

# Severn River Association Minutes

Board of Directors Meeting Tuesday, Tuesday, February 21, 2012

The meeting was called to order at 7:10 p.m. by President Duane Wilding

Two representatives of Severn School presented a \$1500 check to the SRA, representing the proceeds from the 5K Run last Fall. President Wilding thanked them for their support.

**Presentation:** Ed Peters, AA County Environmental Sanitarian

## **The Bay Restoration Fund for Septic Systems in Anne Arundel County (Flush Tax)**

The BRF gets \$30/ yr from each household in AACo for Enhanced Nutrient Removal, defined as effluent having less than 3 ppm Total Nitrogen and 3ppm Total Phosphorus. Phosphorus is not a problem since it binds with the soil and does not filter through to nearby waterways, so the funds are mainly used to reduce Nitrogen. 60% percent goes to upgrading septic systems and 40% goes to farmers planting cover crops to reduce nitrogen loss from soils.

**Finances:** \$13.6 million is collected annually from the 420,000 households on septic systems in the State, and 60 percent ( about \$8 million) is earmarked for septic system upgrades. Legislation now before the House would approximately double this funding. Anne Arundel County received \$1.76 million in FY 2011 and Installed 134 systems at an average cost of \$12,418 per system.

In AACo, there are 40,000 septic systems (about 26 percent of all housing units), and 13,250 (nearly one-third) are in the critical area, the area within 1,000 feet of the bay and its tidal tributaries. Properly functioning conventional septic systems contribute an average of 29 pounds of nitrogen per household (9 pounds per person) per year to groundwater. Left untreated, the nitrates migrate to ground water through the soil and eventually get into the rivers and the bay, where they feed algae blooms that block the sunlight needed by underwater grasses to produce oxygen to support fish and other marine life.

80% of the nitrogen in sewage is in Urea, which quickly becomes Ammonia (NH<sub>4</sub>). Septic systems convert NH<sub>4</sub> into Nitrates which stay with ground water in base flow into tributaries. Past guidelines assumed that 60% of the nitrates would be “attenuated”, i.e. converted to free Nitrogen (N<sub>2</sub>) which is harmless, and 40% would pass through the soil to groundwater. New guidelines from MDE suggest that septic systems in the Critical Area only convert about 20% into N<sub>2</sub>, with 80% passing through into the nearest waterway. Within 1000’ of tidal waterways, 50% is assumed to be attenuated, while 70% is attenuated by systems outside the Critical Area. There is no hard scientific evidence for any of these assumptions; but they are based on the plausible theory that attenuation takes time and there is more time available if the system is far from flowing water.

To be approved for a BRF grant, nitrogen-reducing units should remove at least 50 percent of the nitrogen before the wastewater enters the drainfield. In addition to NO<sub>3</sub> reduction, upgrades have been found to have some side benefits. The cleaner water going to the drainfield means there is less organic matter to clog soils, which may prolong the life of drainfields or even rejuvenate failing drainfields.

Grants are prioritized in the following order:

1. Failing septic systems (overflow onto ground, collapsed tank, back up into house, direct discharge or drinking water contamination, or real estate sale holdup) in the Critical Area.
2. Failing septic systems outside the Critical Area.
3. Non-failing in the Critical Area.
4. Non-failing outside the Critical Area.

For a failing system in the Critical Area, the grant covers 100 percent of the cost of the treatment unit and installation, plus five years of service and maintenance.

Other grants range from 25 to 100 percent depending on income and owner occupancy. The grant process and construction normally takes up to 6 months, but can be as little as 5 weeks if circumstances warrant.

Grants do NOT cover any new drainfield or any new tank that is not essential to the treatment unit, or the Perc application fee and installation permit fee. Grants are paid directly to the installing contractor after the installation is completed and inspected. There are now 5 systems approved and field-verified, 2 more are conditionally approved pending verification, and many others in the process of obtaining approval. Information was shown on the Septitech, Hoot, BioMicrobics RetroFast, Advantex AX20, and Norweco Singulair TNT systems. The Advantex AX20 pumps up to a box with felt fabric and is averaging 69% reduction.

