

**NUTRIENT TRADING CREDIT CERTIFICATION
REGULATORY ADVISORY PANEL (RAP)**

**DRAFT MEETING NOTES
RAP MEETING – TUESDAY, MAY 21, 2013
DEQ CENTRAL OFFICE - 2ND FLOOR CONFERENCE ROOM
RAP MEETING #6**

Meeting Attendees

<i>RAP MEMBERS</i>	<i>INTERESTED PARTIES</i>	<i>RAP TECHNICAL SUPPORT</i>
Jack Frye - Chesapeake Bay Commission	Irins Calos - The Nature Conservancy	David Aho - DCR
Brent Fults - Chesapeake Bay Nutrient Land Trust, LLC	David Grandis - The Office of the Attorney General	Russ Baxter - DEQ
Taylor Goodman - Balzer and Associates, Inc.	Adrienne Kotula - James River Association	Josiah Bennett - DEQ
Normand Goulet - Northern Virginia Regional Commission		Diane Beyer - DCR
Steven Herzog - Hanover County		Allan Brockenbrough - DEQ
Ann Jennings - Chesapeake Bay Foundation		James Davis-Martin - DCR
Larry Land - Virginia Association of Counties		Deb Harris - DEQ
Joe Maroon - Virginia Environmental Endowment		Liz McKercher - DEQ
Timothy Mitchell - City of Lynchburg		Bill Norris - DEQ
Chris Pomeroy - Virginia Association of Municipal Wastewater Agencies		Ginny Snead - DCR
Nikki Rovner - The Nature Conservancy		Kristina Weaver - Institute for Environmental Negotiation
Jack Storton - Virginia Manufacturers Association		
Jenny Tribo - Hampton Roads Planning District Commission (Alternate for Whitney Katchmark)		
Brian Wagner - Virginia Soil and Water Conservation Districts		

NOTE: RAP Members not in attendance: Phil Abraham - Virginia Association of Commercial Real Estate; Doug Beisch, Jr. - Williamsburg Environmental Group; Whitney Katchmark - Hampton Roads Planning District Commission; Joe Lerch - Virginia Municipal League; Adam Meurer - ECS Mid-Atlantic, LLC; Kevin Seaford - Virginia Association of Professional Soil Scientists; Mindy Selman - World Resources Institute; Tom Simpson - Water Stewardship, Inc; Wilmer Stoneman - Virginia Farm Bureau Federation; Mike Toalson - Home Builders Association of Virginia; Shannon Varner - Troutman Sanders LLP

1. Welcome & Introductions (Ginny Snead/Kristina Weaver/Deb Harris):

Ginny Snead welcomed all of the meeting participants to the 6th meeting of the Nutrient Trading Credit Certification Regulatory Advisory Panel. She asked for introductions of all of the members of the RAP and other meeting attendees. Deb Harris asked for all attendees to sign the sign-in sheet so that we could have a record of attendance.

2. Change in Agenda (Ginny Snead):

Ginny Snead reviewed a change in the agenda for today's meeting with the group. A presentation by

DEQ staff regarding the subject of "financial assurance" has been added to the agenda. She noted that the materials regarding financial assurance that had previously been sent to the RAP would not be discussed today, since it is likely to change. Instead there will be a staff presentation regarding the concept of financial assurance with the actual language for the section to be drafted and presented to the group at a future meeting.

3. Work Plan Revisions (Ginny Snead):

Ginny referred the group to page 2 of the Work Plan and noted that we were currently at Meeting #6 on the schedule. She noted that in order to provide the group some background information related to their "local water quality issues" discussions that there would be a presentation by Liz McKercher - DEQ's Watershed Program Manager on Local Total Maximum Daily Loads (TMDLs). Following that presentation and discussions on local water quality issues, there will be a financial assurance presentation. Following that presentation and discussion by the group, there will be a continuation of the group's discussions on "baselines and calculations" and the draft regulations. She noted that the previous draft regulatory language related to agriculture has been sent back to staff for further consideration and redrafting and will not be discussed today. This area will likely be brought back for discussion at the June meeting.

The meeting for June has been scheduled for June 11th. At that meeting there will be a presentation on "fees" and the groups discussions will continue on Baselines; Calculations; and Local Water Quality Issues and financial assurance. In addition there will be a discussion of the regulations as they are drafted as of that date.

The current plan is to take a break and not have a meeting in July. The meeting schedule will resume in August, with the dates for meetings 8; 9; and 10 in August, September and October yet to be finalized.

Deb Harris noted that the June 11th meeting is currently scheduled to take place at the DEQ Central Office 2nd Floor Conference Rooms but that the DEQ PRO Training Room in Innsbrook was also available.

Kristina Weaver polled the group regarding the location of the June meeting of the RAP. The General Consensus of the group was to hold the meeting at the DEQ PRO location.

ACTION ITEM: Staff will make the necessary arrangements to hold the June 11th meeting of the RAP at the DEQ PRO Training Room in Innsbrook.

Ginny noted that today's meeting would be the last meeting where lunch would be provided to the RAP members. Members asked whether it would be possible for the group to contribute individually for lunch to be brought in so that there would be more time for the meeting.

ACTION ITEM: Staff will look into the possibility of RAP members contributing to a lunch fund so that lunch can be brought in for the June 11th meeting.

4. Local Total Maximum Daily Loads – Presentation (Liz McKercher):

Liz McKercher, the Watershed Programs Manager for DEQ presented an overview of "Local Total

Maximum Daily Loads" related to local watersheds. Her presentation included the following information:

- TMDL Development includes stakeholder input at each stage of the process which include:
 - Evaluation of the watershed and its impairment (water quality data, stressors/sources, climatic conditions, soils, watershed land use, modeling existing conditions);
 - Identification of Endpoints (water quality standards or reference conditions); and
 - Modeling Scenarios (Determination of the allocation of the load among point sources and non-point sources and allowing for a margin of safety, and future growth as well as the identification of reductions.)
- The Regulatory Basis for the program includes:
 - Federal Clean Water Act, Section 303(d) – List impaired waters & Develop TMDLs
 - 40 CFR Section § 130.7 – Water Quality Planning and Management – TMDLs shall take into account critical conditions for stream flow, loading, and water quality parameters.
 - Code of Virginia - § 62.1-44.15 (10) & (23) and § 62.1-44.19:4 and 19:8
 - Water Quality Management Planning Regulation (9VAC25-720)
- TMDL History in Virginia:
 - 1972 – Clean Water Act 303(d) – Each State shall establish for the waters identified...the total maximum daily load;
 - 1999 – Settlement by EPA, Consent Decree (CD) – To meet the CD, Virginia completed TMDLs covering approximately 225 shellfish and 333 non-shellfish impairments;
 - 2002 – Clarification from EPA on NPDES regulated stormwater discharges as wasteload allocation;
 - 2010 – TMDL development continues post-CD – Over 1,100 additional waters require TMDLs – 100 TMDLs per biennium expected;
 - 2014-15 – EPA modifies watershed cleanup performance measures – Begin giving credit for non-TMDL solutions – TMDLs still one watershed clean-up tool.
- TMDL – Maximum load of a specified pollutant that a water body can assimilate and attain water quality standards – Includes a wasteload allocation (point sources), load allocation (non-point sources) and a margin of safety.
- Total Maximum Daily Load (TMDL) = Waste Load Allocation (WLA) from point sources + Load Allocation (LA) from non-point sources + Margin of Safety (MOS) to account for difference between model and instream conditions. (TMDL = WLA + LA + MOS)
- Decision to develop a nutrient TMDL:
 - Impairment
 - § Dissolved oxygen
 - § General aquatic life (benthic macroinvertebrate)
 - Identification of Pollutant
 - § Stressor analysis, analysis of water quality parameters, nutrient modeling, reference watershed comparison
 - End points
 - § Dissolved oxygen criteria, TN:TP ratio, Chlorophyll a concentration
- Fourteen watersheds in Virginia have either a Nitrogen or a Phosphorus TMDL:
 - Total Nitrogen (TN) = 5 watersheds
 - Total Phosphorus (TP) = 9 watersheds
 - § Jackson River watershed includes TMDL for both TN and TP, applicable only

seasonally;

§ Pitts Creek has both TN and TP TMDLs.

- TMDLs & Reductions:
 - South Fork Shenandoah: Sediment and phosphorus load reductions from upstream TMDL watersheds are sufficient to meet reductions needed in South Fork Shenandoah River watershed; therefore, no sediment and phosphorus load reductions are needed in the South Fork Shenandoah River impairment watershed. No TMDL was set.
 - Table 7.6. Impairment, watershed identification, and required overall sediment load reduction for previously-developed TMDLs in South Fork Shenandoah River watershed.

