

FOSR OFFICE  
PO Box 410  
Front Royal, VA 2262  
(540) 636-4948  
FAX (540) 622-6073



FOSR LABORATORY  
c/o Shenandoah Univ  
1460 University Drive/  
Gregory Hall  
Winchester, VA 22601  
(540) 665-1286  
FAX (540) 665-4644  
E-mail kanderse@su.edu

Spring 2003

## **DOUG BEMENT**

of FMC to be GUEST SPEAKER @ the FOSR ANNUAL MEMBERSHIP and AWARDS BANQUET

E. Douglas (Doug) Bement has been the principal engineer in charge and/or Project Manager for several multi-million dollar capital construction and environmental remediation projects for the Boeing Company, and has managed major projects of a similar nature for FMC Corporation for the last 10 years. Doug will be discussing the Avtex site remediation progress and what the future holds for this site.

Doug is a Graduate of Northern Arizona University in Flagstaff, Arizona and is a registered Professional Engineer. He has spent most of his career in the Western and Midwestern United States, and has also lived and worked in Latin America. He worked with the Navajo and Hopi tribes in Arizona and has been the District Engineer for the Chickasaw and Seminole tribes in Oklahoma with the Public Health Service, bringing basic sanitation and water services to remote farmsteads and rural towns. He retains his commission as an inactive reservist in the US Public Health System.

Doug and his wife Lyn now reside in Front Royal and pursue their shared hobbies of birding, gardening and motorcycle touring. They have moved here from Pocatello, Idaho and report that Front Royal has made them feel more welcomed than any other place (and there have been several) they have lived.

To make your reservation for the FOSR Annual Membership Banquet, contact Karen Andersen by  
**Monday April 21 @ (540) 636-4948 or kanderse@su.edu**



### **Recreational Activities Anyone? By Bob Luce**



As a relatively new member of the Friends of the Shenandoah River, I have been impressed by the goals of this organization, the integrity with which it conducts itself, and the dedication and efforts freely given by the members. However, I expected more opportunities to get to know more than just a few members on a personal, even recreational, basis. The membership includes, of course, not just river monitors, lab volunteers, board members, but also loyal due-paying members.

Is there anyone else who feels the way I do? Can you think of any FOSR-sponsored activities that would appeal to you—ones that would be fun and bring together far-flung members with diverse backgrounds?

Here is my list of possible FOSR recreational activities:

Canoe trip on the Shenandoah, Barbeque at the 4H center or Andy Guest State Park, River Clean-ups, Tour of the FOSR laboratory  
Tour of the Avtex Superfund site to learn about the cleanup and redevelopment, Nature hikes or meetings led by FOSR members with expertise in; --Fishing --Birding --Geology --Wildflowers



*Do any of these activities appeal to you?*  
**Even more important, let us know your ideas.**  
Contact us by email, telephone, postcard or letter.  
See the masthead of this newsletter for contact information.



# PRESIDENT'S MESSAGE: FRIENDS of the SHENANDOAH RIVER OPERATIONAL FUNDING AND WHERE DID THE GRANT DOLLARS GO?

The Friends of the Shenandoah has primarily functioned on two sources of funding. The general functions of the organization such as maintenance of our office, publication of a newsletter, and telephone-utilities expenses were supported from member dues. The operation of the water analysis laboratory, and much of our education efforts total much more. The general function activities normally cost about \$10000 annually, and the water monitoring and education program add approximately an additional sixty-to-seventy thousand. Thus, our annual budget can reach or exceed one hundred thousand, particularly if new or replacement equipment is needed.

