Point Source Innovations Workgroup meeting minutes, November 30, 2004

Berkeley Co. PSSD Headquarters, Martinsburg, WV 9:00 a.m. -2:30 p.m.

Present: Clifton Browning (Berkeley Co. PSSD), Pete Furr (City of Charles Town), Joe Hankins (The Conservation Fund's Freshwater Institute), Tom Jageman (Consol Energy), Margaret Janes (Appalachian Center for the Economy and the Environment), Curtis Keller (Berkeley Co. PSSD Gen. Manager), Steve Knipe (City of Martinsburg), Kenny Michael (City of Martinsburg), Lee Snyder (Snyder Environmental Services, Inc.), Eddy Tenant (Harpers Ferry PSD), Frank Welch (City of Shepherdstown), Bob Williams (Dominion), Jim Williams (Harpers Ferry PSD)
Guests: Armando Benincasa (Steptoe and Johnson), Joe Knechtel and Lisa Burgess (Potesta & Associates), Bruce Lundeen (Shenandoah Valley Pure Water Forum), Michael Schwartz (The Conservation Fund's Freshwater Institute), John Tuggle (Pentree Inc. Consulting Engineers)
WV DEP: Bill Brannon, Brian Carney, Alana Hartman, Mike Johnson, Matt Sweeney

Alana Hartman welcomed everyone and conducted introductions.
Clifton Browning welcomed everyone and introduced the facility.
Joe Hankins asked if there were any corrections to the October meeting minutes that were circulated by e-mail. He mentioned the agenda could be rearranged and the group agreed to end as soon after 2 pm as possible. He referred the group to the www.wvnet.org website for resource documents and agendas/minutes for this group. He reminded the group that they are charged with making concrete recommendations for West Virginia's Potomac Tributary Strategy process (Chesapeake Bay Program). Bruce asked for the newcomers: who in the room make up the main group? Answer: the permit holders, mainly.

Michael Schwartz gave a PowerPoint presentation, "WV Potomac Tributary Strategy, Point Source Issues and Strategies" (available at www.wvnet.org) *Some highlights:* Using "design flow" in Trib Strategy buffers the numbers for new sources – the Bay watershed model is based on current or estimated flows, not design flows. The Bay program deals with cap loads, which differ from concentrations - as flow increases, we'll still have to meet the same load, which will mean keeping concentrations down. Removing a pound of N is much cheaper for the agricultural sector than point source sector, but it has been decided that all sectors will do their part to reduce nutrients flowing to the Bay. Point source nutrient pollution can be measured with a lot more precision than nonpoint nutrient pollution. The WV Trib Strategy team has worked to identify smaller and smaller point sources so that their contribution can be subtracted from other sources – this worked against us in one phase because the model then revealed we contributed more pollution than in the previous model run.
Questions/comments/concerns:

1. Where do the nutrient removal "efficiencies" for various "Best Management Practices" (BMPs) come from? Answer: the Bay watershed model, and the workgroups that review BMPs and efficiencies.

We were reminded of the "delivery factor," where downstream facilities are credited with more N removal than upstream facilities that reduce by the same actual amount.

2. Are the loads actually entering the Potomac measured? Answer: yes, there are 9 "calibration points" for West Virginia. Bob asked if the data from these points were used for the numbers in Michael's earlier graphs. Answer: no, the numbers in the bar graphs come from the model and the calibration point data are used to check them. There is reasonable agreement. Bill Brannon mentioned that WV DEP is monitoring streams, too. Michael said storm events can make monitoring results very different from model. Joe said the importance of the Bay watershed model is that it is a primary policy tool.

3. Concern raised: no one has 18 TKN in their permit to begin with, so our percent of load is much smaller than 5%. Thus it will be harder to get the needed reductions.

4. Concern raised: septics are a controversial issue – is urban/mixed open and septic pollution really being reduced?

5. Wouldn't it be better to distribute the % reductions more cost effectively among sectors? Answer: We can recommend that. But if WV fails to reduce nutrients by prescribed amount, inter-sector bickering will become irrelevant.

