SUMMARY OF DISCUSSIONS AND FOLLOWUP ACTIONS
Chesapeake Bay Program Partnership's
BMP Verification Review Panel
December 6, 2012 Meeting
http://www.chesapeakebay.net/calendar/event/18952/

Introductions and Objectives of Today's Meeting

- Rich Batiuk (EPA, Chesapeake Bay Program Office) convened the meeting at 9:00AM.
- The panel members and other participants introduced themselves.
- Rich Batiuk explained the role of a Panel Chair and asked the panelists to consider who would like to serve as Chair. Key role for chairperson is to serve as spokesperson for the Panel at forthcoming Chesapeake Bay Program meetings with the senior leadership of the partnership.
    - He asked the Panel members to consider if they would like time on today's agenda for Panel-only discussions.
- Rich Batiuk explained the list of verification issues that was compiled from comments and questions raised by the Verification Committee and other groups.
    - He noted there are some very difficult and complex issues on the table, but expressed his confidence in the Panelists' ability to tackle them.
- He asked panelists to provide their bios if they had not already done so.

Welcome by the Chesapeake Bay Program Partnership Director

- Nick DiPasquale (Director, EPA CBPO) welcomed the panelists and thanked them for agreeing to serve on the panel.
    - He explained he considers the verification effort is foundational to success of the restoration effort, and to instill confidence in the actions being taken to reduce nutrient and sediment pollution.
    - He noted the verification principles were endorsed by the Chesapeake Bay Program's (CBP) Principals Staff Committee on December 5th.

Review of Source Sector and Habitat Workgroups' Draft Verification Protocols

- Rich Batiuk explained the draft matrix that compares the sector and habitat verification protocols. He noted the matrix is still in draft, and asked the panelists to provide feedback on the matrix, particularly what variables would be useful for comparison across source sectors and habitats.
- Rich Batiuk clarified that the various technical workgroups are responsible for developing the protocols, and the Review Panel's role is to help with difficult issues, provide expertise, and point out where there are consistencies and lack of equity across the source sectors and habitats.

Agriculture Workgroup: Frank Coale, UMD, Chair/Mark Dubin, UMD/CBPO, Coordinator

- Frank Coale (University of Maryland, Agricultural Workgroup Chair) described the Agriculture Workgroup's membership and its activities. View the presentation here (opens as a slideshow).

    - He also summarized the lists of existing, interim, and proposed agricultural BMPs.
- Rich Batiuk noted the CBP Partnership has adopted a BMP review protocol which guides both the development of nutrient and sediment load reduction effectiveness estimates and the process for Partnership review and adoption of the BMPs and their efficiencies.

ACTION: Chesapeake Bay Program Office (CBPO) staff will distribute a copy of the CBP BMP Protocol and provide the URL links to the BMP documentation generated to date, and the list of existing and planned BMP panels to the BMP Verification Review Panel members.

- Frank Coale explained the process the Agriculture Workgroup followed to develop its verification protocol. The workgroup obtained contractor support from Tetra Tech to do background research and interview experts.
    - The Agricultural Workgroup considered multiple options and versions. The versions are described in the draft agriculture BMP verification protocol narrative.
        - The latest version (3.5) was endorsed by the Agricultural Workgroup at its November 29th meeting. It sets an 80% confidence threshold for all recommended verification methods.
- Robert Traver (Villanova Univsersity): are minimum credits awarded for meeting the threshold, and greater credits for exceeding the threshold? Is there an award for exceeding the threshold?
    - Frank Coale: the Agricultural Workgroup went around and around on this issue. A separate panel of experts will have to consider the specifics of how the threshold can be met. If the threshold is met or exceeded, full credit is given.
- Gordon Smith (Wildlife Works Carbon LLC): to clarify, is this about data quality, or achievement?
    - Frank Coale: Both.
- Robert Traver: so when you meet the establish threshold, you get X credit; when you exceed the threshold, do you get same X credit?
    - Frank Coale: Correct.
- Rebecca Hanmer (Retired, CAC): the Partnership's Citizens' Advisory Committee (CAC) has been pushing the Chesapeake Bay Program to improve verification and the CBP's credibility. The greatest concern is over verification for nonpoint source BMPs. The Stormwater Workgroup has been very transparent about its limitations. Do not see same level of introspection in the agriculture narrative. The 80% confidence level sounds great to achieve, but hard to believe that there are methods to achieve that confidence for all practices and verification approaches.
    - Frank Coale: statisticians and others with that background will determine how to achieve that benchmark; the Agricultural Workgroup is only setting benchmark, not how to meet it.
- Tim Gieseke (Ag Resource Strategies) asked for clarification about the verification principles discussed during the Panel's October 12th conference call.
    - Rich Batiuk: the Verification Review Panel's comments on the then draft principles were shared with the Verification Committee for discussion and response at the Committee's October 31, 2012 conference call. The revised draft verification principles were then passed on to Management Board for review at

their November 14th meeting, and approved by the Principals' Staff Committee at their December 6th meeting.

