rather than the traditional go-it-alone attitude. Over her years of working on Jarvis Creek in her 16-foot skiff, she has come to realize "that the Chesapeake Bay was not isolated and definitely not protected from the rest of the world."

To send congratulations, you can email her at: [ida@northernneck.com](mailto:ida@northernneck.com).



*Doing what she loves most, waterman Ida Hall received the top honor from National Fisherman magazine – the 2014 'Highliner' award.*

*Photo by Larry Chowning*

## NEWS

**NAPS Presents Distinguished Citizen Award***By Jay Walker*

In accepting the 2014 Distinguished Citizen Award (DCA) presented by NAPS, Susan Lindsey said that this award recognizes the small contributions to our community that add up. The presentation came at the annual NAPS Fall Social, Saturday, October 18, at the Bay Quarter Shores Club House.

Presiding at the ceremony, NAPS President Bill Estell said that the DCA is in recognition of Lindsey's contributions in conservation and education, adding, "Over a decade before STEM became a program, she started SUMS – Students Using Math and Science. She is a teacher." He presented Lindsey a dedication plaque enumerating her contributions.

"I'm not in the same league with the previous honorees you see here,"

Lindsey said. "It just proves that if you stick around in Northumberland County for long enough, dabble in a sufficient number of activities, you too can be distinguished!"

To support her point that small can turn out to be big, Lindsey told a story which she called, "A bit of a saga of Northumberland County volunteer activity." The story started some 12 years ago when she volunteered to teach English to seasonal Hispanic workers in the seafood industry. There were two memorable students, a mother and daughter. The daughter had left her little girl, Brenda, back in Mexico, but showed photos every week until Lindsey got to know Brenda's face.

Jump some five years, she said.

In a program started by a "nice lady" tutoring Hispanic third graders, Lindsey recognized Brenda, who turned out to be lively, bright, and energetic. Now fast forward seven to eight years to a NAPS scholarship interview. In comes a poised young lady, articulate, speaking faultless English, accent-free – it's Brenda, who was now living in Northumberland County.

"She gave us a lecture on improving water quality in the Chesapeake Bay and said she was planning a degree in environmental sciences. We gave her the scholarship," Lindsey recalled.

Jump to 2014 when an article about her NAPS award appeared in the local press. She got a call from "the nice lady" who started the third grade tutoring class and had kept in contact with all the children.

"She found me after 10 years to congratulate me. She told me Brenda will graduate next year, had a full tuition scholarship and will graduate with no debt," said Lindsey. "Along the way we can all effect people's lives, you make a difference."

She concluded, "Having received more phone calls, emails, cards, people stopping me in the street – it's been lovely. And whoever is the recipient of next year's award, I'll be the first in line to send congratulations. It made me feel good even if I don't quite deserve it. Thank you."

***Distinguished Citizen Award recipient Susan Lindsey***

***told the NAPS Fall Social audience a story about how doing small things add up to important community contributions.***



***Wonda Allain poses with the wonderful Fall Social Decor provided by The Chesapeake Bay Garden Club.***



***NAPS President Bill Estell presented a plaque honoring Distinguished Citizen Award recipient Susan Lindsey.***



## EDUCATION

**Drones in our Future?***By Lee Allain*

As many of you know, our country has launched an initiative toward boosting student participation in STEM (Science, Technology, Engineering and Math) topics. Years ago our country was #1 in technology. Russia's launch of Sputnik in 1957 ignited an unprecedented burst of "STEM" activity in our country. Students with an inclination toward science and math were quickly drafted to become engineers and scientists. Unfortunately, since that early time, we have dropped to #36 among world nations.

Recognizing STEM education as a linchpin of our country's future, NAPS, over the past 5 years, has been participating with Northumberland schools toward increasing student interest in Science and Math.

On the 14th of October, NAPS presented a fully functional Parrot QuadCopter/Drone to the high school as part of a continuing program to inspire students toward STEM related careers. Instructors Sgt. Lemon and Javornda Ashton will work together to provide appropriate guidance to both ROTC and Math students. Students will learn to fly and operate the various features of the drone, along with learning about the science of flight in the real world.

