

In the Matter Of:

Department of Natural Resources & Environmental Control

CLEAN DELAWARE APPLICATION HEARING

April 27, 2022



DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENTAL CONTROL
OF THE STATE OF DELAWARE

RE: Clean Delaware Application for
Agricultural Utilization Permit Renewal

..

Virtual Public Hearing
Dial-In Number: 1-408-418-9388
Event Number: 2345 394 4933

Wednesday, April 27, 2022
6:00 p.m.

..

BEFORE: Lisa Vest, Hearing Officer

FOR THE DIVISION: Brian Churchill, DNREC

-- Transcript of Proceedings --

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1 MS. VEST: Good evening. I believe
2 that everyone is connected and ready, so we
3 are going to go ahead and begin tonight's
4 proceedings.

5 I want to thank everyone that may
6 be attending virtually and taking time out of
7 your busy schedules to connect with us today.
8 The date is Wednesday, April 27, 2022, and we
9 are here this evening to provide the virtual
10 platform for DNREC to conduct its public
11 hearing on the pending permit renewal request
12 for Clean Delaware's Agricultural Utilization
13 Permit, or AGU.

14 For those that may not recognize me
15 or know me, my name is Lisa Vest, and
16 Secretary Garvin has designated me to serve
17 as hearing officer for tonight's proceedings.

18 Pursuant to DNREC's standard
19 hearing protocols, this hearing is being
20 conducted virtually. No one has gathered
21 together in the same room. And everyone is
22 participating independently at their own
23 respective locations.

24 While there are no physical sign-in

1 sheets to document physical attendance at
2 tonight's hearing, WebEx does generate a list
3 of those that are virtually attending
4 tonight, so the Department still maintains a
5 record of those who are here with us. And,
6 again, I thank everyone for their interest in
7 this matter.

8 At the conclusion of my
9 introductory remarks, I will be turning the
10 hearing over to representatives for both the
11 Department and the applicant so that both may
12 make their presentations for the hearing
13 record that he is being generated in this
14 matter.

15 There is still a court reporter
16 that is virtually present. She will prepare
17 a verbatim transcript of the hearing tonight
18 pursuant to DNREC's statutory requirement to
19 do so. And, as always, we will ensure that
20 that transcript of the court reporter will be
21 posted on the hearing webpage dedicated to
22 this matter once it is received.

23 We do have a mechanism in place to
24 allow the public to comment live at our

1 hearings. There is an entire page dedicated
2 to preregistration. That has been up and
3 running for awhile now. And the record
4 should reflect that no members of the public
5 have preregistered to speak tonight. So
6 there will be no comment received at the
7 hearing now.

8 Therefore, the hearing will be
9 somewhat shorter tonight, because we don't
10 have the live comment element. But the
11 record will not be closing at the conclusion
12 of the hearing. It will remain open for
13 receipt of written comment through May 12,
14 2022, so the public may offer comment for the
15 record and for the Secretary's consideration,
16 should they wish to do so.

17 For those that may log in or call
18 in this evening to hear our proceedings, I
19 would encourage you to check out DNREC's
20 webpage for public hearings under the
21 Administrative Law section of the DNREC
22 website for more detail concerning this
23 pending permit matter.

24 Both of the Power Point

1 presentations that will be shown tonight,
2 along with Department exhibits related to
3 this matter, will all be posted on the
4 hearing webpage, and the public may gain a
5 wealth of information from checking that out.

6 Of course, all mechanisms
7 previously available by which to offer
8 comment remain in effect. We have electronic
9 links that are provided right on the hearing
10 webpage; we have e-mail to DNREC Hearing
11 Comments; and, of course, the United States
12 Postal Service.

13 Also, please be advised that the
14 following protocols remain in place for all
15 DNREC public hearings:

16 1. All comment received must be
17 limited solely to the subject matter of
18 tonight's hearing. All comments pertinent to
19 the subject matter will be incorporated into
20 the record being generated.

21 2. In order to ensure that
22 everyone who wishes to offer comment for the
23 Secretary's consideration is fully
24 accommodated, the record in this matter shall

1 remain open through May 12, 2022.

2 3. There is only one authentic
3 record of this formal proceeding tonight, and
4 it is the official court reporter's verbatim
5 transcript, which again will be posted on the
6 hearing webpage as soon as it is received.

7 4. The statutory purpose of
8 tonight's hearing is to build the record with
9 regard to the Department's pending permit. A
10 record consisting of the transcript of the
11 hearing tonight, any and all written comments
12 that may be received, all exhibits, and
13 eventually the Hearing Officer's Report will
14 all be bundled together and reviewed by
15 Secretary Garvin. He will ultimately issue
16 an order following his review process, and
17 that order will contain his decision on the
18 matter and his reasons therefor.

19 5. It is important to note that no
20 decision has already been made by the
21 Department, nor will any decision be made
22 during tonight's proceedings with regard to
23 the pending permit.

24 The public comment period will

1 remain open through May 12th, as previously
2 noted, so that members of the public do have
3 ample opportunity to offer their written
4 comment, should they wish to do so.

