Memo: **Recommendations of the CAC workgroup on verification and transparency**

Members: **Verna Harrison, Rebecca Hanmer, Andrew Der and staff Jessica Blackburn**

To: **Citizens Advisory Committee**

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An action item of the CAC February 21-22, 2013 quarterly meeting was the formation of a CAC workgroup to continue to engage with the Chesapeake Bay Program (CBP or Program) on their work to improve verification and transparency of Best Management Practices (BMPs). The CBP has asked CAC to help the partnership define operational *transparency* and suggest how the partnership can develop protocols for *verification* that meets CAC's continued call for sufficient transparency as required in the "Public Confidence" principles of the BMP Verification Committee.

As Rebecca was part of a group that was asked to provide a definition of *"transparency"* by March 25, she and Verna collaborated on a definition of transparency which was given to the Ag Workgroup. The definition is in part III below of the outlined letter to Nick.

The focus of the draft outline of a letter below is on the issue of verification and transparency in nutrient management of agricultural practices. (See comment on Section V)

The CAC workgroup has talked with colleagues, researched literature and reports, and Rebecca Hanmer has participated in the CBP Verification Committee meetings. The workgroup held a conference call on March 26, 2013 and have exchanged many workgroup emails and phone calls over the course of the last month. On behalf of the CAC workgroup the following recommendations are brought to you as suggested responses to Nick DiPasquale's request for further information from CAC.

CAC response to request for recommendations on BMP Verification and Transparency
DRAFT OUTLINE

I. Introduction

A. Previous exchanges on Verification- reference Dec 17, 2012 CAC letter listing concerns with verification process:
"Of particular interest to us is the need for guidance delineating what is and is not sufficient transparency as required in the "public Confidence' principle. Absent a significant level of heightened transparency in the verification process itself and the underlying data to support any conclusions; we will not meet the public confidence standard envisioned by the principle"

B. Nick's Transparency request to CAC- reference Feb 4, 2013 CBP letter to CAC in response to verification concerns and the request to ask CAC help with transparency: "This is an issue on which the Citizens Advisory Committee must advise the Partnership- help us collectively define what we mean by transparency and how that transparency can be achieved. The Committee should share specific examples which can be applied across source sector and jurisdiction as is the intent behind the Partnership's adopted public confidence principle."

II. Basic definition of "transparency"- answering the specific request from CBP, Given to the Agricultural Workgroup by Rebecca Hanmer

Transparency means operating in a way that is easy for others to see what actions are performed. Thus, when applied to government programs, transparency is a method where decision-making is carried out in a manner readily accessible to the public. Absent a legal constraint, all draft documents, work products, and final decisions or documents, and the decision making process itself, are made public and remain publicly available. Transparency means an outside reviewer can determine what data were used as a basis for a deliberative decision or conclusion to generate a report. Included would be how the data were obtained, what measures are employed to ensure the data is accurate, who is responsible for data generation and collection as well as who is responsible for ensuring data accuracy, and the methods of analysis utilized.

III. Acknowledgment of decision to create special task force

Welcome recent progress in creating a small "Plan Assessment" workgroup of technical experts to develop quantifiable verification protocol approaches for on-farm application of fertilizer, manure, and bio-solids. CAC's recommendations for what this special group should look in last section of this memo.

IV. Target practices in WIPs

We recognize that states face many challenges in strengthening verification and transparency for all the BMPs in the WIPs. Therefore, support giving highest priority to making the necessary investments in verification/transparency for those practices which are most significant in the state WIPs in terms of effectiveness and the extent to which state is depending on implementation of these practices to achieve the nutrient and sediment TMDL allocations.

V. Why focus on nonpoint source agricultural nutrient management

CAC's greatest concern is about the current problems with verification and transparency for agricultural nonpoint sources of nutrients and sediment because of the importance these practices have in achieving the WIP requirements. Although we recognize that there are legal limitations for reporting farm-specific information for BMPs supported under the Farm Bill, and there are practical limitations associated with gathering and reporting information when BMPs are implemented voluntarily, CAC believes that the general standard of transparency for nonpoint sources should be the same as for point sources. (Even for point sources, the NPDES regulations recognize distinctions in reporting between major and minor sources, and protect confidential business

information.) We also recognize that generally the agricultural management practices are the most cost-effective practices which underscore the importance of verifying them.

A. **Adaptive Management, a guiding principle of the Bay program, must be employed to address findings from both the extensive external review by the National Academy of Sciences and the USDA's Conservation Effects Assessment Project (CEAP) report.** These reports describe serious flaws in the ability to account and verify implementation of nutrient management plans.

For example, only 9% of cropped acres met the criteria for *both* phosphorus and nitrogen management, if rate, form, time and method of application are considered (CEAP 2011). Results indicate, for example, that only 35% of cropped acres met criteria for application rate for nitrogen and 37% for phosphorus and for "manured" acres only, these percentages drop to 30% and 19%, respectively. These results are in contrast to the high rates of nutrient management implementation reported by the Bay jurisdictions.

The CEAP report (Nov 2012) finds that despite improvements in nitrogen application rates, about 66% of corn acreage does not achieve the rate, timing, and method criteria that minimize environmental losses of nitrogen. As a result, improved nitrogen management on cropland continues to be a major conservation policy goal." In sum, there are significant differences between reported progress from the Bay model and that reported by farmers themselves via the CEAP process.