Impairment	Watershed	Overall Load Reduction (%)
Upper Middle River	B10	37
Lewis Creek	B12	74.9
Moffetts Creek	B13	25.9
Christians Creek	B14	54.2
Mossy Creek	B19	61.8
Muddy Creek	B22	68
Cooks Creek	B25	45
Blacks Run	B26	71
Pleasant Run	B27	63
Mill Creek	B29	57.04
South River	B30-32	25

- Mill Creek: Table 4.1: Estimated Loads and Load Reductions for TOC, TN, and TP:

Pollutant	Current Load (lb/day)	Allowable Load (lb/day)	Required Reduction (%)
TOC	76.34	30.53	60
TN	25.18	10.07	60
TP	0.77	0.77	0

- TN Reductions for Gargathy Creek – Table 4.1: Estimated Loads and Load Reductions for TN:

Pollutant	Current Load (lb/day)	Allowable Load (lb/day)	Required Reduction (%)
TN	144.1	95.1	34

- Unnamed Tributary to Chickahominy – Table 6.2: Phosphorus TMDL for the UT Chickahominy:

TMDL (lbs/yr)	LA (lbs/yr)	WLA (lbs/yr)	MOS (lbs/yr)	Overall % Reduction
432.69	23.34	409.35 (<i>Tyson Foods Incorporated</i>)	0 (implicit)	67.5

- Jackson River TN & TP: Table E-2: Chesapeake Bay TMDL Nutrient Waste Load Allocations:

Facility Name	VPDES Permit	Discharge Flow (MGD)	TP Load (lbs/yr)	TP Conc. (mg/L)	TN Load (lbs/yr)	TN Conc. (mg/L)
MeadWestvaco	VA0003646	35.0	159,892	1.5	394,400	3.7
Covington STP	VA0025542	3.0	4,568	0.5	54,820	6.0
Low Moor WWTP	VA0027979	.05	761	0.5	9,137	6.0
Lower Jackson River WWTP*	VA0090671	2.6	5,330	0.5	63,957	6.0

*Reflects consolidation with Clifton Forge STP

- *The current discharge levels from the MeadWestvaco plant are much lower than the Chesapeake Bay recommended discharge levels shown above. In-fact and based on recent DMR data, MeadWestvaco has reduced considerable its phosphorus discharge to the Jackson River.*
- *The resulting periphyton levels resulting from the implementation of the Chesapeake Bay Scenario along with a restriction on bioavailable phosphorus discharges from MeadWestvaco in each modeling segment of the Jackson River are depicted in Figure E-2 showing that the average periphyton level in the 15 mainstream model-segments is approximately 137 mg/m².*

- Jackson River – Table E-3: Summary of Recommended Waste Load Allocations in the Jackson River:

Facility Name	TP Load (lbs/growing season)	PO4-P (lbs/growing season)	TN (lbs/growing season)
Major Point Source Dischargers	71,004	12,068	213,478
Minor Municipal Dischargers	1,121	-	4,484.8
Minor Industrial Facilities	709	-	1,570
Domestic Sewage Facilities	39	-	153
General Stormwater Permits	82	-	448
Total	72,955	12,068	220,134

- Jackson River – A summary of the TMDL allocation plan loads for the Jackson River are presented in Table E-4 and Table E-5 for total phosphorus and total nitrogen respectively:

WLA (Point Sources)	LA (Non-point Sources)	MOS (Margin of Safety)	TMDL
72,955	2,880	Implicit	75,835

WLA (Point Sources)	LA (Non-point Sources)	MOS (Margin of Safety)	TMDL
220,134	24,160	Implicit	244,294

- Unnamed Tributary to Pitts Creek – Table 4.1: Estimated Loads and Load Reductions for TN and TP:

Pollutant	Criterion (mg/l)	Current Load (lb/day)	Allowable Load (lb/day)	Required Reduction (%)
TN	0.71	83.83	25.15	70.0
TP	0.03	8.82	2.65	70.0

- South Run – TP – Table 7-4: Phosphorus Load Reductions for Proposed TMDL Scenarios:

Scenario	Load (ton/year)		Total Phosphorus Load Reduction (%)	
	PS	NPS	PS	NPS
1	0.198	0.496	0	0
2	0.136	0.393	31.33	19.74
3	0.023	0.496	88.38	0
4	0.038	0.496	80.81	0

- South Run – Implementation: Currently the phosphorus load in South Run exceeds the TMDL endpoint. However, the only point source in the watershed, Vint Hill Farms WWTP, is in the process of relocating the outfall to Kettle Run Watershed. As a result, the phosphorus load in South Run will be reduced below the TMDL endpoint. No load reduction will be required from nonpoint sources in the watershed due to this relocation, since the TMDL endpoint is met and the average concentration in South Run was below the Chesapeake Bay Tributary Strategies average values for the Shenandoah and Rappahannock Rivers.

The RAP's discussions included the following:

- *Local watersheds are each unique and they each have slightly different methodologies for determining the endpoints. How the point sources are treated is often unique.*
- *A TMDL is an effort and a study and a report that identifies the maximum amount of a pollutant that can exist in a watershed and still maintain water quality standards.*

- What is DEQ's Margin of Safety (MOS) for TMDLs? *Staff Response: The MOS is variable. The assumption is that the model is more conservative and most protective of the instream environment and therefore the margin of safety is called "implicit" and is often not given a number. The typical margin of safety is 10%. 10% is the "rule-of-thumb" figure that is normally used.*
- If a watershed in Virginia has a TMDL for Nitrogen or Phosphorus it is because it did not meet the water quality standard for dissolved oxygen or our general aquatic life standard which is determined by the diversity of bugs on the bottom of the stream, our benthic macroinvertebrate analysis. The dissolved oxygen number depends on which water body you are in. Free flowing streams may be 4 mg/l, but as you move east it may be 5 or 6 mg/l. There are also certain restrictions regarding "shifts during the day" conditions.
- How many watersheds are there in the Chesapeake Bay Watershed that have either a nitrogen or phosphorus TMDL? *Staff Response: There are 3 that have Phosphorus TMDLs and 2 that have Nitrogen TMDLs.*
- There are 39 stream segments that contribute to impairments in the Tidal reaches of the Chesapeake Bay.
- It is rare to have a nutrient TMDL for free flowing streams.
- A question was raised regarding the status of the advisory group for "Free-Flowing Stream Nutrient Criteria. It was noted that the group had not met for a number of years. *Staff Response: Will need to look into that to determine the current status of that effort.*

ACTION ITEM: Russ Baxter will look into the status of the advisory group addressing nutrient criteria in free-flowing streams and will report back to the group.

- *Generally the rule-of-thumb comparison factor is that there is a 40% reduction in the Bay TMDLs. The question being examined is when is the local TMDL more restrictive than the Bay TMDL? A number of examples were presented in a power-point presentation. Local TMDLs can be more restrictive than the 40% required by the Bay TMDL.*
- *There can also be "seasonal" TMDLs, which are only applicable during the growing season.*
- A question was raised regarding the status of the GIS database information that was available to the public? Is it updated on a regular basis? Is there a lag in the availability of information? *Staff Response: The information was just posted 3 months ago so it should be up to date. There is an ongoing process to update the information and to keep it current. There is probably a 3-month lag in getting the data posted.*
- Can you discuss not necessarily the TMDLs but the "impaired regions"? What process does DEQ go through to go from "impairment" to development of a TMDL? How does DEQ prioritize what is addressed? Do they all go through a review? What is the time lag? *Staff Response: Up until 2010, the prioritization was what was required by the Consent Decree to do. Currently the prioritization scheme is evolving now that we have the freedom to make our own decisions. We certainly look at the 303(d) list and prioritize any impairments that have reached an "8-year" mark (They have been impaired for 8 years consistently. Some may go off*

and on the impairment list so they may move back down the prioritization list.) Some areas of impairment may also get bumped up the priority list due to "local interest" at least on DEQ's workload list for review and for conducting stressor analyses.

- Reference was made to a 2015 Work Plan. Is that document publicly available? *Staff Response: The Integrated Report (IR) lists all of the impairments and gives a TMDL due date. DEQ has a work plan for what is on our horizon for 2012 and 2013 posted on the DEQ Website. DEQ is currently working on the development of a number of TMDLs currently with an Implementation Plan. We are interested in implementing as many TMDLs as we can that need the nonpoint source element addressed. Implementation plans take awhile to put into place.*
- *The identification of the impairment really doesn't tell you a lot until you are able to identify the "stressor". This would be identified during the TMDL development process.*
- *The Fact Sheets contain the Field Staff notes which would include any specific observations regarding possible stressors that might need to be considered.*
- These are "narrative" standards not "numeric" standards. We have stream segments that we know are impaired even though we may not know the stressor or pollutant causing the impairment. Under the Clean Water Act there is a requirement for a "Reasonable Potential Analysis" which is supposed to help to protect, in a trading situation, so that you don't have a trade that would contribute to that impairment or lead to a degradation in water quality. According to EPA, there doesn't appear to be any consistent standard protocol. *Staff Response: The question is " If you know you have an impaired benthic macroinvertebrate community and you have a VPDES permitted source if we don't have a numeric criteria for nitrogen and phosphorus how do we do the instream analysis to allow that discharger to expand or allow a new discharger to come into an impaired water body? We may want to talk to someone in Permitting to see how this situation would be handled. They will still have TSS or BOD limits in the permit based on the limits they already have in place.*
- The question is how do you address trading in a locally impaired watershed? There currently is no standardized permitting protocol for this situation. It is a permitting decision. It is a big issue for local governments and for a lot of local people. How do you address not degrading local waters while cleaning up the Bay? *Staff Response: We currently use our assessment data base and field staff observations of sources of nutrients in our construction general permit as a way to provide protection to impaired waters. The requirements would be an increased inspection frequency and narrowed to those areas where there were observed sources of nutrients.*
- The numeric criteria are extremely variable depending on the stream and the watershed. There is no one number that works well. There is a lot of variability. It is site specific.
- At what point would DEQ look at an additional source in that stream segment that would require an overall additional reduction percentage? From a permit compliance standpoint we appear to be looking at a couple of pounds here and couple of pounds there relative to the stormwater program. In a given situation, a sewer treatment plant wanted to increase their capacity significantly so they purchased a large number of credits (100's of thousands) elsewhere so that there were localized watershed impacts where the sewer treatment plant

substantially increased its loading. If something like that would occur here would that trigger additional reductions in that localized TMDL? *Staff Response: In most of the TMDLs, we have written in some allowance for future growth for point sources. The answer is that this situation would probably not result in additional required reductions. The model is developed with the assumption that there would probably have to be some future expansion of wastewater treatment plants in the watershed. The determining factor is what are the sources in that watershed? They are farms; forests; cities; point sources. In some cases what you are seeing are homes being built where there was cropland. This would result in an increase in the wasteload from the increase in population. But the result of replacing the cropland with homes is that the nonpoint source has gone away. There may be some small reduction in the load allocation associated with that cropland so that we may need to rearrange; remodel or review the TMDL equation to update it based on the revised loads, with EPA approval. This would be the case when all of activities were within the same impaired segment. In a trading situation there may be two different segments involved.*