More information and applications for a Bay Restoration Fund grant are available on the AA County Health Dept Web site: [www.aahealth.org](http://www.aahealth.org) or at the Health Services Building, 3 Harry S. Truman Parkway, Annapolis, or by calling Environmental Health at 410-222-7193.

**Questions** – Stevie Wilding asked if the Advantex system will freeze if installed above ground? No but cold weather will impair operation. The New Advantex system is all below grade but only conditionally approved. Gene Milgram asked about the priorities – would a 26 yr old system within the Critical area but not failing yet be eligible? Not any more – you must pay unless it fails. Paradoxically, failing systems might be better environmentally because the water is near surface vegetation roots.

Unfortunately the prioritization is in the legislation. They have a system to evaluate failure – the system may leak out downslope which would qualify for a grant. A simple test is to look in the access port which will show the fluid level – if it's up to the inlet pipe then it is failing. Overflow at drainfield pipe cap is a sure sign. If you think your system is failing, take some pictures and fill out an application, but the Health Dept won't schedule an inspection until you fill out \$450 perc test application (which needs a plumber with a backhoe). Funding is now good thru 12/2012, but the 2013 budget is now being debated.

How bad is the pollution from septic systems? 4% - 6% of NO<sub>3</sub> pollution comes from septic systems; in some watersheds it might be 30%. Is this cost-effective? Probably not – other things are better such as public sewers and community systems. BRF funding may be used for this also. Sally Hornor pointed out that community systems put the effluent into groundwater, while AACo treatment plant effluent goes directly into bay. Bob Whitcomb noted that community systems have cost up to \$22,000 per house, about twice the cost of this system. Gene Milgram pointed out that AACo is now in the situation faced by Staten Island, NY in 1970 when about 2/3 of the homes (about 40,000), had septic systems and new systems were still being installed despite high failure rates. Septic systems were then made illegal, so builders then installed packaged plants or built private pumping stations to pump to a county treatment plant. While pump station and pipe malfunctions can cause problems, they are much less polluting overall.

Pierre Henkart asked have there been measurements of the effects of NO<sub>3</sub> removal? Answer – No published data is readily available.

John Wright asked how often should you pump out a septic tank? Answer – Every 3-5 years. Some data indicates much longer intervals are acceptable.

Tom Guay asked if NO<sub>3</sub> removal units are effective? Don't Standard tanks remove some NO<sub>3</sub>? Answer – Standard tanks do not remove NO<sub>3</sub>, but some shallow systems do remove some NO<sub>3</sub>. Cleaning chemicals can poison the microbes and make the system ineffective. Enhanced systems remove 52% to 69% of the NO<sub>3</sub>.

## **Business Meeting:**

**Minutes of Last Meeting** were Approved (Ann Jackson moved, Bob Whitcomb seconded).

**Treasurer's Report** – Treasurer Lynne Rockenbauch reported: \$27,331.23 in the Checking account, \$45,000.00 in the Investment account. There are 36 individual 2011 members who have not renewed, and an additional 34 individual 2010 members who still have not renewed. About half of the Associations

have renewed – 18 community association 2011 members have not renewed and 5 community association 2010 members have still not renewed..

