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Delaware Nutrient Management

Meeting Minutes – October 2, 2018

The Delaware Nutrient Management Commission

In attendance:

Commission Members Present: Chairman Bill Vanderwende, F. Kenneth Blessing, Jim Elliott, Brenna Goggin, Laura Hill, Wayne Hudson, Jon Nichols, Jr., Richard Sterling

Ex-Officios Present: Secretary Michael Scuse, Chris Brosch, Jamie Mack, Jennifer Singh

Commission Members Absent: Mark Adkins, Kenneth Horeis, Jessica Inhof, Larry Jester, Bud O'Neill, Robert Palmer, Scott Webb

Ex-Officios Absent: Shawn Garvin

Others Present: Bob Coleman, Clint Gill, Julia Moore, Brooke Walls, Amanda Fabi, Jennifer Walls, Sydney Riggi, Garry Killmon, Stacie Messick

This meeting was properly notified and posted as required by law.

Call to Order/Welcome:

Chairman Vanderwende called the meeting to order at 7:10 p.m., welcomed everyone in attendance, and reminded those seeking education credits to sign the sign-in sheet.

Approval of Minutes:

A motion was heard to approve the minutes of the last Full Commission Meeting of August 7, 2018. The minutes were moved for approval by Commissioner Elliott and seconded by Commissioner Sterling, resulting in a final vote of unanimous approval.

Discussion and Action Items:

Litter Relocation Cost Share discussion: Ray Ellis, Ellis Farms, Inc.

Mr. Ellis was unable to attend the meeting, so he will be added to the next Regular Commission Meeting Agenda on December 4th.

Discussion of Proximity Malthouse spent grain water: Administrator Brosch

Administrator Brosch: In the Commissioners folders is a letter addressed to Virgil Holmes, DNREC's Director of Water, and already shared with Secretary Scuse, which is now presented for the Commission's consideration. It regards Proximity Malthouse's (Proximity) spent grain water.

- The purpose is to document the constituents in the water that is coming out of the malting facility that was recently renovated in Laurel to facilitate malting barley.
- We were approached by Proximity on Governor's Day, June 6th, and on the 12th some of their partners contacted the DDA to find out if we might be able to help them with their spent water.
- Currently they are pumping well water in order to soak the barley, generate the malting process in large vats, and then that water is drained through a false bottom and collected in temporary storage tanks on the property.
- They have tested that water on the order of 3-4 months and determined some average constituents of nitrogen (N) and phosphorous (P), which we noticed were about 6 times the limit for drinking water. But that is 60 parts per million per liter (60mg/L) and happens to be good for fertigating growing crops.
- We asked Proximity to do a testing regime on the water to determine the bacterial count in that water. And in all but 2 of the samples, the bacterial count was zero and in none of the samples were there any pathogens of concern from human contact, as we expected. E.coli 0571, Listeria, and Salmonella were all negative, no detects for any of them.
- We feel comfortable moving forward with a proposal to utilize barley process water, at least in the short term (this was Proximity's idea), to grow Reed Canary Grass (Canary Grass). They did the necessary calculations to determine that 40 acres would be necessary to treat all the n in 1 year generated in barley process water, on an average.
 - But that turned into about 25" per acre of additional water. Which is probably too much water for a 40 acre field to assimilate and still be able to get hay cuttings.
 - So we suggested Proximity consider doubling the acres to 80 and they agreed in principle.
- This is all part of a proposal that they wanted to put in front of the Commission. But it was made pretty clear to us by DNREC that DNREC saw this source as a Commercial Waste Water Source of water and in their regulatory purview.
- So having gone through all the machinations with Proximity, this letter basically states what we're aware of in terms of the facts of the process water and our belief that it is something that we could effectively regulate without DNREC's help, specifically using a Nutrient Management Plan (NMP) for those acres.
- This letter is for the Commission's review. Should the Commission choose to adopt the letter (Chairman Vanderwende's signature line is at the bottom as well as Secretary Scuse's), Administrator Brosch thinks this Department would be in a good position to compel DNREC that we feel responsible and capable of regulating the land application of this facility's process water as being an agricultural source of water and therefore DNREC could focus permitting on other facilities.
- Their regulations are pretty clear that all industrial and commercial waste water sources are in their purview. So they would have to acknowledge by their own letter in response that this is an agricultural process water.
- Chairman Vanderwende: Are they pumping this water to a block of land or would they haul it in a truck?
- Administrator Brosch: Proximity is, from what is understood, in negotiations with a farmer to contract the Reed Canary Grass to the tune of 80 acres, as a proof of concept to treat the water. Typically when Reed Canary Grass is grown for waste water purposes on the commercial scale, there are monitoring wells installed in order to maintain a record that suggest the crops can only treat the water down to the drinking water standard. And our calculations suggest that it would treat to zero net nitrogen, or at least