This French-made machine has incredible capability. It is controllable using any smartphone out to a range of about 165 feet. It has a lithium ion rechargeable battery that will sustain flight for about 10 minutes, and is equipped with removable training bumpers so as to minimize crash impacts with walls and people. It features live HD video cameras pointing ahead and down with video presented on the phone controller. With its various gyro, accelerometer and magnetometer sensors, it will hover station-



**Math teacher Javornda Ashton and ROTC instructor Sgt. Lemon examine the QuadCopter/Drone given to the high school by NAPS.**

ary in space in up to a 15-mph breeze. Yes, and all parts are replaceable/repairable. A plethora of information and contacts with other 'pilots' is available on the internet.

Not that anyone was excited, but by the afternoon of the 14th, school instructors had the drone in the air in the gym. You may have seen a photo in flight in a recent *Rappahannock Record* edition.

Again, this is part of a continuing collaboration of NAPS with Northumberland Public Schools to rev up student participation in the science behind technologies (and rewarding careers) of the future. Recognizing that interest in Science and Math does not start in high school, NAPS also worked last summer to provide an oppor-

tunity for elementary-grade students in the Extended School Program to 'play' with LEGO blocks to develop their 3-D thought processes as they did some early 'structural engineering.' This spring it is planned that NAPS will continue its STEM outreach by funding a simple robot – perhaps the LEGO robot or equivalent. High school staff, Jessica Simmons and Rachel Hall, plan to spearhead this project.

Scientists and engineers are key to meeting the societal needs and challenges of our country's future. Our goal is to launch students with STEM interests into careers where they can invent tomorrow's technologies - to be part of a generational team bringing the USA back to #1.

## ENVIRONMENT

**NAPS Earth Day Event Progressing***By Greg Haugan*

NAPS is planning a special Earth Day Event on Saturday, April 18, 2015, in combination with the first Farmers Market next to Rice's Hotel/Hughlett's Tavern. Please mark it on your calendar.

The Event will start off with a 5K race at 8:00 a.m. followed by a kids race at 9:00 a.m. Enter the race now by going to the NAPS web site at [www.napsva.org](http://www.napsva.org) and follow the instructions. If you are not a runner, you can walk the course or simply be a sponsor by entering the race on-line.

The proceeds of the race will go to the NAPS Endowment, to the Library, and to the Rice's Hotel/Hughlett's Tavern Foundation. It is

the 45th anniversary of the Earth Day celebration which promotes environmental awareness. It reinforces our commitment to protect the environment of the Northern Neck as well as our Earth.

We expect to have a large number of environmental organizations with booths and activities, and also it is the day for the annual Wine Fest sponsored by the Tavern at the Farmer's Market. We need volunteers to help with the race and the other activities. Please contact Bill Kirby ([wkirby@wildblue.net](mailto:wkirby@wildblue.net)) if you can help with the race or Greg Haugan ([greghaugan@gmail.com](mailto:greghaugan@gmail.com)) for other Earth Day activities. We also need sponsors to help defray the costs and to increase the amount provided to the NAPS Endowment.

## ECOLOGY

**CCL Update**

By Dr. Greg Haugan

Since the last newsletter there has been a lot of action in the climate change arena. Our ranks are growing and we invite all NAPS members to attend our meetings in the evening of the first Tuesday of each month at the Northumberland Library starting at 7:00 p.m. Five items are of particular interest:

**1. EPA Rule.** The EPA has issued a proposed rule to limit the emissions from power plants. This is a good step in the right direction and what is unique is the fact that the states are given four different alternatives to be used individually or in combination to achieve the targets set for each state. They are also being given a long time period in which to reach the goals. While CCL supports this regulatory plan, we prefer the free market approach where a price is put on carbon emissions and the revenues are all returned to households. The carbon price increases annually and organizations and persons will change behaviors as fossil fuels become more expensive and alternative renewable sources become more cost-competitive. Studies have shown this creates jobs and increases GDP while lowering harmful emissions.