5 Comments may be submitted through a
6 comment form on the hearing webpage, via
7 e-mail to DNRECHearingComments@Delaware.gov,
8 or via the U.S. Postal Service at the
9 physical address for DNREC indicated on the
10 hearing page and the public notices
11 previously published in this matter.

12 It is important to note that
13 written comments to DNREC may not be
14 submitted through social media platforms such
15 as Twitter, Facebook, YouTube, or text
16 messaging.

17 Lastly, please remember that all
18 comment, whether it was received through the
19 mail prior to tonight's hearing, whether it
20 is received after tonight's hearing, or
21 whether it would have been submitted tonight,
22 if anyone had preregistered to do so, as long
23 as it is received by the Department on or
24 before May 12, 2022, all comment bears the

1 same record, all will be incorporated as long
2 as it pertains to the subject matter of
3 tonight's hearing, and it all will be
4 reviewed by Secretary Garvin prior to his
5 making a decision in this matter.

6 This formal hearing acts as a
7 mechanism to enable the Department to
8 thoroughly vet this matter to the public and
9 to also let the public know all of the
10 various ways by which comment may be
11 submitted for the Secretary's consideration.

12 That being said, I am going to turn
13 the screen over to Brian Churchill, who is
14 the Department's representative for the
15 Division of Water, and he has a brief
16 presentation for the record concerning this
17 matter.

18 So, Brian, when you are ready, you
19 may proceed.

20 MR. CHURCHILL: Well, thank you,
21 and good evening.

22 I want to start off with an
23 overview of Clean Delaware's land application
24 business.

1 Clean Delaware applies certain land
2 treatable wastes, as approved by DNREC, to
3 permitted land at agronomic rates as
4 fertilizer.

5 So, essentially, the wastes that
6 are land applied are put down at a nitrogen
7 loading rate which provide the nutrients the
8 crops need to grow for optimum yield.

9 Products applied include Class B
10 biosolids, Class B septage, grease trap
11 waste, brewery waste water, and vegetable
12 processing residuals.

13 The operation began in the late
14 1980s as Clean Delaware Incorporated and is
15 now known as Clean Delaware LLC. The change
16 of ownership occurred back in 2004.

17 Clean Delaware historically has had
18 three land application sites in Sussex
19 County. Starting at the bottom star on the
20 map, one site is in Harbeson, one is near
21 Milton, and the other is east of Ellendale,
22 all in Sussex County.

23 Now, the Milton farm is comprised
24 of approximately 170 acres split amongst

1 seven fields. And at the Milton site there
2 is also the facility processing center for
3 septage and equipment is located in the
4 center of the field between -- I'm sorry --
5 the center of the site between Field F2 and
6 F4.

7 The Harbeson site is located
8 immediately southeast of the intersection of
9 Route 5 and Route 9 in Harbeson and is
10 comprised of approximately 30 acres.

11 And the Ellendale farm site, also
12 known as the New Market site, is located a
13 few miles east of Ellendale and is comprised
14 of approximately 34 acres. However, this
15 site was requested to be removed from the
16 Agricultural Utilization permit and will be
17 not -- and cannot include as part of the
18 permit application.

19 So, moving forward, the Ellendale
20 site will no longer be utilized for the land
21 application of waste regulated under the AGU
22 permit.

23 I want to talk briefly about some
24 definitions that are important to understand

1 in Clean Delaware's operation.

2 The first is what is septage?

3 Septage is sewage pumped from a septic tank
4 that has been treated by a Class B process to
5 significantly reduce pathogens, or PSRP.

6 Septage is not raw sewage from a septic
7 system. Septage has been treated before it
8 is land applied at Clean Delaware.

9 Now, what are biosolids? Biosolids
10 are not raw sewage. They are one of the
11 final products from the treatment of
12 municipal wastewater at a wastewater
13 treatment plant that has undergone a Class B
14 process to significantly reduce pathogens.

15 After treatment breaks down and
16 digests the organic compounds and greatly
17 reduces disease-causing organisms in
18 wastewater, only then are the remaining fine
19 particles ultimately considered Class B
20 biosolids, which are nutrient-rich organic
21 product that can be utilized on crops, like
22 animal manure.

23 Again, they contain nitrogen,
24 phosphorous, and other nutrients that are

1 essential for plant growth and are utilized
2 as a fertilizer.

3 So why are these biosolids and
4 other approved wastes land applied? Again,
5 they contain nutrients. They are also a
6 source of slow-release nitrogen, which helps
7 reduce the potential of the leaching of
8 nitrogen to groundwater.

9 And over time application of these
10 materials can increase the organic content of
11 the soil, resulting in improved water-holding
12 capacity and soil quality.

13 Biosolids are regulated in
14 different ways by different agencies. At a
15 federal level, the Environmental Protection
16 Agency, or EPA, utilizes 40 CFR, or Code of
17 Federal Regulations, Part 503 to regulate
18 biosolids.

19 In the State of Delaware under
20 DNREC, the Department of Natural Resources
21 and Environmental Control, we utilize the
22 guidance and regulations governing the land
23 treatment of waste.

