Fishing for Mercury a Hair-y Experience

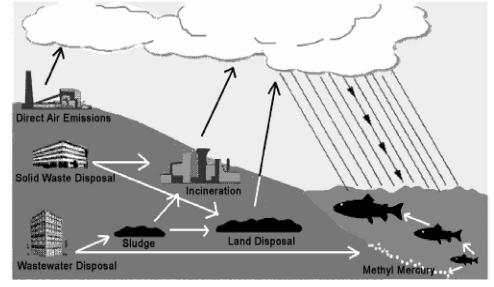
by Linda Hiross

A few of our members took the mercury test challenge this fall and participated in the Greenpeace Hair Sampling Project, cosponsored by the Sierra Club. By testing up to 10,000 hair samples, the project was aimed at calling attention to the unseen dangers to humans, particularly children and pregnant women, of excess mercurv in our environment. High concentrations of mercury in children can cause neurological problems that lead to poor performance in school and other physical impairments.

Although none of our local test subjects received laboratory readings above the 1 μ g/g level of mercury considered to be the upper limit of safety, we were happy to sacrifice our locks and vanity to help increase awareness of the invisible dangers posed by the presence of methylmercury in our environment.

The primary source of mercury contamination in humans is the ingestion of large, predatory fish such as tuna, which are at the top of the marine food chain, and thus contain the largest stores of environmental mercury. The best example of this phenomenon was brought home this past summer, when a record 873-pound bluefin tuna was caught off the Delaware coast. This record-breaking fish

(Continued on page 2)



Mercury Pollution Cycle in the Biosphere

You can Make a Difference

in January!

Reduce Mercury Pollution in Virginia! Page 4

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"A Bridge for John"

UMW students build a bridge and honors a local environmental leader Page 3

We are NOW the Rappahannock Group! New Name, New Energy!

The Executive Committee has spent a good deal of time over the past year looking at how we can do a better job serving our members and community. We took an introspective look at our Group's mission, focus, image and ourselves, as a key environmental voice for our community.

Understanding how we are perceived by our members and our community, acknowledging the positive aspects, identifying priority areas to work on, reaching out, and working together will ensure our ability to devise a plan, promote a vision and work together toward obtaining our goals.

All to often, we have found ourselves thrust into a negative stance of having to react to threats to the

(Continued on page 2)



Sierra Club Websites RGSC:

www.virginia.sierraclub.org/BFG State: www.virginia.sierraclub.org National: www.sierraclub.org

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Newsletter Editor: Available

voting members

(Continued from page 1) "Mercury"

also broke the record for known fish mercury levels, testing in at 2-1/2 times the FDA mercury threshold set for commercial fish before it is removed from the market. In essence, it contained twice the highest level ever found in any fresh or frozen tuna. (*Free Lance-Star*, August 2005).

Although consuming fish is the primary source of mercury toxicity in humans, currently the largest unregulated source of environmental mercury comes from coalfired power plants and other mercury-based heavy industries. The toxic emissions tossed into the air find their way into our streams and rivers, and contaminate the food sources of immature marine life. eventually concentrating in larger fish as they are passed up the food chain. Amalgam dental fillings and occupational exposures play a much lesser but contributory role as sources of human contamina-

The best way to lower your risk of dietary mercury is to avoid mercury-contaminated fish. On the recommended "Do Not Eat" list are Grouper, King Mackerel, Marlin, Orange Roughy, Shark, Swordfish and Tilefish. A listing of fish species that are known to be both high and low in mercury can be found along with specific fish advisories for Virginia residents by logging onto www.epa.gov/waterscience/fish.

But the real point is—why have we allowed ourselves through our own actions and choices to contaminate our own food supply?

Can it be fixed? Yes. It will take time but we must take the steps—the same steps we took when we realized the deadly consequences of DDT in the environment—and did take action to remove it.

See page 4 to see how.....

(Continued from page 1) "Name Change" environment, rather than actually being able to acknowledge what is already good about our community and promote a better vision that is a worthy goal for all to strive for.

