

## **Nutrient Trading Listening Session Comments**

November 14, November 15, and December 12

After issuing the Interim Final Trading Policy the Department held a series of listening sessions in cooperation with the Department's Citizen Advisory Council, Pennsylvania Association of Conservation Districts and Pennsylvania Environmental Council. From the listening sessions held, the comments, questions and observations regarding the Trading Policy and Program were recorded and have been combined. Many, if not all, of these collected points were also submitted during the official comment period and have been responded to in the comment response document. Below is a breakdown of the comments, questions and observations received at the sessions.

### **Credit and Credit Availability**

- There is a client wanting to develop with a package plant, they want clarification on timing and credit availability – who has them and how much?
- In the demo project, were there estimates of credits observed?
- POTWs side would be able to purchase credits. Credits should be available for the full length of NPDES permit, not a one-year shelf life. (Need long-term viability, must be at least 5 years!)
- What about CAFOs? Since everything is BMP related, not a number, how establish a baseline for trading?
- Can credits be retroactive to a certain time period?
- If there is a parcel of land currently mowed to the bank where no buffer is installed, must at least 35 feet buffer be installed and credit can be achieved? Do they have to install a wider buffer to achieve a credit? Can we apply to parks to generate credits for municipalities in an urban sector? Further emphasis on watershed with an impaired stream?
- To obtain credit for a riparian buffer, do we need to show measurable benefit in addition to demonstrating installation to right width?
- How much is one of these credits going to cost? Say costs to POTW is \$100 for reduction, concern the cheapest rate from the POTW would define price, thus eliminating incentive for POTW to participate.
- How about the cost for the installation of buffers, BMPs ... concern that the cost would be borne by the POTW, since it is the POTW is the one needing the credits. The cost is going to go through the roof for the POTW.
- How much of totals named in presentation available for trading are from point sources and from nonpoint sources?
- How envision trading between CAFOs and regulated farms and municipalities? How do you calculate trading between POTW and CAFO? Would CAFO also be treated as a point source, or nonpoint source? Does it matter? Would this be viewed as double dipping if a CAFO is looking at trading?

- Will trading be permitted between sub-watersheds within larger basins of Susquehanna or Potomac?
- What about installing fencing and creating a buffer as practice for trading?  
What if have an EV stream, will a discharger in that EV be allowed to purchase credits?
- Outside influences in other programs like air helped trading succeeded. Can environmental groups purchase credits by taking them out of play?
- What prevents one entity from buying up all of the available credits, thus resulting in no benefits?
- What about credits for POTWs who treat and accept septage?
- EV stream and buying credits .. knowing trading has to be consistent with laws, etc.
- Would buying credits not be allowed since those discharging to that stream could violate clean streams and other laws?
- Will future competition drive up costs of credits?
- What happens when credits get scarce (finite #)?
- How long until credits run out?
- Within the threshold for NPS it calls for an approved Nutrient Management budget, what is a nutrient management budget?
- Who is going to approve the nutrient management budget?
- Will there be a broker for credits? If so, delegate to whom? Concern if given to conservation districts, you have government watching government. Would prefer that is be done in the private sector.
- Need to make it easy for the farmers. What about claiming credits for the farmer getting out of business? Can the farmer getting credit for this, or for reducing some or part of their business.
- Part of the strategy does impose mandatory installation of practices as CAFOs. How many of the practices identified for credit available are on the larger verses smaller farms?
- Who is going to enforce this? Who is going to keep track of credits entered into the bank to insure implementation?
- Sales survey of fertilizer done in Maryland showed significant amount of fertilizer purchased was for non-ag uses. Are we going to account for credits from reduction in fertilizer sales from other sources than ag?
- How many generators of large sources of credits vs large number of smaller credits?  
Administratively, easier to work with a few generators. Would prefer a banking system and POTW tap into the bank.

- What about the metal content of sludge? Variations between sludges could be applied as part of credit initiative.
- Are we looking for credits from manure that is easy to handle? If so, limiting to those with dry manure (i.e. poultry) because of difficulty handling and hauling would be best.
- How document credits each year?