it has the capacity to do that. Natural systems don't work that way, but we would basically be circumventing the need for a monitoring well by using that type of conservativeness.

- Chairman Vanderwende: Are they in business now?
- Commissioner Hudson: They are
- Administrator Brosch: Currently the water is going to a waste water treatment plant.
- Commissioner Hudson: They are paying the waste water facility for taking the water.
- Administrator Brosch: Yes and they intend maintain those agreements, even considering this proposal, because they understand that there will be circumstances where the crops cannot to do the job we need them to do.
- Commissioner Goggin: Curious why DDA is taking this up – what is the exception being made when DNREC oversees everything else?
- Administrator Brosch: What we are suggesting is that this is an agricultural source of process water. So that would be the legal separation between their authority and ours. It goes through an industrial scale process certainly, but it doesn't biologically change anything, which is something that DNREC has considered in the past. Where DNREC has previously issued us authority for rinse water opportunities regarding different agricultural commodities, this is very much the same thing. They are rinsing barley grain in order to generate the germination process.
- Commissioner Hill: So this isn't something new for DNREC to do?
- Administrator Brosch: There is precedent for it. I couldn't tell you the scale at which the water was generated in those other instances, but this is 27 million gallons in their proposal. It equates to a 12.5" covering on 80 acres.
 - What is unique about this is in the germination process. When those grains are being rinsed, with N & P comes a lot of carbohydrates – namely starch - and that is the whole purpose of the malting process. These chemicals happen to be very easily taken up by crops because they basically circumvent the photosynthesis process. The roots can take those in and the plants can actually skip making the sugar themselves. We know that in other places in this country these substances are frequently referred to as humic substances and are actually sold as agricultural commodities like fertilizer as a soil conditioner.
 - Proximity has even engaged our compliance lab that regulates all agricultural soil conditioners and fertilizers to explain to Proximity, were they willing to submit to registering as a soil conditioner, that we could even regulate it further that way.
- Commissioner Goggin: You need to explain the difference between having DNREC regulate this and DDA having regulating authority. Report the difference between what Proximity would be required to do.
- Administrator Brosch:
 - The permitting process through DNREC for this water would typically either be requiring them to send it to a Wastewater Treatment Plant at considerable expense or land applying it with a requisite set of monitoring. Some frequency of piezometers or wells pulling samples from the groundwater and more frequent reporting.
 - DDA's regulatory framework would be centered around the NMP where the N & P balance would need to be maintained every year and in order to basically certify the proof of concept, using those acres Proximity agreed to send us as much water analysis as we thought would be necessary in order to help certify that nutrient balance that the canary grass is actually uptaking the majority of nutrients we expect it to take up. In the 3rd paragraph, the point is to say that these 80 acres of canary grass are capable of assimilating 250-300 pounds of n, and if they put all the water on these 80 acres they would only be adding 175 pounds per acre per year. So we've

got significant amount of buffer built in to this strategy in order to help certify the environmental side of the house.