**2. China.** China agreed it would cap and start to reduce emissions no later than 2030, a remarkable commitment for a nation with more than four times the population of the U.S. and one that is undergoing the most explosive industrial growth in the history of civilization. China is trying to increase the standard of living of its citizens and that takes energy and coal is the cheapest source. China is already implementing emission mitigation plans and is expected to beat the 2030 target.

With the United States and China striking a deal to reduce greenhouse gas emissions, Congress has finally run out of excuses for its failure to act on climate change. Whenever talk of solutions has surfaced on Capitol Hill, opponents trotted out the dubious talking point that it didn't matter what America might do to cut emissions as long as China, the world's largest emitter, remained on the sidelines. This significant action by the U.S. and China is important since it sets a standard for other nations at the UN session in 2015 intended to set worldwide targets to keep total temperature increase under 3.8 degrees F. A difficult

goal to achieve.

**3. Elections.** The recent elections are likely to put several climate deniers in important positions in the House and Senate. The "climate" does not plan on being less disruptive but will still get warmer and more unsettled, the oceans will continue to get more acidic, Greenland and West Antarctica and glaciers will continue to melt, the seas will continue to rise, etc... All we can do in CCL is to keep pushing our message to the members of Congress and to educate the public. Emissions must be reduced and carbon fee and dividend legislation is currently the most promising route to make the world a pleasant place for our grandchildren.

**4. Letters to Editors.** Since our last newsletter, letters to editors have been published by several CCL members: Maureen Fairbrother, Doug Doyle, Judy Lang, Lynton Land, Mike Harwood, Don Phillips, Greg Haugan and Bob Lindsey. This is part of the overall CCL effort to communicate with the public and Congress. Copies of the letters as published are delivered regularly to Congressman Wittman.

**5. Reports:** Several significant reports have been published in the last 3 months: the Intergovernmental Panel on Climate Change, IPCC, Synthesis of three earlier reports that identifies a hard ceiling on emissions that must be met to limit global temperature growth to less than 3.6 degrees F (2 Deg C); the Union of Concerned Scientists, *Encroaching Tides*, that describes in detail the problems of communities on the oceans including numbers of days expected to be flooded over the next 30 years. The Recurrent Flooding Subcommittee of the VA Senate provided an update of the 2013 VIMS Recurrent Flooding Study for Tidewater Virginia in September titled *Recommendations to the Secure Commonwealth Panel on*

**NAPS Calendar**

NAPS Board Meetings are held on the second Wednesday of each month, at 9 a.m. at the Union First Market Bank on Rt. 360 in Burgess, unless otherwise changed.

Jan. 14, Wed..... NAPS Board meeting

Feb. 7, Sat. .... NAPS Annual Meeting

Feb. 11, Wed..... NAPS Board meeting

Mar. 11, Wed..... NAPS Board meeting

Apr. 8, Wed..... NAPS Board meeting

Apr. 18, Sat..... NAPS Earth Day Celebration

May 13, Wed..... NAPS Board meeting

June 10, Wed. .... NAPS Board meeting

*Sea Level Rise and Recurrent Flooding in Coastal Virginia* that focuses on problems in the Tidewater Virginia area and indicates that communities should plan for an additional 1.5 feet of sea level rise and 3 feet of storm surge by 2040 and plan for higher values later in the century; the quadrennial report *Climate Change Impacts in the United States* from U.S. National Climate Assessment Committee that provides regional data on projected impacts of climate change addressing temperature increases, precipitation, storms, sea level rise and the like for Virginia; the Department of Defense published a *2014 Climate Change Adaptation Roadmap* which outlines the actions being taken by DOD to adapt to expected climate changes.

All of these reports and CCL activities recognize that: the climate is changing, it is caused by us, it is bad, but we can do something about it if we act now.