### **POTWs and On-Lot Systems**

- Will community on-lot septic systems be affected by this program? If so, how?
- Can POTWs acquire credits through the servicing of systems currently on on-lot systems?
- There is a 5% retirement ratio and a 5% administrative cost ratio. Is a 10% total applied?
- Can trading happen within the same system without the 10% administrative fees?
- What about community's served by on-lot systems? Can a POTW get credits by adding the community to the system? What about the potential for sprawl due to the development of prime agriculture land between the community and the system due to installation of collection systems?
- When will there be a need for credits to be generated for on-lot community systems? Suppose you have a development with 40 homes removed from an on-lot system. Can they meet the Chesapeake Bay requirements this way or do they need to apply for further credits?
- 11% of nitrogen, 14% of phosphorus to the Chesapeake Bay come from the point sources, a group that is attuned to the best available technology. What happens if implementation of all the technology doesn't achieve the reductions and water quality benefit through the reduction of these goals? What happens if goals aren't reached by 2010? The POTW community is being forced to make it happen. When do you go after agriculture and others, put enforcement on agriculture?
- What about new wastewater treatment systems? Will they be held to new limits, or will be given credits based on existing levels. Do all new wastewater systems have to purchase credits to be allowed to discharge after August 29, 2005?
- POTWs get credits for discharging less than the permit limit. When would this be established, at the end of the year looking at DMRs, or upfront at the beginning of the year based on established permit limits and flow?
- Will a new developer who decides to discharge rather than re-use be assigned mass loadings of total N and P?
- What about new dischargers? At what point do they have to demonstrate that they have credits? If at planning module stage, could prevent development.
- For POTWs, is there a strategy for taking on-lot systems out of circulation?
- When will mass loadings be available for POTWs with flows < 400,000 gpd?

- What about wastewater treatment plants that have been in planning at the township level for a long period of time?
- Point Source – is there a minimum size load? In Bay Strategy, defined a minimum flow rate. Can smaller systems qualify for credits if below minimum flow rate? Will smaller systems be forced to meet new limits where need to find credits?
- Where do new septic systems fit in?
- What about residues pumped from septic tanks now delivered to treatment plants? What about credits to facilities for taking septic tank loadings?

### **Participation and Outreach**

- Biggest potential source for generating credits is probably through the agriculture community. How do you get the information to the individual farmers, etc.?
- Are we going to publish individual trades? Are we going to solicit comments on individual trades? Are we publishing info on individual trades (Response ... we would publish general info, not confidential)

### **Land Use and Planning**

- When will Sewage Planning Modules be impacted by the Trading Program?
- Say there is a Lancaster dairy farm that wants to go out of business, thus no more load... can the farm sell any generated credits? Should retirement or conservation of land apply for creation of credits? There should be a concern about what happens to the land after retired.
- What about unintended consequences? For example, a developer needing credits. Would acquire land and take out of agriculture use ... can the developer apply for credits thus stimulating sprawl, further urban development?
- Another unintended consequence ... developers would develop prime ag land with riparian buffers, thus getting a trading credit.
- What about discontinuing farming, taking farmland out of service? This would be good source for credits
- Concern of farmers is the lack of rentable farmland. Is there any way to expand options. ... say limit land available for credit to so many feet on either sides of a stream.
- Understood that facilities in Act 537 process are waived. What about new facility that would have to be included in the Act 537 plan? What about the risks involved because of the unknown cost of credits?
- What about developers who take out 100 acres of agriculture by putting land into residential use? Can the developer get credit for reductions?

### **BMP and Monitoring**

- With the use of alternative technique besides those in the Chesapeake Bay model, what criteria would be used to decide if the alternative technique is legitimate?
- Who is responsible for monitoring the BMPs put in place and the enforcement if not installed and maintained?
- There is some talk about limiting potential BMPs that true, or can any BMP be eligible?
- Are you exploring discussions with NRCS and the Department of Agriculture to further define criteria for inclusion of BMPs to expand the list of eligible BMPs.
- Why is it the applicant's job to prove the effectiveness of a BMP to be included in the program?
- Can the percentage increase for trading of buffer if it is increased in width?
- What about mowing buffers? Is there a difference in credits between vegetative and forest buffers?
- What about advanced nutrient management? Would want to consider advanced feeding where methods used to feed the animal results in less nutrients being produced through less manure generation. Can this be used a nutrient for trading?
- How are things now happening on the ground counted within model and calculation of available credits?
- What happens if calculations of model, research, delivery ratios change thus changing the obligation of the POTW and the relevant permit requirements?
- Thought there was urban nutrient management BMP within the Bay strategy? Is there, and what is it?
- Can we determine a value through monitoring? Can we use this to provide funds to citizen monitoring groups to check BMPs?
- What about those already using BMPs, do you need to install additional BMPs to get credits?
- Regarding installed BMPs, if a practice installed as part of another permit, will they get credit for installation of an existing BMP?
- A lot of focus has been around practices around the field. What about trading for higher end practices, say around the barnyard, manure storage structures. What about calculations about worth of these practices for nutrient trading and credit generation?

