## In the Matter Of:

## ENVIRONMENTAL APPEALS BOARD

Delmarsh v. DNREC Hearing
August 11, 2020

## Wilcox \& Fetzer <br> 1330 King Street Wilmington, DE 19801

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            BEFORE THE ENVIRONMENTAL APPEALS
    BOARD OF THE STATE OF DELAWARE
DELMARSH, LLC )
    Appellant, )
v. ) EAB Appeal No. 2020-03
DEPARTMENT OF )
NATURAL RESOURCES )
AND ENVIRONMENTAL )
CONTROL, )
    Appellee. )
        TUESDAY, AUGUST 11, 2020
            9:00 A.M.
            TRANSCRIPT OF
    HEARING HELD VIA REMOTE WEB CONFERENCING
    BEFORE THE ENVIRONMENTAL APPEALS BOARD
MEMBERS PRESENT:
    DEAN E. HOLDEN, CHAIRPERSON
    FRANCES RIDDLE, MEMBER
    MICHAEL A. HORSEY, MEMBER
    RANDALL HORNE, MEMBER
    GUY MARCOZZI, MEMBER
    ROBERT MULROONEY, MEMBER
    KEVIN MALONEY, ESQ.
    DEPUTY ATTORNEY GENERAL
    DELAWARE DEPARTMENT OF JUSTICE
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STATE OF DELAWARE
DEPARTMENT OF JUSTICE
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for Appellee Department of Natural
Resources and Environmental Control

CHAIRPERSON HOLDEN: Good
morning, everybody. Thank you very much for the patience. It's taken us a little bit here to work through the kinks. We will jump right in.

So the purpose of today's
hearing is the consideration of Appeal
2020-03 filed by Delmarsh, LLC, which we'll refer to as "Delmarsh." Delmarsh appealed a January 30, 2020 decision by the Delaware Department of Natural Resources and Environmental Control, which we'll refer to as "DNREC." Delmar contends the decision was improper.

Subsequently, Delmarsh filed a motion in limine requesting certain evidence and testimony proposed to be presented by DNREC not be admitted. DNREC has provided a response to the motion in limine.

I'll now introduce the Board
members and a few other individuals:
Mr. Mulrooney; Ms. Riddle;
Mr. Marcozzi; Mr. Horsey; Mr. Horne; and myself, Dean Holden, Board Chairperson, make
up the Environmental Appeals Board.
Sascha Mohammed is the administrative assistant to the Board.

Mr. Kevin Maloney is the Board's
DAG.
Representatives from Delmarsh:
We have counsel, Mr. Richard Abbott,
present, as is Mr. Jeffrey Liberto.
And Ms. Kayli Spialter is online representing DNREC.

This hearing is being held
remotely via Webex video conferencing. With
that being said, I ask participating
individuals to mute your microphone unless you're actively speaking. If you are having video conferencing issues, you could let us know via the chat function. Ms. Mohammed is also at her office desk. The phone number is 302-739-9295. Also, please turn off any phone ring tones or set them to silent if you have them with you.

We will conclude the hearing no
later than 4:30 p.m. We may take a midmorning break, lunch break and possibly
other breaks should the hearing run into the afternoon. The Board may deliberate at any time and will do so in executive session, as permitted by 7 Del Code, Section 6008(a).

Notice of today's hearing was
posted on the State of Delaware Secretary of State's Public Meeting Calendar and at the Richards \& Robbins Building, 89 Kings Highway, in Dover. In addition, public notice of this hearing was published in the News Journal and the Delaware State News.

The Board is a quasi-judicial
body created by the General Assembly to hear appeals of decisions of the secretary. The manner in which the Board fulfills its duties and responsibilities, including conducting hearings, is established and governed by the Delaware Code, Board's regulations and case law. The Board is required to issue a written decision within 90 days of the conclusion of this matter. Pursuant to 7 Del Code 6009(a), any person or persons aggrieved by any decision of the Board may appeal to the Superior Court
within 30 days of receipt of the written opinion.

As we indicated earlier,
Delmarsh has filed a motion in limine, with a subsequent response by DNREC. I will ask the appellant to begin addressing the motion in limine.

MR. ABBOTT: Thank you,
Mr. Chairman.
Mr. Chairman, members of the
Board. My name is Richard Abbott. I'm counsel to Delmarsh. And I'll introduce Mr. Liberto and Mr. McCulley. They've effectively been introduced, but they'll be introduced later when they testify.

As to the motion in limine, as
the Board chair requested I'll address that in order.

First, the primary focus of the
motion is a 1926 aerial photograph, and we're seeking to exclude any evidence and testimony regarding that photograph for three reasons.

The first reason is: Under

Delaware Rule of Evidence Rule 901, authentication is required to admit evidence. When you have a photograph, in particular, you have to be able to establish a sufficient degree of accuracy as to what the photograph is supposed to depict, and that's why you need that sponsoring witness, in order to establish the details of when the photograph was taken, how it was taken, et cetera, et cetera. None of those elements are present here because we have a photograph that's taken from a website. I gather DNREC is alleging it's a state website. I can't tell that with certainty. But we don't know who took it, when they took it, how they took it, and it's an extremely important issue because that's the underpinning of the entire DNREC decision. So the Delaware Supreme Court has said that the proponent of a particular photograph has to show that there is -- by reasonable probability that there's no possibility of misidentification or adulteration of the photograph, meaning that
it accurately depicts what it purports to show. So that's not present because we don't know who took the 1926 photo. We don't know any of the details of it, and I'm not even sure what Delaware imagery is. So that's first issue.

The second issue is with respect
to the issue of legal irrelevance under Delaware Rule of Evidence Rule 403. We submit that the probative value is substantially outweighed by the danger of unfair prejudice and confusion because we have lay witnesses, not expert aerial photograph interpreters, who DNREC could have retained and could have gotten the read on. And in fact, DNREC is alleging that a dark area on a 1926 aerial photograph is somehow evidence of a tidal connection. That's the central issue in the case, tidal connection.

So a dark area. And how do you determine what that is? Is it a shadow? Is it a drainage ditch that's not connected to tidal waters? It's not discernible, and
therefore, it's too speculative and conjectural and would lead to undue prejudice to my client.

Thirdly, Delaware Rules of Evidence 701 and 702 require under these circumstances that an expert witness be presented who is an aerial photograph interpreter. They do exist, as I present in the motion. It's a recognized professional field. And DNREC could have had an interpreter take a look at the photograph and discern in their opinion, if they could opine, whether the dark area that they're relying upon constitutes a connection to tidal waters.

So Rule 702 requires knowledge, skill, experience, training, education, any of those or a combination of those. The DNREC employees, contrary to the DNREC contention, are not experts in the aerial photograph interpretation field, and merely because they've reviewed aerial photographs in the past does not make them experts. You can't act as if you're a medical doctor on
numerous occasions and then claim that that experience allows you to give a medical
opinion, for example. And that's
essentially what they're contending.
The other points that DNREC
makes, again, they allege that the Delaware aerial imagery is a public selfauthenticating document. I haven't seen any proof of that. That's just a contention without any backup information. The only specifics regarding the 1926 photograph that was submitted by DNREC was an indication that this was a United States Department of Agriculture photograph. It doesn't say why it was taken. It doesn't give any of the details like the information exists for the 1937 aerial photographs and the 1950s aerial photographs. If you look at that document DNREC attached, there's a lot of detail regarding the other aerial photographs.

There's nothing other than an indication "1926 USDA." So we don't think that is sufficient indicia of reliability to allow the photograph to be admitted.

They allege that you don't need an expert to interpret a photo. Well, the proof is in the pudding. You've seen the photo. I attached it to my motion in limine. And what's on that photo is anybody's guess. And that's what it boils down to. This is mere guesswork and surmising by DNREC, and it's just not reliable information that the Board should allow to be admitted for consideration.

So the last point DNREC made was that even if the 1926 aerial photo is inadmissible, that doesn't cause a problem to their site summary or their decision. Well, $I$ would suggest that because the site summary is founded on the 1926 photograph, if the 1926 photograph doesn't come in, neither does any reference to it. And further, in the actual decision, it refers to the site summary. So, again, once the photograph is out, then all matters that rely or refer to that photograph, Delmarsh would submit, should not be admitted. Thank you.

CHAIRPERSON HOLDEN: Thank you, Mr. Abbott.

Is the Board comfortable to hear from Ms. Spialter before we address any questions?

Ms. Spialter.
MS. SPIALTER: Good morning,
members of the Board, Chair Holden. I am Kayli Spialter, here on behalf of DNREC, and I will be presenting both our case in chief as well as responding to appellant's motion in limine.

As you heard from Mr. Abbott, his primary focus of the motion in limine is to exclude a 1926 aerial photograph which was first produced in response to appellant's request for production and subpoena by providing a URL, a website address, the beginning of which is http://firstmap.gis.Delaware.gov.

Following Mr. Abbott's concerns regarding knowing exactly what portion of this website we were going to be presenting, I took a screen shot for him and forwarded
that, which has been included in our joint exhibits. However, it is my intention to produce the website itself, to produce the entirety of ArcGIS and the map as produced by that website. Accordingly, as Mr. Abbott mentioned, that makes the exhibit self-authenticating. It is well established by the Delaware and Federal Rules of

Evidence Rule 902 paragraph (5) a
"publication purporting to be issued by a public authority" is self-authenticating. And courts have repeatedly held that a web page maintained on a government website is a publication purporting to be issued by a public authority under said rule.

Accordingly, it appears on a government
website, it is self-authenticating. It is
authentic. It is uncontrovertible. It's not a matter of discretion. It is.

Moving on.
Appellant argues that the
photograph is inadmissible because it would be unduly prejudicial. First of all, that standard falls under Delaware Rules of

Evidence 403 and it has been held to be an extraordinary measure used sparingly because it is the role of the fact-finder to weigh the evidence, and in order to do so, the fact-finder must see all of the evidence.

It is only in a situation where the prejudicial value -- where the unfair prejudice is substantially outweighing the probative value.

One of the benefits of appearing
before the Board is that you are all professionals. You all have experience within the field. You all understand DNREC's professionals and their experience in the field. To suggest that the Board would be unfairly prejudiced against the appellant by imagery appearing on a government website, quite frankly sounds absurd.

As Mr. Abbott stated, this
photograph, the historical lay of the land, is a crucial element of the regulatory definition of "wetlands." I would submit that even if the map had handwritten notes
on it -- which it does not, it is simply a photograph -- the Board in its expertise is sufficiently experienced and sufficiently capable of judging the probative value of the evidence that it should not be inadmissible due to any potential prejudice. It is of central relevance to this case to determine what the lay of the land was at various points in history. Accordingly, the probative value of this evidence is extremely high. I would argue that there is no prejudicial value, certainly not unfair prejudice that outweighs that probative value.

Now, Mr. Abbott has also argued
that the map cannot be -- that the reliability of the map is questionable because of the lack of background on it. Now, as previously stated, it's selfauthenticating by appearing on a government website. However, I can understand that even so, there is a difference between believing that the photograph is what it purports to be and the validity of the
contents of the exhibit, which more or less sounds like a hearsay objection.

So first, I would like to remind the Board that under Delaware Rule of Evidence 803 paragraph (16) which provides statements appearing in a document that is at least 20-years old are admissible once the document is authenticated.

Further, again, I intend to produce that exhibit using the ArcGIS software, which will allow you to see at every magnification level exactly where the photograph comes from, how it works into the greater scope of the Delaware lay of the land, as well as the software itself. I am more than happy to address any questions at that point.

As Mr. Abbott mentioned,
included with my response to the motion in limine, I also included a document which provides background information on the Delaware aerial imagery. It demonstrates where and how these photographs came to be, who owns them and who is responsible for
their upkeep. The 1926 photographs were initially commissioned by the USDA Agriculture Stabilization \& Conservation Service. While, no, we do not have the specific photographer's name, being this document is close to a hundred-years old and has been part of the public domain for decades, I believe any argument as to its relevance or reliability can be judged based on viewing the photographs themselves.

With regard to appellant's argument that an expert witness is required to interpret these photographs, well, there may very well be the field of expert aerial photography, that does not in any way limit the ability for more general expert opinion and certainly doesn't limit lay witness testimony. We will demonstrate that DNREC's employees, our witnesses, experienced and educated in the field of aerial photography analyzation for the purposes of determining wetlands, determining water bodies, as was done in this case.

Delaware Rules of Evidence 702
requires that the witness being proffered as an expert has scientific, technical or other special ed. knowledge by virtue of their education or experience. You'll hear from Tyler Brown that he analyzes photography of this sort with every single map application, whether it's a wetlands change such as this one or a permit to authorize a subaqueous permit for docking purposes, et cetera. It is going to be clear to the Board that Mr. Brown has the experience necessary to provide an expert opinion regarding what the imagery shows. And to whatever extent the Board may feel that Mr. Brown and Mr. Goetze's experience is insufficient for an expert testimony regarding the imagery, any lay witness may testify and offer an opinion rationally based on their perception. Accordingly, DNREC's witnesses will also be able to testify as to what it is that they observe on the maps, how that relates to what they observed on site and provide an opinion based on their perception of the evidence.

Accordingly, $I$ do not believe that there is any argument to exclude this photography from the record, and it is of utmost importance to the definition for "wetlands" to determine what the topography of the land has looked like through history.

To the extent that the Board
were to grant appellant's motion in limine, that is still insufficient grounds to also exclude the on-site investigation summary as well as the decision which forms the basis for this appeal. Appellant provides absolutely no authority for such an extreme position that a single piece of evidence eliminates an entire opinion. In fact, it's well established that evidence can be submitted for one purpose but not for another -- for example, hearsay objections. So even if the Board were to grant the motion in limine and exclude the 1926 aerial photography, the rest of the analyses and the decision itself would have to be admissible; otherwise, we literally would have no reason to be here. I honestly don't
understand how this hearing would work if the document which is being appealed is excluded from evidence. I would love to hear some explanation of that. But regardless, the documents themselves contain significantly more information than one photograph or opinions based on that one photograph. And accordingly, even if the photograph is excluded, the remainder of the documents should be admissible. Thank you. CHAIRPERSON HOLDEN: Thank you,

Ms. Spialter.
Questions from the Board?
So without specific questions
from the Board, we've got a motion in limine and a response, we can hear a motion to go to executive session for discussion. We can hear a motion on the motion in limine.