A first step was to look at our name, Battlefields, which was chosen when our group was initially founded. Although the name did reflect a predominant feature of the Fredericksburg area, we realized that our sense of place was and is much more than just our civil war heritage. We live in a beautiful area defined and connected by a major river system that is a geographic touchstone to our sense of place, and it seemed only "natural" (pardon the pun) to celebrate this fact.

With this in mind, the Executive Committee voted in October to adopt the name "Rappahannock" for our group, as the Rappahannock is the single most outstanding geographical feature that binds the counties we serve. Our region's destiny is intertwined with our stewardship of the Rappahannock, and the lands that drain into it.

You will be hearing more about other changes we are planning in the coming months. We have chosen a major conservation and recreation campaign theme that will enhance the daily lives of all the members of our community, and which will serve to bind us together in the future. We are going to increase our efforts to better connect with our members on local issues that are directly relevant to them, and finally, we are going to recognize those in our community who have made their own positive environmental contributions.

Stay tuned! We are very excited about our new program year.

"A Bridge for John"

It was with much sadness that we learned of the sudden death of John K. Whitfield this past summer at the age of 82, one of the founding members of the Rappahannock Group (RG), a former group Co-Chair and life-long environmentalist.

John was a retired professor of mechanical engineering, having taught at North Carolina State University for 38 years. John's wife, Doris, also a seminal member of RG, grew up in the Fredericksburg area and served as RG Chair for several years. In addition, John organized park workdays when our group adopted Alum Spring Park and established Friends of Alum Spring Park in 2002. John and Doris shared a love of nature, camping and the "outdoor life" during their many happy years together.

So we all felt that it was especially fitting that on December 1, the new footbridge at Alum Spring Park was dedicated to the memory of John Whitfield, in honor of his heartfelt commitment to numerous environmental causes throughout his lifetime, deep love of nature, and his special fondness for this unique inner-city park. His wife, Doris, attended the dedication ceremony along with other RG members and several University of Mary Washington students who built the bridge. Doris was thrilled to see the memorial plaque installed on the bridge in John's memory. "John would have loved this," Doris said. "It is such a fitting memorial that I can't help but smile every time I think about that dav."

We will all miss John's presence, congeniality and good sense



Top Row (left to right): Kadie Greene, Jenny Thull, Doris Whitfield, Scott Howson, Mike Ford, Ashley Kline and David Younes; Bottom Row (left to right): Ryan Stephonik, Sarah Loy, Emma Clarkson, Suzie Kemper, Abby Lindsay, Bekah Sargeant, and Gretchen Gorecki. Not pictured: Ginger Thull (who took the picture).

Alum Spring Park Volunteer Day

Abby Lindsay, UMW RGSC Intern

Can you think of a better use for a Saturday morning than helping to fix up a local park? I can't! It is easy to let volunteering be eclipsed by other responsibilities, but when the work is done, its value is never lost.

Local groups have been taking an active role in the community, most recently in Alum Spring Park. Just past the cliffs along Hazel Run, a group of 16 worked to rebuild a bridge on November 12th: 3 were members of the Rappahannock Group of the Sierra Club, and 13 were students from the Ecology Club at the University of Mary Washington. All arrived that morning with extra energy, ready to volunteer.

In the weeks leading up to the event, the work plan was laid out. Every year the Ecology Club joins with the RG to help maintain Alum Spring Park. After doing some erosion control last year, both the Fredricksburg City Parks & Recreation Department and the Friends of Alum Spring agreed that this

year a new bridge was a needed project that fit well with our time and labor resources. Dedicating much time, Scott Howson of Friends of Alum Spring Park designed the bridge, pre-cut some pieces of wood, and took the lead with the actual bridge-building project. Abby Lindsay and the Ecology Club worked on the labor and funding resources. They received money from the University, and Parks and Recreation also fronted some capital to enable this project to happen.

The actual work day went through flawlessly. Picture a warm fall day, with the sun streaking down through the leaves of the trees. Alum Spring Park was buzzing with kids playing, families coming for walks, and dogs exploring the park.

