

## A Common Sense and Cost Effective Approach to Meeting the Bay Mandate

Good Morning. My name is Michael McCloskey and I am CEO of Select Milk, a director of National Milk Producers Federation and a principal of Fair Oaks Farms. In addition, Fair Oaks is a founding member of the Coalition for Affordable Bay Solutions, which is an advocacy group for the adoption of a competitive bidding program related to meeting the Bay mandate.

I'm here to talk about how the private sector, and specifically the livestock industry, can provide large-scale, low-cost measurable nutrient reductions that will help get Pennsylvania back on track with its Chesapeake Bay obligations. Proven technologies exist today that can provide measurable reductions – like a municipal wastewater treatment plant – that will dramatically reduce the cost of PA's Chesapeake Bay compliance and accelerate its implementation. These solutions will also provide a host of local environmental, economic, and public health and safety benefits at no additional cost.

Newtrient, LLC, is an organization recently established and funded by the dairy industry to determine what technologies exist in the marketplace to treat dairy manure, both on a small and large scale. We have completed our review and will publish a catalogue later this year of a wide range of technologies, from simple solids separation equipment, such as screens, to integrated anaerobic digestion with back-end nutrient treatment capability. We will provide the committee a copy of the report, once published.

What have we learned? First, let's talk about best management practices (BMPs). As a dairyman, I know that BMPs bring many benefits to the table. But let's be honest, recent studies and guidance from US EPA clearly indicate that these BMPs are not as effective as we'd hoped. We now know that fully half of the nitrogen impacts from livestock waste originate from airborne ammonia emissions. Best Management Practices by and large do not address the ammonia nitrogen impacts to the environment. The only way to deal with nitrogen from ammonia is to stop it at its source. And again, Newtrient has determined that multiple

technologies now exist that can effectively reduce ammonia nitrogen impacts from livestock waste.

Implementing manure treatment technologies can produce not only low cost verified nutrient reductions to the Bay, but also significantly reduce environmental impacts to the local community. These local environmental benefits from manure technology, such as reduced nutrient loading to local freshwater resources, sediment, pathogens, greenhouse gases and a host of air emissions, including hydrogen sulfide, are many of the same environmental reduction benefits that Growing Greener III seeks to address in its proposed \$315M annual funding request.

Manure treatment provides these growing greener benefits at no additional cost, since they are a byproduct of reducing nutrient impacts to the Bay. If these Growing Greener benefits were valued as an offset to the credit cost, using the same economic metrics used in the EPA report to evaluate the efficiency of the City of Lancaster's Green Infrastructure Plan, the Bay verified nutrient credit cost would be significantly reduced.

The 2013 Pennsylvania Legislative Budget and Finance Committee study projected that the adoption of a competitive bidding program to secure nutrient reductions to meet the Bay mandate could reduce costs by up to 80%, projecting \$8 per pound of nitrogen as an annual cost. This cost was found to be significantly less than municipal plant upgrades, stormwater projects, and even most best management practices, as documented by several independent studies. By using accepted competitively bid procurement practices to supplement a failing clean water strategy, billions of dollars in savings can be unlocked for the taxpayer.

To be clear, agriculture is not asking for a subsidy or a handout but simply for the opportunity to compete. Agriculture is seeking to adopt these technologies but needs a fair market for its voluntary measurable nutrient reductions to offset the implementation and operational costs. Agriculture can sell Pennsylvania a commodity that it clearly needs, and one that can and should be acquired in the same way the state acquires most goods and services on behalf of its taxpayers--- thru a competitively bid procurement program.

Instead Pennsylvania's clean water strategy buys its reductions under an arbitrary and obsolete method called sector allocation that fails to consider cost or alternatives. Sector allocation essentially restricts competition, stifles innovation and ultimately raises costs to the detriment of both the environment and the taxpayer.

It is neither in the interest of the taxpayers, nor the environment, nor growth in our rural communities, to ignore this low cost alternative approach. And just as important: when the local ancillary Growing Greener green infrastructure environmental benefits of manure treatment are valued and used as part of the bid process to offset the cost of the Bay credits, in other words if those benefits are 'scored' as in most procurement strategies, the actual cost of that Bay credit is reduced – substantially.

Livestock agriculture needs to be able to adopt these technologies to support our ability to grow our businesses so that we continue to provide jobs and affordable food, while at the same time providing lower cost measurable, verified Bay nutrient reductions. To accomplish this, we need a market to sell our verified nutrient credits under a long term offtake agreement. Doing so under a competitively bid procurement program that also values local benefits will guarantee that the most cost effective, comprehensive awards are granted in a transparent and accountable manner.

The industry will finance these projects with private sector capital and shoulder the performance risk the public bears now. If the credits, which will be certified by DEP, can't be or otherwise aren't delivered, the state doesn't pay. The state and its taxpayers have virtually no economic risk, since they will not finance the project.

In conclusion, the issue isn't more spending but an allocation of resources to enable agriculture and their private sector technology partners to compete, which can only benefit the taxpayer. The legacy point source / non-point source designation of the past decades no longer applies to manure treatment. Today, nitrogen reductions from manure treatment are verified using a combination of onsite monitoring, sampling protocols, and independent lab results all incorporated in a Department of Environmental Protection approved verification plan, just like municipal waste treatment. As a result, nutrient reductions can be

procured from livestock waste treatment systems in the very same manner that the state procures other commodities.

To successfully initiate competitive bidding, the state legislature would be required to create a recurring revenue stream to fund the annual purchase of credits under a long term off-take agreement. The Coalition for An Affordable Bay Solution looks forward to working with the legislature on legislation to enable this environmental and economic opportunity.

We need to use all the tools in the toolbox to solve these complex problems. And we need to start with those opportunities where we can get the most benefit for our investment. Municipal upgrades and stormwater projects are expensive and will get increasingly more so. Conservation practices alone are not sufficient to deal with agriculture. Manure treatment is not a silver bullet and it will not provide enough credits to meet the Bay compliance mandate on its own. But it will provide a large number of low-cost credits that will bring down compliance costs substantially.

This is a common sense approach that needs to be adopted – for agriculture, for the environment and for the taxpayer.