UNIDENTIFIED SPEAKER: I'll
motion to go to executive session.
CHAIRPERSON HOLDEN: There is a
motion to go to executive session.

Can I get a second?
Mr. Horsey is indicating a second.

MR. HORSEY: Second.
CHAIRPERSON HOLDEN: All in
favor?
Aye.
MS. RIDDLE: Aye.
MR. HORSEY: Aye.
MR. HORNE: Aye.
MR. MARCOZZI: Aye.
MR. MULROONEY: Aye.
CHAIRPERSON HOLDEN: Any
opposed?
Okay. So the Board members here
will then need to log off of the meeting, and we'll reconnect here, right. So keep your fingers crossed that our reconnection works well. We've been through this once.

We'll travel over to the
executive session, the information that
Sascha provided yesterday afternoon, reconnect there.

And for the other folks here on

Webex, we hope to be back shortly with full communication. Thank you.

CHAIRPERSON HOLDEN: We're back in public session. In a moment here we'll see if the Board has a motion. I want to ensure that the Board member who has a motion that they state who they are. I don't know the court reporter gets to see exactly who is speaking, and if we end up doing a vote, we'll do a roll call vote so that information is on the record.

So with that, is there a motion
from the Board?

MR. HORNE: This is Randy. I make a motion to deny the submitted motion in limine.

CHAIRPERSON HOLDEN: All right.
We have a motion from Mr. Horne.
Is there a second?
Mr. Horsey, I see your lips
moving, but your mic, looks like it's muted.
MR. HORSEY: This is Mike
Horsey. I second.
CHAIRPERSON HOLDEN: All right.

We have a motion to deny the motion in
limine and a second from Mr. Horsey. I'm going to do a roll call vote.

Ms. Riddle. MS. RIDDLE: Aye. CHAIRPERSON HOLDEN:

Mr. Mulrooney.
MR. MULROONEY: In favor.
CHAIRPERSON HOLDEN:
Mr. Marcozzi.
MR. MARCOZZI: In favor.
CHAIRPERSON HOLDEN: Mr. Horne.
MR. HORNE: In favor.
CHAIRPERSON HOLDEN: Mr. Horsey.
MR. HORSEY: In favor.
CHAIRPERSON HOLDEN: This is
Dean Holden. I vote in favor of the motion as well.

So it's a unanimous decision to
deny the motion in limine.
With that, we'll move into the
appellant's arguments for the appeal.
Mr. Abbott.
MR. ABBOTT: Thank you,

Mr. Chair. Are we proceeding with opening statements at this point, or...

CHAIRPERSON HOLDEN: Yes,
please.
MR. ABBOTT: Very good. The
case or this appeal boils down to the definition of the term "wetlands" that is contained in the Wetlands Act.

Specifically, it's Title 7, Section 6603 (h), which defines the term "wetlands." It includes three criteria that have to be satisfied in order for land to qualify as wetlands. And I'm going to summarize them while using a single word for each one. So one criteria deals with elevation. A second criteria deals with plants. And a third criteria deals with tidal. T-I-D-A-L. This appeal does not involve elevation or plant criteria. It does not involve elevation or plant criteria. They're not before you. The only criteria that is relevant regarding the definition of "wetlands" is the tidal criteria.

Further, the tidal criteria is broken down into two possible items. One is that the land could currently be subject to tidal action. That's not at issue because it's undisputed that the lands are not currently subject to tidal action. So the other component of the tidal criteria is what is at issue here, and that particular component of the tidal criteria requires three things:

One, "Areas." So, again, the first element is areas.

The second component of it is that you have "in this century." There is a term, "in this century.

And the third component is
"connected to tidal waters."
All combined, it reads: Areas within this century were connected to tidal waters.

## But all three of those

components of this particular tidal criteria are required to be shown, or else, there is an error on the maps, and the lands should
be removed.
"This century," as I've set
forth in the memorandum of law that $I$ submitted, we contend plainly means the 21st Century. This century. We're in the 21 st Century. If the General Assembly had meant it to mean the $20 t h$ Century, they could have said "the 20th Century." They also could have said something like "from 1900 forward." In any event, instead, they chose the term "this century." And today, this century is the 21st Century. And as I noted a moment ago, it is undisputed that there is no tidal connection in this century. So, therefore, we think that this century issue would be dispositive.

But also, we can address DNREC's
argument. They contend that the term "in this century" is ambiguous. And as we've presented in our memorandum of law, if it is ambiguous, the interpretation which is most favorable to the landowner should be applied. It's, effectively, private property rights, the free use of land. So
just like a zoning decision is decided in favor of the landowner in case of ambiguity, we submit that any ambiguity found by the Board should likewise be resolved in favor of Delmarsh.

The areas, and connected to tidal waters. The six lots are not areas that were connected to tidal waters in any century. The only item that DNREC presents is a 1926 aerial photograph, which we just dealt with the motion in limine on. It's not reliable. When you look at it, I think you'll agree no one can really tell what the ground conditions are that are depicted on that photo. Again, there has to be proof of connection. And merely showing dark areas along a particular roadbed does not in and of itself establish that there is a connection. And as we'll present in the evidence, you'll hear DNREC has no idea if that's just a drainage ditch and it was receiving storm water runoff. It's not necessarily connected to the ditch. The other thing you'll hear and
see in the exhibits, the Joint Hearing Exhibits, are that there was a ditch that ran from the St. Jones River. It went underneath the area that we believe is now Flack Avenue and then it connected into the tidal marsh that is currently located on the west side of Flack Avenue. That's the only ditch. That's the only objective evidence that exists to show any ditch. That ditch runs next to lot 26. My client's lots are 22 through 25, 32 and parcel D. Not lot 26. DNREC, I think you'll probably see here has confused lot 26 , which is a relatively large lot owned by a gentleman name of Charles Shore for 70 years now. And that's not my client's property. Even if the aerial photo were to show a sliver of a dark area and the Board were to find that that constituted a tidal connection, the "areas" term is key because it's only those areas that are part of that connection. Therefore, this sliver of dark area that DNREC, you'll hear, relies upon to theorize that there is a tidal connection is the only area that would have
a tidal connection, not the other 95 plus percent of lots 22 through 25 and lots 32 and parcel D. In fact, lot 32 and parcel D don't front on Flack Avenue. So they clearly have no influence whatsoever based on this dark area that DNREC contends constitutes a tidal connection.

We will show you evidence that DNREC's speculating; they're participating in pure conjecture. And although you've allowed the evidence in, as the courts typically do, the next question is: What weight should be accorded to that evidence? And we would submit that little to no weight should be accorded to it because it's anybody's guess what a nearly 100-year-old photo shows on the ground. It shows you from the air. That dark area could be plants. That dark area could be a shadow. That dark area could be any number of things. And without an expert aerial photo interpreter, there is no one that can give an opinion as to what that dark area actually shows.

Last, but not least, DNREC also hypothesizes that there is a culvert. I don't know whether they're arguing that it used to exist or that it currently exists, but I can assure you, there's no culvert running under Flack Avenue today that connects the marsh to any lands and let alone my client's lots 22 through 25, 32 and the parcel D.

Now, I trust that each of you has the joint exhibit binder that was submitted to Ms. Mohammed. I would encourage you to look to orient yourselves. You probably already have tab 6 in that exhibit binder because that is the Charles Shore subdivision plan. We would submit to you that this is some of the best evidence of the circumstances that existed at the property, at least we see here in 1950. It was prepared by surveyor Charles Brown in October.

CHAIRPERSON HOLDEN: Mr. Abbott, let's give folks just a second to get there. I know this is a challenge for some folks.

So you're referencing the
chronology; is that correct?
MR. ABBOTT: No, I'm referencing the joint hearing exhibits.

CHAIRPERSON HOLDEN: Okay. A
joint hearing exhibit document. Does
everybody on the Board have that in front of them?

Okay. I understand. Okay.
Very good. Okay.
MR. ABBOT: Everybody should
have a hard copy because I submitted nine hard copies.

MR. HORNE: Could I ask that we reference a page number in that exhibit?

CHAIRPERSON HOLDEN: Mr. Abbott,
does it show you which page number in that exhibit? Not everybody, when they open that PDF, has the tabs visible.

MR. ABBOTT: Oh. I don't know what page number it would be. I know it's Exhibit 6.

CHAIRPERSON HOLDEN: Let me see if $I$ can get there real quick.

MR. ABBOTT: It's a survey plan that shows numerous lots. The background is black, and the lots are overlaid in white.

CHAIRPERSON HOLDEN: Okay. I'll get there in just one second, $I$ can give a page number. It looks like it's page 72.

MR. ABBOTT: Sure. It's going to be somewhat cumbersome because we'll be referring to exhibits numbers throughout the testimony, but perhaps we'll just take a moment and figure out what the page number may be.

In any event, what this shows
you is that parcels are, as you're aware, in Bowers Beach. Technically Town of Bowers, but colloquially referred to as "Bowers Beach." This is the Shore subdivision plan from 1950 I mentioned. You'll see over, all the way over on the left side, in the upper side it says, parcel D, 2.1 acres, and then it shows you all the lot numbers going from left to right starting with lands of Charles Frank. Then you'll note next to that is a somewhat meandering line that has the word
"DITCH," D-I-T-C-H, next to it. And that meandering line runs adjacent to lot No. 26 and the lands of Charles Frank. Then you'll see it then appears to run underneath a road, a 30-foot-wide right-of-way and then it continues on beyond that right-of-way, which now is known as Flack Avenue, and that ends in an area which is now a tidal marsh. So I just wanted to go over this particular document so you could all orient yourselves to the location of the property and visualize what we're talking about because lots 22, 23, 24, and 25 are at issue, as well as lot 32, which sits right above lot 22 , and then, of course, the larger parcel that's delineated as parcel D, as in David. And parcel D runs along the St. Jones River and also has some frontage on the Delaware Bay. Lot 32 has frontage on the Delaware Bay, and lots 22 through 25 are all inland and don't abut any tidal water. So you'll hear testimony about all these various matters from both Mr. Liberto, our expert, Mr. McCulley. I
suspect you'll also hear some DNREC
witnesses, but at the end of the day, they simply have no proof. And the emperor has no clothes. There is no evidence of a credible nature to establish that in any century there has ever been a tidal connection with the six lots.

I'll refer to them at certain
times as "the six lots." And by that I mean lots 22 through 25, 32 and parcel D.

That's all I have now. I can continue with our evidence, or is it time for Ms. Spialter to do her opening?

CHAIRPERSON HOLDEN: So first
let me ask: Has the Board navigated themselves there to page 72 , to that plot plan, which is black background with white lines? I see some nods. Yeah. Okay. Very good.

Is it more comfortable to move
to Ms. Spialter's opening argument?
Okay. Ms. Spialter.

MR. SPIALTER: Thank you,
Chair Holden.

As you've heard from appellants, this case revolves around a wetlands map designation, the regulatory definition of "wetlands" and the fact that there is really only one element of the definition that is at issue here. That is "those areas which are now or in this century have been connected to tidal waters."

As an initial point, DNREC does not agree with appellant's assertion that there is no tidal action at this point. However, we will discuss that when we present our evidence as necessary. We believe that the evidence will show, based on the on-site investigation performed by DNREC employees following the application, as well as the application itself, and information requested by DNREC employees in attempting to evaluate the application, that based on the record before the Secretary -which is the standard before the Environmental Appeals Board -- based on the record before the Secretary, the evidence supports the finding that the lands in
question were or are -- were in this century or are tidally connected to tidal waters. There are absolutely definitions here that come into play, definitions of "tidal waters," definitions of "in this century," definitions of "connected to." It is the responsibility of DNREC staff in their role, in their job descriptions to, as the determiners of these questions determining these applications, to interpret that regulation.

It's important to note at this point that substantial weight is granted to agency's construction of its own rules. The regulations in question here are DNREC's rules. Agency's construction will only be reversed if it is clearly wrong. It may not be the only definition. It may not even be the best definition. As long as it is not clearly wrong, the agency's interpretation stands.

We will show that there is
ambiguity in the regulation and that DNREC interpreted it according to the rules of
statutory interpretation to find that "in this century" properly means the 20th Century or at least a rolling 100-year period from the date of analysis. Accordingly, the 1926 aerial photography as well as current storm activity, soil makeup, and other clear geological markers on the property demonstrate that it is connected to tidal waters.

You may heard appellants try to offer evidence that was not before the Secretary, despite multiple requests for additional information. To whatever extent that information may refute the findings of DNREC employees, of the Secretary, that's irrelevant because the standard before the Board is whether the evidence before the Secretary is sufficient to uphold the decision. And we believe that it will show that it absolutely is still wetlands and that the spirit of the regulations and statute should be protected by maintaining that wetlands designation. Thank you. CHAIRPERSON HOLDEN: Thank you,

Ms. Spialter.
Any questions at the moment from
the Board?
Do you want to move into witness testimony?

All right. Mr. Abbott.
MR. ABBOTT: Thank you,
Mr. Chairman. I would like to first have Jeff Liberto testify. I can't call him to the stand because we don't have a.

So if may proceed with
Mr. Liberto. Are you on, Mr. Liberto?
MR. LIBERTO: Yes. Can you hear
me?
MR. ABBOTT: Yes.

CHAIRMAN HOLDEN: Do we have

Ms. Reeder do introductions for Mr. Liberto?
THE COURT REPORTER: This is
Ms. Reeder, the court reporter. Just wanted to remind counsel the court reporter generally asks for a stipulation by counsel that you agree to the court reporter remotely swearing in all witnesses.

MR. ABBOTT: Agreed here.

MS. SPIALTER: Agreed.
THE WITNESS: Agreed.