Cautionary note from Margaret: Point/nonpoint trading: N has opportunities, but our problem is mainly with P. And with Ag BMPs it will be hard to document the efficacy of the P trade.

Note from Joe: he originally thought we'd have lots of reduction opportunities in WV, but because our nutrient contribution is already so low, as a state WV is already at the point of low returns. The sense that some other sector is not contributing is false; there is no large reservoir of untapped resources we can go to.

6. One operator of a small PSD said they want to do their part, but likely not through trading because the PSC doesn't give them the power to do that. The PSC just approved a rate increase (based on previous year's population, which is part of the problem in growing areas), but how do you pass the $3 Million cost of upgrading to only 700 customers? Joe agreed that is a major problem.

7. Another operator raised the idea of a public relations effort so that people don't side with no-growth groups and protest in Charleston. One person protesting a rate increase can hold things up in court.

Joe reminded the group that the consensus early on was to involve the PSC when the group has something concrete to recommend.

8. Need for participation from Health Dept. was raised, if people are going to go to septics (health dept. controls those regulations).

9. How would Ag BMPs be confirmed/documented? (tabled until discussion on permit specifics)

10. When will new Bay watershed model be in use? Michael: end of 2005/beginning of 2006.

11. The double-dipping problem (when the smaller point sources were added to WV's nutrient load, the model did not subtract their contribution from the original load) will be fixed next time around, right? Joe: yes.

Comment from small PSD operator: but regardless of whether they use 18mg or 9mg, it will cost us and we have to reduce. Joe: and there are other forces operating, including lawsuits and downstream (MD) requirements.

12: even if everyone does everything we've identified, we might not reach the goal? Joe: Yes. Our options include identifying more sources so we have more to fix, but that's a double-edged sword.

13: are other states having the same problems? Joe: Yes, they all have to reduce 30-40% from current numbers, but WV started at such low levels that it's harder for us.

14: hasn't some other state closer to the Bay already started this process? What have they done? (good lead-in to the update from Bill Brannon)

Bill Brannon updated the group on West Virginia's involvement with the Chesapeake Bay Program. *Some highlights:* Bill sits on the Principals' Staff Committee (PSC) and attends Executive Council meetings and some other Bay meetings. Also, Randy Sovic is DEP's technical expert on the committees related to point sources.

- The Chesapeake Bay Foundation is suing the EPA over point sources (see article on www.wvnet.org)
- The Executive Council of the Chesapeake Bay Program formed a Blue Ribbon Panel to investigate ways of funding the Bay cleanup, and its report was issued in October (available at www.chesapeakebay.net).
  - We will need $15 billion to get started, $12 billion of which will hopefully be appropriated by Congress.
  - A "Chesapeake Bay Financing Authority" should be created to distribute funds.

-At recent PSC meeting, discussed EPA permitting approach. (WV DEP's future permits will reflect EPA's approach) Headwaters states (WV is one of these) are trying to put flexibility into the process to have time to incorporate our Tributary Strategy and also receive funding for it in the future. There are options to achieve annual loadings and methods like trading and watershed permits. Also, offsets are an option for new sources and expansions of new facilities. They would realize a no-net-nutrient-load by finding an offset. There aren't any good examples from MD, yet.

-regarding permit reissuances in 2005, if they have nutrient language in them, they will go into a compliance schedule. WV DEP is rethinking its permitting requirements from the Trib Strategy even more now that there is threat of lawsuit.

-EPA talked of contractor assistance to design watershed permits.

-Margaret reminded the group that she and Joe have been involved in stakeholder nutrient standard process for WV. Also knew of a recent statement by Allyn Turner (WV DEP) regarding how trading situation recommendations will be considered. Bill referred to a relevant trading document on a website (EPA's?)

Questions/comments/concerns:

1. regarding MD's Bay standards for Dissolved Oxygen, water clarity and chlorophyll a, how will these translate to WV's permits? Use the Bay model? Joe: they are the Trigger Point for WV's regulations. Bill: yes, and he re-capped how standards were distributed to jurisdictions. Joe: our own state rules obligate us to protect downstream waters. There is a direct relationship between N and P to these three Bay standards (DO, clarity and chlorophyll a). Margaret elaborated: 1) Fed. Clean Water Act says WV DEP can't issue a permit that contributes to problems downstream, and 2) other federal mandate says WV DEP's permitting standards have to be sensitive to downstream requirements.
2. comment from a plant operator: our standards haven't been tightened in 20 years so it's time to tighten them.