**NAPS MEMBERSHIP REPORT  
NOVEMBER 29, 2014**

The table below presents the current paid-up membership status. We

Member Report	2014
Business	5
Family	67
Individual	44
Patron	4
Sustaining	25
<b>Total</b>	<b>145</b>

have exceeded last year in total but there has been a decrease in family memberships and Patron level – but increases in all other categories.

# BOOK REVIEW

## Climate Change in Virginia

By Dr. Gregory T. Haugan

*Virginia Climate Fever; How Global Warming Will Transform Our Cities, Shorelines and Forests.* By Stephen Nash. Charlottesville and London: University of Virginia Press, 2014.

This book was brought to my attention via an email from Mr. Nash. I acquired it to see if it had more information that was state specific to Virginia than the sections of the National Climate Assessment or the UCS Encroaching Tides report or other recent documents. At first it appeared that it was a well written re-hash of data from other reports, but on closer reading it contains some excellent chapters on sea level rise and the problems and implications for Virginia, especially the Hampton Roads area.

His charts and discussion of sea level rise are totally consistent with data from other reports and he quotes and displays the U.S. Army Corps of Engineers work that basically shows the forecast of a two-foot sea level rise by 2050. He has some nice charts and discussion of forecast temperatures and sensitivity ranges and a description of modeling in an "Oracles" chapter. He includes much material from discussions with knowledgeable scientists in Virginia which adds to the readability.

Nash has a good chapter on recommendations for Virginia. On the negative side, he spends too much time discussing the com-

ments of Patrick Michaels – a climate-change denier funded by the fossil fuel industry – in a chapter on "credibility."

To the author's credit, he has about three pages discussing the Bluff Point development of Thomas Dingleline – what he was trying to do and why he abandoned the project. According to Dingleline: "The world is different today and the knowledge is greater

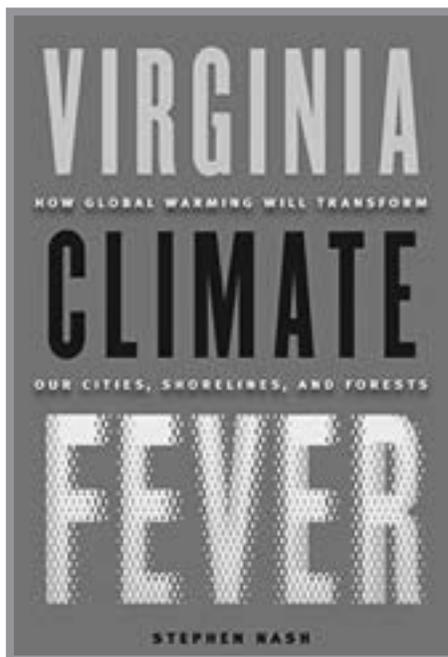
than it was. While I can influence and even control some items, I cannot control what Mother Nature may send our way in the decades to come and while such prospect has no impact on today, it may in the future and thus be a challenge to true long term generational success."

It was indicated in the text that Dingleline was planning on a three-foot sea level rise between now and the end of the century but he could not accommodate any expected storm surge. Most of the estimates for sea level rise to the end of the century are over four feet, plus three or more feet of storm surge.

Stephen Nash has reported on science and the environment for the New York Times, The Washington Post and other specialized publications. He is visiting Senior Research Scholar at the University of Richmond and has taught there since 1980.

I think the book would be a good acquisition for our public library, where you could check it out, read it in a few hours

and return it. Some may want to own it. The title it a good description the contents. You can borrow my copy.