JEFFREY LIBERTO, the witness herein, having first been duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. ABBOTT:
Q. Mr. Liberto, how old are you?
A. I'm 55.
Q. Where do you reside?
A. I live at 74 Cabin Court, in

Magnolia, Delaware.
Q. How are you employed?
A. I'm currently not employed right now.
Q. Okay. Do you own Delmarsh, LLC?
A. Yes.
Q. And we don't need to have all the members of the Board go through this, but I'm going to refer you -- you have the hard copy of the joint hearing exhibits in front of you; correct?
A. Yes.
Q. Just for the record, I wanted to
establish that Exhibit 7 and 8 are the deeds
for the six lots; is that correct?
A. Yes, that is correct.
Q. And Exhibits 9 and 10 are the Kent

County tax parcel printouts for the six
lots?
A. Yes.
Q. Now, there's only two deeds, but there's six lots. Could you explain that to the Board, please?
A. Well, in the original 1950s
subdivision, they were all plotted and recorded, and in my deed itself, it individually lists each lot.
Q. Okay. So the deeds actually
reference the various lots that combine to constitute the six lots?
A. Yes. They're actually individually
noted: 22, 23, 24, 25, 32 and, of course, the residual, D.
Q. Now, one of those deeds also
includes lots 20 and 21?
A. Yes.
Q. Okay. Now, you've subsequently
conveyed those two lots to the someone else?
A. That is correct.
Q. And lots 20 and 21 are not the subject of this appeal here?
A. That's correct.
Q. All right. Can you, please, tell the Board about your first involvement with the six lots?
A. Probably 1999, somewhere around that area, Jeff Beiser, who is a friend of the family's and so forth, purchased this property. I think it was May of '89. Anyways, he was looking to develop it. I had interest in it and so forth. So we decided to do a joint venture partnership, which I financially obligated myself and joined up with Jack as partners on it.
Q. All right. And then subsequent to that, you ultimately became the sole owner of the six lots through Delmarsh?
A. Yeah. Originally, we had Del-Homes, and because of -- long story short. Jack's
wife passed of cancer. Another partner that we had, Bill Zaccardell, passed of cancer. Jack was at an age and so forth, a point in his life he just was done, did not want to be bothered with anything, so we conveyed it to the new company, Delmarsh, from Del-Homes.
Q. All right. Now, I want to refer you to Exhibit 6 that we discussed or I discussed in the opening which the Board chair indicated, I believe was at page 72. So the Board might want to refer to that so they can follow along with your testimony.

All right. So Mr. Liberto, are you at Exhibit 6?
A. Yes, I'm looking at the Charles Shore subdivision.
Q. Okay. And the road that shows "to

St. Jones River" on the lower left-hand corner.
A. Yes.
Q. Is that Flack Avenue?
A. Yes.
Q. All right. And it appears that it's
laid out at 30 feet wide. It appears to be 30 and a --
A. Wait I need my...
Q. All right.
A. Yes, it is 30 feet wide. Yes.
Q. Again zeroing in on that lower
left-hand corner on Exhibit 6, there is a meandering area that comes in or meandering line that comes in from the St. Jones River that has the word "DITCH," all caps,

D-I-T-C-H. Do you see that?
A. Yes, I do.
Q. Now, are you familiar with that ditch that was around at least apparently in 1950?
A. I've never personally seen the ditch. Charles Shore, his son, Ray Shore, told me about it when he was a kid and so forth, but $I$ personally have never seen it.
Q. And so it appears that it runs underneath Flack Avenue and into the marsh on the west side of Flack Avenue. Is that --
A. That's what it appears.
Q. All right. And is that consistent with the information that you received regarding the location of that ditch?
A. Yes. From what Ray was telling me, I'll say.
Q. And Ray is Ray Shore?
A. Yes. Charles Shore's son, the original developer of this subdivision.
Q. Now, again, zeroing in on that lower left-hand corner, there is a relatively large lot, No. 26. Do you see that?
A. Yes.
Q. Do you know who the owner of that is currently?
A. That's Charles Shore. That's the original developer.
Q. And was there any analysis done when representatives of DNREC visited the site on lot 26 based on your observation?
A. You're asking if DNREC did any soil borings or anything like that on lot 26; is that correct?
Q. Correct.
A. Yes, they did. Mm-hmm.
Q. Were you present when they were taking these soil borings from lot $26 ?$
A. Yes. My daughter Isabella and myself were both there.
Q. Did you advise the DNREC
representatives that that was not your property?
A. Honestly, I told them and showed them where the boundaries were surveyed, but I don't understand everything that they do. So they took borings wherever -- on the different -- they took it on this particular property. They took some on my property. They took some on the southern properties that abut to me on the south side.
Q. Back to Exhibit 6, the Shore subdivision plan. Is there anything on there that shows any connection between the ditch running to the St. Jones River and your six lots?
A. No. No, I even asked Ray about that, and he said there never was.
Q. Okay. Now, again, looking at that Shore subdivision plan, there is a area that
says "Lands of Charles Frank" to the north of the ditch?
A. Yes.
Q. Is the house built on that "lands of

Charles Frank"?
A. Well, there's two houses. There is one house there, and then there is another house immediately to the north of it.
Q. So it's those two parcels that the houses are on?
A. It used to be Larry and Joe, but they sold it to the State of Delaware, so the State of Delaware currently owns that.
Q. Do you know approximately when the State purchased those two houses from Larry and Joe?
A. I think, I think it was August, September of 2018. '18 or '19, somewhere. I think it was '18.
Q. Have you previously received approval from DNREC to remove any portion of the six lots from the state wetlands maps?
A. Yes.
Q. All right. And would that be

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reflected in tab 4 of the joint hearing
exhibits?
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    A. That's some of it, yes. That's the
    latest one.
Q. For purposes of the Board, it's
approximately six pages before page 72. And
while the Board members are hopefully
finding this, let me just identify it a
little more specifically.
At Exhibit 4, the first page is
dated April 22, 2013, and it's a letter from
DNREC. Is that what you're looking at,
hopefully?
A. Yeah, April 22, 2013. I have the letter, correct.
Q. And it's regarding "Change to DNREC wetlands map No. DNR 1083."
A. Yes.

CHAIRPERSON HOLDEN: It shows as
page 66 in our $P D F$ document.
Q. Okay. Excellent. I got it right, six pages prior.

Now, if you could go to the next
page, which, for the Board, would be page
67. Do you see at the very top, the first sentence, says "The WSLS does approve the map change request as described in this letter and depicted on the approved plans"?
A. Yes, I see that.
Q. All right. And did Mr. McCulley, it seems -- did Mr. McCulley work with you on this map amendment?
A. Yes, he did.
Q. At the time, it was approved by a gentleman by the name of Virgil Holmes, Section Manager, Wetlands and Subaqueous Lands Section; correct?
A. Correct.
Q. All right. At page, for Board purposes -- the last page of Exhibit 4 for Mr. Liberto, and for the Board, it would be page 68. Can you tell me what that is?
A. That's the plot plan showing the additional uplands areas, areas of the uplands that were added to.
Q. All right. Now, I'd like you to turn -- sorry. Find my spot here.

And then you applied for the
wetland map amendment that is on appeal here in June of 2019; correct?
A. Correct.
Q. And that's at Exhibit 1?
A. Yes.
Q. We don't need to proceed through everything on Exhibit 1, but I did want to, for purposes of orienting the Board, go through a few maps that are at the end of your Exhibit 1, which would be page 15 through 18. For the Board, it should be pages 15 through 18.

So in other words, Mr. Liberto, it would be the last four pages of Exhibit 1.
A. Okay.
Q. So I have what appears to be a tax map that has some handwritten tax parcel numbers and other indications on it.
A. Yes.
Q. Okay. So that tax map, could you explain who put the tax parcel numbers on that tax map?
A. Well, this is from Kent County's
website, their mapping website. So I
printed it out and I handwrote the parcel numbers that were addressed to each of those properties.
Q. So the six lots are the areas of land that are indicated as "Delmarsh"?
A. Correct, 0300 and 0200.
Q. Now, above the -- and above your parcels, the Delmarsh's parcel, you have "Shore." That's the Shore parcel lot $26 ?$
A. Yeah. Lot 26, parcel 0100.
Q. Above that, you have two tax parcel
numbers. Could you tell me what those are?
A. That's where the two homes were. So 0200 currently has a home and 0100 currently has a home.
Q. And those are the lands the state bought in about 2018?
A. Correct.
Q. All right. If you could turn to the next page. I'm sorry. Scroll forward two pages, if you could, please.
A. Yes.
Q. And that appears to be a aerial
photograph with the tax parcel lines
overlaid on top of it?
A. That's correct.
Q. Could you tell the Board where you obtained this?
A. This is from the same Kent County website. Just click on the aerial photos.
Q. Okay. So it appears that your parcel -- well, the parcels that you can see mostly appear to have a white base to them.
A. Yes. That's all wash and sand.
Q. Okay. And so that's lots 22 through 25, 32 and parcel D?
A. That's correct.
Q. Okay. And I'm not sure if it's visible to the Board members, but -- and I'm also familiar with the octagonal house along Flack Avenue. Do you see that? There is an octagonal-shaped roof?
A. Yes.
Q. And your properties are located one parcel away from that; correct?
A. Well, actually, it would be the octagonal house. Yes, you can see
the -- pretty much where the white is, there is a property line there, a black line.

That is the southern edge of my property.
Q. So the octagonal house, that's on
lot 20; correct?
A. That's correct.
Q. So then there's lot 21 that's not part of this appeal next to that; right?
A. Correct.
Q. And then beyond that would be lots 22 through 25?
A. That's correct.
Q. All right. Could you turn to the next page of Exhibit 1, which I believe should be page 18 for the Board.
A. Yes.
Q. Can you tell us what that shows?
A. I took a drone up and pointed it to the north so $I$ can show all my property. And you'll see the tire tracks and so forth where I just had cleaned up the lot.
Q. All right. There appears to be a road. Is that a road I'm seeing with cars parked on it?
A. Yes. That's Flack Avenue.
Q. Flack Avenue. Okay. And at the end of Flack Avenue, I see not real well, but I see what appears to be two houses.
A. Yes, that's two houses. I have the original photo. I don't know how to submit it. Maybe Jim has it.
Q. You mean you have a better version of this same photograph?
A. Yes. He should have it in our files. I don't know if Jim can -- if he's hearing me, or...
Q. Well, we can always have him address that during his testimony.
A. It's just easier to see rather than this black and white. That's all.
Q. Okay. Now what I'd like you to do is to turn to Joint Hearing Exhibit 11, which for the Board's benefit, I'm not sure what page number it would be, but it is the very last page of our exhibits.
A. Yes.
Q. I'm waiting, Mr. Liberto, for Board members to have an opportunity to scroll
forward to that.

CHAIRPERSON HOLDEN: So the last
page of that PDF document for us is "Bowers Beach Map Changes-Map 2," page 89.

MR. ABBOTT: That is precisely
what I'm looking for. Thank you,
Mr. Chairman.
MR. HORNE: That's with the red
shading on it?
MR. ABBOTT: Correct.
BY MR. ABBOTT:
Q. Mr. Liberto, do you have "Bowers Beach Map Changes-Map 2" with the red
shading on certain areas?
A. Yes.
Q. Could you tell the Board members what that document is?
A. It basically shows the areas that have been taken off of the state's map and
reclassified as "uplands."
Q. Now, towards the top of the page, there is a boundary, $I$ call it a breadslice shaped area of land. Do you see that?
A. Yes.
Q. It has a "M" in the middle of it?
A. Yes.
Q. It appears to the right. And above the capital "M," there is a pork-chop-shaped red area.
A. Yes.
Q. And so that area would be the area that was removed by DNREC from the wetlands map in years past from a portion of your six lots; correct?
A. Yes. Back to the plot that we were previously viewing. That shows the line itself that was...
Q. I direct your attention to the lower right-hand corner of this document entitled "Legend." Do you see that?
A. Yes.
Q. Above the legend is a square area that is shaded in red. There's a faint capital "M" beneath the red. Do you see that?
A. Yes.
Q. All right. So are there houses built on that area that used to be
designated as state wetlands?
A. Yes. There's homes all over it.
Q. Okay. And do some of the homes
front and take access from Flack Avenue?
A. Actually, they're on Bayshore and Flack, both.
Q. Okay.
A. The lots are split in half between

Bayshore and Flack.
Q. All right. Then moving further upwards on the page, there is another large area colored in red, almost a perfect rectangle, relatively rectangular shape, and it has a capital "M" below the red shading. Do you see that?
A. Yes.
Q. Are there houses that used to be designated as state wetlands?
A. Yes. I actually owned a lot of those lots in there, and I worked with Mr. McCulley on that and so forth, so...
Q. What lots -- can you just share with the Board what lot numbers you've previously been involved with building homes on that
are in this middle of the page red area?
A. I did lots 17A, 17B, 18A, 18B.
Q. All right. And are there houses fronting on Bayshore that are in that red area?
A. Yeah.
Q. And are there houses that front on Flack Avenue that are in that red area?
A. Yeah. There are several on both streets.
Q. So it appears DNREC has removed what, what would you guess, dozens of lots, of state wetlands?
A. Fourteen, 15. Oh, yeah. Dozens at least.
Q. At least dozens of houses have been built on houses previously designated as state wetlands?
A. Yes.
Q. And during the course of DNREC's review of map changes regarding those dozens of lots, did they ever allege that a 1926 aerial photograph prevented them from removing any of those lands from the map?
A. I never heard of it. And I used to work with other developers that were developing beside me, and it never came up then either.
Q. All right. Based on your 21 years of familiarity with the six lots, have they ever been connected to tidal waters?
A. No. And I thoroughly went through that with Mr. Shore.
Q. Now, is there a drainage swale along Flack Avenue on the east side abutting lots 22 through 25?
A. Yes.
Q. And is that drainage swale in the 30-foot wide Flack Avenue right-of-way?
A. I would think so.
Q. And what does that drainage swale do as a practical matter?
A. Just from normal rain and so forth, it accumulates.
Q. So rain water that runs off of Flack Avenue?
A. Yeah, from the sky, and from the road itself and so forth. I mean, a lot of
times, it's totally dry, everything is totally dry for weeks. After you get a rain, depending on how much rain you get, it depends on if there is any water that accumulates in that swale.
Q. Does any water come into your
property from Bayshore? Street runoff?
A. Oh, yes. Mm-hmm. The town has been
working on, supposedly, a solution because
all the homes around there, it needs some
type of storm water management.
Q. Now, you mentioned -- we talked
earlier about how you were present during one of the site visits conducted by DNREC.
A. Yes.
Q. DNREC indicates they made two site visits. So you were only there for one of them.
A. No, I was there at both.
Q. Okay.
A. One, my daughter was there, and the other, Jim McCulley was with me.
Q. Okay. Now, did you have any
discussions with Tyler Brown of DNREC during
either of those site visits?
A. Yes.
Q. And did he ever comment to you regarding his opinion of the prior map amendment in 2013?
A. Yes. As a matter of fact, Jim

McCulley had the conversation with him about the amendment and so forth.
Q. And that's -- we talked earlier
about the April 22, 2013 letter from
Mr. Brown's predecessor?
A. Correct. Yes.
Q. And for the Board's benefit, that was at page 66 and 67.