- Commissioner Goggin: Are there homes located nearby?
- Administrator Brosch: They haven't proposed a specific location for these acres yet.
- Secretary Scuse: We think that with what's being proposed here and with the level of monitoring they agreed to allow us to do, we should be able to do a really good job to ensure that all this is met and not exceeded.
- Chairman Vanderwende: So you feel this program is all right?
- Secretary Scuse: Yes, I really do. You look at what they're putting out there, this is not waste water. I've toured the facility twice, and there is nothing being added here that is a contaminant. They are just rinsing the barley so it will germinate. Personally, I think it's a waste for this water to go into a municipality's treatment facility when it doesn't need to be treated. And at the end of the day, I think that once this concept is actually proven, this could be a source of water that can actually help some producers in Sussex County do a much better job of crop production.
- Chairman Vanderwende: So actually it is just water from the barley treatment.
- Secretary Scuse: The process they are using is a fascinating process, probably the most modern facility in the country. An awful lot of money went into constructing that facility and work in choosing the area they wanted it to be built in. They took an abandoned facility and reclaimed it at a time when we were talking about barley not even being grown here because we couldn't find the elevators to take it. Now 6,000 acres is growing to 12,000 and that gives us an additional crop to grow here on the Peninsula.
- Commissioner Hill: And the price they are paying...
- Secretary Scuse: I was hesitant to bring it up, but when you look at the price they are paying for it, and if you look at what they are willing to compensate the producers and the premium they are putting on top of the price, it's a big deal.
- Chairman Vanderwende: Reed Canary grass is a big nutrient user, too.
- Secretary Scuse: I think a lot of good can come out of this. We don't know if DNREC will agree, but it doesn't hurt for us to make an attempt. If nothing else, maybe it will get some movement.
- Chairman Vanderwende: What are they doing with the water now?
- Secretary Scuse: They are hauling it to a wastewater treatment facility at fairly substantial cost.
- Commissioner Hudson: Not knowing the operations, though I've been to the facility, does Dogfish Head do a similar thing, as far as washing their barley?
- Administrator Brosch: No, they buy the malt.
- Commissioner Hudson: So there is a differentiation between the 2 sources of water discharge.
- Administrator Brosch: I asked DNREC and the brewing process absolutely includes a biological component. All that water passes through the "gut" of yeast, so they consider that squarely within their purview. Where this one has some precedent to consider that it not be in their purview.
- Commissioner Blessing: This is just strictly brewer's barley that they are going to sell to someone like Dogfish to make the beer. Also, keeping it out of the wastewater treatment plant allows for a viable as use for organic growing.
- Administrator Brosch: I realize the direction from which Commissioner Goggin is coming, and what really impresses and surprised me about this particular water source is that the N & P in the water at the end of the process is 99.8% organic sources. And that is in the chemical sense of the term. There is no free nitrate, no ammonia, and because these are particularly sticky forms of these nutrients, they are actually far less likely to leach through the profile than other soil conditioners sold in the marketplace.
- Chairman Vanderwende: Do we want to make a move to accept it tonight?

- Commissioner Nichols: Motion to move forward with the letter and concurs with the recommendations.
- Commissioner Hill: Seconds the motion.
- Chairman Vanderwende: All in favor signified by “aye”. Approved.
- Chairman Hudson: Recused from voting because of participation in the negotiating.

Brief discussion of protocol for data sharing with researchers: Administrator Brosch

Administrator Brosch: There have been 2 request for data during my tenure with regards to those certified individuals within our program, all the way from Nutrient Generator’s to Consultants and the Nutrient Handlers in between.

- The requests have been for contact information, specifically mailing addresses, so far, but maybe in the future for phone numbers. The request we have honored in the past was for research purposes only and that was a UD request. From what we’ve been told that research project was successful.
- We’ve recently been told that a very large project from UD has been given grant funding to the tune of \$19 million, which is a major award. This award also includes DSU and has probably at least half a dozen different project officers on it. It’s a very big study.
- They made us aware that they are likely to ask us for that information again and while they were not ready to give a formal presentation to this body, I was hoping to get a recommendation for the most appropriate sub-committee, or an opportunity on full Commission Agenda in the future, to have a conversation resulting in some guidance about how to handle these research-based requests for our information.
- Technically speaking, some of this can be gathered by a Freedom of Information Act (FOIA) request, so these people can get most of this information though a formal process, but I think it would be good-faith guidance for the Commission to put something together about what qualifies as a request that can skip that process.
- So my request of the Commission is to assign a sub-committee as a forum for some researchers to come have the discussion about what they might be interested in and what they think is appropriate.
- The Technology Sub-Committee was considered already. It is one of the bigger ones, so there would be the opportunity to have a more robust discussion.
- In response to Commissioner Goggin’s request, the additional subcommittees were read off: Planning, Personnel, Budget, Programs and Education, Rules & Regulations.
- The members of the Technology Sub-Committee include Chairman Blessings, and Commissioners Hudson, Inhof, Palmer, Sterling, Vanderwende, and Webb.
- The meetings will be public, anyone can attend, and all the Commissioners will be invited.
- Chairman Vanderwende: Technology Sub-Committee is my recommendation.
- Commissioner Hill: In trying to keep it simple, do we need a whole meeting?
- Secretary Scuse: What Chris is looking at is that this is going to target a great number of individuals, and he needs to know how much information, and what types, the Commission is willing to give out before someone has to go through the formal FOIA.
- Commissioner Hill: And are we talking about more than just contact information? Are we talking about information in NMP’s?
- Administrator Brosch: We don’t collect NMP information except during an audit or in the case of a CAFO permitting process. And if we did, that information is protected except in the case of the CAFO permit process. So we would not give it out anyway. And to answer more fully, I would have to defer to the grant awardees, who would be happy to attend a future meeting