Where has the funding been obtained and how? The Virginia Environmental Endowment has provided grants for lab operations and equipment over the thirteen years of operation; also the Chesapeake Bay License Fund has provided support. Other contributors are the Robins Foundation and Shenandoah Basin Project. Several state agencies have supported FOSR monitoring in order to gain use of FOSR water quality data including the departments of Environmental Quality and Conservation and Recreation. The Virginia General Assembly provided a major grant for the purchase of lab equipment. Shenandoah University has generously provided free laboratory space along with use of various equipment in exchange for supporting SU students in special projects and training. Industry has donated funds and equipment (Coors, FMC, Dupont). Local environmental groups such as the Izaak Walton League, Pure Water 2000, and Friends of the Opequon have contributed on a long-term basis. Local governments have shown their concern for water quality (Page, Warren, Clarke) by including FOSR in their annual budgets. EPA funds have been supplied through the National Fish and Wildlife Foundation. In turn, the Friends have rewarded our benefactors with a continual improvement in our monitoring and education efforts. A basin wide bi-weekly monitoring program producing high quality data that is promptly reported on our Web Site, and added to the long-term basin wide data bank also freely available to all. Among those using FOSR data is a program at James Madison University that relates land use effect on water quality by coupling water quality with a Geographic Information System. The data is also important to Soil and Water Conservation Districts to identify impaired tributary watersheds in need of conservation projects. The Virginia Department of Environmental Quality also identifies impaired streams with FOSR data.

However, the money tree has withered in the drought of these bad economic days. Stock portfolios have ceased to provide revenues for foundations. State budgets have been drastically cut with little or no support for non-profit environmental groups. Industry looks to their financial projections and bottom lines and looks to ways to reduce operational costs. The Friends of the Shenandoah like-wise seeks ways to economize----- where do we cut costs? Do we cut the monitoring program--- or close our Front Royal office / Maybe cease to publish the quarterly newsletter? Unthinkable! Decrement operation is not acceptable to the many FOSR volunteers who have worked so diligently these past ten plus years to bring the organization to its present state of function. We have to continue to seek alternate sources of income to support our habit of success. Perhaps there are sources of funds that we have overlooked; Please communicate any ideas to one of our board members. Possibly you could suggest an affluent foundation, a successful industry, a wealthy environmentalist, or maybe a tried and trusted fund-raising system. Bear in mind that every dollar donated to FOSR is tax deductible and all funds are dedicated to our monitoring and education programs.

Thank you. Meryl Christiansen

## STATE OF THE RIVER

### Nutrients: Best and Worst Sites on the River for the First Quarter 2003

The table below shows the five monitoring sites (excluding sewage treatment plants) with the lowest and highest levels of nutrient pollution for the first quarter of 2003. We only record nitrogen in this table since phosphorus, the other pollutant, is almost perfectly correlated with it. Due to the inclement weather several of the scheduled monitoring days were cancelled. **On those days that monitoring was not cancelled a special thanks to those monitors that trudged through the snow, ice, high waters, mud, and cold temperatures to diligently collect the water samples.**

LOWEST LEVELS	N (parts per million)
FP14A Jeremy's Run, Page County	0.07
FP15 Overall Creek, Page County	0.01
FP17D Possum Run, Page County	0.06
GA21 Jones Hollow, Augusta County	0.11
PF02 Stephens Run, Frederick County	0.11

HIGHEST LEVELS	N (parts per million)
JR01 Muddy Creek, Rockingham County	13.97
JR06 Long Glade Creek, Rockingham County	11.97
JR07 Cooks Run, Rockingham County	17.93
JR10 Pleasant Run, Rockingham County	13.47
NR05 Cedar Run, Rockingham County	12.57

## Resource Protection Funding Battles in the General Assembly

As everyone in Virginia is aware, the Governor was forced to make dramatic cuts in spending during the current fiscal year and in his proposed budget for fiscal 2004 in order to avoid a budget deficit. The impact on natural resource programs was particularly severe. However, strenuous efforts by FOSR members, the Virginia Conservation Network, Soil and Water Conservation Districts and others managed to convince General Assembly representatives of the need to re-instate critical funding for water protection programs.