Bill summarized that WV DEP is still talking internally about what our options are for handling permits/watershed permits, etc. and will try to be as flexible as possible.

Further comments:

3. concern that state revolving funds have excluded privately-owned facilities. Bill responded that SRF is more to support ag community and municipalities. The facility operator followed up saying the ratepayers who use private facilities won't be able to benefit from any SRF dollars, then. Joe: maybe publicly owned facilities that are already at the limit of technology could get money and give it to the private facility, then.

4. A facility operator asked whether Bill perceives the new standards applying to facilities of under 50,000 gpd flow? Answer: still undetermined.
5. Is any of this being driven by the anti-growth movement? Answer: no.

Bruce Lundeen spoke about the Shenandoah stakeholders' efforts to work together. An outline is provided below. *Some additional highlights:* The Shenandoah Pure Water Forum's mission statement: A diverse forum promoting clean water and addressing water quality issues through networking, education, and action in the Shenandoah River Watershed.

- The Wastewater Treatment Plant Network (WWTPN) is a nearby example of an organized group of plant operators…see Bruce's outline below
- Thinking of forming a regional water resources authority council – this would include Jefferson and Berkeley counties.
- Joe emphasized that we invited Bruce so we could expand our thinking outside the state. We have a lot of reasons to get together.
- VA is facing upcoming legislation (mid-2005) when all 400,000 GPD facilities will be pushed to 3 or 5 mg. All those with less flow down to 50,000 GPD will be tagged with upgrades, also.
- A network member modeled 7 plants to determine the cost of upgrading, then put money aside each year and put in escrow. This has prepared him for the upcoming regulations.
- The idea of the sojourn, below, means that elected officials are in a raft of boats – a captive audience! Relates to this group's public relations/education concerns.

Bruce's outline:
Shenandoah Valley Pure Water 2000 Forum http://www.purewaterforum.org/
Bruce Lundeen
JMU-CISAT
701 Carrier Drive, Room 314
MSC 4102
Harrisonburg, VA 22807
Tel. 540-568-8793
Fax 540-568-2768
bruce@purewaterforum.org

A. Innovations
1-Wastewater Treatment Plant Network (WWTPN)
http://www.svwwtpn.org/
Background article in '**The Source**' newsletter "Forum Hosts First Wastewater Treatment Network Workshop" http://www.purewaterforum.org/newletters.html (Spring 2002)
Article on **BJ Blessing** – (Spring 2002) **"Expert Offers the WWTP Network a Helping Hand"** pg. 3

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2-Virginia Rural Water Association (VRWA) http: www.vrwa.org/staff.htm
B.J. Blessing, Wastewater Training - bblessin@cfw.com 1- (540) 942-9564
B.J. provides on-site technical assistance and training to small, rural municipal wastewater systems with a population under 10,000 and to rural systems in unincorporated areas within a state jurisdiction.

He provides assistance and training in all areas or operations, maintenance, management and health & environmental issues.

The Pure Water Forum hosted trainings at James Madison University – BJ Blessing provided technical trainers for each of the following events:

- August 2, 2002 – Biosolids Land Application
- August 1, 2003 – Biological Nutrient Reduction (BNR)
- The Pure Water Forum and BJ Blessing began preparations for an 'action program' of the Wastewater Treatment Plant Network on November 12, 2004. Here are some of our ideas with the West Virginia Innovations workgroup added.
    - Link up with the **technical expertise** of **Operators** with Engineers from the big wastewater facilities,
    - Schedule a one day meeting January/February 2005 for Operators, Administrators and Regulators, and invite contractors, engineers and vendors,
    - Gather information, determine what are mutual problems,
    - Look at what innovations and help can be provided from within the workgroup/network by peer to peer advice and problem-solving,
    - What kind of technical/financial input is needed that is best promoted by working through the Wastewater Treatment Plant Network,
    - The Pure Water Forum has the commitment of the **Virginia Rural Water Association (VRWA) and BJ Blessing** to this action program.
    - Is the WV Innovations Workgroup interested in joining and inviting the West Virginia Rural Water Association (QVRWA) to help?