ACTION: CBPO staff will provide the BMP Verification Review Panel members with a copy of the compiled comments from Panel members on the then draft BMP verification principles.

- Tom Simpson (Water Stewardship, Inc.): will have to keep ourselves focused on verification element, not wander into discussion about effectiveness or efficiency estimates for the BMPs.
    - Frank Coale: excellent point. Expert panels determine the effectiveness or load reductions for BMPs for application in the Chesapeake Bay Program's watershed model. Verification is about being confident that the counted BMPs reported to the CBP (e.g., 5,000 acres of cover crops) have been implemented and exist in the field.
- Mike Gerel (Sustainable Northwest): if there was a report of how many BMPs have been reported as implemented on the ground and information about BMPs are planned to be implemented on the ground into the future, it may help the panel determine where greater levels of rigor may be needed, e.g. if a practice is very common or heavily depended on.

ACTION: CBPO staff will provide the Panel members with a spreadsheet summarizing the past the present levels of BMP implementation by jurisdictions as well as basinwide along with summaries of BMPs planned to be implemented out through 2025 as part of implementation of the jurisdictions' Phase II Watershed Implementation Plans.

- Mark Dubin (UMD/CBPO) explained the draft agriculture BMP verification concept (version 3.5), its categories and terms.
    - He explained the 80% confidence level threshold.
        - QAQC checks vary by verification approach and practice.
        - The 80% threshold was pulled from the Tetra Tech study. Confidence values in the literature ranged from low 70s to 87%, so 80% was selected by the Agricultural Workgroup as a reasonable benchmark.
    - He noted the concept matrix is just one of four parts of a more comprehensive verification packet the Agricultural Workgroup is developing—1) matrix, 2) guidance document, 3) summary research report from Tetra Tech, and 4) planning tools.
- Mike Gerel: In Tetra Tech study, was there mention of factors that prevent higher levels of confidence, e.g. poor data resolution? Intuitively, it is impossible to visit enough sites to get 100%.
    - Mark Dubin: There are always problems with having enough site visits. The frequency and type of verification changes depending on the BMP being tracked and reported. Verification for agricultural BMPs is much different from inspecting or monitoring, for example, a structural wastewater facility that will exist for at least 20-30 years.
- Mike Gerel: seems like an issue of effort versus ability to determine what's going on on-site. Even if it was possible to visit every site every day, it may not be possible to determine if a practice is fully implemented or functioning.

    - Mark Dubin: Yes, basically it is not feasible to visit every site, every day. The Agricultural Workgroup is recommending a more wise use of resources by checking samples of the entire population. Thus, the core of verification will be to develop programs and survey which meet that 80% confidence level. At their discretion, the jurisdictions' verification programs could change their sampling or spot check methods in ways that increase their confidence level, depending on the approach or the practice. It may be possible that some approaches are unable to achieve that level of confidence for a specific practice, which is why the protocol provides many options.
- Rebecca Stack (DC Dept. of Environment): is one of the roles for this panel to review and approve sampling protocols?
    - Mark Dubin: The Agricultural Workgroup just introducing the concept today. The Agricultural Workgroup and the partnership will provide guidance and the jurisdictions will ultimately develop and present their verification plans to the Panel for review.
    - Rich Batiuk: The Panel's role is to review and provide comments, feedback and direction on the protocols, but not to approve them. Approval of the protocols is ultimately the responsibility of the Partnership's Principals' Staff Committee. We are asking the Panel to looking at wider picture right now—within and across the presented verification protocols for the different source sectors and habitats. The Panel provided comments and feedback on the draft verification principles in the fall of 2012. During this meeting and into the spring, the Panel is being asked to provide comments and feedback on the draft verification protocols. Starting in the summer/fall of 2013, the third role for the panel will be to review the jurisdictions' recommended verification programs.
- Rebecca Hanmer: the fundamental distinction between wastewater treatment plant (WWTP) and nonpoint source BMPs is data. Verification has been issue for nonpoint BMPs because there is no performance data. Afraid that 80% confidence level may not be as reliable as expected or may be too contingent on best professional judgment. To get verification/performance data, consider what kinds of tools are needed.
- Gordon Smith: comfortable with 80% confidence level. Leaves it up to jurisdictions to set the level of rigor or sampling that they want or are able to do for earning credit.
- Tom Simpson: think we are dealing with two different things: 1) confidence in verification protocol; and 2) general ability to verify a BMP.
- Dana York (Green Earth Connection): a lot of the reliability in verification depends on details, e.g. staff, level of training, methods, resources, etc. What level of detail will the panel get down to?
    - Rich Batiuk: those details will need to be documented within the jurisdictions' BMP verification programs. The Panel will have access to that detailed documentation and be in a position to tell the Partnership whether each jurisdiction has spelled out its verification program to the level of detailed necessary.
    - Dana York: it can take a couple years or so for programs to become familiar with methods.
        - Rich Batiuk: Good point. The CBP Partnership is already anticipating it will take several years for full implementation of the basinwide