24 And two sections of these

1 regulations pertain to Clean Delaware's land
2 application activities under their AGU
3 permit.

4 Part three regulates the land
5 application of sludges or wastes that contain
6 a human waste component or a sanitary waste
7 component. And part five is the land
8 treatment of waste products.

9 These are products that do not
10 contain the human waste component. And there
11 is no -- within the EPA 503 regulations,
12 there is no equal to this part of Delaware's
13 regulations. This is a standalone reg that
14 Delaware has over and beyond what EPA
15 requires.

16 Now, in this next slide you will
17 note that some of the text is in red. The
18 red text denotes that the requirements are
19 over and beyond EPA's schedule requirements
20 and are state-specific requirements.

21 So for Class B land application
22 requirements and restrictions, sampling of
23 biosolids that will be land applied and the
24 soil they are applied onto have to be sampled

1 for many parameters, including nutrients,
2 metals, percent solids, pH, et cetera.

3 A detailed soil analysis and report
4 prepared by a certified professional soil
5 scientist is required before any site is
6 approved. This is done to determine site
7 suitability for land application and
8 delineate areas not suitable for land
9 application.

10 A 20-inch separation from the depth
11 of tillage to the seasonal high groundwater
12 table is also required. So essentially what
13 this means is as biosolids are surface
14 applied, the seasonal high groundwater table
15 cannot be within 20 inches of the soil
16 surface. If biosolids are injected into the
17 top foot of the soil, then groundwater could
18 not be within the top 32 inches of the soil
19 profile.

20 Additionally, Delaware requires
21 groundwater monitoring. That was implemented
22 beginning in 2013 at Clean Delaware. The
23 permittee is required to track all biosolids
24 and waste application and apply materials at

1 an agronomic rate in accordance with a plan
2 developed by a Delaware Certified Nutrient
3 Consultant.

4 So, again, this is ensuring that
5 nutrients that are applied are applied at a
6 rate that does not exceed the crop
7 requirement based on historical yields and
8 book values.

9 Additionally, buffer zones from
10 wells, streams, ditches, property lines,
11 houses, et cetera, must be maintained.

12 Adverse weather conditions are
13 also -- there is limits so that land
14 application does not occur during adverse
15 weather conditions, such as rain and snow.
16 There is crop harvest restrictions which
17 dictates how long a crop can be harvested or
18 even planted before -- I'm sorry, let me back
19 up. It limits how long a crop can be -- let
20 me back up one more time here.

21 It dictates the length of time
22 before crops can be utilized, depending on
23 the type of crop and use of crop. For
24 example, if a root crop such as carrots were

1 grown, there would be a several-year period
2 of time that would have to pass before that
3 could be planted on a site that received
4 biosolids. If it was a crop like corn where
5 the part that's consumed is above the ground,
6 it would be a much shorter length of time.

7 Additionally, there is public
8 access restrictions for sites to receive
9 biosolids, and cover crops are required in
10 the winter after application occurs during a
11 given year.

12 All biosolids, again these are
13 materials that contain treated sanitary human
14 waste, must undergo one of the EPA approved
15 Process to Significantly Reduce Pathogens, to
16 be characterized as Class B biosolids.

17 For septage, pH is raised to at
18 least 12 standard units for at least two
19 hours. Other biosolids materials -- four
20 other biosolids materials, one of several
21 regulatory options in the regulations, must
22 be met prior to being land applied at Clean
23 Delaware.

24 Now, this next slide details the

1 risk assessment that was completed before
2 EPA's 503 regulations were promulgated.

3 EPA looked at 14 different ways
4 that soil amended with biosolids could
5 potentially impact human health and the
6 environment. And based on the information
7 they gathered during this risk assessment,
8 safeguards and best management practices and
9 various regulatory requirements were
10 developed.

11 So touching on two of the pathways
12 among the 14 total that were developed: For
13 example, if a human was to eat an animal that
14 consumed plants that were grown in soil that
15 were amended with biosolids, that was one of
16 the pathways that were considered to make
17 sure it was safe for biosolids to be land
18 applied.

19 Another would be a human that
20 consumes groundwater that is downgradient or
21 beneath the biosolids application site, and
22 any associated concerns with that were also
23 taken into consideration.

24 So, as you can see, there is 14 of

1 them here, and all of these were taken into
2 consideration.

3 Now, a concern is with emerging
4 contaminants. Emerging contaminants are
5 pollutants that have been detected in
6 wastewater where additional research is
7 needed to determine their risk or refine
8 their known risk to human health and the
9 environment.

10 Every two years EPA is required to
11 refine risk assessments and look at
12 contaminants that are present in biosolids.
13 The EPA is required to establish numeric
14 limits and management practices that protect
15 public health and the environment from the
16 reasonably anticipated adverse effects of
17 chemical and microbial pollutants during the
18 use or disposal of biosolids.