So what did Mr. Brown say about
the map amendment approved by his
predecessor?
A. Well, the conversation was that the wash-in, the sand and so forth, the elevation of everything, the majority of my
lot is of -- or higher than what we had
already removed from the wetlands, and so if we made application and so forth, would he support it, and he said, Mr. Brown, said
that he would not support it. We said, Well, then we had it before. And he said, Well, I wouldn't have done that, so...

MR. ABBOTT: Okay. Thank you.
I don't have any further questions for Mr. Liberto.

THE WITNESS: Thank you.
CHAIRPERSON HOLDEN:

Ms. Spialter.
MS. SPIALTER: Thank you.
CROSS-EXAMINATION
BY MS. SPIALTER:
Q. Mr. Liberto, I'd just like to ask you a couple of questions about the history of the site and your observations of the site.
A. Sure.
Q. So first of all, have you ever
observed the tide from the back bay flood across Flack Avenue?
A. I have not.
Q. Have you ever seen the bay breach
the dunes to flood the area?
A. I think back in 2016, there was a
big storm that -- I think it was Sandy Hook. Not Sandy Hook. But one of those major storms that tore up all New Jersey and everywhere else.
Q. I believe that Mr. Abbott asked you about water inundation on the properties. Have you ever seen standing water on the properties in question?
A. Yes.
Q. Have you ever had to take action, remedial action to have that water removed?
A. I tried to pump it off the property and so forth, if that's what you're asking. There is no storm water management from the town, so, therefore, it lies on the surrounding homes and my property, both.
Q. Due to the whether storm activity or tidal activity, have you ever seen the dunes be breached?
A. Yes. From storm, yes.
Q. And have you ever taken action to have that dune repaired in any way?
A. I tried to, but the amount of permits and the process and everything else
was very lengthy. But I worked with DNREC, Jennifer Luoma, and I spoke with Mike from Omni Corp., Mike Yost. And they had a dune replenishment going on at the time, so they said to -- it would be easier just to let them go forward with their permit process because they were replenishing the dunes and the beaches all across Bowers.
Q. Okay. Thank you very much.

Talk a little bit about the
history that you had because you obviously have been through map changes before, as evidenced by the exhibits we've already looked at.
A. $\quad \mathrm{Mm}-\mathrm{hmm}$.
Q. Can you -- have you ever previously applied to have these properties' wetlands designation removed?
A. This is the first time for these, all of these six lots.
Q. Is there any reason that you did not apply previously to have these lots removed?
A. Busy. Busy with life.
Q. Have you ever discussed having these
properties' wetlands designation removed with a DNREC employee at any time before this application?
A. Beforehand, I'm -- as far as -you're talking about what I already had removed from the dunes?
Q. No. I'm sorry. The areas that are part of this appeal, that were part of this application.
A. Okay.
Q. Have you ever discussed having the wetlands designation removed with any DNREC employee before having applied?
A. I probably have discussed it with Jennifer at some point.

Jim McCulley handles all of
the -- anything like that, I have Jim McCulley handle.
Q. Specifically, when you applied for the map changes in 2013 that are evidenced on Exhibit 11 from the joint exhibits, is there a reason that you did not include the rest of your property in that application?
A. Back then -- there used to be a
gentleman by the name of Chuck McNally, and a long story short, there was some rift between my partner, Jack Beiser, and him, and for whatever reason, it was as long as he's alive, Jack Beiser is never going to see the approval of those lots. So, but... that's why nothing ever, for whatever reason, got done.
Q. So you did in fact have a conversation before with a DNREC employee regarding the properties in question here?
A. That's I had with Jack.
Q. And --
A. That's what was supposedly said by Chuck McNally and so forth.
Q. Were you ever given any explanation as to why these properties would never be approved to have the wetlands designation removed?
A. I had a kind of off-the-record discussion with Chuck at one point, and supposedly Jack did something out on a golf course that was totally against what he was supposed to do. And again, I don't know all
the particulars other than that's between the big boys.
Q. Prior to applying to have the wetlands designation removed here, did you have any reason to believe that the application would be denied?
A. I'll say this. There's never been a reason why the application should have been denied on any of it.

MS. SPIALTER: Thank you. No further questions.

CHAIRPERSON HOLDEN: Questions
from the Board for Mr. Liberto?
Mr. Horsey.
EXAMINATION
BY MR. HORSEY:
Q. Mr. Liberto, do you know -- you talked about the state bought those two houses. Do you know why they bought them?
A. From what I understand, they said to protect red knots and horseshoe crabs. So supposedly, they paid -- I don't know this for a fact, but supposedly they paid two million dollars for it and because nobody
bought the homes, they're going to demolish the homes.
Q. So the houses now are not being lived in?
A. That's correct. That $I$ know for a fact.

CHAIRPERSON HOLDEN: Any other questions from the Board?

All right. Thank you,
Mr. Liberto.
(Witness excused.)
CHAIRPERSON HOLDEN: Mr. Abbott,
do you have any other witnesses you wish to call?

MR. ABBOTT: Yes, I do. I ask
that I be allowed to question James McCulley.

Mr. McCulley, are you there?
MR. McCULLEY: I am here. Can
you hear me?
MR. ABBOTT: Excellent. Then I
will proceed.
CHAIRPERSON HOLDEN: Could we
have Ms. Reeder virtually swear him in?

JAMES C. McCULLEY, IV, the witness herein, having first been duly sworn on oath, was examined and testified as follows: DIRECT EXAMINATION

BY MR. ABBOTT:
Q. Mr. McCulley, good morning.
A. Good morning.
Q. Could you, please, share with the Board your educational background?
A. I have a B.A. from Rutgers in
biology, an M.S. from Rutgers in biology, 32
credits towards my Ph.D. from Ohio State University in plant pathology, and numerous continuing education credits in wetlands science over the past 32 years.
Q. So that 32 years is the tenure of your career in this field?
A. Yes, that is correct.
Q. All right. And so you have been a full-time environmental scientist in that 32 years?
A. Yes. I started -- in 1987, I was a biologist with the Corps of Engineers, the

Philadelphia District. After that, I went to KCI Technologies as the head of their wetlands group until 1990 when I started my own company, and currently still own my own company. Changed names from JCM

Environmental to Watershed Eco in 2011.
Q. All right. Now, I see you have the professional wetlands scientist designation; is that correct?
A. Correct. Actually, senior professional wetlands scientist.
Q. Okay.
A. The benefits of getting older.
Q. And could you just briefly share with the Board what's involved in obtaining that designation?
A. Essentially, you have to have experience in wetlands science. There is a continuing education requirement. There is recertification every five years that deals with your education, your experience, and other criteria in order to get recertified and then the Board votes on your recertification every five years based on
what you submit.
Q. Have you previously been recognized as a expert witness in environmental matters in testifying at court?
A. Yes. Numerous times.
Q. And how about recognition as an expert in the environmental field before state agencies or boards?
A. I've testified at EPA headquarters
several times. I've testified recently at the White House with regards to the new Trump wetland rule changes. And I've testified several times at corps headquarters, as well, Corps of Engineers.
Q. Are you familiar with lots 22 through 25, 32 and parcel $D$ shown on the Shore subdivision plan?
A. Yes.
Q. Let's, if you could refer to Exhibit

6 in the exhibit binder. Which, again, for benefit of Board members is page 72 on your PDF.
A. Got it.
Q. All right. Some Board members may
be scrolling to page 72. So while they're doing that, could you just explain to us what your first involvement was with those six lots?
A. I believe it was around 2006 that I was initially hired to do the wetlands delineation and permitting for these lots and also other lots in the area. As Mr. Liberto said, he owned some other lots that I worked on as well. There were some other builders and developers that I worked for in this area around that same time.
Q. So was some of that wetlands work with the United States Army Corps of Engineers and federal jurisdictional wetlands?
A. Yeah, both DNREC and the Corps of Engineers.
Q. So did you have any involvement with the lots in this area of Bowers Beach prior to 2006?
A. No. No, I did not.
Q. And Mr. -- you were here, obviously, were here when Mr. Liberto was testifying;
correct?
A. Yes, I was.
Q. You're familiar with the 2013 map amendment that was approved by DNREC for a portion of the six lots; correct?
A. Correct. Yeah. I worked on that.
Q. And we went through with Mr. Liberto the map amendments that have taken place to numerous residential building lots on Flack Avenue and Bayshore. Are you familiar with that?
A. Yes. I worked on some of those, and some of those were worked on by Mike Green, who was Environmental Consulting Services. Yes, I'm familiar with those just based on the permitting that I have done up and down Bowers.
Q. Now, circling back to the 2013 map amendments that DNREC approved for a portion of the six lots. Did you have any conversation with Tyler Brown of DNREC regarding that map amendment?
A. When those map amendments were done, Tyler was not there.

But, yes, Mr. Liberto described when we were talking about the sand that had washed in more recently on the site and pointing it out to Tyler when we were on the site as to the previous map changes were based on sand washing in and additional sand has washed in and so we felt at the very minimum that a map change should be done to account for the new sand that has washed in. And Tyler said he would not have approved the previous map change, the 2013 map change just because the sand washed in.
Q. But that changed the elevation, didn't it?
A. Yes.
Q. So Mr. Brown said despite that fact, he wouldn't have approved it?
A. Yes.
Q. All right. Are you familiar with the topographic survey at binder Exhibit 3?
A. Yes.
Q. And I'm not going to ask you a lot of questions about it. I don't know what page number that would work out to be for
the Board members.

Exhibit 3 is a topographic
survey for Delmarsh, LLC by Miller \& Lewis.
And it's probably --
CHAIRPERSON HOLDEN: Looks like it's page 64. It has a colorized location map up in the top left-hand corner. Is that correct?

MR. ABBOTT: That is it. Thank
you, Mr. Chairman.
BY MR. ABBOTT:
Q. All right. So Mr. McCulley, are you looking at that first -- at that page, tab 3, Exhibit 3?
A. I am.
Q. Okay.
A. Yes.
Q. On the left-hand side of that map towards the bottom, there is a rectangular area with the word "House" inside of it. Do you see that?
A. Yes, I do.
Q. And that is one of the two houses Mr. Liberto testified had been sold to the
state?
A. That's correct.
Q. All right. Now, moving to the right of that house, there's a wedge-shaped parcel of land. That's lot 26, I believe.
A. Right.
Q. All right. Then continuing to move right, the next four lots, would be lots 22 through 25?
A. Yes, correct.
Q. All right. And moving further to the right, there is a octagonal shape with the word "House" inside of it. Do you see that?
A. Yes.
Q. Are you familiar with what that is?
A. Yes. The octagonal house was built
a few years ago.
Q. And I think that was on lot 20?
A. Correct. Yes.
Q. So there are houses all up and down Flack Avenue and Bayshore; correct?
A. Yes. Both -- on both sides of

Mr. Liberto's property and then all up and
down Bayshore and Flack, there's numerous lots.
Q. Okay. And I want you to go back. Let's go back to Exhibit 6, which is the Shore subdivision plan. And, again, for the Board, page 72.

Now, in the lower left corner, Mr. McCulley, do you see the squiggly line running from the St. Jones River in towards the marsh and Flack Avenue?
A. Yes.
Q. All right. It says "Ditch." Do you have any familiarity with what that's referring to?
A. Just from this map; but there is no ditch that is present out in the field anymore. Hasn't been since I've been involved with the site. But it appears from this old survey that it was a connection between the marsh that's west of Flack Avenue and the St. Jones River.
Q. Okay. And in your work in the environmental field, is this document something that you would look to for
purposes of putting together evidence of past circumstances on the ground?
A. Yeah. I think any history that you could dig up is important to know what's going on on the site today --
Q. Okay.
A. -- trying to figure out, you know...
Q. Do you have any knowledge of
historical background regarding the ditch?
A. No. Only what's on this plan. This is the only place that I've seen it appear.
Q. Okay. Now, you've prepared -- we're going to go at this point to Exhibit 2 in the exhibit binder, which should be page, begin at page 19 for purposes of the Board.

Are you at tab 2, Mr. McCulley?
A. Yep, I'm there.
Q. This is your wetlands report
prepared for Delmarsh; correct?
A. That's correct.
Q. And it was prepared for purposes of the application to have the six lots removed, or the rest of the six lots removed from the state wetlands map; correct?
A. Correct.
Q. All right. Now, can you describe in
a summary fashion your next page, which I believe should be page 20, for the purposes of the Board? It's the second page of your report.
A. That Section $A$ of the report is the general location of the property and just a general description of the property.
Q. Okay. And Section B is next. Could you tell me what that involves? It's a number of pages.
A. Yes. That's the history of the site mainly based on the aerial topography of mapped soils, the National Wetland Inventory Map, and the Statewide Wetland Mapping Project Map.

The aerial photos that I describe in the report in -- show a history of disturbance on or near the subject property. You can see dirt roads on the site since 2002 .

And then the soils mapping that was done in the 1950s depicts on the site
what are mapped as "tidal soils," and those tidal soils are also mapped on the rest of Bowers Beach, where these other houses have been built, and other areas that were previously mapped as tidal wetlands and then taken off the map.

And the National Wetland
Inventory Map shows the majority of the site
as non-wetlands, and also the Statewide Wetland Mapping Project Map, which is Figure 8, shows the site as non-wetlands. Again, $I$ think the last map in
that section is the State Wetlands Map, DNR 183, that we've been talking about, which depicts the "M," for marsh, on that, what you called the bread slice. And we saw on the, on another exhibit that some of that area has been removed from state tidal mapping, the red areas.
Q. All right. So the last map you just
referred to, in the middle of the page, it has a heading "B.2"; correct?
A. Yes, that's correct.
Q. Figure 9. Okay.
A. $\quad \mathrm{Mm}-\mathrm{hmm}$.
Q. For purposes of the Board, I believe it's page 25.