verification framework. Eventually, the Partnership will be asking the panel for its recommendations on how to establish a long term structure and framework for overseeing implementation of the verification programs.

- Curtis Dell (USDA, Agricultural Research Service): the Tetra Tech report is very helpful; suggest sharing it with Panel if it is ready.
    - Dubin: the draft report will be ready soon. Some elements will be helpful to other nonpoint sectors too.

ACTION: CBPO staff will share the draft Tetra Tech report with the Panel members.

- Tom Simpson commented that ongoing operation and maintenance (O&M) is just as essential as bricks and mortar. Some focus on O&M is necessary.
- Tim Gieseke: any assessment of how many BMPs would need to be verified to meet the Bay TMDL goals?
    - Mark Dubin noted that the jurisdictions' Phase II Watershed Implementation Plans (WIPs) have these kinds of details.

ACTION: CBPO staff will provide the Panel members with the URL links to the jurisdictions' Phase II Watershed Implementation Plans.

Stormwater: Norm Goulet, NVRC, Chair

- Norm Goulet (Northern Virginia Regional Commission; Chair, Urban Stormwater Workgroup) described the urban stormwater BMP verification protocol.
    - View Norm Goulet's presentation here.
- Robert Traver: assuming that if no MS4 permit there is no regulated stormwater?
    - Norm Goulet: Yes, except for what is covered under a construction general permit outside of MS4 areas.
    - Robert Traver observed that the new Pennsylvania stormwater regulations are still being implemented; they will require inspections in most places.
- Tom Simpson: any estimate of what percentage of stormwater runoff is regulated vs. non-regulated?
    - Rich Batiuk: CBPO staff can try to provide that information.

ACTION: CBPO staff will provide the Panel members with an estimate of the stormwater loads that currently come from regulated vs. non-regulated areas across the Chesapeake Bay watershed.

- Dianna Hogan (USGS) asked for clarification: outside of MS4 areas, stormwater practices cannot be verified?
    - Goulet: It is often difficult to verify BMPs implemented outside of the MS4 areas. There is no federal regulatory hammer, unless a state or local government has decided to regulate stormwater on its own.
    - Richard Klein (Community and Environmental Defense Services): in PA, we find a lot of old BMPs such as infiltration basins that are still functioning.
- Dana York: what raises an area to MS4 permit status?

    - Norm Goulet: Population. Phase I MS4 permits are for more populous areas (>100,000 at time of the Clean Water Amendments); Phase 2 permits for less populated areas. Phase I jurisdictions are locked in. Jurisdictions which pass the population threshold are Phase II and will remain Phase II unless the Clean Water Act is amended.
- Mike Gerel: would be interesting to see the percentage of reductions that are expected to come from unregulated stormwater areas.

ACTION: CBPO staff will work to develop an estimate of the level of reductions the seven watershed jurisdictions are seeking from non-regulated stormwater sources/areas in their Phase II WIPs.