19 EPA's risk assessment determined
20 whether new or revised numeric standards are
21 warranted under EPA's biosolids regulations.
22 And according to EPA, addressing the
23 uncertainty around potential risks for
24 pollutants identified in biosolids is the top

1 priority for the EPA's biosolids program.

2 Now, should EPA implement these
3 standards, DNREC will implement the standards
4 that are at least as stringent as those
5 developed by EPA.

6 For more information on EPA's
7 biannual reviews, there is a link in this
8 Power Point presentation.

9 Next I'm going to go ahead and
10 touch on Clean Delaware's septage acceptance
11 facility and how pathogen reduction is
12 completed.

13 Trucks loaded with septage pull
14 into the facility and unload their septage
15 into what you can see in the second picture
16 is a device that moves any trash that may be
17 within the septage. So plastic, anything
18 that could have gotten into the septage, is
19 removed and taken to a landfill.

20 Next, the top right picture shows a
21 settling chamber where grit and other heavier
22 material settle out of the septage, where it
23 continues on into the bottom left picture
24 where there is underground tanks, and lime is

1 added into those underground tanks. And the
2 pH is raised to at least 12 standard units
3 for at least two hours to achieve Class B
4 pathogen reduction.

5 From here, the septage is pumped
6 into a 200,000-gallon above-ground storage
7 tank.

8 And then ultimately, when the
9 conditions are appropriate, the septage is
10 land applied using a retractable hose reel.
11 The hose reel is extended to one end of the
12 farm field, and it is slowly -- it slowly
13 reels back in as the septage is applied at
14 the appropriate hydraulic loading rate.

15 Moving on to biosolids and other
16 land treatable wastes, they are applied by a
17 few different methods.

18 They may be applied by injection
19 into the soil surface. That's usually the
20 top foot or less of the soil column where the
21 biosolids are injected. And the benefit to
22 this is it minimizes any odors that would be
23 associated with materials that are being land
24 applied.

1 The materials can also be surface
2 applied and incorporated or surface applied
3 and not incorporated, provided that they are
4 applied to a vegetative cover crop.

5 Now, with nutrient management, land
6 applied materials again contain nitrogen and
7 phosphorous and are utilized as fertilizer.

8 Nitrogen is applied -- is required
9 to be applied up to an agronomic rate. And,
10 again, these recommendations are determined
11 by a Delaware Certified Nutrient Consultant.

12 The crops roots then take up these
13 nutrients and utilize them for growth.

14 These three pictures in this next
15 slide show crops grown at Clean Delaware's
16 land application site. There is corn, a
17 grass crop for the septage application field,
18 and a picture of soybeans that were also
19 grown at Clean Delaware.

20 Clean Delaware's land application
21 permit also has buffers that have to be
22 maintained from various sensitive areas which
23 can be seen in this next slide. The buffers
24 have to be maintained from dwellings, wells,

1 roads, streams, ponds, et cetera.

2 Next I'm going to go ahead and
3 touch on some modifications that were made to
4 Clean Delaware's existing Agricultural
5 Utilization Permit, or the draft that we are
6 discussing tonight.

7 Originally, there was modifications
8 requested back in 2019, and there was a
9 public hearing on the matter which was held,
10 again, November of 2019. DNREC was unable to
11 complete the Secretary order process prior to
12 the renewal date of State Permit Number AGU
13 1702-S-03.

14 Requested modifications from 2019
15 are incorporated into the draft permit for
16 tonight that we are discussing, and DNREC
17 incorporated some changes to the draft permit
18 in consideration of public comments received
19 during the 2019 public hearing.

20 There are some new buffer distances
21 in the draft permit for septage. And some
22 minimum requirements over and beyond the
23 setbacks that were on the previous slide are
24 at least 150 feet from public roads. Septage

1 cannot be applied closer than that distance.
2 From property lines of off-site properties
3 with occupied dwellings, the distance is
4 500 feet.

5 Any on-site occupied dwelling is
6 500 feet, as well. However, the tenant can
7 sign an agreement to lessen that distance.

8 And 100 feet from streams, tidal
9 waters, and other water bodies.

10 The nature of septage land
11 application makes longer setbacks an
12 important best management practice.

13 There are also wind limitations for
14 septage application in the draft permit. An
15 anemometer has actually been installed, as a
16 wind sock has as well, at the Milton farm.

17 Septage is not -- should be
18 permitted to be land applied when the wind
19 exceeds 10 miles an hour or wind gusts exceed
20 15 miles an hour.

21 And the permittee is responsible
22 for ensuring that any aerosols created by
23 land application do not carry beyond the
24 property boundaries.

1 Next I'm going to go ahead and
2 touch on some improved land application
3 practices in the draft permit. Application
4 of wastes onto vegetative cover crop to
5 minimize leaching of nitrogen to groundwater
6 is now a requirement in the permit.

7 This practice allows for a
8 continuous nutrient uptake while minimizing
9 nitrogen lost to groundwater.

10 This will also help maintain soil
11 structure, minimize compaction, and reduce
12 rutting in fields.

13 The length of time that a field is
14 permitted to not have a crop planted after
15 biosolids application occurs is one month or
16 less. Cover crops are required to be
17 utilized during winter months for all fields
18 after application occurs.