In the Senate, Senator Potts heard our pleas and voted to re-instate \$216,000 in administrative funds for Soil and Water Conservation Districts for this fiscal year, and to provide an additional \$1,300,000 in administrative funds for Districts and \$500,000 for cost-share programs for fiscal 2004. On the House side, our Delegates led

by Beverly Sherwood and Joe May on the Finance Committee, with the support of Clifford Athey and Allen Louderback, were successful in securing similar administrative funds, but also discovered \$1,500,000 in undesigned royalties which they were successful in committing to District cost-share programs.

The final numbers approved by the General Assembly, after House and Senate conferees worked out necessary compromises in the overall budget, re-instated most of what we requested: \$200,000 for the remainder of this fiscal year and \$1,200,000 for fiscal 2004 for Conservation District administrative funds, and \$1,000,000 for Best Management Practices cost-share for fiscal 2004. These amounts are quite remarkable considering the tough financial times in the State.

On another subject important to FOSR, Senator Potts, according to the Richmond Times, led a success-

ful effort in the Republican Caucus to reverse a Senate vote which had rejected a proposed appointment of Kay Slaughter to the State Water Control Board by Governor Warner. Ms. Slaughter, an attorney and former mayor of Charlottesville, is currently Chair of the Virginia Conservation Network which represents most of the non-profit organizations working to protect air and water quality in the State. She is a good friend of FOSR. The Water Control Board deals with point source issues and recently has been given the responsibility for confined feedlot operations (CFOs) so she will be in the thick of issues relating to large poultry, hog, beef cattle and dairy operations, all of substantial FOSR interest.



WE ALL LIVE DOWNSTREAM



### Shenandoah Valley Watershed Roundtable "Building a Watershed Community"

May 30-31---James Madison University Conference Center---Harrisonburg, VA



The Pure Water 2000 Forum, Canaan Valley Institute, Virginia Save Our Streams, River Network, and the Shenandoah Roundtable Planning Committee are pleased to announce the first Shenandoah Valley Watershed Roundtable, "Building a Watershed Community." This two day event is for everyone in the watershed community including, river and watershed leaders, state and federal government agencies, municipal government officials, planners, farmers, educators, industry representatives, members of the business community, and all others interested in the future of the Shenandoah Valley.

The four goals of this event are to: 1) Promote the improvement of water quality in the Watershed. 2) Build the capacity of grassroots groups and their partners to achieve their goals. 3) Promote and build a Shenandoah Watershed Community and 4) Celebrate the progress that has been made and each other.

On day one, participants will work together in small groups to assess the challenges and opportunities in the Watershed in four critical areas: Water Quality, Water Quantity, Watershed Information Management, and Watershed Land Protection/Restoration. These sessions will culminate in a full group discussion on day two of potential next steps.

On the afternoon of day two, participants can select from a variety of skill building workshops. Topics focusing on Watershed Restoration, Water Monitoring, Organizational Development, and Education/Outreach will be designed to strengthen the capacity of participating organizations as well as offer education on local issues.

We encourage everyone to join us in sharing their perspectives and expertise with others while indulging in good food and fellowship. There will be plenty of opportunities to socialize, network, celebrate, and plan for the long term health of our rivers!

For more detailed information on the conference, please visit the Pure Water 2000 Forum website at <http://www.cisat.jmu.edu/purewater/> in early April. For a hardcopy of the registration form, please contact Nicole Waldheim, conference coordinator, at (202) 364-2550 or email [nwaldheim@rivernet.org](mailto:nwaldheim@rivernet.org)

## **A Minimum Instream Flow Study/Committee Update, or, Who Is Watching the Hen House?**

By Bud Nagelvoort

Let me quickly relieve any anxieties the title of this article may have caused. Those individuals interested in making use of river water while providing sound protection for the resource are now in control. It has been an interesting transition.

As you may recall, in the late 1990s and early 2000s there had been a great deal of activity by a Northern Shenandoah Valley Regional Planning Commission Committee called the Water Supply Committee. It was headed by James Longerbeam, former Chairman of the Frederick County Board of Supervisors, with strong real estate development interests. I think it is reasonable to say that Mr. Longerbeam was anxious to provide water for development in Frederick County with a minimum of consideration for protection of the natural resources associated with the Shenandoah River and the long term interests of other Counties in the watershed.