- Richard Klein: pleased that states have adopted these new regulations, but there are some problems, even in the more sophisticated areas where development interests pressure local officials to allow use of less effective and less costly practices.
- Norm Goulet: verification will vary based on the type of practice. Inspections and maintenance are critical to ensure pollutant removal performance and earn credit. The Panel may see the need to recommend tweaks to the existing MS4 system for verification purposes.
- Rebecca Hanmer: visual inspections rather than performance sampling?
    - Goulet: Right. That kind of performance data does not exist. The Stormwater Workgroup felt that visual inspections are enough to determine performance.
    - Robert Traver: Agree, for most BMPs. As long as water enters the BMP, it functions. We find the most important inspection is post-construction. If it is installed correctly it will likely continue to function properly.
- Dan Zimmerman (Warwick Township): is there a distinction between private- and public-owned stormwater facilities?
    - Norm Goulet noted that new permits generally do not make that distinction, and localities are required to inspect all facilities under those new permits.
- Tom Simpson: a large percentage of developed lands drains to legacy BMPs. Do new permits address issues with legacy BMPs?
    - Norm Goulet: wet ponds tend to function well as long as they aren't filled in.
- Mike Gerel: there is often reluctance to establish maintenance funds up front. Mandatory tracking and reporting of stormwater BMPs is a new concept to many jurisdictions.
- Gordon Smith: Suggest to start sampling legacy BMPs.
- Norm Goulet noted that non-MS4 areas were the most difficult verification issue for the workgroup, so they developed four options [slide 10]. Option 4 provides some time for localities with fewer resources to verify their practices.
- Rebecca Hanmer: I would make a distinction between non-MS4 areas that are growing and those are not.
- Rebecca Stack: Is there a difference between options 1 and 2? Why would a locality do option 1 if they get same credit for option 2?
- Gordon Smith pointed out option 2 has 80% confidence level requirement, so there would be a lot less sampling required, but there would be a chance they might receive less overall credit.

- Norm Goulet clarified that the options are for use by the jurisdictions and municipalities, not up for decisions by the Panel.
- Gordon Smith: I like the suite of options because it allows localities to choose. If professional judgment and skill is needed to make judgments or reports, may be skeptical of who's making the judgment and their ability to not be biased.
- Tom Simpson: For option four, five years might be a long time to accept reported data unconditionally. Many rural areas will likely default into option 4.
    - Norm Goulet: the TMDL will not be met unless the nonregulated communities are brought into the fold and make reductions.
    - Mike Gerel: I think Tom Simpson is right; a lot of rural areas will likely jump to option 4.
    - Gordon Smith: I think this provides the municipalities some great incentives.

ACTION: CBPO staff will provide the Panel members with copies of the Center for Watershed Protection's James River visual inspection form as provided by Norm Goulet, CBP Urban Stormwater Workgroup Chair.

- Robert Traver observed the new PA regulations apply to MS4 and non-MS4 areas.
- Richard Klein: important to transmit or track these verification records with an online tool. Difficult for individuals to appreciate the benefits provided by these practices and the effort by the locality unless there is a public record. This helps provide buy-in from residents to support stormwater programs.
- Dana York: what expert panels are referred to in Part G?
    - Norm Goulet: the same expert panels which are convened by the Partnership to develop the BMP efficiencies under the BMP review protocol discussed at beginning of meeting.
- Richard Klein: Phase I MS4 jurisdictions publish detailed annual reports, but those are not always readily available online. Perhaps the Panel could recommend having all those reports, and appendices, publicly available online. Currently can be difficult to obtain these from the counties.
    - Norm Goulet noted that this will be a future requirement for MS4s in Virginia.
- Tom Simpson: how does verification for trading programs relate to this panel's efforts?
    - Rich Batiuk: there certainly a connection, but the protocols for certifying credits for trading are completely separate from the protocols being presented to the Panel.
- Rebecca Hanmer: A possible blind spot in Bay TMDL is due to counting remediation of poor or non-performing BMPs, and not counting prevention.

Forestry: Rebecca Hanmer, USEPA (Retired), Chair/Sally Claggett, USFS, Coordinator

- Sally Claggett (U.S. Forest Service; Coordinator, Forestry Workgroup) introduced and described the draft forestry verification protocol. View her presentation here.
- Richard Klein: is there anything in the Forestry Workgroup's protocol to account for different nutrient and sediment load reduction benefits based on types/species of trees? (e.g., oak forest with very thick leaf duff and great soil erosion protection vs. poplar with very thin cover and more erosion).

    - Sally Claggett: This is an issue we do not currently address in the Chesapeake Bay Program's watershed model. Currently focus on forested vs. non-forested lands; may collect other data on species composition, but do not submit it for incorporation into the Bay watershed model at this point.
- Dana York: did the Forestry Workgroup consider mitigation, e.g., under Maryland's Forest Conservation Act (FCA)? Who verifies that?
    - Sally Claggett: The Maryland FCA is accounted for and the counties are responsible for verifying it.
- Rebecca Hanmer clarified that loads in the CBP's Bay watershed model from forest land are very low compared to other land uses. Thus, forest loss is arguably the most consequential indicator for the Chesapeake Bay Program. The forestry verification protocol looks at net gain in forest buffers for this reason.
- Curtis Dell: what is the approximate breakdown between public and private forest land in the watershed?

ACTION: CBPO staff will provide the Panel members with a breakdown of public vs. private forest lands and the percentage of harvesting on public vs. private lands.