3-West Virginia Rural Water Association (WVRWA) http://www.wvrwa.org/
Clay Lutz, Wastewater Training – claylutz@citynet.net 1-800-339-4513
WVRWA provides wastewater utility members not only with outstanding support services but with excellent training opportunities for operators and board members. Wastewater technical training is provided through the work of WVRWA's Wastewater Training Technician Clay Lutz who conducts classes in all 55 West Virginia counties.

B. Community Education – The Shenandoah River Sojourn Tradition – 2003, 2004…

Shenandoah River Sojourn 2005
Scheduled for May 24-27, 2005
From Morgan's Ford, Virginia to Harpers Ferry, West Virginia.

Can You Help the Organizers?

- We need West Virginia partners to join the Shenandoah River Trip – Sojourn III.
- Does anyone know the names of canoe/raft outfitters on the Shenandoah River that can guide the group to Harper's Ferry?
- See (color publication) – 'Shenandoah Sojourn – A River Adventure'
- See (film documentary) – DVD or VHS tape of May 2003 Sojourn
- NOTE: May 26, 2005 (Wed) tentative plan for Sojourn III participants to tour the **OPEQUON WASTEWATER TREATMENT PLANT** as part of the public educational/outreach program about pollution prevention.

Questions:

1. How has the Pure Water Forum made a difference so far? Bruce referred us to the trainings that have been held with engineers (BNR, etc.). The Forum now has enough money to hold meetings and field work with their network. They help come up with ideas, e.g. using engineers from larger facilities to mentor smaller operations. A further comment: as we get into the new technologies, network members can share the lessons they've learned.
2. concern: sharing ideas about financing is ok, but in WV the PSC requires that you justify your rate increase – unable to save money for the future.

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(lunch break)****
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Questions still remained about what changes permit holders can expect in 2005:

1. Can we expect monitoring of total N and P on permit? Yes, the process of requiring this began in spring 2004 with any permits up for reissuance.
2. Will there be wording that allows DEP to re-open permits? Yes, this already exists in the permits.
3. Will there be caps on N and P? Not until mid-summer.
4. When re-opened, is entire permit subject to change or just nutrient portion? Just nutrient portion.
5. Does MD have limits in mind yet? This led to a lengthy discussion /clarification on exactly what will happen to individual permits if reopened, etc.
   -For Trib Strategy process, we had some in-house engineering staff say what it would cost to upgrade various facilities.
6. When will we start getting specific answers? Will it be before the board/ratepayers read them in the papers? Further comments: Some boards are uneducated when it comes to the sewer business. What usually works is: make commitment, be unable to pay the bills, it becomes PSC's problem. This system is not ideal. Bill Brannon and Mike Johnson met with the PSC in spring 2004 to prepare them for the upcoming changes.
7. Stakeholders asked Matt Sweeney to tell us what will happen when permits reopen? Answer: ASSUMING WE DEAL WITH INDIVIDUAL PERMITS (RATHER THAN A WATERSHED PERMIT): everyone will have something for the Bay in their permit in the next 2 years. Either they're meeting it (fine), or not (compliance schedule begins). Either incorporate all of this in reissuance of permit (if up for reissuance in time to meet Bay's 2010 deadline) or do an "order modification" started by the DEP.
8. Does the permittee under a compliance schedule have protection from a 3rd party lawsuit? Permits have been used as a "shield" in those cases, to say "we are doing this within the allotted time."

Agenda item: Point source verification – pretty well covered in comments so far. Tom Jageman's portion postponed until next meeting.

Agenda item: Phosphorus ban report – Margaret said national manufacturers and distributors already only market low-P products, so if we work to ban P in laundry detergents, it won't help reduce P pollution by much.