### **Sediment**

- How will sediment loading in an impaired stream be addressed where concerns such as MS 4s are related, how do you apply sediment loading to trading concepts?
- Would an MS-4 be eligible for credits for trading if they can accomplish appropriate sediment reductions?

- What about sediment trading for NPDES construction and E & S permits?
- Concerned how sediment will be addressed in terms of credits and trading? Example: Watershed organization restores stream corridor with public funding on private land and documents significant reductions of sediment and nutrients. Who owns the credits? Landowner, WSO, DEP Other?

### **Funding**

- Money? Money to do the program...either DEP does it by hiring additional staff, or through 3<sup>rd</sup> parties. How are we getting money to do this program? As a conservation district director, interested in this, and it could possibly be part of their mission, but there is a need for money. Needs to be integrated in the planning level at the local level.
- Do you think that trading will take the place of current state funding such as EQUIP for farmers?
- Will be a total nightmare for POTWs to deal with individual generators, to insure practices are in play, etc. What kind of budget has been established for policing this?
- What role do the financial impacts play on this program?

### **Agriculture and Other**

- How does this apply to the agreement among 10 state agencies? Anything developed needs to be consistent with this agreement.
- Who might the third party be and how would they facilitate the implementation of the program?
- Need an idea of the timeline for when answers to the questions and comments will be received.
- Are there any contradictions between what is being proposed under this program and the ACRE initiative?
- Is there a prospect for another demo project like the one done in Lancaster County?
- The focus is on N, P and sediment due to Chesapeake Bay concerns. Will the policy be expanded to address other sub-watershed specific issues (i.e. mining discharges, CSOs, etc) in those areas where the TMDL has a different focus?
- Will trading between adjacent waterloads be permitted if the TMDL focus is very different? (e.g. Northumberland County, the southern 1/3 is “ mining impaired” but the central 1/3 is ag impaired. Is it appropriate for the southern areas to trade nitrogen credits to the central when N is not really an issue in the southern 1/3?
- Envision trades to be bilateral. If you don't publish prices or pricing level, how can economic calculations be made? Need to look at establishing a pricing level to begin negotiations.

- What happens in a few years when we are still struggling for economic development and the only way they can get sewage capacity is through trading?
- Two tributaries, in two sub-watersheds; both discharging to bay. One does good job reducing and improves water quality in the sub-watershed, but the other sub-watershed is still “trashed”, since they benefited from the credits generated in the other sub-watershed? The Bay benefits, but what about the water quality in the sub-watershed that is still “trashed”. (DEP – also will be implementing local standards and TMDLs, none of existing protection levels can be traded away)
- How will DEP enter into contracts that result in more viable situation?
- Does DEP have the budget to double staff to handle the permits for this? Already waiting several months for simple changes to existing permits.
- Who would need to approve the nutrient management plan/budget for trading?
- What about approval of conservation plans? Who will be responsible for approving them? Defining compliance is complicated. How do we get to “t”, how do we define “t”?
- Permitting process ... has this been worked out?
- What is role of NRCS?
- What about inputs from entities like Chemlawn? What about installation of forest buffers and clear cutting on ag land?
- In four or five years, in 2010, what happens if PA doesn't meet goals and WQ standards? How will that affect the Trading Policy?
- What about results through financial models? Do we have any established prices for BMPs through financial modeling?
- What about nitrogen which enters streams through ground water with an average age of 10 years? Does the model also take into account the loadings of nutrients that are being added from groundwater due to practices from 10 years ago?
- Current trend is for more selling of fertilizer for lawns etc. in urban settings, than selling to farmers. Why are farmers being blamed, when more nutrients are now being contributed by urban lawn care? Need to focus on broader constituency, not just the ag community.
- What is the timeframe for a “final” Trading Policy? When and how will comments be disseminated?
- If the goal is to effectively remove nutrients and sediment from circulation, why not use a 1.5:1 or 2:1 ratio?
- What guidelines or parameters will be used on urban and suburban run-off to measure for these pollutants?
- Financial model- what are probable costs?