### **Old Business:**

- The Log is at the printer now, and features an article on the Severn River Watershed Audit.
- Membership renewals –John Wright – the Committee is now making phone calls to communities who have not yet renewed, to ask why they have not renewed. The problem is often just that a new treasurer does not know about the membership renewal.
- Jonas Green Park – Bob Whitcomb reported that the environmental planning project is moving – signs have been made, and are now being translated into Spanish. DNR is now making a sign about septic technology – they are now retrofitting all their systems. CBF planted an oyster reef under the fishing pier – they are putting up a sign in our format, and also funding others. Sally Hornor mentioned that one sign is about Rain Gardens. One at stormwater pond treating roof & parking drainage. Fishermen love oyster reef once it is explained that they attract fish. Some redistribution of funds as other s overrun budgets.
- The Additional aeration project did not get funded.
- Next Saturday, Jan 21, is the first Watershed Stewards Conference. The website ArlingtonEcho.org has the details. The Public is welcome. Ron Bowen is the keynote speaker. He will also have a work session on specific projects. One forester will lead a winter forestry activity outdoor session. Cooks Café will do a session on Sustainable Cooking. Chris Trumbauer & Councilmen Grasso and Ladd may come. Registration is \$25.
- Severn RiverKeeper report by Pierre Henkart – a video was shown of an otter recently spotted on the Severn River.

### **New Business:**

- Community News – (opportunity for Community Reps to share happenings in their community) – No news
- Watershed Audit – CEDS and SRA will conduct a Seminar on 3/10 at Arlington Echo to learn how to recognize good and bad stormwater management on construction sites, and what to do about it, On 5/5 we will sponsor a BMP (Best Management Practice) survey of ongoing stormwater management sites.
- Bob Whitcomb reported that Project Clean Stream will take place this year on March 31. 2 sites have been selected for cleanup. One is at the headwaters of Clements Creek, the same as last year – there is much left to clean up that was not completed last year. The other is on Luce Creek. Now on Facebook. Elvia also emailing news. Tom Guay will issue a press release soon.
- Bikiing advisory panel – we need a volunteer to represent us on this panel. Duane will contact Jim Martin and Kurt Riegel for suggestions as to who might be interested.
- Jamie Benoit's bill to permit construction of recreational facilities in Open Space – Dinny White reported that the Bill is confusing and needs to be re-written. Privately owned Open Space is one problem – 25% impervious surface is the same as residential which seems too high. The Bill also doesn't reference the AACo Recreation Master Plan or Environmental Impact requirements. Use of fertilizer and pesticides is not addressed. Grading requirements are not referenced either. Much Open Space is in steep areas, eroded or subject to erosion. The bill appears aimed at Annapolis Roads, but that is a unique situation and this bill will have many other deleterious effects. Dinny suggested our position should be to ask AACo Planning & Zoning to review the bill more and review the Recreation Master Plan, then suggest appropriate action. Stevie Wilding suggested we write a letter before the hearing Charlotte Lubbert asked to include our concern for the probability of many unintended consequences. Sally Hornor asked much of AACo is now zoned OS? Gene Milgram noted that the original AACo zoning was all Residential with no Open Space; the plan was later changed to make all federal 100yr flood plain areas OS, including the Anne Arundel Fish & Game Club. Dinny suggested a statement at the hearing, possibly

accompanied by a letter to Council members. Lisa Bender asked Dinny to please email a draft letter for us to send individually also. Bob Whitcomb mentioned that Councilman Benoit got pressure from a lacrosse group that tried to do a land swap. Key School's proposed ballfield project in Annapolis Roads has been stopped for now by Larry Thom of AACo P&Z.

- Nominating Committee (Charlotte Lubbert) – All officers except Duane Wilding have expressed a willingness to serve another term, so we need a candidate for president as well as 6 Outside Directors. Please contact Charlotte if you would like to serve.

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**Meeting Adjourned at 8:20 PM.**

**Next Meeting:** will be Tuesday, March 20, 2012 at 7pm at the Herald Harbor Community Hall (on Herald Harbor Road at Hall Rd) across from the Herald Harbor Fire House) – you can park at the building or at the firehouse. P. Favero will facilitate a workshop with SRA to discuss and develop SRA Goals for 2012/2013. We also hope to get a questionnaire on our website before that meeting.

Respectfully submitted,                      Bob vom Saal