- Gordon Smith: If possible, would support using aerial photos rather than Forest Service's Forest Inventory and Analysis (FIA).
- Dianne Hogan: how exactly do the states verify and report these forestry BMPs?
    - Sally Claggett: not done to great extent right now. The jurisdictions mostly report what they plant, and full credit typically given without verification. Would recommend i-Tree Canopy, which is a free tool that is likely able to achieve 90% confidence.
- Rebecca Stack: So the Panel can make recommendations on if urban buffers or urban trees fall under forestry or stormwater protocol?
    - Rich Batiuk: Correct.
- Sally Claggett: Can be difficult to ensure that acreage of riparian forest buffers is a net gain.
- Mike Gerel: what percentage of communities have urban forestry programs?
    - Sally Claggett: quite a few, but the cost of designated staff is a barrier which is why the protocol allows for nonprofit organizations or other partners to fill in gaps.
- Rebecca Hanmer: concern about adopting a 80% verification confidence level for BMPs that are heavily depended on. For those practices with greatest stake (on which the jurisdictions are depending on the for highest levels of implementation and, therefore, reduction), suggested the Panel consider recommending higher confidence levels. Agriculture riparian buffers are a cross sector issue for the Panel to address.
- Gordon Smith: almost impossible to say with confidence that forest land is not lost from year to year; easier to determine this over a longer set of years.
- Richard Klein: agree with Rebecca Hanmer that buffers are extremely important. Ideally, an inventory of where all buffer projects are located would be publicly available.
- Daniel Zimmerman: any buffer would be beneficial, even if it does not meet the minimum 35-or 45-foot width. Even a 15-foot buffer provides some benefits.

    - Rich Batiuk: recommended the highlight this as a functional equivalency issue and provide their recommendation to the Partnership.
- Mike Gerel: how good is aerial imagery data for rural areas and buffers?
    - Sally Claggett: It's pretty good, mostly rely on National Agriculture Imaging Photography (NAIP) which is updated annually and has 1- or 2-meter resolution. The imagery is best outside of mountainous areas.

Wastewater: Tanya Spano, MWCOG Chair/Ning Zhou, VA Tech Coordinator

- Tanya Spano (Metropolitan Washington Council of Governments; Chair, Wastewater Treatment Workgroup) presented the draft wastewater verification protocol.
- Tanya Spano: significant wastewater facilities (generally greater than 0.4 million gallons/day) have been a tremendous success in terms of improving water quality through advances in treatment technologies, but benefited from decades of extensive funding and regulations. Through regulatory monitoring and reporting requirements, we are essentially 100% confident in data for significant wastewater treatment plants. More and more non-significant facilities (less than 0.4 million gallons per day) are being brought into the same fold as the significant facilities.
- Rebecca Hanmer: are non-sigs required to monitor N and P?
    - Tanya Spano: Generally not. If the facility is expanding or new, then additional requirements for monitoring would be triggered and the facility would be treated like a significant facility.
- Richard Klein: EPA's ECHO website had reputation for a lot of inaccuracies –anything done to fix that? The problem appears greatest at smaller facilities (<1 MGD) due to inspections once every three to five years.
    - Ning Zhou (Virginia Tech, CBPO; Coordinator, WWTWG): a lot of non-significant facilities may not report to EPA's national database, but the jurisdictions do report these facilities to the Chesapeake Bay Program. So the CBP wastewater treatment facilities data does not have these accuracy issues.
- Tanya Spano: On-site systems include traditional septic systems and other new or emerging technologies.
    - She noted that Pennsylvania and New York do not plan to expend resources to verify on-site systems. Still need to have some conversations within the CBP Partnership on accounting for those loads and how to ensure loads are not growing.
    - Rich Batiuk clarified that Pennsylvania and New York aren't planning to claim reduction credits for upgrades in on-site treatment systems; they are achieving TMDL through load reductions from other source sectors.
- Rebecca Hanmer: what role does the location of on-site systems play in nitrogen loads?
    - Tanya Spano: the Wastewater Treatment Workgroup will be convening an expert panel to consider the attenuation of loads from on-site treatment systems.

Streams: Mark Secrist,USFWS, Chair/Debbie Hopkins, USFWS, Coordinator

- Mark Secrist (U.S. Fish & Wildlife Service; Chair, Stream Health Workgroup) explained the functional lift framework described in the draft streams verification protocol.
    - He noted stream restoration projects are typically permitted by the Army Corps of Engineers in addition to state agencies.