- A local TMDL could impact a trade.
- The biggest challenge to DEQ as an agency is that up to this point DEQ has been concentrating on point sources and point source trades, now it will have to include considerations of the impacts of nonpoint sources. The details of nonpoint source trading are different than point source trading. We are not dealing with 100's of thousands of pounds. The rule of thumb in the design world is that "1 acre of pavement is equal to 1 lb". If you look at all of the permits in Virginia, there are roughly 9,000 of them; we are still not to the 100's of thousands of lbs that can be associated with a point source. In a situation where one WAWA might give you 1 lb per year, it is hard to look at situations where there is local resistance where we are being told that you can't trade in this area because we have a local water quality issue; even though there is no burden to prove that it is impaired or how this load would change the impairment. Does a 1 lb trade have an impact or a measurable effect? *Staff Response: The agency has been moving in the direction to look at the nonpoint source impacts.*
- Does DEQ have a standard measure or trigger point when there is a request for a new source in an impaired TMDL watershed? Is there a trigger point when that TMDL has to be revised? *Staff Response: The trigger is 1%. The agency may modify the TMDL as situations in the watershed change. We may revise the TMDL equation as situation changes. The trigger for remodeling the TMDL is a 1% change. It is a cumulative change. Until you reach a cumulative 1% change you are okay. With a trading situation you are not actually changing the reduction, you are changing the location.*
- A lot of small changes can be allowed under the 1% trigger. Can't see the agency spending a lot of time looking at these small changes. *Staff Response: More and more of DEQ's current workload is involved with making changes to TMDLs due to exceedance of the 1% trigger. Managing existing TMDLs is a major work item for agency staff.*
- How are Construction General Permits handled? *Staff Response: These permits are transient in nature so a TMDL probably would not be modified to account for it.*

- TMDLs take into account future expansion in a watershed.
- It appears that we need to make it easier for DEQ to track the trading done through the Trading Nutrient Banks.
- With a change in land use, depending on the TMDL you would have a resulting permanent change in the load allocation. If it doesn't impact the overall load allocation then there is no need to make a revision or change.
- If there is an "impairment" but the TMDL has not been defined yet, how do you track the 1% trigger? *Staff Response: We would be looking at more of a narrative than a numeric consideration at that point. There are different approaches depending on whether there is a TMDL or one under development or not.*
- Still struggling with handling situations where there is an impairment but the stressor has not been identified.
- Maybe you should allow trades in a watershed until they reach or exceed the 1% at which point you reevaluate or restrict it or redo the TMDL. This is tool to deal with the di minimus concept.
- As a trader, it would be good to know that you are approaching some threshold (1%) in a watershed. There needs to be some certainty that there is a certain amount of trading (up to 1,000 lbs) available in a specific watershed before other steps are required.
- Not really sure how "anti-degradation" works. If there is an impairment where there is an exceedance of water quality standards or additional degradation, how is that addressed? If there is something that contributed to the impairment that already exists, how is that addressed when there is a TMDL or one under development or where there is only an impairment but there is no TMDL? This is a tough scenario that will need to be addressed.
- There is a need for some education here - What happens today with the current trading program? *Staff Response: There really is not a process in place - that is why this group is here discussing this issue today.*
- Can you provide details on trades that are being denied? Is that happening in Virginia and why? Were there local water quality concerns that were part of that denial process? *Response: This has been essentially a local issue or concern. DCR has done a good job educating the local governments on the program requirements. The trades that have been denied have been at the local government level. However, once the local government attorney (County Attorney) has looked at the law, the trades have been allowed. Trading is allowed under the law. There have been instances where the local government has told the applicant that they don't like the trade and use subtle force or tactics to get the developer to modify the plans so that there are no trade components. Staff Response: The concept of the contravention of local water quality has been widely interpreted by local governments. There is a lack of understanding at the local government level regarding "trading" with the Chesapeake Bay TMDL in place.*
- In general the local government concern with trading local water quality is a two level concern. One is a wasteload allocation issue with the way that local TMDLs are calculated. The wasteload allocations for stormwater are calculated based on land area within the MS4. This gets written into the permit. If a construction permit comes in, the local government concern is

that if that is approved then they may have issues with their permitting because of changes in calculations in loading rates. Then there is an issue of citizen concerns over local water quality and there are restrictions that they have to comply with to help address water quality concerns then a developer comes in with a project that has its own water quality impacts that are being dealt with through a "trading scenario". It becomes a citizen and a political issue and concern.

- Local governments have concerns with trading and will likely deny a trade because of a concern over future TMDLs and what they might be on the hook for in the future because of that trade. The concept of the application of credits is not understood by local governments.
- One of the things that was brought up today is maybe we can allow trading to take place up to the point that it has a meaningful effect or measurable impact. There is a difference in how point source trading and nonpoint source trading scenarios are addressed. *Staff Response: the large scale level trading is being done to meet the requirements of the Chesapeake Bay TMDL. The trades do not impact or change the requirements of the Local Watershed TMDL. The intent of the Watershed General Permit was the protection of tidal waters.*
- The 1% trigger is a cumulative calculation based on all new sources within an impaired watershed.
- In an impaired watershed where you have a new source being considered, what is the determining factor in this scenario where there is no TMDL? What is the protocol? *Staff Response: It is the VPDES process. If we don't have a standard it is hard to evaluate an impact on the local impairment. There may be a situation where this may or may not be a new source; it is dependent on where the activity that is being compensated with the trade is taking place.*
- The current law contains a provision that if an MS4 allows a trade that it doesn't lose its credits.
- The 1% is cumulative. Is it also a "net" increase? How is redevelopment activities handled? *Staff Response: From a Point Source perspective, if a wastewater treatment plant closes we consider that a relinquished load that goes back into the pool of available loads.*

5. Local Water Quality (Allan Brockenbrough):

Allan Brockenbrough provided an overview of the local water quality regulatory language that had been provided to the group on page 21 of the 4VAC50-80 RAP Discussion Draft handout dated May 21, 2013.

4VAC50-80-210. Local water quality.

A. This chapter shall not be construed to limit or otherwise affect the authority of the Soil and Water Conservation Board or the State Water Control Board, as applicable, to establish and enforce more stringent water quality-based effluent limitations for total nitrogen or total phosphorus in permits where those limitations are necessary to protect local water quality. The exchange or acquisition of credits pursuant to this chapter shall not affect any requirements to comply with such local water quality-based limitations. The option to acquire nutrient credits for compliance purposes shall not eliminate any requirement to comply with local water quality requirements as provided in 4VAC50-80-50.

B. Chesapeake Bay Watershed. Persons purchasing credits to offset the nutrient load from an activity

located within the Chesapeake Bay Watershed shall determine if any segments located downstream of the activity are subject to an approved total phosphorus or total nitrogen TMDL that is more stringent than the Chesapeake Bay TMDL. If such segments exist, the purchaser shall only acquire credits from nutrient credit generating facilities located upstream of the identified segments.

C. Southern Rivers Watershed. Persons purchasing credits to offset the nutrient load from an activity located within the Southern Rivers Watershed shall determine if any segments located downstream of the activity are subject to an approved total phosphorus or total nitrogen TMDL. If such segments exist, the purchaser shall only acquire credits from nutrient credit generating facilities located upstream of the identified segments.

Discussions included the following:

- *Whether the language provided does it or not, the concept is that if you had a watershed and you had a new discharge (a new source) upstream of an approved TMDL and that discharge or new source would "bust" the TMDL (exceeded the load allocation for the land use) then you would need to provide credit (reduction) upstream of that impaired segment within the same watershed.*
- *What happens if a development comes in that does not "bust" the TMDL? Staff Response: If the load from the development does not "bust" the TMDL, then you could buy trading credits from outside of the watershed.*
- *This creates a scenario that would place further restrictions on where you can buy credits which is dependent on whether the new source or development would "bust" the TMDL.*
- *The credits are customized so that they meet the impacts that they have been bought to alleviate under the Bay TMDL.*
- *Often there are only segments of a stream that are impaired. How does this work in this scenario? Staff Response: The TMDLs always covers the entire watershed. It takes into consideration everything that is above the impairment that is contributing flow to the stream. Large watershed TMDLs could have multiple segments; there could be multiple subwatersheds. Subwatersheds in larger watersheds have their own TMDL equations.*
- *The typical scenario addresses the position of the buyer and the seller not the position between the buyer and the impairment. Staff Response: The concept is if the load without an offset is going to "bust" the TMDL then buyer has to correct that upstream of the impairment. If the seller has got a project downstream of the impairment then he has nothing to offset the impairment. If the cumulative of all the additional loads do not exceed 1% of the downstream TMDL, then we don't have to go back through EPA to adjust and revise the TMDL. Maybe this "exceedance tool" would be reasonable.*
- *Encouraged with the tone of the discussions.*
- *How is "leakage" from the system handled?*
- *If there are no waste load allocations for MS4s, it complicates the scenario. You would end up with someone who wants to trade in an area where they are not responsible for meeting the TMDLs. There is a concern over the liability of who is responsible for meeting the TMDL?*

Localities recognize the need for trading but it is a compliance issue for who then is responsible for meeting the requirements of the TMDL? *Staff Response: It would seem reasonable for a locality to have a spreadsheet (a registry of trades) to track the trades and offsets to account for loads in their MS4 permits. There could be notations that these loads were offset by these trades in the watershed identified in the spreadsheet.*

- There is a lot of concern around this issue is what is now state law. We believe in the "rule of law". This was a fight that the local governments had 4 years ago when the state code was revised to allow for trading. The following year the state code was again revised to include an accounting provision for MS4. This provided for credits for MS4s.
- With a system with a TMDL and offsets or trades upstream of the impairment, it appears that what is being discussed is having a resultant point in the system that is nutrient neutral. *Staff Response: The concept is that there is compliance with the TMDL at the sensitive point in the system.*
- How do we deal with impaired reaches? For each TMDL, you have a reach that is impaired. This creates a "defined reach of the stream", which is the upstream reach or watershed area that is defined through the TMDL process.
- How does this impact a "local water supply" ordinance?
- When looking at degradation of water quality; impairment; or degrading local water quality that is where the position of the buyer and seller come into consideration. How do you address impairment? *Staff Response: We don't have a good answer yet on how to deal with degradation or impairment when there is no TMDL and the stressor has not been identified. We don't have a tool to use to evaluate this scenario.*
- This is a big issue and there are lots of folks out there that have been looking at it. Have we really narrowed down the condition of what areas are potentially important to local water quality? We probably don't want to narrow it down to only those areas that have a TMDL or to only those stream segments and watershed that have an identified impairment. *Staff Response: This law is not being implemented independent of other laws of regulations or water quality statutes.*
- What we are trying to do is to develop and provide guidance to facilitate and allow trading to occur. We need to come up with some example scenarios that local governments could follow. *Staff Response: It is really an issue of scale. Is there a de minimus amount that would be appropriate? What are the layers that we need to consider? What hierarchy of analysis do we need to employ?*
- It was suggested that there are a number of folks that we might want to hear from regarding the subject of trading including folks from the Center for Watershed Protection and EPA.
- Struggling with this approach – this approach appears to be more reactive than proactive. Today versus the future. A de minimus amount is not the norm. It is a consideration of the cumulative effect of that de minimus amount that is the concern. The role of this panel is to look beyond today. We need to be looking 10 to 15 years down the road. We don't want to end up at a point where that de minimus/cumulative effect results in a new TMDL. We may need to have a

couple of different concepts. We may need numeric criteria as well as narrative criteria to provide that de minimus amount from resulting in a TMDL having to be developed in the future. Where there is an impairment that has not been quantified yet, the 1% rule is worthless. The 1% rule is worthless in a watershed that doesn't have an existing TMDL.