For starters, the group tore up the old bridge. It took less than ten minutes (if that tells you anything about the decrepit condition!). Then the assembly of the new wooden bridge took off at record pace. The group worked well together, nailing pieces of the new wooden bridge in

(Continued on page 4)

(Continued from page 3) "Bridge for John"

of humor at our meetings and outings, but we will continue to hear his voice of encouragement as we carry on our mission every time we walk the trails of Alum Spring.

Our thanks to those who made it happen, and to John for our inspiration.

Did you know?

"Scientists are increasingly finding mercury in Virginia's rivers, once considered pristine, and unsafe levels of mercury in fish in streams once considered clean—including the Mattaponi River and Dragon Run."

Richmond Times-Dispatch, Dec. 4 2005

(Continued from page 3) "Volunteer Day"

place. With pizza for extra energy, the group finished before any smiles faded.

So why does this one activity make a difference? Governments can create and construct trails and the physical layout of a city, but only in conjunction with the community can the character of a place find its niche. Local constituents need to take stock in the place they live, invest in their own vision, and create the community they want. The Ecology Club students did just that as they joined together at Alum Spring Park. Few of them may live here permanently, but they still consider it their community. They not only wanted to beautify the park, but they saw it as one way to give back to the community. This event shows that the volunteer participatory spirit continues as a tradition for UMW students and the whole community.

A Real Opportunity to Reduce Mercury in Virginia's Rivers This Year

The *Richmond Times Dispatch* reports that in this year's January, 2006 General Assembly, there is <u>real momentum</u> and a legitimate opportunity to substantially reduce the amount of mercury in Virginia's environment.

"Virginia State officials plan to propose, for the first time, stiff cuts in airborne mercury emissions from power plants and factories. The proposed regulations would require deep cuts in mercury pollution—33 percent by 2010."

However, some power companies in Virginia want to achieve the proposed cuts by "trading" emission credits that experts say will actually result in mercury "hot spots".

Scientists say this is a really bad idea because mercury is so deadly that it should be removed from the environment—not moved around.

YOU Can Make it Happen—Here's HOW:

The proposed mercury reductions in Virginia are just that—proposals—and paid lobbyists will be contacting YOUR elected officials *Every Day* to convince him/her that stricter mercury pollution cuts are a bad idea.

If the only people your elected officials hear from are paid lobbyists, then chances are good that the legislation will fail.

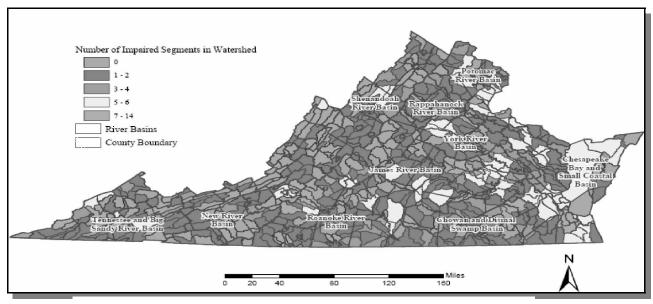
You Can Help Reduce Mercury in Virginia and it's EASY!

<u>Step 1</u>—Sign up NOW for legislative <u>ALERTS</u> from the Sierra Club and the Virginia Conservation Network. Once you sign up, you will automatically receive email notifications.

Sign Up for Email ALERTS at: http://virginia.sierraclubaction.org/default.asp http://www.vcnva.org/news/action_alerts/index.php

Step 2—Once signed up, you will automatically receive email ALERTs at the right time to contact legislators. The email will contain a "clickable" link to a pre-written form letter (than you can edit with your own remarks) that will then be automatically sent to the General Assembly delegates actively considering proposed legislation. It's that EASY!

Finally—Find out who your elected officials are at the State Board of Elections Website: http://www.sbe.virginia.gov/cms/ and then get to know them, communicate with them and urge them to support stricter enforcement of mercury.



Dirty Rivers Cover Virginia source: VDEQ http://www.deq.state.va.us/wqa/pdf/303d/distimp.

Virginia Healthy Rivers Initiative

Virginia has allowed nearly 7,000 miles of it's rivers and streams to deteriorate to the point that they are officially listed on the Federal" dirty waters" list. "Dirty waters" means that these 7000 miles have become so polluted that they are no longer deemed safe for fishing or swimming.