- Rebecca Stack: how does stream restoration get counted in the Bay watershed model now? All projects involve permits that typically require monitoring for about 3-4 years. Even with a few years of monitoring, one never knows what status of project is 10 years or later down the road.
    - Matt Johnston (UMD/CBPO; Coordinator, Watershed Technical Workgroup): under the current definition of stream restoration BMP, the jurisdictions only report linear feet and a load reduction is modeled at edge of segment watershed. The recent expert panel on stream restoration took a much more functional look at hydrology. Some jurisdictions like Maryland rely more heavily on stream restoration in their WIPs.
- Richard Klein: Biggest benefit for restoration projects, particularly in urban areas, is sediment reduction. A study published in 2011 in Journal of American Water Resources Association surveyed studies of thousands of stream restoration projects, with dismal conclusions about the ability of stream restoration projects to prevent channel erosion.
- Daniel Zimmerman: Are there any distinctions in the Bay watershed model about the age of the buffer and effectiveness with age?
    - Matt Johnston: credit for linear feet is given the year it is reported and each year thereafter, but the credit does not increase or decrease with age.
- Mike Gerel observed that communities love to do these types of projects for a variety of reasons, so they will likely do them regardless of credit in the Bay watershed model.
- Dianne Hogan: is monitoring data typically available for these project sites?
    - Mark Secrist: At least in Maryland, typically required to do 3 years or more of monitoring, though there is not always agreement on what parameters will be monitored.
- Dana York: do jurisdictions ever lose credit when a project fails?
    - Rich Batiuk: Unaware of examples of this, but this gets at the BMP lifespan issue.

Wetlands: Jennifer Greiner, USFWS, Habitats Goal Implementation Team Coordinator

- Jennifer Greiner (USFWS; Coordinator, Habitats Goal Implementation Team) presented the draft wetlands verification protocol.
    - View her presentation.
    - View the draft wetlands protocol.
- Jennifer Greiner noted some of the jurisdictions, particularly Pennsylvania and Virginia, have set ambitious 2025 goals for wetlands in their Phase II WIPs.
    - She reviewed some of the habitat-specific guiding principles the Wetlands Action Team has set for its verification protocol, as well as sample wetland monitoring elements (view the sample monitoring worksheet).
- Jennifer Greiner explained the working draft of the protocol is still under review by Wetlands Workgroup and the Habitat Goal Implementation Team. She plans coordinate closely with the Agricultural and Urban Stormwater Workgroups before February.
- Dana York: wetlands are a little different than stream restoration. For example, there consequences for removing previously installed wetlands on agricultural lands.
- Rebecca Stack: Seems there is an intersection between trees, stream buffers, wetlands, and stream restoration. Could potentially use same tools to get same level of resolution, etc.

- Robert Traver: urban constructed stormwater wetlands are not the same as U.S. Army Corps of Engineer's regulated wetlands for mitigation. Urban wetlands have different requirements for invasive species, etc.

Historic Data Clean-up: Matt Johnston, UMD; Coordinator, Watershed Technical workgroup

- Matt Johnston noted that one of the issues on the list discussed in the morning is "how should the partnership deal with our legacy BMPs, particularly in terms of stormwater practices." He explained the Watershed Technical Workgroup has been tasked to lead the "clean-up" of the historical BMP record.
- He noted there is a near-term deadline of 2016 for the calibration of the next version of the Partnership's Chesapeake Bay watershed model.
    - Rich Batiuk noted the clean-up is causing significant consternation for some jurisdictional partners.
- Dana York: what is meant by legacy BMPs?
    - MattJohnston: The list uses the term "legacy," but we usually use the term "historical."
- Richard Klein: for urban historical BMPs, do we have any location information? Not clear where some of these figures came from.
    - Jeff Sweeney (U.S. EPA CBPO): Nobody picked these numbers out of the air, but the jurisdictions considered growth rates, amount of urban land, regulations, and other factors they knew in order to make best professional judgments on the numbers of BMP implemented and generally where.
- Gordon Smith: It would be possible to get a lot of information if a small crew of individuals went around the watershed to survey BMPs. This could provide information about the survival/existence of structural BMPs.
- Mike Gerel: I would imagine that there could be a cut-off date at some point, so if there is not locational information for a practice by that date, it gets left out. For example, if you can't prove it's there 15 years down the road, then you cannot get credit.
- Daniel Zimmerman: We just filed a TMDL compliance plan with data on projects from pre-2003 that was told cannot get credit for in the model.
    - Jeff Sweeney explained the recently reported data could not be credited in the Bay watershed model because it was for historical practices, not annual progress from 2010 or 2011. Historical practices reported for years prior to 2006 could not receive credit because the watershed model was previously calibrated to practices reported from 1985-2005. These recently reported historical practices will be added during the calibration of the next generation of the Bay watershed model.
- Dana York: Maryland has set a ten year limit for plans. After 10 years they pull the plan out unless it is shown it is still in place. Other states have not done this yet.
- Richard Klein: Community and Environmental Defense Services has put together training materials for volunteers to survey BMPs in their own sub watersheds. If the project meets expectations, this effort could help augment other methods and programs.
- Mike Gerel: It is often difficult to explain calibration or why practices would not be credited in the model. Would be great if Panel can help the Partnership make progress on this issue.