### NAPS FINANCIAL REPORT NOVEMBER 29, 2014

The total NAPS working budget is approximately \$6,000.00. Of that amount, \$3,000 was provided to Northumberland High School scholarships and the \$1,000.00 was spent on two EcoTours for high school-age students as discussed in the last newsletter. (The \$1,000 was donated by Omega Protein last year when these were initially planned.) Since the last newsletter we have provided a drone to the High School as part of our on-going STEM program to introduce the students to new technology. We have also paid some of the up-front costs of the NAPS 5K Race event. Other projects are discussed elsewhere in this newsletter. As shown to the right we currently have \$11,884.44 in the checking account and \$9,112.23 in one CDs plus \$5,685.52 available for matching endowment donations and a total of \$9,695.07 in the endowment account for a total of \$30,691.74. The important number for NAPS operations is the \$6,198.92.

Based on the revenues to date we are running behind on our income by \$432.11 and we are probably going to have to dip into our carryover to balance our budget unless we get additional revenues. The Annual Fall Social was a financial success due to special donations by members – the "Angels." The reason we are overrunning our budget was the fortunate situation of more very highly qualified scholarship candidates, so we awarded two more than our budget of four. It has been disappointing that we have had no one step forward and add additional funds to the Endowment. We have set aside \$10,000 to use as matching funds and are hoping to be able to award even more scholarships next year from Endowment earnings.

Starting Balance 1/1/2014	\$6,631.03
<b>REVENUES:</b>	
Dues	\$5,835.00
Donations	\$205.00
Other	\$17,120.52
<b>Total Revenues</b>	<b>\$23,160.52</b>
<b>EXPENSES:</b>	
Administration	\$981.11
Donations & Scholarships	\$13,000.00
Membership & Newsletter	\$729.25
Events	\$1,998.94
Projects	\$766.31
5K Race	\$431.50
<b>Total Expenses</b>	<b>\$17,907.11</b>
Less CD Residual	\$5,685.52
Current Year Net	-\$432.11
Current Cash Balance	\$6,198.92
<b>Checkbook Balance</b>	<b>\$11,884.44</b>
<b>Other Assets</b>	
CD-NNSB (12/31/2013)	\$9,112.23
Cash for Matching	\$5,685.52
Endowment (WF) (9/30/2014)	\$9,695.07
<b>Total Other Assets:</b>	<b>\$24,492.82</b>
<b>Total Assets</b>	<b>\$30,691.74</b>
<i>Submitted by: Gregory T. Haugan, Treasurer; November 29, 2014</i>	

## ENVIRONMENT

**So you want to 'Go Solar'***By Lee Allain*

More and more people are talking about 'Going Solar' to meet their household needs for electrical energy. Across the country, people are considering rooftop arrays to take advantage of the power of the sun. There are several root causes driving this activity.

**Reasons to 'Go Solar:'** Long-term economic advantage is certainly number one. Over the last few years, photovoltaic solar panels as energy sources have become very competitive with energy from local power companies. Energy costs across the country average about 12 cents/kWh and range from 8 cents in Idaho to 18 cents/kWh in New York. Here in the Northern Neck, it is almost 13 cents per kWh at this writing. A residential solar installation in Virginia, over its lifetime, competes favorably with Idaho. And the average "going rate" across the country is going up. That is, with the cost of infrastructure to support ever-increasing energy needs, the paranoia regarding nuclear, and the EPA closing down coal-fired generation, the cost per kWh continuously climbs.

People who are in touch with needs of the planet, know that moving toward a sustainable, non-polluting source of energy is what all humans should be doing. Fossil fuels continue to add CO<sub>2</sub> to the environment, risking severe climate change consequences. With approximately 1kW per square meter daily flooding our homes and rooftops with energy, (that we then use A/C to combat) it is time to capture that energy to run our households.

Closely related to use of fossil fuel as an energy resource, is the fact that we, according to most, have reached peak oil. That is, we have used half of the oil reserves of the earth. Oil is used for many purposes other than fuel. Its use in lubrication, plastics and fertilizer are less publicized, but equally important. Reserving what is left for our grandchildren is important.

Lastly, residential solar installation results in a society that is robust to power station storm and earthquake damage and even attacks of terrorism. That is, consumer independence is another strong reason to endorse the use of residential solar power. If you have solar power, you can still pump potable water from your deep well and charge your electric car.