- Who do we contact if we want to trade and need a partner?
- Is there adequate capacity for preparing, reviewing and approving nutrient management plans?
- Most farms either do not have or have not implemented nutrient management plans, i.e. these are voluntary. Who will provide compliance oversight? These services should be provided by private industry and not compete with government agencies.
- Are we following a nitrogen or phosphorus base. Why can't farmer also work for nitrogen base, farmers limited to phosphorus. Not comparing apples with apples. Issue of comparing biosolids with sludge and manure. Equity of government so that farmers are treated equally.
- Of the numbers presented needed for Chesapeake Bay strategy, how much is needed of the agriculture industry to meet reduction goals?
- What is the value to the farmer? How much reduction can he claim through installation of a practice vs the reduction from a treatment plant? Does the installation of practices generate income for the farmer above and beyond cost for installation and maintenance?
- NPS preference is on mass balance. How many specifics as to how this can be done? Before and after calculations for mass balance. Need more guidance on how to do.
- What about a flush tax for Pennsylvania, like Maryland? Why don't they make the treatment plants do this? Farmer tired of being forced to solve the problems of communities.
- Now pushing Act 6 plans, is the need for developing nutrient budgets going to take away from resources focused on Act 6 work?
- What about the conservation plan? This plan has been around for 75 years, documenting decisions for sediment, water quality, etc. Why isn't this plan being considered as the focus for this program? DEP should take a look at a conservation plan rather than nutrient budget.
- How do you account for variable weather, changes in weather? Yield etc. varies based on rain. This affects effectiveness of BMPs vs the wastewater treatment plant having consistent flows that don't vary.
- Has DEP calculated the reductions from NPS from baseline requirements? Shouldn't this go towards reducing ratio to reduce burden to regulated community?
- How much input has been received from conservative sectors like the Amish community?
- Is it possible to publish a list of attendees or obtain a list of attendees?
- The written policy separates nutrient trading and sediment trading. The policy seems to focus on nutrient trading. Will further policy be drafted by the department focused on sediment reduction trading? If so, this policy should establish T and an approved Conservation Plan as the baseline.



## Comments

- Most of impairments are related to sediment load. Really need to look at reductions in sediment through trading.
- Simplest way to get POTWs to participate must move trading outside of individual NPDES permit. It is an enforceable action, looking at a potential lawsuit if can't meet trades/limits. Move to a watershed wide permit, so that it is the state's problem.
- Encourage outreach with Pennsylvania Planning Association, which deals with planning and land use in Pennsylvania.
- DEP is contradicting themselves. On one side requirements for removal were applied for Chesapeake Bay, on the other side nutrient trades are applied on a geographic principle; that is those in the northern sector of the watershed will have to reduce more. The two delivery ratios should be consistent.
- Attendees included those involved in agriculture, POTWs, developers, those just interested.
- Not good enough to have state run bank available to apply towards limits and viability of bank for POTWs to use to meet permit limits.
- Need a liquid market through having a lot of people coming to trade. Like the stock market, where things can move over.
- Create a liquid market by creating a need (POTWs have the need because they have limits). Now have an unequal partnership. Now have situation with those that have a need with those that don't. Need to include more in the category of those with a defined need.
- For a sound program, need to tie into local planning efforts maybe at some threshold level for opportunity for local planning and comments.
- POTWs would have to have assurances that all of nitrogen and phosphorus limits can be met through trading. It is hard to implement with a combination of trading and treatment.
- Geographical trading. Interested in more modest trading within a smaller watershed, not on the scale of the Chesapeake Bay. There can NOT be inter-basin trading; say between the Potomac and the Susquehanna.
- There are other groups besides the agriculture community, POTWs and conservation districts that you should be outreaching to include residents and municipal officials in watersheds involved in TMDLs, and 3<sup>rd</sup> party environmental groups where demonstration of progress to address impairment is needed.
- Include PSATS, Home Builders Association, Farm Bureau, Pa Dept of Agriculture, Sewage Enforcement Officers Association and Planning Association, County Commissioners Planning Association of PA, County Planners in outreach efforts.
- A number of ways that PPA can help: newsletter to members, e-mails to professional planners (do training throughout the 6 sections). They can help with feedback and education of members.