CHAIRPERSON HOLDEN: I believe that's actually 29 in our PDF exhibit.
Q. Sorry, I must have miscounted. All right. So Bates 29. Looking at Figure 9, Mr. McCulley.
A. Yes.
Q. I see the bread-slice area with the "M" in it. Now, what does "M" stand for?
A. Stands for marsh. It's a designation of state tidal wetlands, marsh, marsh designation.
Q. Is it actually a marsh?
A. No, it's not.
Q. Okay. Now, to the right of the bread-slice area is a large area directly abutting the waterway with a capital "B." What is capital "B"?
A. That's beach. That's a designation on the State Tidal Wetland Maps for beach.
Q. So beach is not wetlands, is it?
A. So, yes, it's not wetlands, it's
beach. Then the area, the blank area between the "B" and the "M" has no designation, so that would mean it's uplands, not wetlands.
Q. Okay. So some of the area between the $B$ and the $M$ would be parts of parcel $D$ and lot 32 ?
A. Correct.
Q. All right. Now, your heading "B.2" says, "No tidal connection." Can you tell me what that references?
A. Correct. Well, if you refer back to the topo plan, you can see that -- so this upland we just talked between "B" and "M" is the dune. And if you look at the topo, that dune is at elevation approximately 6 to 7. It ranges within that range.

And Flack Avenue to the west, if
you look at that topo plan, ranges in
elevation around 4. And the state, when
they did their dune restoration, determined
that the mean high tide line was elevation 2.3. So there is really no way for the tide to get to the site on a regular basis,
unless it breaches either the dunes or it goes over Flack Avenue.

So Flack Avenue is relatively
thick. So the tide elevation would have to come up around 4 to get over Flack Avenue from the west side and get onto the site or would have to get up around 6 or 7 or push the dunes out of the way, breach those dunes from the Delaware Bay side to get onto the "M" portion of the site, the bread-slice portion of the site.
Q. What you're saying is that at high tide, the waterway adjacent to the area marked "B" does not get high enough to go over the dunes that are not designated as "M" or "B"; is that correct?
A. Correct. Or over Flack Avenue on a regular tidal basis. So 2.3 would be mean high tide. It would have to get much higher than that to actually get onto the portion of the site that's marked with the "M."
Q. Now, you mentioned the term "tide." Is that what a layman would understand high tide, low tide based on tidal charts?
A. Yeah. So the mean high tide would just be the average of the high tides in the area.
Q. Okay. But in terms of the word "tide," we're talking about something that changes throughout the course of every day?
A. Correct.
Q. So there was a question asked of Mr. Liberto about whether the dunes had ever been breached by a storm. Do you recall that?
A. Yes, yes.
Q. Would that storm constitute a tide?
A. Well, under an extreme high tide or a storm tide, there is evidence that sand does get washed onto the site. It has on several occasions, probably two or three that I'm aware of since I've been working on the site, and that would be since 2006 . So, you know, at some point, either the tide got high enough to push the sand onto the site or high enough to push the sand and get onto the site. I've never seen the tidal water there. I've only seen the sand there.
Q. Okay. But generally, the term "tide" means the changing water elevation during the course of each day?
A. Yes.
Q. Now, you indicate in your report that the site previously had phragmites growing on it?
A. Yes.
Q. Could you tell the Board what phragmites is?
A. Phragmites is the exotic invasive plant that came from Asia that has pretty much taken over a lot of areas that are wet or near wetlands, and it just gets out of control, crowds out everything else. And so it's kind of on the state hit list. And the state does have a program to control phrag, although there is not enough funding to control all the phrag in the state. There are certain areas that are treated for phrag by the state.
Q. So the DNREC actually has a phragmites elimination program?
A. Yes.
Q. Were phragmites eliminated on the six lots?
A. Yes. Mr. Liberto has been spraying the site to get rid of the phragmites. He's pretty much eliminated it. Unfortunately, it hasn't been eliminated from the parcels adjacent to him. So there's been some spot treatment that's been necessary every year just to keep the little bit of phrag that keeps encroaching, to keep that out.
Q. Ultimately, what was your opinion regarding any tidal connection between the six lots and any body of water?
A. So my conclusion was that the areas that are on the east side of the dunes that are adjacent to the Delaware Bay do regularly get flooded with tidal action, and that's been determined by the state to be mean high tidal elevation of 2.3.

The area that's off-site, that's
west of Flack Avenue, appears to be acting as tidal marsh and gets flooded on a regular basis. But the area that's marked as "M," the bread-slice area that's kind of
insulated by Flack Avenue and the dune on the other side, is not subject to regular tidal flooding. In fact, I've never seen any tidal action on that site since 2006 .
Q. All right. Are any of the six lots designated as federal jurisdictional wetlands?
A. Yes. So, you know, as has been mentioned before, there are portions of the site that are wet that are -- and as Mr. Liberto said, there is a lot of runoff that comes to these sites. Unfortunately, it's a problem in Bowers.

But, yes, we have had numerous
discussions with the Corps of Engineers. There are portions of this site that are not covered with sand sufficiently to make them non-wetlands that are classified as federal jurisdictional wetlands.
Q. But federal jurisdictional wetlands can be designated based solely on, for example, soil type; correct?
A. It's the soil, the vegetation and the hydrology. They don't necessarily have
to be tidal. They would be freshwater, Section 404, non-tidal wetlands.
Q. So federal wetlands is a totally different criteria than the state wetlands; is that right?
A. Yes, yes.
Q. Under federal law, can the six lots be filled, raised, anything like that by right?
A. No fill material can be placed in the areas that have been designated federal wetlands, unless we get a permit to do that.
Q. Based on your experience, what type of permit could possibly be obtained from the United States Army Corps of Engineers for the six lots?
A. There's potential for a small amount of impact under a nationwide permit, but more likely, it would be an individual permit. And in all likelihood, it would be denied. There's other areas along here, other lots that were built on where people wanted to fill, and instead, the corps required the houses to be put up on pilings
to avoid collection of fill and dredge material on the site.
Q. So let's take, by way of example, Lots 22 through 25 fronting on Flack Avenue. Could a permit be obtained to put a gravel driveway in?
A. Possibly put a driveway to access the upland portions where the sand has washed in and the Corps of Engineers has determined that it's not wetlands, then they likely would issue a permit to access those upland areas of the site.
Q. And what if the houses were built on pilings, would there be a permit that would issue for that?
A. That would be approved by the Corps of Engineering. So they would be able to do that.
Q. Do you know if that was done with lot 20 , the octagonal house?
A. That's correct, yes.
Q. Is it built on pilings?
A. Yes, it is. All the houses out here are built on pilings.
Q. Does the octagonal house on lot 20 have a gravel driveway from Flack Avenue?
A. Yes.
Q. All right. Now, you've been here while there's been a decision made on the 1926 aerial photo. So I had some questions I wanted to ask you about that.
A. Okay.
Q. Not specifically. Just generally
about that photo and aerial photos
typically.
A. Okay.
Q. As an environmental scientist, do you ever rely upon aerial photographs in performing your analysis?
A. Yes, all the time.
Q. Do you hire an expert aerial photograph interpreter to assist you in determining what the ground conditions are as depicted on the photo?
A. Not usually, but occasionally I do. If there's a situation where the aerial photo, the determination of whatever is shown on that photo would be crucial to the
opinion that's going to be rendered or the sole basis of the opinion that's going to be rendered, I do have a few expert aerial photography interpreters that $I$ deal with.
Q. Are they in our region, the Delaware region?
A. Yes. Typically, in most cases, I use Joseph Arsenault, who is in New Jersey. I've used him on multiple occasions through the last 32 years. I've also in the past used Vincent Attardi, who is in West Virginia, who I also know who's a aerial photo interpreter expert. Used him a handful of times over the years. There was also an expert at DNREC, Larry Palmato. I don't even know if he's still there. I haven't talked to him in a long time. But I dealt with him in the past, also.
Q. All right. Have you looked at the 1926 aerial photo that DNREC relied upon in this instance?
A. Yes, I have.
Q. Can you give an opinion on what is
depicted on it?
A. I can give my opinion. I mean, I can see certain features and I can talk about what $I$ think they might be, but I would not want to make a definitive decision on the question you're asking, tidal connection to the subject property. That's crucial in this case.
Q. Right. Could you explain to the Board why you don't feel you would be able to do that?
A. I just don't think there is enough information, and it's outside of my area of expertise.

Typically, you know, it could be a swale, could be a ditch, could be a shadow. Photography and aviation were not very advanced in 1926. I'm not sure how the photo was taken.

But nowadays, from since the '50s, most aerial photography is taken as stereo photography, which are photographed in a particular way so you can actually look at the ground elevations, you can get a feel for the topo with a special viewer, and you
can determine what these elevations look like.

So that dark area, I mean, I
have no idea if it's the roadside swale on Flack Avenue that exists there today or if it was something else. Topography could help us, but obviously, that's not available.

I'd just like to say the way
that I typically interpret aerial
photography is you look at the current signatures. So you would look at that dark signature and you would say, okay, that dark signature appears in this area, so let's see what's in that area. '26 was a long time ago, but in that area right now, it's a swale along Flack Avenue.

Flack Avenue is around elevation
4. That swale is around elevation 3, I
think you can look at the topo, somewhere in there, and the mean high tide is 2.3. So in my mind -- again, $I$ said $I$ wouldn't make a determination based on that photo because it's so crucial to this case, but in my
mind, I would think that most likely that dark area is the swale that continues to exist along Flack Avenue at this point.

MR. ABBOTT: Thank you. I don't have any further questions for this witness, Mr. Chair.

MS. SPIALTER: Chair Holden, we can't hear you.

CHAIRPERSON HOLDEN: How about now?

MS. SPIALTER: Got it.
CHAIRPERSON HOLDEN: Okay. Too many buttons.

Ms. Spialter, do you have questions for the witness?

MS. SPIALTER: Yes, I do. Thank you, Chair Holden.

CROSS-EXAMINATION
BY MS. SPIALTER:
Q. Mr. McCulley, I'd like to start, since this is where we ended, I would like to start asking you a few questions about that topographic survey, which is Exhibit 3 in the joint exhibits.
A. Okay.
Q. First of all, can you just explain what any one of these markers indicates just to make sure that everyone is clear about what each of these Xs and numbers mean?
A. Yes. The little $X$ with a number next to it, and that number is the spot elevation. That would be the elevation that the surveyor determined was the ground elevation at that X.
Q. Okay. Thank you.

And there are two dotted blue lines towards the top of the map. Do you see those two dotted blue lines?
A. Yes.
Q. Okay. So the first one reads:
"Approximate Mean Low Water Line." The lower one reads: "Approximate High Water Line." Do you see that?
A. Yeah.
Q. In your experience as an expert, is it accurate to say that topography moves generally in a gradual format? So for example, if you see a pattern of one feet,
two feet, three feet, that you would not assume there would be major deviations from that. You wouldn't see four feet between one and two, for example. Is that accurate?
A. Correct.
Q. If we look at the dotted blue line where it says, "Approximate Mean High Water Line." Let's actually look where those words are to sort of reference it to make sure we're all looking at the same spot. Just to the left and slightly below those words there is an "X" with the number "3.99." Do you see that?
A. Yes.
Q. Okay. Just to the left of that, on the other side of the dotted blue line is another X that says "3.73." Do you see that?
A. Right. Yes.
Q. Okay. So now that we've oriented ourselves a little bit, would you agree, generally speaking, that the Xs, the elevations on the water side of that mean water line, are generally in the 3.5 to 3.7
range?
A. Yes. The problem is, the surveyor who put the approximate mean high water line on here used the debris that had washed up during a storm and didn't know that DNREC had determined that the mean high tide line was actually 2.3.
Q. So we'll get back to that determination and where that determination by DNREC came from.

But just looking at this survey, do you acknowledge that the mean high tide, the mean high water line appears to fall somewhere in the 3.5 to 4 range on this topographical map?
A. What the surveyor has incorrectly designated as the approximate mean high water line is shown at that elevation, yes.
Q. What exactly are you basing the interpretation that that is not the approximate mean high water line? If you call part of this survey invalid, why is an of the rest of it valid?
A. Well, the surveyor did not realize
that DNREC had done a survey called the North Bowers Breach Survey when the dune was breached. The date of the survey was February 15, 2007, where they determined that the mean high water was 2.3 feet.

Elevation 2.3.
Q. Okay. If you're looking at any given topographical map, whether it's the one in front of us or any other topographic map, how is zero determined?
A. It depends. It could be the map can be done with the relative elevation where they would just select a zero and then base everything on that or it could be done based on some kind of data. And the survey that was done by DNREC is on the Delaware State Plane 83, and I believe this one is notated as also being on the Delaware State one, but it doesn't give you...
Q. Can you specify where on this topographical survey it explains what datum was used, what map was used?
A. If you look all the way on the right side under "Plan Data," if you go about
halfway down the page, it says --
If you go halfway down the page on the right-hand side where it says "Plan Data," you'll see tax parcel number and age and address. Title "Bearing Reference System." That's where it references the "Delaware State Plane System."
Q. In your expert opinion, does the Delaware State Plane System include a vertical datum standard?
A. Yes.
Q. And what vertical datum standard is that?
A. I know it as the Delaware State Plane System.
Q. If that wasn't clear, I'll back up slightly. Are you familiar with the national vertical datums NABD88, NABD83, for example?
A. Yes.
Q. Do you know what vertical datum the Delaware State Plane System was done in? Was it done in one of those? Was it its own system? Are you aware?
A. I believe it's 83, based on the DNREC map that was provided. It's referenced as the Delaware State Plane NAD83.
Q. Okay. So your understanding is that it was done on the NAD83 vertical datum.

But is there anything on this survey that identifies the vertical datum specifically?
A. No.
Q. Thank you.

And if you have two elevations that were done on different vertical datum, can they be compared?
A. Yes. There would have to be a factor that you would either add or subtract.
Q. And does this map have that factor?

If we did know what the vertical -- I'm sorry. Let me back up.

Does this survey include that an
additional or a subtracted quantifier necessary to compare it to other datum?
A. No, it does not. But the spot elevations match the spot elevations taken
by DNREC in 2017 on their map.
Q. So I'm going to turn now to your study, which is Exhibit 2 in our joint exhibits. I, unfortunately, don't have page numbers, So I'm going to reference the pages based on the images that are on them to make it a little bit easier for everyone.
A. Okay.
Q. I think I'm about eight pages in.

