

COALITION FOR AN AFFORDABLE BAY SOLUTION
FACT CHECKING THE CBF
OCTOBER 2013

On October 22, the Chesapeake Bay Foundation (CBF) distributed a purported ‘fact’ sheet to members of the Senate and House saying that [manure-laden runoff is not the leading cause](#) of nitrogen pollution from Pennsylvania. The fact sheet stated that it is commercial fertilizer and not manure that is the primary challenge that needs to be focused on in order to meet EPA nitrogen reduction mandates. The fact sheet went on to discuss the valuable nature of livestock manure, and the numerous negative consequences associated with removing excess manure such as a loss of a valuable fertilizer. Even further, manure processing would do nothing to minimize sediment loss, which impacts local waterways.

As has been the case with the other fact sheets recently published by CBF and distributed by CBF lobbyists at Crisci Associates, there are significant exaggerations, data gaps, misplaced comparisons, and technical errors within the presented analysis that are intended to lead the reader to a singular pre-mediated conclusion – that SB 994 should not be supported. It is because of these exaggerations, data gaps, misplaced comparisons, and technical errors that the Coalition is compelled to provide a response.

The title of this fact sheet – “Manure – not the leading cause of nitrogen pollution to the Chesapeake Bay” is a perfect example of this hazy, confusing, and unsubstantiated attempt to sway legislators and derail SB 994. Whether manure is the leading cause of nutrient pollution to the Bay or not, that has no relevance to the purpose of SB 994, which is to identify the least cost means to meet Pennsylvania’s mandates under the EPA’s Chesapeake Bay Total Maximum Daily Load (TMDL).¹

From a technical perspective, below are a few examples of how this most recent fact sheet uses misdirection and misinformation to try and lead the reader to believe that reducing nutrient loss from livestock manure should not be emphasized:

- CBF’s ‘fact’ sheet contradicts their own conclusions from a widely attended [Manure Summit](#) and a follow-on [2012 report](#) which promotes manure to energy projects within the Bay watershed. CBF touted that:

¹ On September 24, 2013, the National Milk Producers Federation sent a letter to Senators Pileggi and Costa in support of SB 994, stating: “The nutrient procurement program authorized by SB 994 will provide an effective and important policy mechanism to reduce nutrients cycling into the Chesapeake Bay and create needed incentives to encourage Pennsylvania dairy farmers to adopt new technologies, while saving precious taxpayers’ money by reducing municipal wastewater treatment facility costs. The nutrient procurement program proposed in SB 994 would enable Pennsylvania dairy farmers to implement nutrient reduction practices at a fraction of what it currently costs municipal wastewater treatment facilities to achieve equivalent reductions in nutrient loads from existing waste streams.”

- “Manure from animal agriculture is the largest source of phosphorus loading to the Bay and one of the largest sources of nitrogen.”
- “Large amounts of feed, along with the nitrogen and phosphorus they contain, are imported to meet the demands placed on animal operations. This creates a huge imbalance between the amount of nutrients coming into the region as feed and the amount going out as agricultural products.”
- “...the number of animals grown in high density production areas, and the manure produced by them, is not proportional to the amount of local cropland available for manure application. This imbalance is exacerbated as the amount of farmland in the region continues to shrink. In fact, a recent study (Water Stewardship, Inc., 2010) estimates that the eleven most animal-intensive counties in the watershed annually generate approximately 3.8 million tons of manure in excess of crop needs. As a result, land application of manure nutrients often exceeds the requirements of crops.”

The Chesapeake Bay Commission and CBF concluded their joint report by stating that:

- “... it is essential that alternative uses of manure — both economically and environmentally sustainable — be developed within the Chesapeake region.”
- “Manure-based energy presents a much needed alternative use for excess animal manure in the Chesapeake Bay region while also providing a homegrown source of renewable energy at a time when the nation is seeking to increase and diversify its energy portfolio. Obviously, progress will depend on the combined efforts of government, academia, nonprofit organizations, and the private sector, and draw on the leadership of those willing to “think outside the box.” **Acting on the recommendations of the Manure-to-Energy Summit is an important first step.**”

The last sentence of this report, highlighted above, is consistent with the spirit and indeed the stated language of SB 994. Have the manure and nutrient load situations fundamentally changed since this report was released last year? If not, why the change in policy toward manure to energy at the CBF?

- Unlike CBF, the PA DEP has not shifted policies on the potential for regional benefit from manure to energy projects. The PA DEP [Watershed Implementation Plan](#) states that “A core element of Pennsylvania’s Phase 1 WIP is the implementation of technology projects, such as manure-to-energy facilities.” Similar statements of support and indeed specific tracking of manure to energy projects were touted in the PA DEPs Phase 2 WIP issued in 2012. As stated previously however, SB 994 is not about promoting or predicting any particular technology or practice solution for the Bay, the stated goal is simply to reduce compliance costs.
- For whatever reason, the CBF fact sheet did not focus on phosphorus related issues, even though phosphorus is an important variable to consider when assessing the issue

of nutrient loss to the environment from manure versus commercial fertilizer. Consider that:

- Excessive phosphorus (in addition to sediment) is the compound of concern for basically all of the agriculturally related TMDL standards in watersheds throughout Pennsylvania. Many of these phosphorus impaired waterways have exceeded safe levels for more than a decade. The CBF fact sheet did not note that the majority of the manure processing technologies that they disparage will remove excess phosphorus from local interior waterways in the watershed, further supporting community efforts to meet their longstanding watershed impairment plans. While sediment reductions may not be improved, it is still of value to support projects that minimize the flow of both nitrogen and phosphorus to local and Bay watersheds.
- Sediment is indeed a pollutant of concern, as Governor Corbett recently signed SB 351 into law, which provides municipalities the legal authority to form stormwater control authorities (with the objective to control sediment and other pollutants). [Studies](#) have shown that significant cost savings can be generated when stormwater projects are optimized to capture sediment and phosphorus, while leaving nitrogen reductions for other less costly means. SB 994 can enable these ratepayer savings as low cost nitrogen reductions can be outsourced while municipal stormwater projects focus on flood control with enhanced phosphorus and sediments removals.
- While manure is definitely valuable as a crop fertilizer for farmers, it is also imbalanced relative to nitrogen and phosphorus concentrations. That is why most of the crop fields surrounding livestock operations have excess soil-phosphorus levels. Farmers apply manure as fertilizer based upon agronomic nitrogen demands, as that is the limiting factor. However agronomically applied manure nitrogen leads to an excess application of phosphorus. After many years, this over-application of phosphorus builds up in the soil and leads to impaired waterways and decreased field productivity. The manure treatment technologies disparaged by CBF can inhibit this N/P imbalance through the application of commercial fertilizer, which can be right sized for proper N and P ratios.
- The CBF fact sheet did not fully account for the loss of nitrogen from manure via ammonia volatilization. While CBF says “some” nitrogen may volatilize as ammonia, it is, in fact, a multi-million pound mischaracterization, because as much as 50% of all nitrogen voided from livestock is lost to the environment via ammonia volatilization². The vast majority of ammonia-nitrogen loss from livestock manure is tracked in the downwind and downstream forest, wastewater and stormwater source categories.

² This 50% loss number is substantiated using the PSU Agronomy Guide as well as established factors from the American Society of Agricultural and Biological Engineers (ASABE) regarding excreted nitrogen totals. In short, the PSU Agronomy Guide assumes 50% of the manure nitrogen will be gone (volatilized) prior to land application.

Relative to the value and relevance of SB 994, the focus should not be on what is the single largest source of delivered nitrogen load to the Bay (as there are many contributing sources) or the merits of particular manure management technologies. Rather the focus should be on how to meet EPA TMDL reduction mandates at the lowest possible cost for the Pennsylvania rate and taxpayers, while also enhancing the local environment. That is a technology and source sector independent challenge.

The Pennsylvania Environmental Digest published on behalf of CBF by Crisci Associates continues to present irrelevant and contorted arguments in opposition to SB 994. The [January 2013 study published by the Legislative Budget and Finance Committee \(LBFC\)](#) projected a savings to taxpayers using SB 994's approach of up to \$1.5B *annually* by 2025. During LBFC research for the study, all stakeholders including CBF were engaged and presented their arguments and positions to the LBFC. The final LBFC report specifically focused on low cost verified nitrogen reductions from agriculture and primarily livestock agriculture as the primary source of that taxpayer savings. Yet, the opposition to SB 994 continues to manufacture arguments to essentially stay the course when LBFC has issued a report that staying the course is unnecessary *and* economically unsustainable. Even the [Chesapeake Bay Commission](#) released a report stating that lower cost reductions of nitrogen are available should market mechanisms be more fully engaged.

CBF opposes SB 994 and continues to rely on BMP solutions that have been deemed by [EPA in their latest technical assessment to be only 50% as effective as the models' claim](#). Is this campaign of disinformation designed to divert attention from the fact that that CBF has not succeeded in meeting its own Bay objectives despite directing millions in taxpayer dollars over more than a decade? Or is it the competitive bidding, transparency or financial accountability aspects of SB 994 that are of concern?

The fact is that SB 994 is not about manure technologies or what the biggest issue facing the watershed is or isn't. Pennsylvania is not required to secure its nitrogen reductions from the biggest or smallest source, but to simply reduce its nitrogen loadings and bring them in line with the Bay's capacity to utilize them in an environmentally sustainable manner. The arguments presented by CBF are a distraction from the real issue of enacting a policy that will enable the taxpayer to save billions of dollars on Chesapeake Bay TMDL compliance costs. SB 994 is about a transparent and level playing field that will enable meeting the environmental objectives that everyone seeks at the least cost to the taxpayer. Pennsylvania's existing and projected rate of spending on the TMDL compliance process needs to do more with less or it will fail because the existing compliance costs are simply unaffordable.³

³ Through state H₂O and municipal bonds, over \$1 Billion was spent the past 3-4 years on wastewater treatment plant upgrades to meet new EPA permit limits. That spending produced about 3 M lbs of nitrogen reductions at costs per municipality ranging from \$54 to over \$3,000 per lb (to get an idea of the current cost trajectory, consider that Pennsylvania needs to reduce an additional 30-35 M lbs of nitrogen). Upcoming stormwater costs will be much more expensive.