B. **Make the verification process and aggregate analyses of the fate of manure available to ensure transparency.** For the purposes of this discussion, the onus is not on the individual farmers to do more than either their permit or their nutrient management plan requires. We are not interested in farm-by-farm information that is protected by the Farm Bill, but we do think aggregate information should be reviewed by a third party, like EPA or USGS to compare with real world modeling data and analyze water quality implications. The review process and results are aggregated at the county level (at a minimum) and should be made available.

There is also the need to know where manure goes as many animal producers do not have land on which it can be appropriately spread. Clean Water Act permitted farms, like CAFOs, are required to have permits for how manure will be handled on the farm's land (although many of these permits have yet to be issued). If a CAFO transports manure from its farm to a non-CAFO farm, then there is no account (chain of custody) of where the manure goes or if it is applied to an area that is already too nutrient rich. A better understanding of the fate of manure will help Bay Program modelers to determine where manure can be spread and whether there is enough appropriate land available for manure application in a region of the watershed.

C. **The status quo, where there is very limited to almost non-existent transparency for agricultural nonpoint source information, cannot be allowed to continue.** Where state nonpoint source verification protocols cannot achieve the same level of transparency as their protocols for point sources of a similar size, states should document what measures

they are taking to improve transparency, such as third-party verification. There are some critical questions a state should be able to answer as a way to verify this aspect of nutrient management plans are providing the pollution protection intended.

This third party verification team should seek to answer:

1. Where are the organic and inorganic fertilizers and bio-solids going to be applied?
2. Based on a soil test prior to application, how much nitrogen and phosphorus is currently in the soil? How much fertilizer is being applied and how is it documented?
3. When is the fertilizer applied?
4. If manure is being transported out of state, where is it being applied?

VI. Extensive transparency is built-into point sources, but some improvements can be made

Also recognize that the Clean Water Act and the implementing regulations for the National Pollutant Discharge Elimination System (NPDES) contain extensive transparency requirements. CAC supports the general position that the states should use the legally-established NPDES verification and transparency mechanisms for those nutrient and sediment sources which are regulated as "point sources". However, practical limitations on transparency need to be corrected. The MS4 process would lend itself to even better transparency as the annual reporting requirements are already in the public domain and efforts to makes them more available and understandable would have a lot more return on the effort investment.

Address backlog of permits- Where NPDES permits with the appropriate Chesapeake Bay TMDL-related requirements have not been completed, then transparency is lacking because the necessary monitoring and reporting are not being done. In particular:

A. Jurisdictions should make sure that all sewage treatment plant NPDES permits contain the necessary nutrient limits, monitoring and reporting requirements. We understand that some "significant" treatment plants still lack numerical nutrient limits years after the Bay permitting strategy was issued.

B. Jurisdictions should expedite improvements to NPDES stormwater permitting and implementation, especially by reissuing Phase I MS4 permits and issuing Phase 2 MS4 permits which contain the necessary requirements for achieving the Bay WIP requirements. In addition, EPA should enhance transparency by reconsidering its characterization of all stormwater permits as "minors", thus limiting electronic reporting of MS4 information (ICIS system).

VII. Current approach by the verification committees- Tetra Tech method

The Agriculture Workgroup has sponsored development of a verification assessment tool by consultant Tetra Tech (Tt method), in lieu of drafting BMP-specific protocols. Although the Tt method may have potential, in its current state it is decreasing rather than adding to transparency. One of our CAC team, Rebecca Hanmer, participated in the only

practical trial of the method of which we have been informed, for the draft riparian forest buffer (RFB) protocol. Although the method provoked useful discussion, it was complex and very time-consuming to employ. It should not be called a numerical scoring method at all as it relies on the professional judgment of the evaluation teams whose composition is currently unknown.

VIII. Problems with the current approach (1)- test the method with independent experts

We object to providing this method to the jurisdictions for use in its present form. There should be several more Bay Program-level trials of different types of BMP protocols, using teams who are expert in the selected BMPs but also including some members who are independent of the current agricultural assistance establishment. The results of these trials need to be written up and made publicly available for discussion (e.g. by the BMP Verification Committee).

Problems with the current approach (2)- use plain English, not codes and insider references

Even with better, more user-friendly guidance, application of the method could still be non-transparent. Because the method depends upon team scoring, the composition of the teams is of prime importance. State scoring teams should also include independent experts. Results of team scoring need to be written up and submitted to the Bay Program along with the BMP verification protocols, with clear information about how potential weaknesses were addressed. The BMP protocols themselves must be written out in plain English, not simply keyed to the spreadsheet which the Agriculture Workgroup has developed.

IX. Conclusion

Lastly, CAC is committed to preserving healthy agriculture in our communities. Rural landscapes are integral to the fabric of our region's culture. Just as clean water is important to healthy communities, so are healthy, local food sources. We believe responsible agricultural practices are good land uses. The states led the design of their WIPs to accommodate agricultural viability and should also be accountable for the responsible farming practices that seek to credit towards the WIPs congruent with urban stormwater verification requirements. We encourage the EPA to use the Chesapeake Bay Program as a venue to promote and share successful examples across the watershed that demonstrate healthy farm practices, the community ethos that support them and the mechanisms that promote practice verification.