This led to a discussion about pre-treatment: pre-treatment requirements currently exist for some industrial chemicals. N & P are different, but since removal cost is so high, worth looking into. E.g. DEP can limit high-copper users – maybe do this for N, P. Joe: we could follow the industrial

pre-treatment model, maybe even in your sewer use ordinances (non-industrial). This is one possibility to help us deal with our point source problem.

Question (unanswered at this time): Do other states have these pre-treatment bans in place? How effective are they?

Agenda item: Missing players [note, each time it says "further comment" below, it signifies a different person speaking]

- Again, health departments can speak to septic issues.
- Possibly package plant representatives. Are we going to invite them before they are included in our recommendations? Are they going to be included? *Further comment:* if you assume they put out up to 1 million total gpd at 18 ppm, they're a small % of the total point source contribution. But if all the point sources are putting out much less than 18 ppm, the minor point sources are a larger % of the total pollution. *Further comment:* if you draw a line under which you don't have to meet Bay standards, it looks bad to the public (diminishes credibility). *Further comment:* once the standards are tightened on bigger plants, they'll probably tighten on smaller plants, too.
    - Joe: there's a lot of interest in looking at the contribution from septic systems, so it's a logical continuum that no matter what scale you are, you need to help, too. *Further comment:* especially if with existing identified sources, we are not going to reach our 2010 goals. *Further comment*: and if you open up to small facilities, it gives you more people to trade credits with in a trading situation. *Further comment:* plus, we don't want plant developers to start WANTING to get in under the rail to avoid regulations because there would be too many tiny plants being built everywhere.

Aside: TKN + nitrate + nitrite = Total N.

Question: Are Mount Storm's recent NOx controls taken into account in the Bay model? Are we getting credit for that? Bill Brannon said the EPA took ownership of the air deposition under the Clean Skies Initiative. It's already factored in.

Agenda item: Biosolids, septage, and pumpage disposal-

- These practices generate waste solids
- The WV Potomac Trib Strategy includes a BMP of pumping septics more often.
- Moorefield's pilot project = a digester…might work
- there is a lack of places to take this material (Williamsport MD welcomes it so far).
- innovation: export it to coal reclamation sites by putting in in coal cars that return to coal fields empty after going toward Baltimore area. There is a lot of nutrient-poor land in WV.
- composting/recycling for homes is a possibility but expensive.

Close of meeting comments:

Joe: should the PSC be invited now? Bill: wait until we have something for them to evaluate.

Comment: users should be educated before fees are raised.

Comment: county commissioners and board members must be educated. Joe: he has presented some of this information to them in the past; might be time to refresh the issue.

Bill: are we still focusing too much on individual problems/concerns? Do we need to hear about some watershed permit/trading situations that have worked out?

Comment: would like to cover at a future meeting: how to prove the facility/farmer/whatever is doing the reduction they were paid to do.

Next meeting:
Thursday, Jan. 13, 2005 9:00 a.m. Berkeley County PSSD building, Martinsburg
Directions: Take exit 16 East to Edwin Miller Blvd. Go to second stop light and turn left (Sheetz). Take immediate right and continue to follow road around. Park out front for better access to lobby.

Goal: to further refine what needs to be in the WV Potomac Tributary Strategy Implementation Plan

Agenda items (VERY ROUGH) for next meeting: (additions/edits welcome)
1. Tom Jageman's data (mining discharges)
2. Pre-treatment standards? (milestones needed)
3. watershed permits? (milestones needed)
4. applying biosolids elsewhere? (milestones needed)
5. offsets from developers? Others? (milestones needed)
6. P- bans other than in detergents? (milestones needed)
7. Creative funding ideas/inputs to PSC (milestones needed) e.g. Grants, earmarks, local user's fees with involvement from and education of users, state revolving fund

Note: **Significant** Point Sources are considered to be those that have >400,000 gpd flow, **Non-Significant** Point Sources have 50,000-400,000 gpd flow. These two categories are dealt with in the WV Potomac Tributary Strategy (see current draft at www.wvnet.org, on the Tributary Strategy stakeholders portion of the website). "**Minor**" facilities have <50,000 gpd flow, but there are quite a few of these. See breakdown in materials from the first meeting of this group (October 2004).