- Penn State Co-operative Extension is another partner to include to educate.
- If the state is going to have to pour money into the farms, what about pouring the money into the POTWs instead to give the POTW the choice to install infrastructure or pay the farmer to install BMPs.
- Very important to expand menu of BMPs through continued work with Chesapeake Bay partners and others.
- Encourage that the threshold of eligibility should include a fully implemented conservation plan that meets “T” on the rotation.
- Some things that CAFOs can do for trading is efficient feeding, precision grazing areas, paddock areas for trading.
- Wants longer term for shelf life.
- Include storm water control BMPs associated with new developments.
- Behoove the community to go after trading in TMDLs streams, since they would get double credits by working on “worse” streams. They can get improvements on TMDLs streams, while achieving Bay trading levels.
- Concern over timing and trade between NPS and PS. Accounting for various life spans of practices is confusing within trading.
- Liquidity and simplicity of credits is most important for POTWs. Program needs established standards, and not require POTW or farmer to actually monitor to document reductions. (DEP – want pounds per year, credits established each year, then checked each year to make sure BMPs still working)
- Shouldn’t have to go out each year to establish credits. Establish up front for life span of practice.
- The role of conservation districts is being considered. If want help implementing, they need funding for implementation.
- Concern that the process is simplified, with standardized forms, permits and fees. Include standardized pricing and liquidity within the process. Concern over bidding requirements as well.
- Unknowns generated for permittees, creating uncertainty, reluctance to buy-in. Need incentives and simplified and standardized process. Need to limit their responsibility and liability. Very costly to re-evaluate credits on a yearly basis.
- Value of development – is there a per acre benefit from converting an agriculture acre to a developed acre, to a developed acre with stormwater BMPs. Stormwater BMPs don’t have as high a benefit in nutrient reduction. Would like to see studies comparing effectiveness of agriculture BMPs to stormwater BMPs.

- Have a proliferation of on-lot septic systems through this policy which is counter-productive to economic development incentives.
- Could result in violations of Act 167 programs.
- POTWs need longer term commitments for trading that parallel with long term financing agreements needed to construct infrastructure.
- The timeframe for POTWs in reality is slow for construction of infrastructure, versus need to achieve compliance and reductions by 2010. Issues of economics, long-term accountability need to be answered now.
- Need a good process in place for determining baseline, defining price of credits.
- DEP has refused to define limits, requirements for POTWs. Refusing to define 2010 flow and limits.
- Trading is a “chicken and egg” thing. POTWs need. Farmers aren’t going to go out on their own and generate credits for municipality use. Promote DEP establishing bank upfront, assign a fixed cost, collect the monies and then give the funds to the districts to install practices.
- Suggest using private industry rather than conservation districts to promote, due to staff and time constraints of districts.
- Need to also factor in the better effectiveness of absorbing nutrients through turf than farmland.
- Nutrient plan also requires nutrients to be taken out with harvest.
- Also need to include nutrients contributed due to de-icing formulas for sidewalks and streets.
- Suggest publishing information on actual trades so that people can have guidelines ... amounts of trades, costs, who generated and how much, science behind calculations for specific trades.
- Municipality vs. Developer/Commercial
- Suggest giving credit for removal of potential on-lot systems for new communities. (i.e. credit for developer to install sewers and treatment rather than septic)
- Private industry will gear up for any programs that will affect PA agriculture.
- I strongly believe that private industry is prepared and in a good position to provide nutrient management planning, oversight, compliance etc for trading programs.
- With the 100 foot buffer – you are knocking out production of agriculture.
- Stream bank fencing took out 12 feet for buffer in a pasture. Need to define viable agricultural land. Deciding factor is no longer soil types, etc. There are no longer limiting factors

now for development. As more systems are approved, land values increase, thus promoting more development.

- What about requiring trades within certain sub-watersheds so that credits are generated within localized areas to generate local benefits, not just the benefits to the Bay.
- Needs to be noted that those in ag community with stewardship ethic ... may not need to generate profit, just cover costs of BMP installation.
- CAOs, CAFOs are ready for the concept today. Don't necessarily need a financial gain, but break even, help with permit costs. Instead of helping development of plans, with a lot of base data, focus on implementation. Use existing plans as a starting point for implementation.
- Model the program around the transfer of development rights.
- Time period of one year—capital improvements have significant longer lifespans vs life span of BMPs.
- The focus with stream bank set-backs, need to face realities that exist in farm. Not all farms have streams, but most have road frontage. See a lot more mud, silt, etc. running down the road ditch than around the stream. This is addressed by conservation plan, which is not addressed by existing set-back proposal. Nutrients from barnyard
- Significantly higher when channeled by road than going through pasture etc. to the stream.
- Nutrient reduction technologies become more costly for farms as more capital investments are made – issue of long-term investment and capitalization.
- Concern about POTW buying credits. This should be a temporary fix. Would want the PS to find a long term solution. Need to allow for the farmer getting into situation where he needs to buy credits.
- Municipal bid laws are a concern as they may conflict with trading concept.
- Lawn Fertilizer Application- advertise proper amounts needed to be applied to do an OK job- big bang for the \$