As opposition to the direction being taken by the Water Supply Committee evolved over the past several years, the Committee began to add language to its documents broadening its mandate to include protection of the resource. (Speak of the fox guarding the hen house!) Such language was intended to encourage Counties in the watershed to sign up for the Committee's plans to create a Water Authority which would build a "regional" water treatment plant in Warren County to serve Warren and Frederick Counties with water to be withdrawn from the main stem of the River.

But a strange turn of events took place. An election in Frederick County replaced some of the pro-growth Supervisors. Not only did Frederick County not endorse the establishment of the Water Authority, but no other Counties did either.

Now there is a very legitimate need for management of the use of water from the Shenandoah River. The Minimum Instream Flow Committee and studies taking place under its jurisdiction are planned to determine when River flows decline sufficiently during periods of drought to require conservation measures related to River water usage in the watershed in order to protect the aquatic life in the River. (Fish, for example, or known to need water for survival and need protection even at the risk of a few brown lawns and dirty cars. And before someone says humans need water for survival, too, let me just say that human essential uses of water will always be the first priority.)

Management of the water in the River, however, requires much more than just planning for water withdrawals which was the direction being taken by the Water Supply Committee.

Gradually in this period of transition, under the thoughtful leadership of the Chairman of the Shenandoah County Board of Supervisors, Bev Fleming, and the Chairman of the Clarke County Board of Supervisors, John Staelin, a new Northern Shenandoah Valley Planning Commission Committee has evolved. (And please excuse me if I have left out the names of others who played important roles in this evolution.) Interestingly enough, it is named the Regional Water Resources Policy Committee. It is made up of high ranking representatives of the Counties and towns in the Planning District and the City of Winchester.

This new Committee approved its Mission Statement on March 20th, 2003. It says: "The Mission of the Regional Water Resources Policy Committee shall be to develop an action oriented Comprehensive Plan that establishes a regionally coordinated policy framework for the long term protection and use of surface and ground water resources in the Shenandoah Valley."

The Committee went on to state that the objective of the Plan is to "preserve the ecological quality and foster resource stewardship for the environmental and economic health of the Valley." The Committee added that this objective "will be supported by promoting communication, coordination and education."

It is the intent of the Committee to invite upstream and downstream counties outside of the Planning District to join the Committee as full voting members.

Now, you may ask, where does this leave the Minimum Instream Flow Committee? The Water Resources Policy Committee will "provide oversight for Commission water resource technical committees in developing a Comprehensive Plan for the watersheds in the Shenandoah Valley." In other words, the policy Committee will provide the policy framework within which the MIF Committee will function.

Fair enough. The Friends of the Shenandoah River is now formally represented on the MIF Committee whose jurisdiction will likely be broadened to include issues of water quality as a major component of resource protection. FOSR will firmly represent a broad range of interests in the protection of the River for the enjoyment and benefit of future generations.

## Breakthrough in Use of Monitoring Data

On April 3rd at Henkel Hall at Shenandoah University, FOSR monitoring data graduated to what may be its highest potential use - the development of TMDLs in the Shenandoah River and Opequon Creek watersheds. TMDLs are the Total Maximum Daily Loads of pollutants that a body of water can accept and still meet water quality requirements of the Federal Clean Water Act as applied in Virginia for designated uses. Such designated uses are "recreational use" (e.g., swimming, fishing, and boating) and "aquatic life use" (e.g., viable fish and shellfish populations.)

...With FOSR's confirming evidence it will now be possible for DEQ with its consultants ....

On this occasion the Virginia Department of Environmental Quality's consultant hired to facilitate the development of the TMDL for the Opequon Creek for benthic impairment, Virginia Tech's Biological Systems Engineering Department, made use of FOSR data to help determine the cause of this benthic impairment. (Benthic impairment means the insects living on the stream bottom are those which are tolerant of some form of pollution. US Geological Survey studies several years ago had determined that this condition existed in the lower Opequon.)