6. After Lunch Break Discussions:

The group returned from lunch and discussed the next steps in the process. These discussions included the following:

- There was a proposal that the group take time at the next meeting to step back and review the comments that have been received and how they have been integrated or not and why. *Staff Response: Are there any concerns about doing that or taking the time to do that?* No concerns were raised.
- Will we be asking for any additional comments on the proposed language? It was very helpful to have the proposed language pulled together into the discussion draft of the proposed regulation that was provided to the group for today's meeting. *Staff Response: There is not a lot of time between now and the June 11th meeting, but there should be plenty of time between now and future meetings to catch up on the proposed regulatory language. We will be open to comments from the group on any of the proposed language that has been presented to the group.*
- We need to set a date after the June meeting to look at the whole regulatory language package.

7. Part VII – Financial Assurance – Presentation by DEQ Staff (Josiah Bennett)

Josiah Bennett presented an overview of the financial assurance concept that is being considered. He noted that the premise is that we have to develop something that addresses permanent structural BMPs associated with perpetual easements. We have to have something in place that assures that at the end of the day that absolutely there will be something there to assure the even in the absence of a project sponsor that DEQ can assure that the nutrient credit generating activity or facility continues on into perpetuity. The concept is that currently being used in the "wetlands mitigation banking" program is one of aggressively funding a trust fund that is set up basically in perpetuity to assure that at the end that there is full funding of a cost estimate that is submitted at the beginning of the process. This would insure that once all of the credits have been sold that there is a fund there that will always be there, increasing in value, to ensure that if something happens or if the operator fails to maintain the facility that there will be funds available to ensure the continuation of the operation of the facility or continuation of the required activity. His presentation included the following information provided to the group as a handout:

Broad strokes of proposal for financial assurance (FA) coverage for nutrient credit generating (NCG) permanent structural BMPs (PSBMP)

FA for PSBMPs must assure against the catastrophic failure or destruction of a permanent facility or project. For example, in the case of a dam, FA must assure the full replacement/reconstruction cost of

the dam. PSBMPs are associated with permanent easements and FA must therefore be structured to persist in perpetuity.

Nutrient credits shall not be released for sale until FA has been established to ensure the perpetual performance of the NCG activity.

The NCG project sponsor shall obtain a FA cost estimate, which is subject to approval by the Department. The FA cost estimate shall provide an estimate of the cost necessary to assure the performance of the NCG activity in perpetuity against catastrophic failure. The FA cost estimate shall be adjusted annually for inflation.

NCG FA shall take two forms: preliminary (beginning prior to release of credits for sale) and permanent (beginning after credits are sold).

Preliminary FA shall take the following form: Prior to Department approval of the release of credits for sale, the NCG project sponsor shall be required to obtain a FA mechanism in the full amount of the approved cost estimate. The sponsor may provide one of the following: Letter of Credit (Department as beneficiary); Surety Bond (Department as obligee); Certificate of Deposit (Department as assignee); Trust Fund (Department as beneficiary); and Insurance (Department as additional named insured).

Permanent (or long term) FA shall take the following form: Upon the initial sale of credits, the sponsor shall, upon the anniversary of the initial release of credits for sale, establish a permanent Trust Fund (unless he has already done so as his preliminary mechanism) and deposit an amount directly proportional to the percentage of the total number of credits available for sale that have been sold by (within say 60 days of?) that anniversary. This process shall occur upon every anniversary date until all available credits have been sold and the permanent Trust Fund is fully funded with respect to the FA cost estimate. Until the permanent Trust Fund is fully funded, the sponsor shall also maintain one of the other FA mechanisms in an amount sufficient to satisfy, in combination with the amount in the permanent Trust Fund, the full amount of the FA cost estimate. When the permanent Trust Fund is fully funded, the sponsor will be released from the requirement to maintain one of the preliminary FA mechanisms. Thereafter, the sponsor shall continue to be required annually to adjust both the FA cost estimate and the amount of the permanent Trust Fund for inflation.

The sponsor shall be allowed to request the release of funds from the permanent Trust Fund that are in excess of the total current (inflation adjusted) FA cost estimate.

The Department may, at its discretion, access the permanent Trust Fund to pay a third party contractor to perform reasonable and necessary operation and maintenance of the PSBMP if, in its judgment, the sponsor is failing to perform those functions adequately. In this event, the Department may also deny any request to release to the sponsor funds from the permanent Trust Fund that are in excess of the current (inflation adjusted) cost estimate.

The permanent Trust Fund shall be funded in the following manner. The sponsor shall divide the total number of credits sold that year by the total number of credits initially available for sale and multiply that figure by the current inflation adjusted cost estimate. The resulting figure is then added to a separate figure, which is calculated by multiplying the current inflation factor by the current (pre annual deposit) amount already in the permanent Trust Fund and then subtracting the current (pre

annual deposit) balance. The resulting total is that year's required payment into the permanent Trust Fund. In this way, the permanent Trust Fund ends up being fully funded precisely at the time that all credits have been sold. For example:

Year One: Initial FA Cost estimate is \$100,000 - Sponsor's bank sells 2 of 100 total available credits that year - $2/100 = .02 \times \$100,000 = \$2,000$ to be deposited based on percentage of credits sold: Initial Trust Fund balance = \$2,000.

Year Two: Inflation adjusted FA Cost Estimate is $\$100,000 \times 1.017$ (sample inflation factor) = \$101,700. Sponsor's bank sold 17 credits that year - $17/100 = .17 \times \$101,700 = \$17,289$ to be deposited based on percentage of credits sold: Also, $\$2,000$ (pre-deposit balance) $\times 1.017 = \$2,034$, which means \$34 must be deposited in addition to the \$17, 289 for a total deposit of \$17,323. Total fund balance now: \$19,323.

Year Three: Inflation adjusted FA Cost Estimate is $\$101,700 \times 1.024$ (sample inflation factor) = \$104,140.80 - Sponsor's bank sells all 81 remaining credits: $81/100 = .81 \times \$104,140.80 = \$84,354.05$ to be deposited based on percentage of credits sold: Also $\$19,323$ (pre-deposit balance) $\times 1.024 = \$19,786.75$, which means \$463.75 must be deposited in addition to the \$84,354.05 for a total deposit of \$84,817.80. Total fund balance is now: \$104,140.80, which is fully funded.

The group's discussions included the following:

- *Every year the cost-estimate has to be adjusted for inflation.*
- *What is meant by the term "project sponsor"? Staff Response: The "project sponsor" is the generator of the credits - the "seller". To put this in perspective, this is only dealing with structural measures. For annual practices - they will not get placed on the registry until they are accomplished, so they don't require financial assurance. The credit becomes available only after the practice has been completed. Financial assurance is required for those structural practices that are required and will be in place for all time. Financial assurance is related to a "schedule of release". Credits are not released until the practice has done its job.*
- *How about "stream bank fencing"? Staff Response: This is a practice that is likely to be necessary for someone to have in place to be able to generate credits so it would not require "financial assurance". We are still working on the agricultural baseline component of this effort under which this practice would fall.*
- *How are "dams" considered? Staff Response: We consider it as a structural stormwater practice - if the dam broke then credits won't be generated. It is a structural practice that has to be maintained.*
- *Is trading going to apply to localities trading in private VSMPs or is this going to apply to localities dealing with private credits for private VSMPs? A city doesn't have "financial assurance". Is this for both? Staff Response: This is for private.*
- *So localities are not going to be allowed to trade with private VSMPs? If not then they need to have the same financial assurance requirements. Staff Response: The Code makes the distinction that localities, service districts and public entities that may have these credits are to be treated*

differently. They can use their rate and taxing authority to provide this assurance. A locality has more tools that are available.

- The topic of "salvage value" was discussed. There are salvage items in every construction practice.
- A question was raised regarding the interpretation of "at its discretion" which is used in the financial assurance handout. What is the legal definition and process?
- Need to clarify the legal basis for the phrase and concept of "at its discretion".

ACTION ITEM: Staff will provide a clarification of the legal basis for "exerting its discretion".