I'm on the page that includes Figure 10.
We'll get everyone a minute to get there. Are you ready, Mr. McCulley?
A. Yes.
Q. Wonderful. So at the very top, we see that you prepared, in this thing that you prepared, "The State of Delaware 2017 has determined that the mean high tide is at elevation 2.3 feet."
A. Correct.
Q. What vertical datum was that prepared on?
A. NAD83.
Q. How do you know that?
A. It's on the map that was prepared by

DNREC. The North Bowers Breach Survey, which lists the blue line as the mean high water line.
Q. Was that map included anywhere either as an exhibit in this case or in your study?
A. I don't think it's in the exhibit book. I'm not sure if it was submitted or not.
Q. To the best of your knowledge, was that map ever requested by DNREC?
A. I don't know.
Q. Okay. To the best of your
knowledge, was that map ever provided to DNREC?
A. DNREC. well, DNREC -- it's DNREC's
map. I assume DNREC has it.
Q. Specifically, in the context of your
report -- we understand that this is
something that you believe was prepared by
DNREC -- but specifically in relation to this report, was it ever -- did you ever provide this map to DNREC as saying, yes,
this in front of you is the map I used?
A. No. I believe I just referenced the elevation that was determined on the page that you just referenced.
Q. Okay. Great.

We'll move down to the next
paragraph where you reference a survey done by Miller \& Lewis in 2019 to determine the mean high tide to be 2.5 feet.
A. Yes.
Q. Do you know what vertical datum that study was done through?
A. It's the same one that we're looking at, the Delaware State Plane System. I don't know what the NPD year was.
Q. So are you saying that the topographic survey done in 2019 is Exhibit 3, that topographical map we've been talking about?
A. Yes. The surveyor actually corrected it. When I discussed with the surveyor how they came up with the approximately mean high water line, they said that they had just located the debris that had washed up. Then we talked about
the Delaware -- the 2.3 elevation, and then they adjusted their mean high tide to 2.5 . Unfortunately, you have the wrong version. You have the older version of the map they have not included in the binder.
Q. To the best of your knowledge, was the updated map requested by DNREC?
A. I don't know.
Q. To the best of your knowledge, was it ever provided to DNREC?
A. I don't know.
Q. When we talk about a mean high tide of any elevation, obviously, that is in a single spot. We can see on these maps that there are differences of certainly half a foot, perhaps a full foot, over a relatively -- over one parcel. How do you know where that -- where that determines mean high tide point is?
A. You mean what elevation would mean high tide be?
Q. Well, specifically, so -- we say -sorry.

You say in that second paragraph
that Miller \& Lewis determined the mean high tide to be at 2.5 feet. What specific point is that on this survey? Is it at the far west extreme, the far north extreme?
A. Well, the elevation 2.5 would go over the entire site. It's not just one location.
Q. Okay. All right. I believe those are the questions I have related to the survey itself.

I'd like to ask you a few questions sort of about your opinions in your professional experience of wetlands and tidal action more generally.

In your professional opinion, does the Delaware definition of "tidal wetlands" require regular ebb and flow?
A. I think that's part of the definition, yes.
Q. Okay. Are there are any specific areas in the state that you would professionally determine to be wetlands but do not have regular ebb and flow?
A. Yes.
Q. So please correct me if I'm wrong, but it sounds like those two answers contradicted one another. Do wetlands require regular ebb and flow or do they not?
A. Are we talking state tidal wetlands or are we talking wetlands? State tidal wetlands.
Q. Yes, tidal wetlands.
A. They do not, but they require to have a connection to tidal waters.
Q. In your professional opinion, what does "connection" mean? What is required scientifically?
A. Well, for example, if the mean high tide elevation is 2.3 and $I$ dig a hole in my yard at 2.3 and it's miles away, it's at the right elevation, but it's not connected to tidal waters; there's no tidal waters anywhere nearby.

So to me, the dune and Flack
Avenue, they completely surround the area, the interior area of the site, don't allow any tidal water to get there, unless it reaches an elevation of around 4 to go over

Flack Avenue or an elevation of around 6 or 7 to go over the dune.
Q. In your professional opinion, how frequently would a tidal event over 4 happen in an area like this, with this elevation and this mean high tide, as you see it at 2.5 or $2.3 ?$
A. Well, I've been on the site many, many times and I haven't seen the tide come from the west side of Flack Avenue and breach over Flack Avenue onto the site.
Q. Have you ever been on site following an extreme rain event or storm event?
A. Not directly right after. Maybe a few days after.
Q. Based on the elevations at the site and your experience and your professional opinion, do you believe that the ditch, when it existed, as evidenced on the map in Exhibit 6 that we discussed, do you believe that that ditch would have caused tidal action on the subject property?
A. Well, the subject property is higher than the 2.3 elevation. So assuming that
the mean high tide was still 2.3 back in 1926, there would not be regular tidal flooding even if that ditch was flooded. But, yes, a storm event, yes, potentially that ditch could have flooded just the same as the marsh that's on the other side of Flack.
Q. Thank you.

You say that you've been on the
site several times; correct?
A. Many, many times, yes.
Q. And in your professional opinion, is
wetlands vegetation -- is evidence of
wetlands vegetation on the site?
A. On portions of the site, yes.
Q. Have you done any soil borings or
reviewed soil borings done by anyone else?
A. Yes.
Q. And the soils that you found, are
those the type associated with tidal
wetlands?
A. They're associated with wetlands in general.
Q. Are there soils that are
specifically associated with tidal wetlands versus non-tidal wetlands?
A. They're not the real mucky organic soils that you typically see in a tidal marsh on this site. These are more mineral-based with some organic. And as I mentioned before, there's some large areas that are covered with sand from the sand that's periodically washed in from the dunes.
Q. That raises a question. I would like to go back for a second. You just said that sand is regularly washed in due to tidal action, storm action, what have you; correct?
A. Well, not regularly, but probably two or three times since 2006, yes.
Q. Okay. And that would raise the elevation of the site; correct?
A. In portions where the sand washes in, yes.
Q. So in your professional opinion, is it more likely that the site was a lower elevation or a higher elevation in the 1950s
when this site plan was first prepared and when we know that the ditch was present?
A. Well, there are some areas that are currently higher than they were in the '50s. There are some areas that are higher than they were five years ago.
Q. So in your professional opinion, would it be accurate to say that it is more likely that flooding may have occurred, that tidal action may have occurred due to the ditch in the 1950s than it is now?
A. That would just be pure conjecture.

I have no idea.
Q. Okay. Just two final questions.

I believe we talked a whole lot
about the site, what's present there, what tidal action looks like. In your professional opinion, what does the term "connection to tidal water" require? Like sort of at a minimum, how would you define that?
A. I would define that as, that any water that's on that portion of the site has the opportunity to get to that tidal
connection at any particular time, but there's not an impediment or blockage to that tidal water.
Q. Sorry. I correct myself. I have more than one question. I am almost done. Are you familiar with the regulatory definition of "wetlands" in Delaware?
A. Yes.
Q. Okay. And the elevation requirement
in that regulation is within -- is less
than 2 feet above mean high tide; is that correct?
A. Correct, yes.
Q. Okay. And based on any measure that you have provided, would you agree that all of Flack Avenue that is adjacent to the property in question is less than two feet above mean high tide?
A. Flack Avenue? I'd have to look at the elevations, but it averages around 4, but $I$ know that it gets a little bit higher.

Let me just look at that plan before $I$ answer.

Yeah. So if you look in front of the octagonal house, the elevation of Flack, 4.5, and then it's around 4 in front of Mr. Liberto's lots.
Q. Okay. So --
A. If it is high tide, then 4.3 would be two feet above.
Q. So, again, just for clarification's sake. Based on what you just said, would you agree that the portion of Flack Avenue in front of Mr. Liberto's property is less than two feet above mean high tide?
A. Yes, just barely.
Q. In your professional opinion, based on your expertise, do you know why 2 feet was selected as the regulatory boundary?
A. It is my understanding that because 2.3 would be like the mean high tide, that there would be higher tides that could flood that area at certain times. But in this case, there is impediments to that. That's why I believe in my professional opinion that this area should not be mapped as state tidal wetlands.
Q. You discussed impediments. What would be on the impediments be on the western side where Flack Avenue is?
A. Flack Avenue.
Q. So you believe that Flack Avenue
itself is the impediment to the tidal
action; is that correct?
A. Yes, that's correct.
Q. Do you acknowledge that if the tide
were to come 2 feet over mean high tide that it would flood Flack Avenue?
A. Yes, but it can continually move that way. It would have to flood all the way up to elevation 4 and then it would spill over Flack Avenue.

MS. SPIALTER: Okay. Thank you
very much. No further questions.
THE WITNESS: Thank you.
CHAIRPERSON HOLDEN: Thank you,
Ms. Spialter.
Questions from the Board?
Mr. Horsey.

EXAMINATION

BY MR. HORSEY:
Q. Mr. McCulley, you're saying that the water has got to go over Flack or got to go over the dune; correct?
A. Correct.
Q. All the pictures that you've got in your report, looks like there is a lot of sand there. You're saying that if the water elevation comes up on the dune or comes up on Flack to an elevation that is even to what is in those lots, you're saying water won't come up from the bottom of it?
A. No. We haven't seen that. We haven't seen that. If you look at the lots, they, roughly, average around 3.5 to $4 . \quad$ So we haven't seen -- we haven't seen tidal action -- if it hasn't flooded over Flack, we haven't seen it come up through the ground.
Q. If it's at elevation 3.5 in the bay and you're saying that sand, there is not enough soil borings to know if it was straight sand there to where the water would come up from the subsurface?
A. We have never seen that happen.

MR. HORSEY: That's all I have.
CHAIRPERSON HOLDEN: Other
questions from the Board?
MR. HORNE: A quick question.
EXAMINATION
BY MR. HORNE:
Q. We danced around the question was somebody is an expert in reading aerial photography. Are you aware, is there -- in order to call yourself an expert in that, is there some sort of certification? Is there an organization that one belongs to or is it just experience?
A. I believe it's experience. I'm not familiar with an organization or designation.

CHAIRPERSON HOLDEN: Thank you, Mr. Horne.

> Other questions from the Board? EXAMINATION BY CHAIRPERSON HOLDEN:
Q. Mr. McCulley, Dean Holden here. I'm curious if you could offer some commentary
on the -- how a large storm event surge and how a large rain event inundation, meaning standing water caused by a big red event, differs from tidal water flow as it relates to tidal wetlands. Right. I mean, they all
cause visible water on land surface, right, or on soil. But how do they differ?
A. Well, the tidal action regularly
falls -- rises and falls twice a day. So there's changes in the water elevation as the tide goes up and down.
Q. To be clear. There has been some discussion over storm surges. I'm familiar in the press of a big storm where a storm may come over the Rehoboth boardwalk, per say, right?
A. Right.
Q. To me, not being an expert, to me that's a different situation than the ebb and flow, as you talked about. Are there other situations where a storm surge from a large storm event that happens on a
frequency of years creates the basis for calling a footprint tidal wetland or a
wetland?
A. Not a tidal wetland. We're talking about two different things. We did acknowledge this is Section 404 wetlands. In some areas, it's wet enough to be
considered wetlands mainly from the fact that the drainage has been blocked off and all the drainage from Flack Avenue from Bayshore comes down and sits on this site. So when it rains, this site gets wet. Now, it does infiltrate and it does go away after a couple days, so it doesn't sit there forever. But it doesn't rise and fall with the tide.
Q. Is there a reason that -- there's been a lot of discussion about this 1926 photo. Is there a reason to focus on the 94-year-old photo when there seems to be a large amount of other evidence available to make determinations?
A. I think the whole reason for the ' 26 photo is the phrase "in this century" and what that means. We argued that "in this century" means in this century that we're
in. And I guess DNREC argued it was the previous century and that photo is in the previous century and it shows that ditch existing. That ditch doesn't appear on any other aerial photos after that, although it does appear on the 1950 survey which we pointed out. The best reference we have of that ditch is 1950.

CHAIRPERSON HOLDEN: Thank you.
No other questions.
A. Whether "in this century" means in the 20 th Century or the 21 st Century.

CHAIRPERSON HOLDEN: Thank you.
Any other questions by the Board members?

All right. Thank you, Mr. McCulley.

THE WITNESS: Thank you. (Witness excused.)

CHAIRPERSON HOLDEN: I see we're
almost at 12:30 here. Is it acceptable to everybody to take about a 30 -minute break and come back here at 1:00 o'clock and then we will proceed?

Okay. Very good. So we will reconvene here in just over 30 minutes and try to get going right promptly at 1:00 o'clock. Thank you very much.

MS. SPIALTER: Thank you, everyone.
(Luncheon recess taken.)
CHAIRPERSON HOLDEN: I think we have everybody back. We had just finished with Mr. McCulley before our brief lunch break there.

Mr. Abbott, do you have any additional witnesses or topics to discuss?

MR. ABBOTT: No. I just wanted to go through the formality of requesting the admission into evidence of the 11exhibit joint exhibit binder. I think it's stipulated to just because it's a joint binder. But $I$ just want to make sure that it's deemed part of the record and in evidence.

CHAIRPERSON HOLDEN:
Ms. Spialter, you're of the same understanding, that those are all
satisfactory exhibits for the record?
MS. SPIALTER: Yes. I agree.
MR. ABBOTT: In that case,
Mr. Chairman, we don't have any further evidence.

CHAIRPERSON HOLDEN: All right.
Ms. Spialter.
MS. SPIALTER: All right. Thank
you, Mr. Chairman.
We will begin by calling Tyler
Brown as our first witness.
TYLER BROWN,
the witness herein, having first
been duly sworn on oath, was
examined and testified as follows:
DIRECT EXAMINATION
BY MS. SPIALTER:
Q. All right. Tyler, can you state your name for the record?
A. Tyler Brown.
Q. What is your place of employment?
A. Delaware Department of Natural

Resources. I am environmental program manager in the drainage program now, but up
until a couple months ago, I was program manager, too, in the wetlands-subaqueous lands section.
Q. What was your involvement with the map change request application that is the subject of this hearing?
A. So I was the manager that executed the document.
Q. What does "executed the document" mean?
A. Signed the document, the denial of the map change.
Q. Were you involved in the site evaluation?
A. Yes.
Q. Can you tell me a little bit about what happened when you went out to the site?
A. Sure. So I guess to start, we always evaluate aerial photography, get an idea of the site, check out the surrounding areas, which involves looking at a lot of aerials from different years, the existing conditions of the State Wetlands Map, any previous activities that have taken place.