19 And finally, for Milton farm fields
20 six and seven, application will be limited to
21 April 1st through October 15th.

22 The draft permit also has more
23 stringent metal limits within it. Now, Clean
24 Delaware has met these metal limits

1 historically with no problem. However,
2 utilize these more stringent metal limits,
3 cumulative metal loading, tracking of the
4 cumulative metal loading rates is no longer
5 going to be required, because at the levels
6 that the pollutant concentration limits
7 within the new permit are at, EPA has
8 determined that there is no adverse effect to
9 human health or the environment and, again,
10 that the cumulative metal loading rates are
11 not required to be tracked.

12 An additional change in the permit
13 will be for the sampling of waste. We are
14 not talking about biosolids or septage here.
15 The waste.

16 Currently, wastes are required to
17 be sampled every three years for metals. The
18 proposed frequency in the draft permit is
19 once every five years or once per permit
20 cycle. The biosolids sampling requirement
21 will remain the same, which is annually.

22 This is a screen shot of the
23 sampling frequency in the draft permit. And
24 as you can see, the various metals, arsenic

1 through zinc, are just once every five years.

2 Now, proposed changes for sampling
3 of the metals in the soils is to be relaxed
4 for every three years to every five years or
5 once per permit cycle.

6 The metals have always been well
7 below the risk-based standards in the
8 materials that are land applied. Thus, metal
9 accumulation in the soil will not occur.

10 And we do have soil data that spans
11 over 30 years and demonstrates metal from the
12 soil continue to be well below standards and
13 are not accumulated.

14 And this is a screen shot from the
15 permit, the draft permit. And, again,
16 arsenic through zinc would be once every five
17 years.

18 One other change in the draft
19 permit is the removal of monthly groundwater
20 depth gauging requirement.

21 And the reason for this is Clean
22 Delaware's land application sites greatly
23 exceed the separations required from the
24 depth of tillage to the seasonal high water

1 table. The requirement is 20 inches. And,
2 again, if you have a foot-deep injection of
3 biosolids, the total distance would be
4 32 inches. Their minimum distance, minimum
5 separation, was 7 feet historically, so there
6 is at least a 4-foot buffer there. And,
7 therefore, there is no need to continue
8 measuring the groundwater levels in the
9 active land application field.

10 Groundwater levels will still be
11 monitored as part of the routine quarterly
12 monitoring that occurs at all of Clean
13 Delaware's application sites.

14 Next I want to touch on DNREC
15 inspection. DNREC routinely inspects
16 approved application sites during application
17 activities to ensure compliance with permit
18 conditions.

19 DNREC routinely inspects farms
20 after land application activities to ensure
21 appropriate crops are planted.

22 And DNREC's permit requirements are
23 designed to protect human health and the
24 environment.

1 Next I'm going to touch briefly on
2 groundwater. Historically, groundwater
3 monitoring is not required at biosolids
4 application sites.

5 However, back in 2013, when Clean
6 Delaware installed a network of groundwater
7 monitoring wells, impacts from nitrates were
8 identified in the groundwater at the
9 application sites.

10 Upon identifying the groundwater
11 impact in 2013, DNREC, in cooperation with
12 Clean Delaware, sampled all surrounding
13 private drinking water wells.

14 Now, there were a few situations
15 where property owners and/or tenants rejected
16 assistance. But for the most part, all
17 downgradient monitoring wells and wells
18 immediately adjacent to the application sites
19 were sampled.

20 Clean Delaware provided treatment
21 for nitrate for all impacted wells
22 identified. And reduction in application
23 activities and improved best management
24 practices were implemented. And nitrate

1 levels in shallow groundwater reduced over
2 time.

3 Now, in the State of Delaware,
4 impacts from nitrate are common, primarily
5 from agricultural activities, and both the
6 U.S. EPA, the CDC, the Center for Disease,
7 recommends annual sampling of all private
8 wells in the U.S. to ensure acceptable
9 drinking water quality.

10 You can get test kits through the
11 Delaware Division of Public Health for four
12 dollars, and there is offices in Georgetown,
13 Dover, Smyrna, and Newark.

14 For additional information on
15 testing your private drinking water well,
16 there is a link in the slide.

17 Within the draft permit, there is
18 also a requirement for periodic testing on
19 impacted wells. The specific permit
20 requirement requires monitoring of
21 downgradient drinking water wells as directed
22 by the Department.

23 This concludes my presentation. My
24 contact information is on this next slide.

1 And finally, Ms. Hearing Officer, I have the
2 following exhibits I would like to officially
3 enter into the hearing record.

4 MS. VEST: Okay. Thank you very
5 much, Brian. That's a very detailed
6 presentation, very informative.

7 For the purposes of bookkeeping for
8 the record being developed in this matter, I
9 see seven exhibits being proposed on behalf
10 of the Department.

11 Are these seven exhibits the same
12 as those that have been posted on the hearing
13 webpage dedicated to this matter?