- Commissioner Goggin: Contact information was always available in the phone book, and now online, so it seems giving that information wouldn't be a problem. If someone doesn't want to participate, they just don't.
- Secretary Scuse: But there is a difference between someone going online and us providing the information. This body, and Department, needs to maintain good trust with the farm community. Without that trust it is very difficult for anyone to do their jobs.
- Administrator Brosch: There is also a bit more nuance to this:
 - In terms of FOIA's, phone numbers are always protected, so this should be something the Committee should be very careful to consider. I see the value of providing phone numbers, but this is the state entity that is entrusted with this information. It needs some authority to share that. I'm not comfortable doing that on my own.
 - The other issue is the difference between the home and business addresses: for many farms it's the same, so that home and business address are FOIA'ble. But for entities that have separate addresses, only the business address is something we can turn over in a FOIA request.
 - While this is some of the importance of having this conversation, the rest is to codify this in some way with some set of written guidance that the Commission approves. It is less impeachable from the outside when someone says to me, "You gave it to this to so-and-so, why can't I have it?" Because we get pretty incredible requests from some pretty interesting people. And when I can tell somebody "no" to a crazy request, that's a nice feeling. To have a double standard is not.
- Commissioner Goggin: It is also important to codify and differentiate between a request from a University or entity that is doing research of that kind, versus private citizens and all others. We should be as helpful as possible – it behooves the Commission and the Industry at large to be as helpful in research as possible.
- Secretary Scuse: We are on the same page, but we all need to be comfortable with what we are providing – we all want to help any university out there with research that's going to make it better on agriculture.
- Administrator Brosch: We are happy to draft a Memorandum of Understanding (MOU) and capture some of the things said as line items in the MOU and bring it back for approval. We can do it in relatively short order.
- Chairman Vanderwende: So will it be the Science & Technology Sub-Committee.
- Administrator Brosch: The Commission will be informed once the interested researchers get back in touch, and Commissioner Blessing will be contacted to set up a meeting.

Administrators Report – Administrator Brosch and staff

Review of recent Consultant's meetings - Administrator Brosch

- We contracted 2 meetings to set up and administer the agendas for those meetings. It was largely the NM program staff with speaking roles.
 - We highlighted the importance of the elements of the NMP's based on our findings from our first year of compliance checks using the approved Standard of Procedure (SOP).
 - We also spent an hour on the opportunities to build a web-based platform to print off maps that go into the NMP's, that meet all the criteria – because there is no one place on the internet or anywhere else we know of to get all the information in one place. We built a prototype that does this and we demonstrated it.
 - The newly approved SOP for audits was also explained to the Consultants. We had excellent questions regarding what to expect for audits and we gave copies of the SOP as well as the checklist we take to the audits.
 - We explained what to expect at a CAFO inspection, and about what was FOIA'ble and what was not, so they can help deliver those pieces of information to their clients and hopefully dispel some of the myths we frequently come across.

- Commissioner Blessing: With the maps and audits discussions, did anyone suggest that their Planners should be in attendance at audits?
- Administrator Brosch: We told them at the very start that it's their clients' right to have them there. We don't alert them about the audits, but we tell the farmers their Planners are allowed and encouraged to attend.
- Bob Coleman: Both went well, and this programs previous Administrator, Bill Rohrer, gave an excellent technical evaluation of potassium and how it is treated in the Mid-West.
- Administrator Brosch: We had about 40 attendees between the 2 meetings. And the second meeting, held in Georgetown, was recorded along with the visual aids. So the slides that accompanied the presentations as well as the speakers' audio has been uploaded to YouTube. Links will be sent out.