Virginia has lost nearly half its original forestland and more than 40 percent of its wetlands due to careless and lax oversight of development. It has allowed

A Sad and <u>Alarming</u> Tale of <u>Neglect</u> of Rivers in Virginia (impaired waters)						
	1994	1996	1998	2002	Total	
Estuaries	6	12	25	55	98	
Rivers/ streams	42	98	135	267	542	
Lakes	0	0	3	19	22	
Total	48	110	163	341	662	

Source: Virginia Department of Environmental Quality http://www.deq.state.va.us/wqa/pdf/305b2002/reports.pdf

excessive discharges of harmful effluents both from wastewater treatment plants and stormwater that has had—as the chart reflects—devastating consequences for Virginia's rivers and the Chesapeake Bay.

Virginia's rivers and the Chesapeake Bay are in BIG trouble, and now, often contain a murky soup of excess nitrogen, phosphorus, chemicals and silt and especially so after major rain events.

Once a vibrant, interconnected ecosys-

tem abundant in healthy fish, crabs, and shellfish, today our rivers and the Bay are sick ecosystems that contain helpless and sickened water critters.

Most citizens of Virginia decry this state of affairs. Most want to pay the fair-share costs necessary to have clean rivers, but land developers and even counties and cities regularly lobby the General Assembly to oppose stricter regulations.

Citizens voices are muted and rarely heard in numbers because most don't know how to effectively lobby their elected officials.

How Can YOU HELP?

The Friends of the Rappahannock has set up a <u>Legislative Email ALERT service</u> that will let you know when and who to contact when Healthy Rivers legislation makes it way through the January, 2006 General Assembly.

Timing is EVERYTHING!

This ALERT service is needed because the timing of legislation is often unpredictable and not easily determined by average citizens who want to help. Timing is all important and it matters WHEN citizens contact their legislators.

TO get Healthy River Email ALERTS: Send an email to: *HRI@riverfriends.org* and put the word "<u>Subscribe</u>" in the subject line.

By subscribing, you will receive timely <u>ALERTs</u> that will make it easy for you to contact your legislator at the time that he/she is considering their vote on the legislation.

Sign up! Send that email or call your elected official when you know they are considering the legislation. If enough folks do this—good things can result.

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Rappahannock River Easement Forum –Jan. 11

The overwhelming opinion of the majority of citizens living in the Fredericksburg region is strong support of permanent protection of the city-owned lands along the Rappahannock River.

But there is some reluctant foot-dragging by officials remain concerned about limiting future options.

We'd observe a certain irony with respect to the fact that the city required the Silver Companies to place a permanent conservation easement on it's land but city council is somewhat hesitant to take the same step with it's own land.

And the reluctance is not restricted to City Council as elected officials of the upstream counties express similar doubts.

The problem is that if we equivocate on true permanent protection, we are, in fact, failing to act to prevent the albeit slow but certain destruction of a greenway that will benefit future generations for a range of things not the least of which is a clean water supply that is vital to our region.

Elected officials with qualms should consider that each new incursion whether it be the cutting of mature trees on steep slopes or ATVs cutting trails that become muddraining gullies are inflicting damage that can not be easily undone.

We should be thankful that elected officials do want take a due-diligence look before they leap—but equivocation and a failure to act decisively in a reasonable timeframe is not wise nor in our best interests.

What do we tell ourselves and our children if we stand by and witness the inevitable but certain outcome if we fail to act?

April 13 Membership Meeting Home Energy Saving Forum

Movie - "Kilowatt Ours"

More than 50% of our nation's electricity is generated from coal. In the southeast U.S., where household electricity use is highest, this amounts to more than 12,000 pounds of coal burned per home per year.

Buildings in America consume nearly 2/3 of all the energy we use. The typical American home emits twice the annual global warming emissions compared the typical car. Can You Create An Energy Efficient Home?

Using technologies available in retail stores today, most homeowners can do this affordably. If done right, a <u>Net-Zero</u> home will save you hundreds of dollars annually.



Kilowatt Ours (and the Southern Energy Conservation Initiative) is creating a network of homeowners and renters dedicated to striving for Net-Zero energy usage in their homes and apartments.