14 MR. CHURCHILL: Yes, all seven are.
15 However, Exhibit Number 5 has been adjusted,
16 and I will update what's on DNREC's webpage
17 for this hearing.

18 MS. VEST: Great. Thank you. And
19 I understand that the adjustments that were
20 made were just to correct a couple of
21 clerical errors. It was who nothing really
22 substantive in there that's correcting. But
23 it's good to note, one, for the record and,
24 two, for anybody that's watching tonight that

1 may want to go on the webpage tomorrow
2 morning and download. Don't do it now. Do
3 it tomorrow morning once it has been swapped
4 out, and that way it will match your
5 presentation.

6 Okay. Thank you very much. Let
7 the record reflect that Exhibits 1 through 7,
8 as identified both in this Power Point
9 as well as on the hearing webpage, are hereby
10 incorporated into the record.

11 Does the Department have anything
12 further that it wishes to offer at this time?

13 MR. CHURCHILL: No. No thank you.

14 MS. VEST: Okay. Thank you very
15 much. And, again, that was very detailed,
16 and the record is very much appreciative of
17 that.

18 At this point I am going to turn
19 presentation roles over to Gerry Desmond. He
20 is going to be offering a Power Point on
21 behalf of the applicant, Clean Delaware.

22 And, Gerry, once your computer
23 system is up and running and ready to go, you
24 may begin.

1 MR. DESMOND: Okay. Okay. Can you
2 see me?

3 MS. VEST: I can see you. I can't
4 see the presentation yet.

5 MR. DESMOND: Oh, you can't see the
6 presentation? Can you see me now? Can you
7 see it now?

8 MS. VEST: I do not see it now, no.

9 MR. DESMOND: Okay. You will tell
10 us when you can see it.

11 MS. VEST: I will tell you the
12 minute that I see it. There we go.

13 MR. DESMOND: All right.

14 MS. VEST: There we go. All right.
15 You are full screen. You may begin when
16 ready.

17 MR. DESMOND: Thank you for
18 allowing me to speak on behalf of Clean
19 Delaware this morning, or this evening.

20 We are a small business, a
21 dedicated team of about 50 employees that has
22 been in business for a little over 40 years.

23 Our facility located in Milton and
24 our associated services allow us to serve

1 nearly every resident of Sussex County.

2 Our team is comprised of highly
3 trained, licensed, on-site technicians, and
4 top-tiered office staff ready to assist with
5 environmental pumping and wastewater
6 solutions.

7 We are well established in the
8 community and strive for consistency and
9 efficiency within our performance.

10 Not only is it in the best
11 interests of our company, but more
12 importantly, it's in the best interests of
13 the general public for us to keep our
14 standards high, meet or surpass performance
15 goals, and continue to be in compliance with
16 all state, federal, and DNREC-specific
17 regulations.

18 My name is Gerry Desmond. I'm the
19 general manager of Clean Delaware. And I
20 have been here since 2014. I hold a
21 Wastewater Treatment Plant Operator's License
22 and various DNREC on-site licenses as well.

23 We have got a fantastic office
24 staff that works in the back of the room

1 helping with customer service. We have
2 talented waste haulers. Our drivers and
3 laborers are the heart of our business.

4 If we did not have this dedicated
5 crew, we would not be at the level of
6 business and customer satisfaction that we
7 are. They are the face of our company, and
8 they take their role seriously.

9 We also have septic system
10 installation teams who attend to septic
11 system installation, repair, inspection, and
12 operation and maintenance contracts.

13 The majority of our installation
14 business is replacing failing septic systems
15 that pose an immediate risk to the
16 environment. Many of the new systems we
17 install include innovative and alternative
18 technology built to remove nitrogen.

19 A timeline of our business, as
20 Brian had mentioned, we were established in
21 1981 and began working in the wastewater
22 business in the infancy of the septic
23 business and new regulations.

24 In 2014, ownership changed, and the

1 business was diversified to include septic
2 installation as well as portable toilets.

3 In 2013 wells were first installed
4 at our farm to measure groundwater depth,
5 then upgraded to include monitoring nitrate
6 levels.

7 Unfortunately in 2015, we had a
8 fire at our Milton farm. The result, though,
9 was the rebuild and upgrade of our wastewater
10 treatment facility.

11 In 2019 we made significant
12 upgrades to farming practices through the
13 installation of freshwater pivot irrigation
14 systems.

15 This is our business by the
16 numbers:

17 Five-thousand plus residential
18 septic system equivalent pump-outs were
19 completed in 2021 and run through our Clean
20 Delaware lime plant facility.

21 Included in these pump-outs were
22 over 260 Class H real estate septic
23 inspections, 220 operation and maintenance
24 contracts for innovative and alternative

1 systems, 200 emergency septic pump-outs, 300
2 holding tank pump-outs, 250 service calls,
3 and outside haulers handled and brought in
4 roughly 1,000 septic tank pumping
5 equivalence.