Summarizing, there are several compelling reasons to consider the installation of photovoltaic solar in your home. Long-term economics is #1, but right after that come concerns about protecting our environment and fossil fuels for next generations, and building a more robust human community.

**Deterrents to Solar:** One of the major reasons that Solar has not

proliferated is that start-up costs seem high and advantages are over the horizon. Financial instruments deferring up-front costs have not been advocated by our political representatives, marketed by alternative energy companies, or even encouraged by local power companies. Further, Virginia has not "regulated" electric energy suppliers toward alternative energy sources. With little state pressure toward larger percentages of alternative power in their portfolios, power companies are trying to "stay-the-course." This contrasts with states like California that mandate ever-increasing use of alternative energy to power companies while providing homeowner rebates. Although federal subsidies and local "net metering" approaches are available here in Virginia, the front end cost for instal-

lation of an array can be considerable. For instance, to meet the 5kW needs of a typical home, the initial cost per watt will range from \$2 to as high as \$5 per Watt.

**Solar Energy Cost:**

A recent article in the Richmond Times Dispatch quoted local cost at \$3.35 per Watt. That is, the cost is about \$17,000 for an initial 5kW installation, and about \$12,000 after a 30% Federal tax break. However, after initial investment, that array will last for 20-30 years, providing "free" power to the residence. During

that time, value of the residence is increased by about the \$12,000 invested. Total hours of sunlight in this area average around 1,700 hours every year. If one goes through the fairly simple calculation of average cost per kWh over 20 years, you discover that you are way ahead of the game – better than Idaho:

$$\text{Cost/kWh} = \frac{\text{Total Array Cost}}{\text{Total kWh Produced}} = \frac{\$12,000 \text{ Solar Cost} \times 100 \text{ cents/dollar}}{5\text{kW} \times 1700 \text{ hrs/yr} \times 20 \text{ yr Warranty}} = 7 \text{ cents/kWh}$$

As you can see, total energy costs to you from your solar array average well under 8 cents per kWh over array life. In fact, you break even in less than 12 years. What other investment of \$12,000 can you make that pays you back more than \$1,000 per year – better than 8%? If you can lump the \$12,000 array cost into the initial mortgage for your residence, that is a heck of a deal – and the power company cannot raise your rate. Unfortunately, starting from scratch with an existing home, the initial \$17K looks like an insurmountable wall. Several companies like SolarCity offer deals where they install their array on your roof and just charge you a monthly lease fee for providing energy to you – much like the power company, but with a stable cost per kWh. Most are not active yet in Virginia.

**Moving on:** If you want to "go solar," there are several options (*Continued on page 7...*)



## 'Go Solar' ...from page 6

open to you. Number one is to install solar collectors on your roof. If you are thinking of new home construction, now is the time to think about home roof styles and lot positioning so as to best capture sunlight. If you already have a large south-facing roof with no obstructions to the sun, you are in luck. Next time your roof needs replacement, simply install a solar collector. Although solar panels are reasonably tolerant to mis-pointing, they do best pointing south at an angle approximately equal to the latitude of the installation. In Northumberland, that is about 38°.

The most efficient collectors are still solar panels. Many of the top ten suppliers have Chinese names like Yingli, Trina, Jinko, and Hanwha. First Solar is a US company, but focuses primarily on large sales to mega-projects. Sharp and Sanyo (a subsidiary of Panasonic) are, of course familiar as Japanese panel suppliers. U.S. suppliers, Dow and Certainteed and several smaller companies, are now selling solar shingles that can be integrated with conventional shingles to improve appearance, albeit with reduced efficiency and slightly higher cost.

If your house roof faces east/west, or you are located in the shade of trees or other structures, you must think in terms of installing a separate array. Of course, if you are going to install a large roof-like

structure, you should think in terms of adding a new two-car garage, shop, storage area or studio to your property. 400 square feet of roof will provide enough area for most 5kW arrays. I'm going for the new garage/shop.