Brief update on Chesapeake Bay WIP III – Administrator Brosch

- This is our 3rd version of the Watershed Implementation Plan. We are continuing on drafting elements of that plan. That means narrating in the plan itself what programs we have and are underway for installing BMP's for agriculture. As mentioned to the Commission before, our job in agriculture got a little bit easier with the new version of the model. We have less to do, by their estimation in Annapolis. A few things in process are:
 - Largely decreasing the forest buffer acreage by at least 90% but still meeting new goals from the second plan.
 - We anticipate ramping up NM and cover crop goals. Some will come from our new SOP and the results from doing audits. And cover crops is an item of interest, as we are seeing much of the acres expand across the state, or exploring opportunities to do as much as 3 times what is currently done in our goals for 2025.
 - We will also be emphasizing conservation tillage. We think that is largely captured poorly in the plan as it is written now and that there may not be additional things farmers need to do to reach those goals.
 - Most of the other BMP's not already listed, of which there are probably 80 or more, we are trying to hold at 2017 reporting levels. In other words, NOT prioritizing development of new BMP's but rather targeting in these areas. And the biggest one, besides cover crops, is NM, because there are additional, what we call "flavors" of NM – enhanced practices beyond just following your plan, that can actually double the credit that farmers get for NM in the model. There are things we know are already in practice, but we don't yet have a way to capture them. This will be coming in front of the Committee, as we need a way to do this thoughtfully.
 - Our draft plan is due at the end of December, so we can talk again at the December meeting. The draft plan will be public in January and we've already been put on agenda for Ag Week on both the Poultry Day (Monday 1/14) and Agronomy Day (Wed 1/16) for 30 minutes at each for a brief synopsis on where we landed in that draft. Speaking about it publicly is something the CB program has emphasized, and that is why you are hearing about it again and why we are putting these talks together. So I encourage plenty of attendance at these events.

Balance of Administrators report – Administrator Brosch

- Complaints - There were 3 odor complaints that Bob Coleman opened and which remain open in order for him to maintain a level of contact with the farmers to make sure the compliance continues.
- Certifications – There haven't been any changes
- Audits, Inspections, Reporting – The CB reporting conclude at the end of June. We have those number and the compliance that we determined from them, that we will be sending to their office. We did not meet the 17% they told us we should get and that we agreed to in our SOP. We know that is because we need a 2nd inspector, so they are working with us to come up with the funds for that position. I can guarantee they are not showing up with all the funds needed to do that. But we are still doing very well with the staff we have, with very high compliance and we are very happy with the way things are going.
- CAFO – The 32 farms that were on Public Notice Soon have been public noticed. They went into the paper and we have had at least 1 FOIA request as in response.

- SalesForce database update – No changes are expected before the 2018 Annual Report forms go out. If you see changes at all it is because we are visiting farms that didn't fill out the 2017 in regular audit fashion and leaving with it in hand.
- Financials – As usual, on the back page is our budget and reporting for NM Plans and Relocation Tons.
 - We have learned that Perdue is no longer taking in manure for export from the watershed, so they have come in line with the other integrators in the most recent quarter and are now paying their fair share of the reimbursement for moving those from areas of need. So in the future you won't see many tons going into the Alternate Use AgriRecycle.
 - Secretary Scuse: We met with the Budget Director the previous week on our budget:
 - Everything continues as it currently is, and we should be in fairly good shape next year, budget-wise, as well.
 - We were asked to submit ideas to the Governor on what we would do with some additional funding, some big ideas that we have.
 - One of the 4 we submitted was to greatly increase the cover crop plantings throughout the state, and to put substantial funding into that. We met with Secretary Garvin and Casey Taylor at NRCS to see how we can better utilize current funds but also to hopefully get additional revenues to greatly increase the number of cover crop acres, which would lead us to an all but FOIA compliance with the CB WIP III.

Public Comment –

- There were no public comments voiced.

Next Meeting: The next regular Full Commission meeting will be scheduled for December 2, 2018 at 7:00 p.m.

Adjournment: Chairman Vanderwende adjourned the meeting at 8:05 p.m.

Approved,

B. Vanderwende, Chairman
Delaware Nutrient Management Commission
jlm