6 Brian discussed at length the lime
7 plant process and how it works. I will not
8 go over a lot of that, but it is in my
9 presentation, as well as just a live video of
10 how we offload at the facility, our screener
11 in operation, when leaving the screen heading
12 to our decanting tank where the settleable
13 solids form, and then ultimately going out
14 into our mixing tanks where we add lime.

15 One of the products that we -- or
16 two of the products that we land apply that
17 are non-sanitary include grease trap and
18 brewery waste.

19 If you eat out at a restaurant or
20 shop at a grocery store, we have probably
21 handled that freeze. Grease traps are
22 usually in the floor or under sinks at
23 restaurants, hospitals, schools, and grocery
24 stores. Larger freeze traps might be found

1 outside and under a parking lot. Anyone that
2 cooks commercially should have one. Most
3 outside grease traps are 1,000 gallons in
4 size. The smaller ones range from 30 to
5 100 gallons.

6 There is another type of grease
7 called yellow grease. This is deep fried
8 grease. This product is not serviced by
9 Clean Delaware and is totally different from
10 anything in our application.

11 I have been told it takes roughly
12 20 gallons of water to make a pint of beer.
13 Dogfish, since Dogfish Head Brewery started
14 brewing beer in Milton, Clean Delaware has
15 been there to assist them. While we don't
16 receive near what we did once, Dogfish is
17 still an important partner for Clean
18 Delaware.

19 The reason we take this grease and
20 brewery product is it's not conducive to a
21 wastewater treatment plant. Most wastewater
22 treatment plants do not accept grease no
23 matter the scale. This is a product that
24 compromises the wastewater treatment plant.

1 And accepted practice is the disposal of
2 grease and brewery waste by way of land
3 application.

4 Our land application is made by
5 through passes across the field using a
6 tractor to pull a depressurized liquid manure
7 spreader with the deflection plate. We are
8 actively applying over millet in agronomic
9 rates as our cover crop.

10 We have also subdivided the fields
11 into smaller portions so that we can allow
12 one part to grow and be harvested while we
13 are on top of the other, and it's still being
14 able to remove nutrients.

15 Here are a couple of pictures in
16 the middle of our renovation in 2015
17 following the fire. We were able to save
18 part of the initial underground facility but
19 were able to add onto that facility so that
20 we would not be restricted with our ability
21 to handle or process our septic stream.

22 In the past Clean Delaware has
23 assisted with Class B biosolid needs of Allen
24 Harim foods, Perdue Farm, Lewes, City of

1 Lewes, Town of Milton, Town of Bridgeville,
2 Town of Selbyville, and many others.

3 Clean Delaware scaled back our
4 operations regarding land application of
5 sanitary sludge and, in fact, in 2021 only
6 handled sludge generated from the Town of
7 Selbyville.

8 We follow a comprehensive nutrient
9 management plan with detailed testing and
10 work in cooperation with our farmer and a
11 nutrient management specialist to ensure that
12 we are following all the guidelines required,
13 since the installation or, I'm sorry, the
14 farmer also oversees the pivot irrigation
15 prior to harvest and covers -- plants our
16 cover crop for winter protection.

17 Here is a graph of our average
18 yield of corn since we have installed the
19 pivot irrigation. Before irrigation, we were
20 at the mercy of Mother Nature, and Mother
21 Nature was not always kind to us.

22 We at points in time -- one of my
23 pages -- there were points in time when we
24 were averaging 140 to 160 bushels. If you

1 can see, it looks like in 2017 we had a
2 really good year when it came to rain, and we
3 were able to grow 180 bushels. But since the
4 irrigation was installed and we had the right
5 water at the right time, because this corn is
6 grown on fields that are not actively
7 involved with the application process -- this
8 is following that -- our yields have gone up
9 and average 240 bushels per acre.

10 We understand that our waste
11 treatment process is ever evolving, and to
12 ensure that we are putting out -- or putting
13 out into the community our best product by
14 way of land application.

15 This includes constant monitoring
16 of the nitrate levels in our wells and
17 consulting with our hydrogeologists on a
18 regular basis.

19 Verdantas routinely collects
20 samples of groundwater from our wells and
21 looking levels of nitrates, ammonium
22 nitrogen, people nitrogen, and organic
23 nitrogen, and total nitrogen.

24 To address and correct any increase

1 in nitrogen levels, we are reviewing current
2 conditions at the area of operation
3 as well as application rates, sources,
4 materials, and operations histories for any
5 unusual occurrences and releases.

6 We will continually sample
7 irrigation water from our pivot irrigation
8 system for nitrates and adjust the nitrogen
9 application accordingly.

10 We will also continue to assess
11 trends and precipitation, groundwater
12 elevation, and the nitrate levels in the
13 ground entering our site from upgradient
14 areas.

15 We will install additional
16 monitoring wells in the vicinity of the
17 operation to check for possible sources of
18 contamination if necessary.

19 Not only do affiliations and
20 partnerships we have ensure that we are
21 current on all industry and business-specific
22 regulations and trends, but they help promote
23 and generate a business showing potential
24 customers that we are a reliable and

1 trustworthy company that provides quality
2 technicians to do exceptional work. Some of
3 the partnerships and affiliations are
4 mentioned below.