**A Custom Approach:** Of course I would like to reduce my power bill, but I would also like to have my own power available in case of emergency. I also like the concept of being independent for water, lights, refrigeration, TV and transportation. That's why I'm considering a more custom arrangement to meet my needs. Most of the energy used by our homes is for heating and cooling and hot water. If you have an electric car, that can use as much as 15-20 kWh per charge as well. After that, most needs for water pumps, fans, cook stoves, lights, and TV are fairly modest. To meet "comfort" needs like hot water, home heat and A/C, I am going to stick with Northern Neck Electric Coop and get those large blocks of energy from their grid. For my electric car, and to defray my bill with NNEC, I plan to install a 3kW Solar Array tied into the grid. That is, when not charging my vehicle, it will run my electric meter backward and so reduce my bill. I also plan to install a separate 1kW array with battery backup to provide everyday power for lights, water pump, and refrigeration in my home. When NNEC power goes out, I will still be humming along. That is, I will provide basic utility electricity for myself. If NNEC goes offline, my comfort will suffer with home heat and A/C issues, but I will have lights, refrigeration, fans, water, and TV. Oh, and my electric car will still provide me with transportation. If for some reason my utility solar power source kicks out, I'll have to make a temporary switch to the grid. Solar panels will last for 20 to 50 years, but, unfortunately, batteries do not. I will have to purchase and install new batteries every 5 to 6 years. Three batteries – not a big deal!

Summary: Your wife will never notice that in the process of converting to solar power with its obvious advantages, that you have ended up with a 400 square foot shop. And just wait until she sees the new Chevy Volt.

## ENVIRONMENT

### Help Wanted: Light Highway Work

By Janice Mahoney

The fall highway clean up took place on October 29 along the usual route. The weather cooperated. The regular volunteers did the job. And, boy, are we all ready for some more people to help with the task. One section of Route 200 did not get picked up due to a lack of NAPS participation.

The regulars are: Sue Lindsey, John Lunsford, Jack Yunker, Andy Kauders, Charles Smith, Lynton Land, Hal White, Walter and Kathey Brodman, and Bill Estell. The pick up revealed the usual detritus of people's bad habits, from bottles and cans to Styrofoam galore.

The spring clean up will be coordinated around Earth Day in April. If there are members who want to participate in the highway clean up, please contact me at 580-3154 or at [vervaville@yahoo.com](mailto:vervaville@yahoo.com). It's an easy task, if there are enough volunteers.

## EDUCATION

### NAPS Endowment Details

By Greg Haugan

NAPS has established an Endowment to provide long-term funds for scholarships at the Northumberland High School. We are using funds that were sitting idle plus funds received from the Charlie Fears's estate as seed money. In addition, we have \$10,000 available for matching funds for new donations. For each dollar that is donated up to \$10,000 it will be matched from another source.

Our goal is to reach \$30,000 of principle in the account that will grow as additional donations are received. We plan on using only the interest from this investment for the scholarships. In this way a long term commitment is implemented separate from the NAPS

**SAVE THE DATE: APRIL 18, 2015**

NAPS-SPONSORED EARTH DAY CELEBRATION IN  
CONJUNCTION WITH THE HEATHSVILLE FARMER'S MARKET

-- ACTIVITIES FOR KIDS AND ADULTS --  
MUSIC – ENVIRONMENTAL EXHIBITS – VENDORS  
WITH A SPECIAL EARTH DAY 5K RACE

annual scholarships that depend upon annual dues.

When we reach the \$30,000 level we would expect to provide three \$500 scholarships annually if our proceeds from the principle grow at 5%. So, before your Christmas spending eats up all your disposable income, please send a check to the NAPS Endowment at P.O. Box 567, Heathsville, VA 22473 to help needy high school seniors with college expenses. We will also be using profits from the 5K Race for the Endowment Fund.