    - Rich Batiuk: Agreed. The Principals' Staff Committee just approved a multi-year schedule for the development and calibration of the next generation of the Bay watershed model, so we now have an idea of the time frame in which to work to address these issues.
- Rebecca Hanmer: We seem to be talking about two different things. Still-functioning legacy BMPs should absolutely be counted if they provide benefits today. The Panel should not focus on the past BMP issue if the BMPs are no longer functioning.
    - Matt Johnston clarified that they are different, but similar issues. Part of the historical record will be filled in by start dates associated with reported BMPs. A closely related issue is how to go back to clean up the record, and with what methods.

Ensuring Full Access to Federal Cost Shared Conservation Practices and Addressing Double Counting – *Dean Hively, USGS/Olivia Devereux, Devereux Consulting*

- Dean Hively described the approach to ensuring all six jurisdictions have full access to federal cost share agricultural conservation practice data.
- Olivia Devereux explained the USGS project only relates to agricultural practices funded by NRCS or FSA. The presentation is available here.
    - USGS provides the aggregated data to the states. The states are then responsible to use and report that data to the Chesapeake Bay Program.
    - She reviewed each state's methods for preventing double counting of agriculture practices [slides 7 through 12].
- Andrew Sharpley (University of Arkansas): if a producer receives federal funds for a cost-shared practice, how is that private data?
    - Dean Hively explained that Section 1619 of the Farm Bill protects farmer information. The amount of money they receive is public, but what practices they implement and what they do with those funds is considered private data.
    - Mike Gerel: This issue will be a point of frustration for this Panel and others. Should strive to get as much information as possible while protecting farmers' privacy. This issue is bigger than verification.
    - Daniel Zimmerman observed, in his experience, it was easier to speak directly with farmers and get data one-on-one.
- Olivia Devereux explained that a multi-organizational 1619 agreement would be much more efficient, and would provide additional benefits. Devereux provided a preliminary draft agreement and an attachment outlining potential benefits to the jurisdictions.
- Dean Hively: There is an ongoing conservation data streamlining initiative (CDSI) at USDA. We will want to take advantage of that effort.

Review of Schedule for the Panel and Action Items

Batiuk asked each of the panel members for their rapid-fire input on next steps or lessons learned based on discussions during the meeting.

- Richard Klein: Thanked Rich Batiuk for excellent management of the meeting. He felt the meeting was a great experience.
- Robert Traver: Scale is always an issue. Do not have a personal grasp of the scale issue at the moment, but would like to continue to discuss it. Do not want verification to outweigh implementation.

- Dana York: It was great to hear and learn from variety of sectors. Eager to see how the details are ironed out. As for timeline, the Panel will need to meet again before the summer.
- Gordon Smith: First, need to get to specifics to determine how we monitor and who's doing the monitoring. Second, sampling can give some good insights for less cost than full surveys.
- Dianna Hogan: Need to address overlap among and merge information across the numerous technical workgroups.
- Curtis Dell: How to handle the non-cost-shared practices is going to be the biggest challenge.
- Mike Gerel: Non-CAFO agriculture and non-regulated stormwater are the two biggest challenges, though right now less concerned about the non-regulated stormwater given its smaller contribution to overall loads and a lack of a realistic plan from any localities to tackle it as part of early WIP2 implementation.
- Tom Simpson: First, how data sources are set-up and related to the CBP BMP definitions and efficiencies will continue to be a problem. Second, we will probably have to continue to rely on sampling, but sampling alone misses opportunities to help producers make additional improvements.
- Daniel Zimmerman: I look at it from two perspectives: internally and externally. Internally, we identified a number of inconsistencies that need to be addressed. Externally, the degree of success is measured by acceptance from people at the end of the pipeline, e.g. farmers, local workers, etc. The Panel could greatly benefit from hearing those perspectives.
- Tim Gieseke: Agree with several of the other panelists' thoughts, particularly the comments on scale, how many practices will eventually be verified, how to leverage multiple benefits, and verifying non-cost-shared and farmer-funded practices.
- Andrew Sharpley: Important to keep in mind how much accuracy we need, given that models, by definition, are not perfect tools anyway. Maybe there are ways we can help support farmers or others to provide information more freely.
- Rebecca Stack: There seems to be a tension among those who have funds and those who have responsibility for on the ground implementation. Perhaps there needs to further examination of the cost-structure for supporting BMP verification, e.g., a broader utility.
- Rebecca Hanmer: Verification costs money. The Chesapeake Bay Program has a problem because the BMP verification effort has been challenged and will continue to be challenged. Think it is in interest of nonpoint source community to pay attention to this effort, because this verification relates to reasonable assurance. This verification effort is also important for point sources, because the verification of nonpoint practices will help prevent a need to clamp down harder on regulated point sources. The nonpoint sectors offer the most cost-effective reductions. There probably is an 80/20 rule here, in terms of a select set of BMPs that result in the majority of load reductions. Probably do not need to be as stringent on the practices that are less sensitive.
- Mike Gerel: Think it would be interesting to have more farmers, city managers, etc., speak to the Panel about their perspectives (costs, barriers, experiences, etc.). Typically get different responses from the regulated individuals themselves than from their representatives.