- Does this relieve the permit holder of any responsibilities? *Staff Response: No.*
- Is there a "trust fund" for each specific activity or is this a cumulative concept? *Staff Response: It is specific to each activity under the name of the sponsor or project which is registered with the Department.*
- Is the department looking at the issue of required staff time if in the future you need to access these types of funds for actions? Is there compensation for staff time? *Staff Response: That is a level of detail that still has to be looked at - this is just a conceptual discussion at this point in time.*
- It appears that the concept being presented is too conservative. The department should also look at covering baseline practices and other structural BMPs such as fencing in the financial assurance requirements. *Staff Response: The thought process was that if you don't have the baseline requirements then you can't generate credits. For these practices before the credits are released you would have already generated the credit through the practice that is in place and functioning. Fencing is a little bit different than some of the other agricultural baseline practices. The thought process was that anything that is baseline or regular operation you would need to have given practices in place just to operate and to assure the generation of credits so those wouldn't need to be covered under the financial assurance requirements. The credits are not released until the baseline requirements have been verified on an annual basis.*
- *We really don't want to create an instrument that only addresses Agricultural fencing or a practice on an unregulated farm.*
- An approach might to be look at a structural practice that includes certain baseline practices as a requirement for the generation of available credits that those baseline practices might need to be included in the financial assurance requirements. There may be instances where baseline practices are associated with structural practices that might need to be included in the financial assurance considerations.
- As a holder of a number of these funds the biggest concern is that we be given a chance (a notice period) to address an identified issues with the trading bank. There needs to be a process that we can follow to make any necessary corrections before the funds are taken out of the bank to make some kind of needed improvement or correction. *Staff Response: This would take the form of some kind of notice to the "sponsor" that the department intended to access the funds to make some correction if something wasn't done within a certain period of time.*

- *The use of the term "at its discretion" may have been too broad or too specific to be clear at the conceptual level that we are dealing with at this stage of the discussions. A process would be included if this concept makes it into the final document.*
- In regard to "buffers" - in the wetlands mitigation banking process there is a maintenance fund mechanism where there was a cap amount for 10 years worth of maintenance that was put in and you could access 1/10th of it each year while the interest was building. Like the idea of 1% or 1/2% addition that could pay for staff time or sponsor maintenance fund. *Staff Response: This might be a good way to keep the sponsor engaged throughout the life of the project.*

ACTION ITEM: Staff will take this concept and draft regulatory language for review by the group at a future meeting.

- There is a potential for trading for those larger structures that are put in by entities such as Wal-Mart that are overdesigned and therefore have excess capacity that might be available for trading. *Staff Response: This would probably not fit into the financial assurance concepts or requirements but might be included as part of the annual reporting requirements. This is something to think through.*
- How is trading with the MS4 addressed? *Staff Response: That would be handled as part of the Chesapeake Bay Action Plan and regulated through a certification of credits. The language in the MS4 General Permit is not so specific but it does allow trading but it will have to be approved by the department.*
- In regard to the term "catastrophic failure", are we talking about the failure of the structure to do its job? *Staff Response: It is not just in response to a "catastrophic failure" it is also in response to the structure no longer generating the credits it was designed to provide, i.e., it is no longer performing its designed function.*
- Through time, what do we mean by "failure" or failure of the facility to achieve the designed nutrient reduction? *Staff Response: This is a good question. This is just a conceptual idea at this time and will need to be thought out further prior to actual incorporation into regulatory language.*
- *Financial assurance is required by statute. The regulations are required to address financial assurance. The legislation spells out the requirement as follows:*

Article 1.1:1. Nutrient Trading Act: §10.1-603.15:2. Nutrient credit certification. B 4: Establish requirements to reasonably assure the generation of the credit depending on the nature of the credit-generating activity and use, such as legal instruments for perpetual credits, operation and maintenance requirements, and associated financial assurance requirements. Financial assurance requirements may include but not be limited to letters of credit, escrows, surety bonds, insurance, and, where the credits are used or generated by a locality, authority, utility, sanitation district, or permittee operating an MS4 or a point source permitted under Article 4.02 (§ 62.1-44.19:12 et seq.) of Chapter 3.1 of Title 62.1, its existing tax or rate authority.

- *The key language that is being used is "depending on the nature of the credit-generating activity". There are instances where the activity is designed to be permanent. In those cases then "financial assurance" would be required to ensure that they are in fact permanent. We are essentially dealing with structures as opposed to farmland covered to forest cover for example.*
 - As you draft the regulation, it might be good to have information about the capacity within each of the Trust Funds that is available for trading up on the Registry with information about the resources that are there and available and whether the department has had to tap into those resources. Maybe this is information that could be posted in the web. The specific amounts that are currently available and whether the department has accessed the fund would be useful information to the public. *Staff Response: That type of information is currently available through a FOIA request. It is publically available information.*
 - Trading needs to be as clear and transparent as possible is important. There are some groups and individuals that are concerned about the concept. Posting this information as part of the Registry would help made the process more transparent.
 - There is a financial test for local governments.
- 8. May Regulation Draft Discussion - Part III - 4VAC50-80 Baselines, Calculations, Implementation Plans - Other Parts as Drafted (Ginny Snead/Kristina Weaver/RAP Members)**

Part III, the Administrative and Technical Criteria section of the regulations was reviewed and discussed:

4VAC50-80-60. Procedure for application for certification of nutrient credits.

A. Application submittal. An applicant requesting certification of nutrient credits shall submit an application to the department. The application shall be in the form required by the department including signature in accordance with 4VAC50-80-110 and shall include all of the following elements:

1. A brief narrative description of the nutrient credit generating facility.
2. Up to date contact information for the applicant including name, address, and telephone number.
3. Up to date contact information for the nutrient credit generating facility, including the facility's mailing address, street address, telephone number, the contact person's name and email address.
4. Status of the applicant as owner, co-owner, operator or lessee of the nutrient credit generating facility or the site on which the facility is located. The applicant shall provide documentation of the applicant's right to exercise sole control of the nutrient credit generating facility or the site on which it is located. If the applicant cannot demonstrate sole control, those parties who singly or in conjunction with the applicant exercise control over facility or the site on which it is located may be required to jointly apply for nutrient credit certification with the applicant.
5. The name, mailing address, telephone number, and responsibilities of all known contractors responsible for any operational or maintenance aspects of the nutrient credit generating facility.
6. A proposed number of credits to be generated including a description of the baseline practices in place and practices that may result in generation of nutrient credits beyond baseline requirements. Baseline shall be determined in accordance with the requirements of 4VAC50-80-XXX. The proposed number of credits shall be as calculated in accordance with accepted calculation procedures pursuant to 4VAC50-80-XXX.
7. A topographic map, or other map deemed acceptable by the department, delineating the surveyed property boundary of the management area and clearly showing the location of the nutrient credit generating facility and baseline area or areas within the management area.
8. A description of current site conditions with photos.
9. The 8-digit and 12-digit

HUC in which the nutrient credit generating facility is located. 10. For land use conversion projects and structural stormwater BMPs, provide documentation of the condition of the land and land use controls in place as of July 1, 2005. 11. An implementation plan which meets the requirements of 4VAC50-80-XXX. 12. For structural BMPs, the financial assurance cost estimate calculated pursuant to Part VI. 13. The appropriate fee required pursuant to Part V of this chapter. 14. The proposed site protection instrument or instruments for perpetual credits. 15. A description of other permits and approvals that may be necessary to operate the nutrient credit generating facility. 16. Any state or federal water quality grants received. 17. Any other information deemed necessary by the department.

B. Administrative completeness review. Upon receiving an application pursuant to subsection A of this section, the department shall conduct an administrative completeness review and respond within 30 calendar days of application receipt. If the application is not administratively complete, the department will notify the applicant. If the application is administratively complete, the department will notify the applicant that application will be technically reviewed for credit certification.

C. Public Notification. The department will publish a public notice of the proposed nutrient credit generating facility on its website and the Virginia Regulatory Town Hall.

D. Technical review. Once the application is deemed administratively complete, the department will perform a technical review of the application. As part of the technical review, additional information may be required and the nutrient credit generating facility site may be visited. Additionally, if the department chooses, a certification advisory committee may be convened. Within 90 days of the receipt of an administratively complete application, the department will notify the applicant of the status of the application.

E. Technical completeness. The department shall not approve a nutrient credit certification before receiving a complete application. An application for a certification is complete when the department receives an application in accordance with subdivision A of this section and the application and any supplemental information is completed to the department's satisfaction.

F. Nutrient credit certification. The department shall notify the applicant of approval of the nutrient credit certification and provide any applicable conditions required for credit certification including retirement and release of credits in accordance with 4VAC50-80-XXX or the department shall notify the applicant that the nutrient credit generating facility does not qualify for any certified credits pursuant to the requirements of this part.

4VAC50-80-70. Nutrient credit release and registration.

A. Retirement. Pursuant to the requirements of §10.1-603.15:2.B.8, five percent of the total credits certified will be retired by the department at the time of certification and will not be placed on the Virginia Credit registry for exchange .

B. Schedule of release of nutrient credits. The department shall establish a schedule for release of credits as follows: 1. For nutrient credit generating facilities implementing non-land conversion practices for nutrient reductions, the schedule will be determined by the department and provided to the applicant with the nutrient credit certification. For facilities implementing structural BMPs to generate reductions, the credits will not be released until the department has approved the financial assurance in accordance with Part VI of this chapter. 2. For nutrient credit generating facilities implementing land conversion practices for nutrient reductions, 25% of the credits will be released by the department after completion of the conditions of the nutrient credit certification with the option of departmental verification of completion. The remaining 75% of credits will be released by the department after it is satisfied that the minimum density of woody stems required in 4VAC50-XXX has been achieved.

C. Registration of nutrient credits. Credits will be placed on the registry and classified as term or perpetual credits by the department. The registry will also indicate the number of credits that have been released for exchange. Only credits released by the department are available for exchange.

4VAC50-80-80. Establishing baseline.

A. Baseline practices must be in place prior to the generation of any credits by a nutrient credit generating facility. Baselines shall be established for each type of nutrient credit generating facility. All baseline practices shall be implemented and properly maintained according to applicable subsections of this section.

B. Agricultural. [Revision To Be Drafted]

C. Urban practices. Baselines for urban development are applicable to all the land under the control of the owner. ~~Urban development shall incorporate practices to achieve the necessary baseline level of nutrient reductions. For new development, redevelopment and existing development, baselines shall be achieved through compliance or achievement with the post-construction phosphorus loading requirements of the Virginia Stormwater Management Program Permit Regulations under 4VAC50-60.~~ Achievement of baselines for new development, redevelopment, or existing development shall be required prior to generation of credits. These baselines are: 1. For new development and redevelopment, baselines shall be achieved through compliance with the post-construction phosphorus loading requirements of the Virginia Stormwater Management Program Permit Regulations under 4VAC50-60-63. Additionally, for development in a locality with a local stormwater management ordinance more restrictive than 4VAC50-60-63, baselines shall be achieved through compliance with the local stormwater management ordinance. 2. For existing developments, baselines shall be at a level necessary to achieve the reductions assigned in the urban sector in the WIP or approved TMDLs, whichever is more restrictive. Additionally, for development in a locality with a local stormwater management ordinance more restrictive than both the WIP's urban sector and any approved TMDLs, baselines shall be achieved through compliance with the local stormwater management ordinance.