Then we go on site and actually verify according to the documents that were provide associated with JD in this case. We did take a couple borings on site, tried to evaluate the vegetation that was sprayed and essentially eradicated with the use of herbicide. And that's, for the most part, it. Tried to verify what was submitted as part of the report as well.
Q. Can you identify the documents that were submitted as part of the application through looking at -- these are part of the chronology.

If the Board does not have them in front of the Board, I'm going to put them up here. I'm going to share my screen in just a moment so everybody can see what we're talking about, if $I$ have the right to do so.

Sascha, can you give me the right to share my screen?

MS. MOHAMMED: I'm on it.

MS. SPIALTER: Thank you. Thank
you. Perfect. Wonderful. All right.

So everybody should be able to see my screen at this point. Is that correct?

CHAIRPERSON HOLDEN: Yes.
MS. SPIALTER: All right.
Fantastic. Thank you, all.
So these are the chronology
exhibits, some of which were not included in the joint exhibits because of the motion in limine, but by regulation, the chronology is part of the record. So if you need me to move for their admission, please let me know, but my understanding is that they're automatically included.

BY MS. SPIALTER:
Q. So Tyler, can you explain what

Exhibit 1 is here?
A. That is a topographic survey that was provided by the applicant.
Q. Is that the topographic survey that we were looking at earlier, which is Exhibit 3 in the joint --
A. Yes.
Q. And Exhibit 2, what is that?
A. That is a cover letter for the application for a map change.
Q. And so the rest of the document, I'm just going to scroll through quickly, is that in fact the application as you remember it?
A. Correct.
Q. Is that the same application as

Exhibit 1 in the joint exhibit binder?
A. Yes.
Q. Okay. Moving on to Exhibit 3. What is Exhibit 3?
A. Looks like the report prepared by Jim McCulley.
Q. And is that the same as Exhibit 2 in the joint exhibit binder in front of you?
A. Yes.
Q. Can you describe when and how this report was provided to you?
A. So it was provided as part of the original application that was submitted to us.
Q. So you received both at the same time?
A. Correct.
Q. Moving on to the next exhibit,

Exhibit 4. Can you identify what Exhibit 4 is?
A. Sure. That is a description of what George put together based on what we saw on site, characteristics of the vegetation, characteristics of the soil and characteristics -- or the description of the aerial photography and what we observed on site.
Q. Quickly. Who is George?
A. George Geatz is an environmental
scientist for the wetlands and subaqueous lands section, who is also a professional wetlands scientist and a professional soils scientist.
Q. Let's talk a little bit about what was included in this summary. So first of all, it talks about two on-site investigations done August 13th and September 18th of 2019. Were you on site both of those days?
A. Yes, I believe so.
Q. And is an investigation of the sort always done as part of a map change?
A. Yes.
Q. The second paragraph you talk about what you visually observed while walking around the site. Can you describe what the site looked like?
A. Sure. So, for the most part, the entire property that's owned by Mr. Liberto had been sprayed and mowed with herbicide. So on these two specific site visits, we were trying to identify the vegetation, but, of course, it was, you know, it was sprayed with herbicide and was dead, for the most part, but we could verify some of the vegetation that was there right on the border and by just trying to look at the stems which was -- the majority was phragmites, but also there was a little bit of spartina alterniflora.
Q. You discussed seeing spartina on the adjacent property. Can you describe what you saw?
A. Yes. So there was a, from what I
remember, there was a little bit of water present, but there was very lush, healthy spartina alterniflora, which is typically in a salt marsh, and I would say super healthy. It was probably 5 or 6 -feet tall.
Q. When you say "salt marsh," is that tidal marsh?
A. Tidal marsh, yes.
Q. Thank you.

And when you are on site, what is it that you are going on site to see, to record?
A. So one of the things we did is -you know, because there was previous map changes done in the area, we were trying to figure out exactly -- we georeferenced an existing wetlands map and put them on a GPS unit. We were trying to physically see where the existing state-regulated wetland line is. So we kind of -- well, we did lay that out.

So we put all the information we
had of the existing map, georeferenced it and upload it to a GPS unit where we could
physically mark out the existing stateregulated wetlands on and compare that to the existing landscape and the survey that we had received and also compare it to the vegetation and we could take a look at the soils in comparison as well.
Q. On site, did you perform any soil analysis?
A. Yes. I mean, so that's not
necessarily part of the role, but just out of curiosity and trying to get an idea where sand overwash was or was not, we did -- you know, George did evaluate soils on site.
Q. And how did you do that?
A. With a soil auger.
Q. Moving on. You discussed and also in your report in the summary it discusses the aerial photography. Can you describe what aerial photography you looked at?
A. Sure. So we look at a series of aerial photography. We see whatever is the oldest present all the way up to the most current. And that goes for every single application, which is over, approximately
over 500 a year. We, for every application, whether it's a repair, replace of a bulkhead or large scale map change, we review aerial photography to get an understanding of what's present on site.
Q. When you say that you review aerial photography, is that done electronically or hard copy? What means do you use?
A. Electronically.
Q. Using what software?
A. GIS.
Q. I'm going to back up very quickly.

I got a little bit ahead of myself. We talked about your position. Can you
describe what your job responsibilities were in the wetlands division department?
A. Sure. So I was a section manager
that oversaw all applications that were submitted to the wetlands -- or to the section, and if it wasn't in public subaqueous plans, I had signing authority for each decision that was made in the section as well as oversaw any enforcement action.
Q. What types of applications -- you said you had signing authority. What type of permits and other actions came across your desk on a regular basis?
A. Subaqueous land permits by just a typical wetlands jurisdiction, was the determination knee-high determinations, subaqueous lands, lease applications, water quality certifications, wetland permits for wetland impacts, and review of water quality certifications, and also mitigation associated with wetland impacts.
Q. What is your educational background?
A. So I have a bachelor of science in agriculture with a minor in plant science, and I have approximately ten years' experience in the environmental field. Seven, a little over seven years' experience specifically in the wetlands and subaqueous land section, which included a lot of courses, classes hosted by the Army Corps of Engineers associated with plant identification, soils training, soil delineation training.
Q. Do you have any certifications?
A. I'm a nutrient management consultant and a certified pesticide applicator. I do not hold a professional wetlands science or professional soils science, mainly because I moved up in the section so quick to management that it didn't benefit me to go through that process.
Q. Understandable.

Okay. Going back to the aerial photography. Is aerial photography something that you review regularly in your job?
A. Absolutely.
Q. How often?
A. Every day.
Q. So you described using aerial
photography from GIS?
A. $\quad \mathrm{Mm}-\mathrm{hmm}$.
Q. I am going to now share GIS. So as everyone can see, this is an active website. Is the ArcGIS, as written on the screen, software, is this the software that you used in the course of business to review aerial
photography?
A. Yes.
Q. Can you tell me what we're looking at here?
A. So we're looking at the dirt road that runs south-north towards St. Jones River, Flack Avenue. Obviously, the area has changed a lot. The beach is eroded, and the dunes was all the way back on Mr. Liberto's main -- several series of lots.
Q. Specifically when was this photograph taken?
A. This was taken in 1926.
Q. How do you know that?
A. It's there on the Delaware website.
Q. Where my cursor is currently
highlighting, does this accurately represent the database of the 1926 aerial photography?
A. Yes.
Q. How do you know what area this map is? What's it showing?
A. Well, there's a whole other series of identifiers that we can use. There's
other layers. The state named roads that we would follow. We can put Kent County parcels, overlay that, and easily figure out where we're at.
Q. Can you --
A. And also knowledge of the area.
Q. Sorry. Specifically, have you used this map before?
A. Absolutely.
Q. I am going to zoom in on the subject area. As you can see, the quality continues to increase to the maximum resolution. Is this image accurately showing the properties in question in this application?
A. Yes. The properties in question are -- would be the southeast of the ditch near where the cursor is.
Q. So roughly, --
A. Right there.
Q. -- this area here?
A. Yeah. Just maybe a little farther south. Right in that area.
Q. Okay. When you look at this image, what do you -- in your professional opinion,
what is it that you see?
A. I see a small feature coming off of the St. Jones River that leads into wetlands areas, similar to any other ditch that runs throughout other marshes throughout the state.
Q. So this is a common geological
feature that you've seen in your experience?
A. Yes. I think if you zoom out, you will see them all over the frame of the wetlands to the west, yes.
Q. Are the ditches natural or manmade, generally?
A. Some are natural, some are manmade through fish and wildlife mosquito control.
Q. Is that generally what they're used for?
A. It all depends. Some are natural
that are just the current features of -- you know, pushes water through up to flood marshes. Some were manmade created for mosquito control purposes.
Q. When they exist naturally, the purpose -- their function ecologically is to
feed tidal water into the marshes?
A. Correct. Yes. Absolutely.
Q. I'd like to -- I'd like to look at the plan, which is Exhibit 6 in the joint exhibit binder, that we discussed significantly during the appellant's case in chief. Have you seen this image before?
A. Yes.
Q. What does this graphic demonstrate?
A. Looks like a 1950 plat of the area in question and more.
Q. Do you see in the lower left-hand corner the word "Ditch"?
A. Yes.
Q. To the best of your professional
knowledge, would you identify that ditch to be in the same location as the darkened area that you call "the ditch" in this 1926 photograph?
A. Yes, I'd agree.
Q. And within your professional
opinion, and the course of normal business,
would you regularly reference documents like
this in order to determine the historical
lay of the land?
A. Yeah. Sure. I mean, any historic information we have, the more, the better to make a determination.
Q. Let's go back to the on-site summary that we were discussing a few minutes ago. You discussed doing some soil borings and then in this paragraph here discussed the types of soils were present. Can you tell us a little bit more about what soils you found in the area?
A. Sure. As referenced in Jim's report, transquaking and Mispillion soils were referenced in the wet soil survey, which typically are a indicator of a tidal salt marsh. While doing the soil borings, yes, those are very organic soil, dark, very, very dark, mucky soil which you typically see in a tidal marsh. I would say that this area was a little bit dryer, you know, but it's typical of a higher, higher tidal marsh. It also had a strong sulfur smell, which is also typically the smell in a completely saturated tidal environment.
Q. Were there any elements of a tidal marsh that were missing when you were evaluating the site?
A. I wouldn't -- no. I mean, when you look at our definition -- when comparing to the state regulated wetlands definition, no.
Q. Let's talk about the information that was provided as part of the application.
A. Sure.
Q. We looked at the application itself, which is Exhibit 1 in the joint exhibit binder, and the report by Mr. McCulley, which is Exhibit 2 in the exhibit binder. Was any other information provided by the appellants as part of this application?
A. Not that I remember. I know on several occasions we requested additional information that was referenced in the report itself, and we were told it was ancient history and it was never provided. So it made our evaluation a little difficult as well.
Q. Do you recall specifically what
items were requested?
A. I can reference two things. One thing is the information on survey data. Because the survey itself was kind of conflicting to the report, so we asked for clarification, which we were told was ancient history and didn't matter to this determination.
And also Jim's report references
a hydrological study that was done by KCI, I believe, and which -- the report referenced it, so we wanted to see that information.

That should obviously help us make a
determination. And we were also told that was ancient history and didn't matter as part of this evaluation.
Q. You referenced just now a discrepancy in the topological survey. Can you provide more detail on what that discrepancy was?
A. Yeah. Very similar to what we just went over with Jim. It was very confusing about the layout of the blue dashed line on the survey showing approximate mean high.
Q. For the Board, we're looking at Joint Exhibit 3, which is that topological survey which we discussed with Mr. McCulley.
A. So we were requesting the blue line, how that was determined, what the deal with that was, and also the fact that there was no note on -- was this done in -- we asked the question was this done in NABD88 and NABD83 and also went back -- the fact that it didn't necessarily note on the survey. The survey, it wasn't even signed. And we referenced -- just to make sure I covered it -- referenced back to the report about the two State of Delaware elevations versus what Miller \& Lewis put together, and then also the third, kind of oddball with the blue line. Yes. We just asked for clarification on that.
Q. To some extent, I asked Mr. McCulley some of these questions, but I'd like your opinion on them as well. You've discussed a few different vertical datums. Can you explain what NABD88, for example, is, how it's used?
A. A lot of times, it -- it can be used a lot. A lot of times it's used in marine environments to get an idea of the elevation. Usually it's pulled from the closest tide gauge and references that to that mean high elevation, sets a benchmark, and, you know -- let's just pretend in this case, you know, based off of the datum from a tide gauge in Bowers Beach, mean high was an elevation of 2. Then that could be referenced on this map. And if there is a totally different datum used, it would list what the difference was.
Q. On the survey that is in front of you, as it exists in front of you, is there any indication what vertical datum was used?
A. No, other than it says "Delaware State Plane." But that was part of the questions we had asked about what was used and how that was determined.
Q. Are you familiar with the Delaware State Plane System?
A. Yes.
Q. Does that include a vertical datum
as a standard?
A. It's a datum. I don't believe it's vertical.
Q. So it would be what kind of datum, then?
A. Honestly, I'm not a hundred percent sure on that.
Q. Okay.
A. Working in this section, we always deal with NABD88 and NABD83. I think the state plane system is just a actual location of having to do with the vertical datum.
Q. So it would be more along the lines of a GPS --
A. It should be --
Q. Would the Delaware State Plane System be more along the lines of a GPS or longitude and latitude sort of system?
A. I believe so.
Q. Thank you.

Looking at the survey in front
of you. Where it says "approximate mean
high water line," in your professional
opinion, can you approximate what height is
demonstrated by that line?
A. I would say somewhere around 3.8.
Q. And that 3.8 as compared to the 2.3 and 2.5 numbers provided in the report, is there any way to compare those numbers without reference to a vertical datum?
A. No, not without more information.
Q. Did you request additional
information?
A. Yes.
Q. Was any additional information ever provided?
A. No.
Q. So moving on. The last exhibit in the chronology is Exhibit 5. Can you identify Exhibit 5, please?
A. So that is the letter that we sent out with the information about the map change request.
Q. When you say information about, was this the decision?
A. This is the decision that we felt that the property as is is correctly mapped.
Q. What was that decision based on?
A. It was based upon the language in the wetlands law criteria.