- Rich Batiuk summarized the action items and next steps. He explained that the six technical workgroups will continue to work on their verification protocols and finalize them in late February 2013.

ACTION: CBPO will provide a written meeting summary to the Panel. Panel members will be asked to review draft summary and provide specific edits to the draft to ensure it fully reflects the Panel's discussions and agreed to follow up actions.

ACTION: While the meeting is still fresh in their minds, Panelists should write up their questions not asked, requests not sought, and points not made during the meeting, and provide Rich Batiuk with more details on the points raised and suggestions made. Anything from a half page of bulleted text to several pages of narrative is welcome.

- Dana York: asked that the Panel's next face-to-face meeting agenda be structured based on this input.
- Tom Simpson: If we choose to hear from stakeholders at the next face to face meeting, the focus will likely be agriculture. Offered help to organize the next meeting near the Shenandoah Valley that is close to urban areas, and also where producers participate less in cost-share programs. If we want farmers to participate, best to choose date that is sensitive to planting season (approximately March 15 to April 1).
- Rich Batiuk: CBPO staff will work to set the date for the next Panel meeting, around March timeframe, using a Doodle poll to account for the Panel members' respective schedules.

Adjourned 4:00 PM

Panel Meeting Participants

Name	Affiliation
Panelists	
Curtis Dell	USDA, Agricultural Research Service
Mike Gerel	Sustainable Northwest
Tim Gieseke	Ag Resource Strategies
Rebecca Hanmer	Citizens Advisory Committee
Dianna Hogan	USGS, Eastern Geographic Science Center
Richard Klein	Community and Environmental Defense Services
Andrew Sharpley	University of Arkansas
Tom Simpson	Water Stewardship
Gordon Smith	Wildlife Works Carbon LLC
Rebecca Stack	District of Columbia, Department of Environment
Robert Traver	Villanova University, Dept. of Civil & Environmental Engineering
Dana York	Green Earth Connection LLC
Dan Zimmerman	Warwick Township
Panel Staff	
Rich Batiuk (Coordinator)	U.S. EPA, Chesapeake Bay Program Office (CBPO)
Jeremy Hanson (Staff)	Chesapeake Research Consortium/CBPO
Presenters	
Frank Coale	University of Maryland (UMD)
Sally Claggett	U.S. Forest Service
Olivia Devereux	Devereux Environmental Consulting
Mark Dubin	University of Maryland/CBPO
Norm Goulet	Northern Virginia Regional Commission
Jennifer Greiner	US Fish & Wildlife Service/CBPO
Dean Hively	U.S. Geological Survey (USGS)
Matt Johnston	University of Maryland/CBPO
Mark Secrist	U.S. Fish and Wildlife Service (USFWS)
Tanya Spano	Metropolitan Washington Council of Governments
Ning Zhou	Virginia Tech/CBPO
Other participants	
Bill Angstadt	DE/MD Agribusiness Association
Karl Blankenship	Bay Journal
Nick DiPasquale	U.S. EPA, Chesapeake Bay Program Office
Debbie Hopkins	U.S. Fish and Wildlife Service
Pat Gleason	U.S. EPA, Region 3
Dave Montali	WV Dept. of Environmental Protection
Andra Popa	U.S. EPA, Chesapeake Bay Program Office
Aaron Ristow	Upper Susquehanna Coalition
Eric Sprague	Alliance for the Chesapeake Bay
Ann Swanson	Chesapeake Bay Commission
Jeff Sweeney	U.S. EPA, Chesapeake Bay Program Office
Beth Zinecker	U.S. Geological Survey/CBPO
Hank Zygmunt	Resource Dynamics, Inc