D. Land-use conversions. Baselines for land-use conversions shall be based on the pre-conversion land use and the level of reductions assigned in the ~~Virginia Chesapeake Bay TMDL Watershed Implementation Plan~~ WIP or approved TMDLs whichever is more restrictive.

E. Other credit-generating practices. The department shall establish baselines for other credit-generating practices. These baselines shall be based on the ~~Virginia Chesapeake Bay TMDL Watershed Implementation Plan~~ WIP or approved TMDLs using the best available scientific and technical information.

4VAC50-80-90. Credit calculation procedures.

A. The owner shall calculate potential credits based on the department approved list of BMPs. ~~The owner shall obtain the number of potential credits based on the BMP efficiencies as calculated from the department's web-based application.~~

B. For agriculture practices, the approved BMPs shall have efficiencies assigned by the Chesapeake Bay Program for use in the Chesapeake Bay Program model. Standards and specifications for implementation will be established by the department ~~and be based on Virginia Agricultural BMP cost-share manual or NRCS specifications, as applicable~~ and shall be in accordance with the Virginia Agricultural BMP Manual or FOTG, as applicable.

C. For urban practices, the department will use the list of eligible urban practices or efficiencies as ~~posted on the Virginia Stormwater BMP Clearinghouse website as maintained by the department~~ required in 4VAC50-60-65.

D. For land conversions, loading will be based on ~~2025 levels. Presumed 2025 loading levels~~ the WIP or approved TMDL. The WIP or approved TMDL on a per acre basis for the applicable land use minus the loadings from the post conversion land use calculated on a per acre basis at the WIP or approved TMDL loading levels. Delivery factors will be applied depending on the location of the practice.

E. For non-approved BMPs For practices which have not been approved in subsections B or C, the department will review these BMPs on a case-by-case basis. The owner shall submit the BMP efficiency calculation information and the number of potential credits based on these efficiencies. This submittal may also include requirements for demonstration projects, the collection of sufficient data to evaluate results, and any other requirements needed to determine the validity of the credits, if requested by the department

4VAC50-80-100. Implementation plan.

A. The implementation plan submitted pursuant to 4VAC50-80-XXX shall provide information detailing how the owner of the nutrient credit generating facility will generate credits for the term of the credits. The implementation plan will include the applicable information as required in subsections B through ~~G~~ H of this section.

B. For all nutrient credit generating facilities, the implementation plan shall include: 1. An operation and maintenance plan that provides a description and schedule of operation and maintenance requirements and detailed written specifications and process diagrams for the nutrient credit generating facility or activity. The plan must be adhered to for the life of the credits and shall include a description of site management activities to be performed after meeting all performance standards to ensure long-term sustainability of the site. 2. The performance standards which shall be used to evaluate whether the facility is generating credits. 3. Monitoring and reporting requirements for the project as required pursuant to Part IV.

C. For managed afforestation land conversion activities, the implementation plan shall also include: 1. ~~A forest stewardship plan including management requirements for the facility, a planting plan, vegetative controls to manage competition and long term management procedures. Forests shall be planted to achieve a minimum density of 400 woody stems per acre including any volunteer plants. Survival of planted deciduous trees shall not be established until the start of the second complete growing season following planting. Survival of planted evergreen trees may be established after completion of the first complete growing season following planting. A forest stewardship management plan approved by the State Forester or his representative. This management plan shall include invasive species control and eradication if invasive vegetation impacts 5% or more of the nutrient credit generating facility's acreage.~~ 2. Forests shall be planted to achieve an initial survival density of 400 woody stems including any volunteers. 3. Agricultural baseline requirements included in 9VAC50-80-80.B which apply to any remaining portions of the tract, field or other land area which are not undergoing land conversion. Performance standards and monitoring and reporting procedures demonstrating ongoing compliance with that baseline shall be included in the Management Plan implementation plan.

D. For unmanaged afforestation land conversion activities, the implementation plan shall also include provisions for: 1. Forests achieve an initial survival density of 400 woody stems including any volunteers. 2. Agricultural baseline requirements included in 4VAC50-80-80.B which apply to any remaining portions of the tract, field or other land area which are not undergoing land conversion. Performance standards and monitoring and reporting procedures demonstrating ongoing compliance with the agricultural baseline requirements of 4VAC50-80-80.B shall be included in the implementation plan.

E. For agricultural projects, the implementation plan shall also include: 1. The location information of the proposed nutrient credit generating facility and baseline area or areas. This location information shall be provided in one the following formats: (i) the geographic coordinates; (ii) the locality tax parcel identification number or numbers; (iii) the physical address of the property; or (iv) if applicable, the US Department of Agriculture's Farm Service Agency tract number or numbers. 1. A description of the entire management unit. This description shall include: (i) the acreage and associated information for acreages inside and outside the proposed nutrient credit generating facility and baseline area or areas; (ii) water features including all streams, ponds, lakes, wetlands; (iii) environmentally sensitive

sites as defined in 4VAC5-15-10; (iv) areas with highly erodible soils, as defined in XXXX; and, (v) the current agricultural operations, crops or animal facilities. 2. Copies of the current nutrient management plans developed by a certified nutrient management planner and approved by the department and any soil conservation plans completed by a certified conservation planner in accordance with 4VAC5-15. 3. Information on the location and status of all existing and proposed BMPs including implementation schedules, lifespan, and maintenance procedures for each BMP that constitutes the baseline requirements.

F. For wetland and stream mitigation conversion projects, the implementation plan shall also include: 1. A copy of the approved mitigation banking instrument. 2. Location maps and maps of surrounding lands within a 5-mile radius of the proposed site. 3. A plan clearly delineating and labeling areas to be considered for credit conversion. 4. A spreadsheet or table listing each labeled area. For each labeled area, the table shall include: a. the type of eligible land conversion; b. the acreage of the area; c. the available mitigation credits; d. the potential nutrient credits; and e. the ratio of mitigation credits to nutrient credits. 5. A procedure that ensures credits are not used for both wetland or stream credit and nutrient credit purposes.

G. For urban projects, the implementation plan shall also include: [TO BE DRAFTED]

H. For other types of activities or projects not presented in subsections C through G above, the implementation plan shall include information as deemed appropriate by the department in order to evaluate the credits for certification.

4VAC50-80-110. Signature Requirements.

A. All applications for certification of nutrient credits shall be signed as follows: 1. For a corporation, the application shall be signed by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function or any other person who performs similar policy-making or decision-making functions for the corporation or the manager of the nutrient credit generating facility provided the manager is authorized to make management decisions that govern the operation of the facility; 2. For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively; or 3. For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes the chief executive officer of the agency or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

B. All reports required by this chapter and other information requested by the department shall be signed by a person described in subsection A of this section or by a duly authorized representative of that person. A person is a duly authorized representative only if: 1. The authorization is made in writing by a person described in subsection A of this section; 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the facility; and 3. The written authorization is submitted to the department.

C. If an authorization under subsection B of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of subsection B shall be submitted to the department prior to or together with any reports or information to be signed by an authorized representative.

D. Any person signing a document under subdivisions A or B of this section shall certify that all submittals are true, accurate and complete to the best of their knowledge and belief.

4VAC50-80-120. Appeal process. Any person applying for certification of a nutrient credit generating facility or an owner of a certified nutrient credit generating facility aggrieved by any decision of the department taken in accordance with this chapter shall have the right to contest or appeal said case decision in accordance with the provisions of the Administrative Process Act (§ 2.2-4000 et seq.).

4VAC50-80-130. Prohibitions. A. No person shall offer for exchange certified nutrient credits except in compliance with the provisions of this chapter. B. No certification may be issued when: [to be drafted]

4VAC50-80-140 Nutrient credit certification transfer, modification, revocation and recertification, expiration and termination.

A. Certifications may be modified, revoked and reissued, or terminated either at the request of the party holding the certification or upon the department's initiative. The filing of a request by the holder of the certification for a modification, revocation and reissuance, or termination of a certification, or a notification of planned changes or anticipated noncompliance with regulatory requirements does not stay any certification condition.

B. If the department decides that a request for modification, revocation and reissuance or termination is not justified, it shall send the requester a brief response giving a reason for the decision.

C. If the department tentatively decides to modify or revoke and reissue a permit, it may request the submission of a new application.

D. Certification may be modified, revoked and reissued, or terminated for cause.1. Causes for modification. The following are causes for modification, revocation and reissuance of certificates: a. There are material and substantial alterations or additions to the facility or activity generating the certified nutrient credits which occurred after certification and which justify the application of conditions that are different or absent in the existing certification. b. The department has received new information which would have justified the application of different conditions at the time of issuance. c. The standards or regulations on which the nutrient credit certification was based have been changed by promulgation of amended standards or regulations or by judicial decision after the certification was issued. d. The department determines good cause exists for modification of a compliance schedule. e. To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining certification conditions. f. The department has received notification of a proposed transfer of the nutrient credit generating facility or activity. 2. Causes for termination. The following are causes for termination or for denying an application for certification: a. The owner of the facility or activity generating the nutrient credits has violated any regulation or order of the department, any provision of the law, or any order of a court, where such violation results in a release of harmful substances into the environment or poses a substantial threat of release of harmful substances into the environment or presents a hazard to human health or the violation is representative of a pattern of serious or repeated violations which in the opinion of the department, demonstrates the owner's disregard for or inability to comply with applicable laws, regulations or requirements; b. Noncompliance by the owner with any condition of the certification; c. The owner's failure to disclose fully all relevant material facts, or the owner's misrepresentation of any relevant material facts in applying for certification, or in any other report or document required under the law or this chapter; or d. A determination that the nutrient credit generating activity endangers human health or the environment and can only be regulated to acceptable levels by termination of the certification.