Representatives will be on hand with information on energy savings both small and large for a healthier planet and a healthier home energy budget.



March 9 Membership Meeting Green Energy Perspectives

An overview of the environmental and economic impacts for the most common alternative and renewable energy technologies along with relevant implementation requirements and incentives.

A comparative table of renewable energy and conventional



power sources will be presented at the end of the presentation. The purpose of the presentation is to provide awareness of the specific circumstances appropriate for implementation of each technology. As a minimum, the technologies to be addressed include Wind Energy, Solar Energy, Coal Gasification, Low Impact Hydroelectric

(Continued from page 5) "River Easement"

The Forum on January 11 will fully explain the proposed easement by all parties connected to it. The Rappahannock Group urges you to attend, and then contact your elected officials and strongly encourage them to move forward and to take the steps necessary for permanent protection.

January 12 Membership Meeting Nuclear Power in Virginia

How do you feel about Nuclear Power in Virginia?

Dominion Virginia Power delivers electricity to more than 2 million homes and businesses in Virginia and North Carolina including about 65 percent of Virginia's total land area and over 80 percent of its population.

The company currently operates four Nuclear Power plants in Virginia.

Virginia Power will present their view of how future power needs should be met in Virginia and will



address the available technologies including Nuclear, which they feel, is a choice that must be considered.

Not everyone agrees about the use of nuclear power but this meeting is an opportunity to hear directly from the company that bears direct responsibility for providing electrical power in Virginia.

At the conclusion of the presentation, *polite questions* will be entertained from the audience.



RGSC EVENTS CALENDAR



Our Meetings

JANUARY

Thursday, January 12, 7 pm <u>Dominion Power—The Future</u> <u>of Nuclear Energy in Virginia</u> (page 6)

FEBRUARY

Thursday, February 9, 7 pm

<u>Waste Management and</u>

<u>Recycling in</u>

<u>Spotsylvania County</u>

MARCH

Thursday, March 9, 7 pm Green Energy Perspectives

What are the real and practical alternative energy sources available today?

(page 6)

APRIL

Thursday, April 13, 7 pm Energy-Saving Forum

How feasible is a **Net-Zero** Energy Home? (page 6)

RGSC Membership Meetings are open to the public and feature diverse programs that focus protection and enjoyment of our environment.

Unless noted otherwise, RGSC meetings are held the 2nd Thursday of each month in the basement of the Fredericksburg United Methodist Church at 308 Hanover Street. Go to www.fumcva.org for detailed directions

Recommended Environmental Community Events

Wednesday, January 11, 2006, 7-9 pm River Conservation Easement <u>FORUM</u>

Augustine's Fine Dining Restaurant, 525 Caroline Street A forum on the conservation easement proposed to preserve a 5,000 acre corridor along the shoreline of the Rappahannock and Rapidan Rivers. The City of Fredericksburg, the Virginia Outdoor Foundation, VA Department of Game and Inland Fisheries, and the Nature Conservancy are some of the representatives who have been invited to participate on the panel. The discussion is intended to answer questions and concerns the public and other interested parties may have regarding the easement. Info: Contact FOR at (540)373-3448.

Monday, January 16, 2006 Rivers/Lobby Day at the General Assembly

Join other citizens from across the Commonwealth to learn about pressing state legislation that will affect Virginia's natural resources and the communities we live in. Then, go visit your legislator at the General Assembly Building to share your thoughts about these issues. To reserve a bus seat to attend Lobby Day, Richmond, call Anne Little,

<u>To reserve a bus seat to attend Lobby Day, Richmond, call Anne Little.</u> 373-4594 or Doris Whitfield, (775-7856).

A PERSONAL VISIT TO YOUR LEGISLATOR IS ONE OF THE MOST EFFECTIVE WAYS CITIZENS CAN MAKE A DIFFERENCE AND PROTECT THE RESOURCES WE ALL LOVE. More info at: http://www.vcnva.org/lobby_day.php

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Rappahannock Group of the Sierra Club c/o Linda Hiross 214 Musket Lane Locust Grove, VA 22508

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