5 We know there are always community
6 concerns, and we are working to address them.
7 We have begun subdividing our existing
8 application fields into smaller portions with
9 continuous grass crops without loading it --
10 with loading amounts that do not burn the
11 grass or attract vectors.

12 Regarding the wells, we have
13 retained Verdantas to provide professional
14 geologist evaluations of operations,
15 investigate the causes of increased nitrogen
16 levels in our monitoring wells, and provide
17 steps to mitigate groundwater impact relating
18 to the land application.

19 Regarding high nitrate levels in
20 monitoring wells, elevated nitrate levels
21 were determined to exist in ours and adjacent
22 wells back in 2013. At that time all
23 activities attributed to this spike were
24 ceased, and immediate water supply options

1 were offered.

2 With the help of pivot irrigation,
3 we can better control our crops and have more
4 certainty that nutrients are not escaping the
5 root zone or moving into the groundwater.

6 Our permit requires us to provide
7 analytical soil sample sampling and product
8 sampling, prerequisite to reduced sampling,
9 only to apply to non-sanitary products
10 including grease and brewery waste.

11 Finally, here is a slide that shows
12 the dry metric tons that have been applied to
13 our fields per acre over the past nine years.

14 In 2013 and actually prior to 2013,
15 we were probably applying nearly a thousand
16 dry metric tons onto about 240 acres per
17 year.

18 As our time has gone by and we have
19 tightened our belt and looked at items that
20 we're taking and the impact that it has had,
21 we are now applying on about 140 acres and
22 only taking about 20 percent of that with
23 about 200 dry metric tons.

24 Thank you for your time. And I

1 appreciate your offer to allow me to speak at
2 this public hearing and present our appeal
3 for the renewal of our AGU application.

4 MS. VEST: Thank you, Mr. Desmond.
5 And, again, I want to take time to thank both
6 the Department and the Applicant. I think
7 both presentations were very thorough and
8 very informative.

9 Mr. Desmond, for the record, you
10 are going to be offering a copy of that Power
11 Point so that we can put that up on the
12 hearing webpage, as well.

13 I'm going to go ahead in the
14 transcript and note that that is going to be
15 taking place. Hopefully, we will get that up
16 on the website tomorrow morning. And it will
17 be marked as Applicant's Exhibit Number 1.
18 And again, thank you, Mr. Desmond.

19 MR. DESMOND: Thank you.

20 MS. VEST: At this point of the
21 hearing we would normally go into where we
22 would be accepting live public comment.

23 Our website does have distinctive
24 protocols for that. Members of the public

1 can feel free to sign up and preregister so
2 that they can be recognized to speak at
3 hearings. The deadline for each hearing is
4 12 noon on the date of that hearing.

5 And for this particular matter, we
6 had no one sign up. So since there are no
7 commenters that are going to be speaking
8 tonight, I am now going to move to be
9 concluding these proceedings.

10 Again, there is a wealth of
11 information that is available to the public
12 and for any other person who is interested in
13 this matter.

14 There is a hearing webpage
15 dedicated to each and every DNREC permitting
16 matter. You just go to DNREC, DNREC's main
17 website at the top. There is a panel that
18 says "Administrative Law." Go to "Public
19 Hearings." Scroll down. And they are listed
20 chronologically. I believe this is the
21 second or third from the top, because it goes
22 in order from most recent to oldest.

23 If you click on that, it will have
24 all of the exhibits that were entered into

1 the record tonight. It will also have both
2 presentations. And eventually it will have
3 the court reporter's transcript.

4 The comment period, as I said at
5 the beginning of tonight's proceedings, it
6 will not close at the conclusion of tonight's
7 matter. Rather, it remains open for receipt
8 of public comment. And the public is welcome
9 to offer comment either in e-mail form, in
10 electronic format, or in good old USPS mail.

11 Regardless of the comment, as I
12 said earlier, as long as it is received by
13 the Department on or before May 12, 2022, all
14 comment bears the same weight, and all
15 comment will be considered by the Secretary
16 prior to his making a decision.

17 If and when comments do come in
18 between now and May 12th, they will be posted
19 on the hearing page, as well.

20 So, again, I want to thank the
21 presenters as well as members of the public
22 that have dialed in to view this matter.

23 Again, the record is open through
24 May 12th. So we look forward to receiving

1 your comments, should you wish to give any.

2 Thanks again. This meeting is hereby

3 adjourned.

4 (Concluded at 6:48 p.m.)

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CERTIFICATE

I, Lorena J. Hartnett, a Notary Public and Registered Professional Reporter, do hereby certify that the foregoing is an accurate and complete transcription of the proceeding held at the time and place stated herein, and that the said proceeding was recorded by me and then reduced to typewriting under my direction, and constitutes a true record of the testimony given by said witnesses.

I further certify that I am not a relative, employee, or attorney of any of the parties or a relative or employee of either counsel, and that I am in no way interested directly or indirectly in this action.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office on this 2nd day of May 2022.



Lorena J. Hartnett
Registered Professional Reporter

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