E. Transfer of Certification.1. Except as provided in subsection 2 of this section, a certification may be transferred to a new owner or operator only if the certification has been modified or revoked and reissued, to identify the new owner or operator and incorporate such other requirements as may be necessary under the law and this chapter. 2. Automatic transfers. As an alternative to transfers under subsection 1 of this section, any certification permit may be automatically transferred if: a. The current holder of the certification notifies the department at least 30 days in advance of the proposed transfer date in subdivision b of this subsection; b. The notice includes a written agreement between the existing and new owners or operators containing a specific date for transfer of certification responsibility, coverage, and liability between them; and c. The department does not notify the existing holder of the certification and the proposed holder of its intent to modify or revoke and reissue the

certification. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in subdivision b of this subsection.

The group's discussions included the following:

- In 4VAC50-80-60 A 7, is the new language meant to address in which tributary or trading regime the credit is to be sold? If not it should. *Staff Response: The location is required in Number 9 specifies where it is located. That is where it is located but how do you identify where the credit is being sold? Staff Response: It is addressed in the stormwater regulation and various permit regulations. It would also be identified in the Registry as to what permit number the trade is associated with. In the stormwater e-permitting the various banks located in a given area are identified.*
- Knowing what the banker conceives the boundary to be within which he can sell credits would be useful information. *Staff Response: That information is included in the Code:*

Chapter 748 - § 10.1-603.8.1. Nutrient credit use and additional off-site options for construction activities. F. Nutrient credits used pursuant to subsection B shall be generated in the same or adjacent eight-digit hydrologic unit code as defined by the United States Geological Survey as the permitted site except as otherwise limited in subsection C. Nutrient credits outside the same or adjacent eight-digit hydrologic unit code may only be used if it is determined by the VSMP authority that no credits are available within the same or adjacent eight-digit hydrologic unit code when the VSMP authority accepts the final site design. In such cases, and subject to other limitations imposed in this section, credits available within the same tributary may be used. In no case shall credits from another tributary be used.

- There are a couple of points in the regulation where the concept of a management area is included. "Management area" needs to be clarified. *Staff Response: There is a definition which includes the concept of the whole farm. The definition which is included in 4VAC50-80-10 reads:*

"Management area" means all contiguous acres deeded to the same landowner that includes the nutrient credit generating facility within its boundaries.

- It was noted that this was not always the case - the land involved could include several owners since farmers often lease or rent properties for their operations.
- The group discussed the concept of "management area".
- The "operation of a farm" could include several properties under several ownerships.
- A suggestion was made that the definition could be revised to read: "...all contiguous acres operated by the same owner or managed by the same farmer..." It is operated as a farm even though there are multiple owners and several parcels involved.
- Page 10 - Line 321 - requires the property to be surveyed - couldn't this be done through tax maps or GIS instead. Consideration should be given to revising this language to allow the use of Tax maps or a GIS map to satisfy this requirement instead of requiring a survey.

- Page 11 - Line 349 contains a requirement that "the nutrient generating facility site may be visited". Should this be "shall"? These sites should be visited by staff. *Staff Response: We don't regulate ourselves so the word "may" is used here.*
- The suggestion was made that the word be changed to "will" as used in line 348.
- Regarding the Public Notification language in 4VAC50-80-60 D: Has there been a decision on public notification will be handled for this process? The process needs to be clearly identified. If you are going to publish the notice, then there needs to be some mechanism and opportunity for public comment. *Staff Response: The language for this section has not been revisited and is still under development and will be shared with the group.*
- 4VAC50-80-60 E regarding "technical review": The language should be revised to include reference to "meeting the requirements of this chapter" - "Once the application is deemed administrative complete and meets the requirements of this chapter, the department will perform a technical review..." *Staff Response: This is a two step process with this section on "administrative completeness" and Section F addressing the "technical completeness" of the application. Have we got all of the paper work we asked for and now does it do what it intended. We may visit the site; we may ask for additional information, etc. before we ever get to the point of certifying the credits.*
- F. Technical completeness. The department shall not notify...Is this another case of the department regulating itself that needs to be revisited/revised? *Staff Response: We will need to revisit this language to determine what is appropriate in regard to the department not regulating itself.*
- There needs to be some consideration of requiring a "title report" to clarify that the owner does in fact own the property and that there are no existing encumbrances on the property.

Are there any additional comments on 80-60?

There are no changes in 80-70 – are there any comments on this section?

- In reading through 1 and 2 under B in 4VAC50-80-70, is it correct to say that DEQ would make credits available to a permitted entity, prior to the project actually being constructed? Reading B1 and B2 together it appears as if you are allowing the use of a credit prior to the project itself being constructed. *Staff Response: For conversion of agricultural lands, you would receive 25% of the credits. That would be prior to trees being planted. The remaining 75% would not be released until the tree stand had been established based on the minimum density of woody stems as required in 4VAC50-90 B.*
- Some confusion was noted over the wording of 4VAC50-80-70 B 1 & 2. Suggestions were made that staff should revisit these sections and rewrite them to clarify them.
- A question was raised over the wording of the last sentence in 4VAC50-80-70 B 1 indicating that the statement "For facilities implementing structural BMPs to generate reductions, the credits will not be released until the department has approved the financial assurance in

accordance with Part VI of this chapter..." could be misconstrued to mean that as long as a facility has financial assurance credits could be released whether the structure has been completed or not? *Staff Response: That is not what was intended – this section will need to be rewritten to clarify the requirements.*

ACTION ITEM: Staff will revisit the wording used in 4VAC50-80-70 B 1 & 2 and revise the language to clarify the requirements.

- How will the department say that the required "minimum density of woody stems required in 4VAC50-90 B has been achieved"? How will achievement be validated? *Staff Response: We are open to suggestions as to how that achievement will be verified.* There are likely to be differences based on different environmental conditions. There are also likely to be differences based on monitoring conditions. It was suggested that there be some guidance provided in 4VAC50-80-70 B 2 as to how achievement of the minimum density of woody stems would be verified. *Staff Response: The verification process and requirements will be addressed in guidance.*

ACTION ITEM: Staff will include details about the verification process in guidance.

Section 80-80 does have some changes – are there any comments?

- *The section on agricultural baseline 4VAC50-80-80 B is currently being revised and will be provided to the group at a future meeting.*
- From a generic approach: Where in the context of baseline where does compliance with applicable and existing environmental regulations come into effect? You have to be in compliance before you are going to consider generation of credits. Where does it come into play? *Staff Response: If it is not in there, it needs to be included.*

ACTION ITEM: Staff will revise this section to include requirements for compliance with applicable and existing environmental regulations.

- Regarding the second sentence in A where it states that "Baselines shall be established for each type of nutrient credit generating facility": How does this relate to the Watershed Implementation Plan? It seems to imply that there is some level of "baseline" prior to the credit being generated, but does it have to show up in the WIP to be counted? *Staff Response: That is how we were reading it – the Code says in Article 1.1:1 – Nutrient Trading Act § 10.1-603.15-2 Nutrient credit certification B 2 g:*

g. The Board shall establish baseline dates for all credit-generating practices based on the Virginia Chesapeake Bay TMDL Watershed Implementation Plan or approved TMDLs.

- *The language used mirrors that used in the Code.*

- There might be proposed practices that are not included in the WIP that might need to be considered.
- Does this also apply to the Southern Rivers? *Staff Response: Yes.*
- Shouldn't additional language be included to identify the requirements for Southern Rivers since the Chesapeake Bay WIP does not apply? *Staff Response: 4VAC50-80-80 D and E have been revised to delete reference to the Virginia Chesapeake Bay TMDL WIP and just refer to the WIP or approved TMDLs to account for the requirements in the Southern Rivers.*
- If there is no WIP and no TMDL, does that mean that there is no base line? *Staff Response: According to this language the baseline is the same no matter where you are. Baseline is statewide.*
- It is not 100% clear that the baseline requirement is statewide. *Staff Response: Maybe some "Southern Rivers" clause or "other river basins" clause needs to be included to minimize the potential for confusion.*
- A definition of "southern rivers" should be included.
- 4VAC50-80-80 C: What is meant by "baselines for urban development are applicable to all the land under the control of the owner"? What does that mean exactly? *Staff Response: It is the management unit definition for urban. Maybe this should be revised to refer it back to the "management area" definition. Also there is currently no definition for "Under the control of". The phrase is included in the definitions section but no definition is provided. This concept needs to be fleshed out.*
- On lines 403 and 407 (4VAC50-80-80 C 1 & 2) the term "more restrictive" is used. The term in the Code is "more stringent".
- Line 400 (4VAC5-80-80 C 1) includes a reference to "post-construction phosphorus loading requirements" should reference also be made to "nitrogen"? *Staff Response: The assumption was made that if you were meeting the phosphorus loading requirements you would also be meeting the nitrogen requirements. You could just refer to "nutrient loading requirements".*
- Line 405 (4VAC50-80-80 C 2): For any existing development with an MS4, the baseline should be tied to the wasteload allocation in the MS4 itself. *Staff Response: This language comes from the law: §10.1-603.15:2 B 2 b:*

b. ...Baselines for all other existing development shall be at a level necessary to achieve the reductions assigned in the urban sector in the Virginia Chesapeake Bay TMDL Watershed Implementation Plan or approved TMDLs.

- Line 413 (4VAC50-80-80 D): The term "more restrictive" is used – the Code uses the term "more stringent".
- Line 414 (4VAC50-80-80 E): As noted in previous meetings, there needs to be an opportunity for the public to comment and review "other credit-generating practices", especially those that are identified as innovative. This process should not be all internal to the department.