**N**orthumberland  
**A**ssociation for  
**P**rogressive  
**S**tewardship

P.O. Box 567 • Heathsville, VA 22473

NONPROFIT ORG.  
U.S. POSTAGE PAID  
HEATHSVILLE, VA  
PERMIT NO. 37



## Memo from Bill

Fall “colors” are definitely in abundance and most are on the ground awaiting raking. The NAPS Annual Fall Social was a huge success with a good turnout of members and guests all of whom enjoyed the remarks of our Distinguished Citizen of 2014, Sue

Lindsey. Bay Quarter Shores provided an excellent venue once again and the Chesapeake Garden Club set the fall tone with dazzling flower arrangements inside and out. A special thanks to all the member volunteers who make this such a special event. And the Angel List was very well supported this year.

NAPS Educational Endowment Fund is now in place with Wells Fargo. Plans for “growing the endowment” and for matching funds are underway. More in the article in this issue.

Plans for the NAPS Earth Day 5K Race as part of the First Annual Earth Day event at the Heathsville Farmers Market on 18 April 2015 are in full swing. Membership in the Road Runners Club of America has been obtained under the leadership of Bill Kirby and Greg Haugan and their race committee. Mark your calendars for a huge celebration of our environment with music, special environmental exhibits, and the Northern Neck Wine Festival. (See separate story.)

NAPS participation in the Land Conservancy’s Boots and Bar-B-Q this year in Northumberland County at the Tribble home Gascony Farm provided an excellent opportunity to bring the NAPS story to many new residents of the county.

Our final NAPS Road Clean-Up led by Janice Mahoney and her Merry Band of NAPSters returned our portion of Hwy. 200 to a pristine condition (at least for a day or two) on 29 October. Thanks to all who volunteered and for those who didn’t but would like to, think about next spring. We’ll be back.

In our continued emphasis of STEM education in the Northumberland schools, NAPS has donated a drone QuadCopter to the

## NAPS Officers & Board Members

### NAPS Officers

President.....Bill Estell..... 580-6609....billestell62@gmail.com  
Vice President.....Lee Allain..... 529-5491....lrallain@kaballero.com  
Secretary.....Ida Hall ..... 804-761-2342....ida@northernneck.com  
Treasurer.....Greg Haugan..... 580-2166....greghaugan@gmail.com

### NAPS Board of Directors

Greg Haugan .....(Term Expires 2/2015)..... 580-2166....greghaugan@gmail.com  
Myrtle Phillips.....(Term Expires 2/2015)..... 580-8097....myrloophil@gmail.com  
Jay Walker .....(Term Expires 2/2015)..... 529-9362....wjaywkr@aol.com  
John Lunsford .....(Term Expires 2/2016)..... 580-2085....jlunsford@hughes.net  
Monty Deihl .....(Term Expires 2/2016)..... 453-4493....mdeihl@omegaproteininc.com  
Bill Estell .....(Term Expires 2/2016)..... 580-6609....billestell62@gmail.com  
Lee Allain .....(Term Expires 2/2017)..... 529-5491....lrallain@kaballero.com  
Ida Hall .....(Term Expires 2/2017).. 804-761-2342....ida@northernneck.com  
Lynton Land .....(Term Expires 2/2017)..... 453-6605....jandl@nnwifi.com

**News Editor**.....Jay Walker..... 529-9362....wjaywkr@aol.com

**Webmaster** .....Mike Ahart ..... 580-9289....mikeahart@kaballero.com

Northumberland High School for use by the JROTC program and the Math Department head for math and science classes. There have been successful test flights and excitement is growing for further development. A follow on robotic educational device is in the works with the Technology Department head. The goal is to inspire more students to engage with Science and Math by opportunities for both learning and fun.

Finally, NAPS’ own Ida Hall (Northumberland’s Water Wonder Woman) was honored with the “Highliner Award” from the National Fisherman Magazine. This prestigious award is well deserved and we are all very proud of Ida.

As always, thanks for your continued support in all of our programs, volunteers are always most welcome.

Best to you and yours,

*Sincerely,*  
**Bill Estell, President**