The results of Tech's investigation were that an excessive silt load on the bottom of the stream had prevented the development of insect life normally found in a healthy stream environment. Too much silt means the rocks and gravel on the stream bottom, where mayflies and other indicators of high water quality live, were imbedded in silt. (Silt keeps oxygenated water from flowing through gravel and reaching the undersides of rocks where the "good" insects live.)

FOSR's monitoring data, secured through the efforts of members of The Opequon Watershed, provided evidence of episodes of high turbidity in the stream from storm events. High turbidity means the water contains high levels of silt and sediment.

With FOSR's confirming evidence it will now be possible for DEQ with its consultants and with more public input to develop a plan for reducing the silt load to the stream to correct the benthic impairment problem. When this plan is carried out there will be a healthier fish population in the stream.

FOSR's monitoring data covers much more than turbidity. Data on nitrate nitrogen, phosphorus, dissolved oxygen, pH and temperature covering all of the Shenandoah River and its major tributaries is available on our web site to help in the development of scientifically sound solutions to other TMDL related problems. FOSR is pleased to be able to provide this service to the public.



## USGS Announces Online Access to Nationwide Fish Community Data

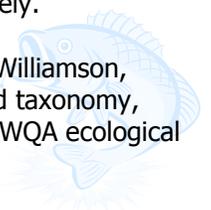
Data on fish communities are now available for 960 stream sites in more than 50 major river basins across the Nation. More than 1,900 fish community samples, collected from 1993 through 2002 by the National Water-Quality Assessment (NAWQA) Program, can be downloaded from <http://water.usgs.gov/nawqa/data>. USGS fish community samples document the presence of all fish species and their relative abundances within designated stream reaches.

These fish data are part of the NAWQA Data Warehouse, which also provides online access to 8 million records of water-quality information, enabling water-resource managers, scientists, and the public to find data about the quality of water or chemical concentrations in aquatic tissue at 4,100 stream sites and 6,500 wells across the United States.

For more information on fish sampling protocols, please refer to, "Revised protocols for sampling algal, invertebrate, and fish communities as part of the National Water-Quality Assessment Program" a <http://water.usgs.gov/nawqa/protocols/OFR02-150/index.html>

Online access to macroinvertebrates and algae data are anticipated this spring and summer, respectively.

For questions regarding online data retrievals, please contact [gs.nawqa.data@usgs.gov](mailto:gs.nawqa.data@usgs.gov) or Mr. Sandy Williamson, 253-428-3600, ext. 2683. For technical questions, such as regarding biological collection methods and taxonomy, please contact Dr. Steve Moulton, [smoulto@usgs.gov](mailto:smoulto@usgs.gov), 703-648-6874. Additional information about NAWQA ecological studies also is available at <http://water.usgs.gov/nawqa/ecology>.



Friends of the Shenandoah River  
PO Box 410  
Front Royal, VA 22630

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**You are cordially invited to the  
FOSR ANNUAL MEMBERSHIP  
and  
AWARDS BANQUET**

The Evening of Saturday, April 26, 2003  
6:00 PM - 9:30 PM

Social Hour and Silent Auction 6:00PM  
Dinner at 7:15 PM

South Warren Volunteer Fire Dept Fire Hall  
3330 Stonewall Jackson Highway (Rt. 340)  
Bentonville Virginia

R.S.V.P.  
By April 21, 2003  
(540) 636-4948

Tickets  
\$22.00

**Guest Speaker:**

**Doug Bement**

Site Manager for FMC Corporation  
@ the Avtex Superfund Site

**Jay Gilliam**

To be honored with the  
Raymond R. "Andy" Guest, Jr.  
Conservation Award

**DINNER MENU**

Roast Beef & Oven Fried Chicken  
Au gratin Potatoes  
Green Beans & Succotash  
Garden Salad  
And Assorted Pies