- Line 414 (4VAC50-80-80 D) Land-use conversions: Is there any other language that addresses what kind of land-use conversions can qualify? *Staff Response: That language is included in the next section.*
- Line 411 (4VAC50-80-80 D): The language specifies that the "Baselines for land-use conversions shall be based on the WIP or approved TMDLs" what is there are neither available nor applicable in the area? Shouldn't there be some mechanism for "at the discretion of the department" to allow for this situation? *Staff Response: That is a good point – the language provided is what is in the statute.*
- What else would be the driving factor in the Southern Rivers besides stormwater? *Staff Response: There wouldn't be any other driving force than stormwater in that area. There is no nutrient cap in the Southern Rivers.*
- General Comment: In the definitions section, we have defined the term "additionality" but nowhere in the body of the regulation is the term used or referenced. Is this the section where we might want to make use of this term? *Staff Response: This has been discussed by staff and it is the intent to add this term here because for most of these practices the concerns for additionality has already been captured in the baseline. We don't have it in a catch-all category. We need to include this concept as we look at additional practices that we have captured the concept of additionality in the baseline. Where would this concept be included? Staff Response: This concept should be included in 4VAC50-80-80 E.*

ACTION ITEM: Staff will revise the language in 4VAC50-80-80 E to include the concept of "additionality".

Section 4VAC50-80-90 – Credit calculation procedures.

- 4VAC50-80-90 C: In reference to the "list of eligible urban practices" does that also include "retrofits"? *Staff Response: Will need to revise or include additional language to consider retrofits.*

ACTION ITEM: Staff will look at revisions to the regulation text to address "retrofits".

- Other approved practices that are not on the list also need to be considered.
- 4VAC50-80-90 B – Are there going to be efficiencies established for use in the Southern Rivers? *Staff Response: That is a good point but we assumed that they would be the same as those for the Chesapeake Bay. Is there any physiographic region in the Chesapeake Bay Watershed that is not mirrored in the Southern Rivers?*

ACTION ITEM: Staff will need to look to see if there are any physiographic regions in the Chesapeake Bay Watershed that are not mirrored in the Southern Rivers.

- 4VAC50-80-90 D: There is a question of scale – when you are talking about a load per acre out of the Bay Model, you need to address at what scale; state wide averages; averages by basin; by land-river segments, etc. These numbers are highly variable. *Staff Response: We address that in*

the current program by just making the leap to the spreadsheet where you get an average above – below the fall line – by major basin. It is currently handled through guidance. There are going to be some judgments.

- 4VAC50-80-90 D For land conversions: Do these regulations intend to allow the conversion of agriculture to a combination of urban pervious and impervious if it produces a lower load to generate a credit? This issue has come up in other states and there have been discussions with EPA. The decision has been not to allow it or to talk in terms of less intensive use. So from a trading standpoint it has not been allowed in the region. This has been included in the calculation of the stormwater regulations in terms of no-net increase – knowing that there would be some mix of conversion in the development process but would result in a nutrient neutral situation. Looking at the types of land that would be converted, it would result in a nutrient neutral situation or no-net increase on a statewide basis. Don't want to complicate that by crediting conversion of agricultural land under this scenario. The trade-off is already calculated into the standard.
- The group discussed the concept of land-conversion.
- The term "land-conversion" is too vague – should call it "afforestation". It was noted that the term is misspelled in the document.
- If there are other kinds of land-conversion that people want to try to get credit for then they can seek approval through 4VAC50-80-90 E "For practices which have not been approved".
- *There are more practices than just "afforestation".* If that is the case then the regulation language does not address it – in 4VAC50-80-100 C you only address two different types of "afforestation", managed and unmanaged. Then you may need to call it "conversion to a less intensive use". There needs to be a term. *Staff Response: The land use conversion language is taken from the statute:*

§ 10.1-603.15:2 B 2 c: Baselines for land use conversion shall be based on pre-conversion land use and the level of reductions assigned in the Virginia Chesapeake Bay TMDL Watershed Implementation Plan or approved TMDLs applicable to that land use.

- Managed and unmanaged afforestation are the only things that you have standards for. There is an issue with the use of the broader term of "land conversion" because you don't have standards for any other kind of land conversion. *Staff Response: Those other practices are included in the current "look-up tables" but we don't have performance standards for them. This is included in the current guidance. We may need to be more detailed on what possible land-use conversions would be considered in the regulations.*

ACTION ITEM: Staff will look at the issue of land-use conversion types for possible inclusion of additional details on allowable conversion in the regulations.

- 4VAC80-90 E "For practices which have not been approved": This should be an open and transparent process and should include an opportunity for review and input from the public. There needs to be a formal process other than just the department review.

- Encourage us to look at opportunities for limiting land conversion to less intensive activities. Agree that right now we should limit this to afforestation because nothing else is defined. *Staff Response: Need to develop a definition of land conversion.*
- The concept is to allow those land conversions that are included in the Bay Model, but additional details are needed. Need to be more specific on what would be considered.

ACTION ITEM: Staff will work on the development of a definition of land conversion for consideration by the group.

- Are we heading towards the use of a look-up table or running some kind of program to address land conversions? Will there be a map to click on that says "your loading rate is X"? *Staff Response: Looking at having something that is reasonable simple to use. The goal is that there would be some form of credit calculator.*
- Pennsylvania and Maryland have backed off from allowing land-conversion. Virginia is the only state that allows land-conversion. *Staff Response: Virginia is the only state that allows the conversion of **agricultural land**.*
- We need to be careful, not to allow so many different types of land-conversions.
- Less-intensive use should be the governing concept for land-conversions.
- EPA has said that no interim BMPs (i.e., BMPS that have not been approved for credit in the WIP.) are not going to be allowable for trades. That if you do not have an approved BMP then EPA's position is that it is a "non-starter". Need a more formal process for approval of allowable BMPs.

4VAC50-80-100 Implementation Plan.

- Line 453 (4VAC50-80-100 B 1): Refers to "life of the credits" – Shouldn't this be "term of the credits"?
- Line 456 (4VAC50-80-100 B 2): The phrase "as specified in 4VAC50-80-90" should be added. The section should read: "2. The performance standards as specified in 4VAC50-80-90 which shall..."
- Line 458 (4VAC50-80-100 B 3): Reference is made to "monitoring and reporting requirements" in Part IV – There are no monitoring requirements in Part IV. *Staff Response: The monitoring requirements have not been drafted yet.*
- What types of monitoring is being considered? *Staff Response: This would be performance based monitoring that the owner would be responsible for not the department. We need to be clearer as to what we mean by monitoring.*
- **ACTION ITEM: Staff will look at the types of monitoring that will be required and provide language related to monitoring requirements to the group to clarify what is meant by monitoring.**

- 4VAC50-80-100 – spelling of "afforestation".
- 4VAC50-80-100 – Has DOF agreed to ask as the sole forest stewardship review/approval agency? *Staff Response: The only response so far has been that "afforestation" has two "fs". A final decision on the review questions has not been made yet.*
- Has there been any discussion of allowing a professional forester who has completed a forest stewardship plan in compliance with the requirements to also approve the plan and not just the State Forester? There is language in the land preservation tax credit under forest stewardship provision that specifies the State Forester or a certified forester can perform the work.
- Is the only difference between "managed afforestation" and "unmanaged afforestation" that you have to control invasive vegetation on "managed"? *Staff Response: The control of invasive vegetation should be included for both.*

ASCTION ITEM: Staff will revise the regulation language to include the control of invasive vegetation on both "managed" and "unmanaged" afforestation.

- What is the difference between "managed" and "unmanaged" afforestation? *Staff Response: "Planted" versus "Natural succession".*
- Why are they separated – why are there two sections? *Staff Response: You get the release of credits for managed once you reach the " 400 woody stems requirement".*
- The group discussed the concept of "implementation plan". We need to come up with something better than an "implementation plan". *Staff Response: What about the term "credit generating plan"? What about a "management plan"? This really doesn't manage anything it just tells you how many credits you generated. Staff Response: What name would the group prefer?*

ACTION ITEM: The group will provide suggestions for renaming the "implementation plan" identified in 4VAC50-80-100 C & D.

- There is a significant difference in hardwoods and pines in the number of woody stems – a lower number should be considered for hardwoods. Would like to see some distinction included in the regulation between hardwood and pine density of woody stems.
- Would like to see, where we refer to State Forester that it also include "or licensed professional".
- Should leave the woody stem requirement at "400" for hardwoods for unmanaged afforestation.
- 4VAC50-80-100 E – We may want to ask whether any of the BMPs included in E 3 are covered under cost-share. *Staff Response: There is a prohibition in 4VAC50-80-50 C Lines 274 -277.*

4VAC50-80-50 C. For purposes of this chapter, the certification of credits which are generated from activities funded in part or in whole by federal or state water quality grant funds is prohibited. However, baseline levels as specified in 4VAC50-80-80 may be achieved through the use of such grants.

- Is this clear – shouldn't this require some kind of verification? *Staff Response: That is addressed in the application section.*

4VAC50-80-60 A 16: Any state or federal water quality grants received.
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- 4VAC50-80-100 E 2: Related to copies of nutrient management plans and soil conservation plans completed by a certified conservation planner in accordance with 4VAC5-15: There are a number of other conditions other than 4VAC5-15 that may require a soil conservation plan – wouldn't you want to include any and all of those that require a soil conservation plan to be included here? 5-15 is the nutrient management certification section.
- Would like to see a **4VAC50-80-100 I** added which would be certification from the IRT (Interagency Review Team) that this is not considered a major modification of the CORPS permit. Some have required a modification and some have not.

ACTION ITEM: Staff will develop language associated with the addition of an item I to include certification from the Interagency Review Team.

- 4VAC50-80-100 F 2 – What is the purpose of that? What information are we attempting to gather? *Staff Response: This was taken from guidance.*

ACTION ITEM: Staff will check the language in 100 F 2 to determine what information is being sought and whether it is appropriate to include it here.

- 4VAC50-80-100 F – Misspelling – It should read "For wetland and stream mitigation..."

9. Public Comments:

No public comments were offered.

10. General Comments:

Did the group discuss future meeting dates?

No specific future dates were discussed other than that of the next meeting which will be on June 11th at the DEQ Piedmont Regional Office. July will be an off month with the meeting schedule to resume in August.

Interest was expressed by the group in the possibility of them paying in advance for a box lunch to be brought in to the meeting on June 11th. Staff will look into the possibility of doing this as well as possible providing coffee for the group.

11. Meeting Adjournment:

The meeting was adjourned at approximately 3:00 P.M.