MR. MARCOZZI: Which exhibit is that, please?

MS. SPIALTER: It is Exhibit 5
in the chronology. It is not part of the joint exhibits because -- due to the motion in limine and Mr. Abbott's request to exclude it.

MR. MARCOZZI: Thank you.
BY MS. SPIALTER:
Q. As referenced in this letter, the three criteria for state regulated wetlands are the elevation?
A. $\quad \mathrm{Mm}-\mathrm{hmm}$.
Q. The vegetation?
A. Yes.
Q. And the criteria that the areas must be now or in this century connected to tidal waters?
A. That's correct, yes.
Q. In your professional opinion, were
all three criteria met here?
A. Yes.
Q. It's been discussed that the criteria, "those areas which are now or in this century have been connected to tidal waters," can be interpreted in many ways. Can you explain how you interpreted that?
A. So I did raise the question to counsel about it. And I was interpreting it. And as counsel advised as when the law -- "this century" is when the law was written.
Q. How do you define "connected to tidal waters"?
A. Any form or feature that's directly connecting to a feature, and which in this case, it clearly depicts a ditch-like feature running from the St. Jones River adjacent to Mr. Liberto's property, which I think is pretty obvious from viewing the aerial photography that during high tide events would -- if that elevation would be within 2 feet above mean high, it would be directly connected to that, to the feature.
Q. If we look at -- if we look at map 6, again, which is the plan, I think this
lays out all of the features that we need to have this discussion.

Obviously, I think we're all in agreement that geography does not care about manmade zoning boundaries. Is that correct?
A. Yes.
Q. How far, therefore, would you define -- if we assume that the ditch is a tidal waterway, how far would the area connected to that ditch extend? How would you define that professionally?
A. It's try -- in this case, it's
trying to observe, you know, the aerial photography, but also it's based off the indicators of elevation. There's -- I mean, this is a fairly flat area, even if in the surveys today, that goes onto the -- a little bit of the survey actually goes onto the property where the ditch runs. It's all relatively flat area. So, you know, less elevation change, that's more area that the water is going to spread.
Q. So in your professional opinion, if I'm understanding you correctly, you
interpret "connected to tidal waters" meaning areas of a like elevation?
A. Well, correct. I mean, you know, tidal wetlands, just because they're tidal wetlands does not mean they get the daily ebb and flow every day. So they do not -it's not like mean high water, that's the break line, that's no longer a tidal wetlands. I mean, in that case, there would be very little tidal wetlands in the state. There's thousands of acres of tidal wetlands that only get -- you know, they only get tidal waters on them during above average high tides or storm events.
Q. Can you explain how professionally
you would determine where the end of the
tidal wetlands was?
A. In this case --
Q. More generally.
A. So what I would say is, oddly
enough, that 2 foot above local mean high is a very good indication. I've done hundreds and hundreds of JDs in this section.
Q. What's a JD?
A. I'm sorry. A jurisdictional
determination, a state wetlands
jurisdictional determination. And even though these maps were created in 1988 based off of that elevation, it's pretty amazing how -- you know, we've dealt with some sea level rises and some erosion issues, but it's pretty amazing how that 2 -foot elevation, and -- is a lot of times spot-on to change of more of a tidal wetlands environment to, up to a more freshwater marsh environment.
Q. And so if you'll turn to Exhibit 3, which is the topographic survey. Is any portion of the property subject to this application above, more than 2 feet above the mean high water line?
A. Well, according to all three of the numbers that are kind of associated with this survey, I don't think there is anywhere on the property, other than the dune system, that would be -- that would be more than

2 feet above local mean high.
Q. Okay. Based on the elevations on
this site, as presented in that topographic survey, in your professional opinion, would the ditch, as seen from the aerial photography and the other drawings, cause tidal action on the property?
A. Yes.
Q. And is that your basis for determining that, under the regulations, the properties are properly designated "tidal wetlands"?
A. Yes. And that's the -- to add additional information -- that's exactly where we stopped. We never went into any detail to see if there's was any form of influence underneath the road or culvert systems or anything like that. Apparently that information has already been documented and obtained and was mentioned in the report but was never provided to us.

I would even say that there is
one area, I would say that that culvert is likely still there because $I$ was walking and found a hole where I sunk up to nearly my waist, which would indicate that there is
something going on there. I'm not going to say that there's full-blown active functioning culvert there, but there is something there.
Q. You talked briefly about what level of tidal activity in your professional opinion is required to be deemed wetlands under Delaware's law. So let's return to that.

First, do you believe that tidal
wetlands require regular ebb and flow?
A. Some do, some don't. Low marsh
does. High marsh does not.
Q. Is there some frequency of tidal
activity that is required?
A. Yeah. There's a series of, and most -- in Delaware, you have your low marsh and then it kind of slowly sets up so you have your spartina alterniflora, your low marsh, spartina patens, which references hay grass, would be the next level, and then it usually steps up to a more shrub-like or high tide bush. That goes off the elevation and the frequency of flooding, essentially.
Q. Under the regulations that we've been discussing, are all three of those areas wetlands under the regulations?
A. Correct, at that elevation, which would throw all three of those wetland plants into that category, yes.
Q. Would areas that see tidal action only during storm events, in your professional opinion, meet the definition of "connected to tidal action"?
A. Yes, yes. Now, I'm not saying like one -- you know, a major storm like Sandy, but, yes, there's typical -- there's several high tide events a year, whether it's a spring tide that would affect those, yes. MS. SPIALTER: I have no further questions.

CHAIRPERSON HOLDEN: Thank you, Ms. Spialter.

Mr. Abbott and Ms. Spialter, if you don't need to, you can stop sharing the screen unless you feel it would be of benefit to --

MS. SPIALTER: Yeah. That's
fine.

CHAIRPERSON HOLDEN: Very good.
MR. ABBOTT: Mr. Chairman, if I
could, I may ask Mr. Brown some questions about those documents.

CHAIRPERSON HOLDEN: Okay.
MR. ABBOTT: It could be helpful
if they're on there. We've got them also in the chronology.

MS. SPIALTER: I'm glad to put them up on my own screen if that would be easier for you, Mr. Abbott.

MR. ABBOTT: Yeah, that would be great. I think it's helpful for the Board as well.

CHAIRPERSON HOLDEN: Mr. Abbott, would you like to continue?

MR. ABBOTT: Thank you,
Mr. Chairman, yes.
CROSS-EXAMINATION
BY MR. ABBOTT:
Q. Mr. Brown, for starters, you
received the application for wetland map amendment on July 1, 2019; correct?
A. Yes.
Q. Okay. You did not render an
decision on that map application, however, until seven months later on January 30, 2020; right?
A. Yes.
Q. And the central underpinning for your decision was the 1926 aerial photo; correct?
A. Not solely, but the majority, yes.
Q. All right. That 1926 aerial photo was available on July 1, 2019; correct?
A. Yes. So to elaborate, we did entertain looking at other ideas and wanted to make sure we were making the correct decision and made sure we were coordinating with counsel.
Q. When did you first look at the 1926 aerial?
A. Likely within a few weeks of the application being submitted.
Q. Do you recall on numerous occasions

I followed up with you by email to request the status of the outcome of the
application?
MS. SPIALTER: I would like to
object. What is the relevancy of this line of questioning?

MR. ABBOTT: It has to do with his making up excuses for his preordained conclusion to deny the application.

CHAIRPERSON HOLDEN: Mr. Abbott,
if you could get to the questions you'd like to address.

MR. ABBOTT: Certainly.
BY MR. ABBOTT:
Q. So, again, Mr. Brown, on numerous occasions, I sent you emails regarding the status of your decision on the application. Correct?
A. That is correct.
Q. And you failed to respond to some of those emails at all; isn't that right?
A. That's possible. I would say we also requested a lot of information that was never returned as well.
Q. We'll get to that story.
A. All right.
Q. Eventually you got your lawyer to respond for you, instead; correct?
A. I'm sorry, can you say that again?
Q. Eventually you had your lawyer respond to me on your behalf; correct?

MS. SPIALTER: Again, objection.
Relevancy. The statute is what the statute is. None of this is relevant to the determination.

MR. ABBOTT: It goes to the made-up excuses, which are exactly what we've heard here today and even a new set of concocted excuses.

MS. SPIALTER: There is no
motive element to this determination. You can either prove or disprove that the record before the Secretary was insufficient to support his conclusion and the decision in this case. That is it.

MR. ABBOTT: And the reason it took so long is because they were trying to come up with an excuse to say no.

MS. SPIALTER: Irrelevant,
whether there was an excuse or wasn't.

Prove it or don't.

CHAIRPERSON HOLDEN: Mr. Abbott,
I do agree that Mr. Brown has offered reasons for his decision. If you could get to addressing those and your questions regarding their appropriateness. BY MR. ABBOTT:
Q. Mr. Brown, do you recall when I sent you an electronic version of the elevation survey that you asked for in an email in July 19, 2019?
A. I am not going to say for sure, but I trust that. And I think that's the survey that we have; right?
Q. Do you have any emails that you can show the Board that confirmed that you requested anything else other than the elevation survey that I provided to you?
A. Yes.
Q. Okay. What --

MS. SPIALTER: If you would like us to produce those, I am more than happy to do so.

BY MR. ABBOTT:
Q. I've gone through my emails,

Mr. Brown, and I find no other requests from you to me. Are you saying you requested information from someone else other than me?
A. No. I believe it came from George Goetz, which was copied with myself, you, possibly Mr. Liberto and Jim McCulley.
Q. Okay.
A. If you'd like those dates, I could probably give them to you in one second.
Q. So Mr. Geatz would know?
A. I mean, I know because I was copied in the application -- I mean, the email.
Q. Why don't you tell me what the email said?
A. Sorry. I have to dig through my phone.

MS. SPIALTER: I can very easily
produce one such email conversation if that would be beneficial to the Board.

THE WITNESS: Okay. You have
it. Mine is not working
MR. ABBOTT: So I would like to
know more about it at this stage because there's an allegation that an email was sent to me requesting something and I didn't ensure that it was provided, which it is highly improbable.

THE WITNESS: No, you responded.
MS. SPIALTER: I can absolutely
show it to you, and at that point, we can determine whether or not it is being entered into evidence.

BY MR. ABBOTT:
Q. Mr. Brown, you indicated that I did respond to your email?
A. Yes.

MS. SPIALTER: But not with the information provided. That is what he said. Sorry. Not with the information requested.
Q. The information you wanted was an elevation survey, which I provided to you as an email attachment; isn't that correct?
A. Yeah, but there was questions about the elevation, and it was told that -- I think the exact words -- "that was ancient history."
Q. Do you have an email to that effect? MS. SPIALTER: I believe it's on your screen.

MR. ABBOTT: I can't read it.
THE WITNESS: "George, I believe
all the reports and reference that you mentioned are outdated and no longer relevant."

BY MR. ABBOTT:
Q. Okay. So that seems like a fair response. It's not that we didn't provide it to you, we didn't find it to be relevant to the issue before you.
A. That goes back to the survey that gives no details of what exactly we're looking at.
Q. Well, the question that was presented in the application for map approval was whether or not there was a tidal connection of areas within this century; correct?
A. So we evaluated all three factors of the law, not just one. We don't ignore two out of the three.
Q. What do elevations have to do with the tidal connection question?
A. I mean, everything. The law, it has to have all three. So elevation survey, you had -- you provided a survey that was
misleading, that had three different
references. We just didn't -- we were just asking for clarification, which is a typical process in any form of application submitted to the wetlands and subaqueous land section, which I am sure Jim has dealt with us on several occasions where we request clarification or additional information.
Q. But ultimately, the issue that we raised was that there was no tidal
connection; isn't that correct?
A. That's what was inferred and referenced in the report, yes.
Q. All right. Your decision, again -you said earlier your decision, I think you said was primarily based on the 1926 aerial photo. Am I using the correct terminology?
A. So that was a big question about the connection, yes.
Q. Okay. Other than the 1926 aerial photo, the only thing $I$ read in your site summary that you based your decision as to tidal connection on is the last sentence in the fourth paragraph which reads:
"Additionally, a culvert located on the northern end of the property appears to connect the site with the vast area of tidal spartina marsh found on the opposite end of Flack Avenue." Correct?
A. Yeah. That's what it says.
Q. But that was the only other reason, other than the 1926 aerial, for your decision; right?
A. Yes. We decided not to evaluate any further.
Q. Okay. And I believe in direct testimony you testified that actually you don't know whether there was a culvert, do you?
A. Well, the survey depicts that there was. Beneath the road? Are you speaking beneath the road on the 1950 survey?
Q. You're talking about the culvert,
you're talking about a connection that goes out to the marsh out to the St. Jones River on the 1950 survey?
A. I think this property would have -it would not matter about the culvert going beneath the road because there is a direct connection from St. Jones River to where -to the point where it met Flack Avenue.

Whether or not it had a culvert going underneath the road doesn't affect anything on the west side of Flack Avenue.
Q. Right now we're referring to the 1950 Charles Shore subdivision plan. Correct?
A. Okay.
Q. That shows a ditch adjacent to lot 26; right?
A. Yes.
Q. It does not show a ditch that's even adjacent to any of the six lots, does it?
A. What's your definition of
"adjacent"? To me, that is adjacent, and that's typical of a wetland feature is that there is a feature that runs through and
feeds hundreds and tens of acres.
Q. "Adjacent" means directly abutting.
A. So it's -- yes, there is a ditch directly abutting lot 25.
Q. On the 1950 Shore subdivision plan?
A. Yes. There is a ditch on lot 26 that is directly abutting lot 25.
Q. Oh, okay. So if you're next door to an adjacent parcel, then that means that you have a connection; that's what your position is?
A. That's how tidal wetlands work, yes.
Q. Where is that in the definition of "wetlands"?
A. That's just wetlands science that wetlands don't -- again, wetlands don't have to be -- to have direct mean high water touching them on every event.
Q. So "connected" means you could be one, two lots away in your opinion?
A. Absolutely, yes.
Q. Okay. Do you have any source that defines the word "connected" that says it can be disconnected to still be connected?
A. I guess that -- no. I guess I don't quite understand that. But no.
Q. Well, going back to the 1950 Shore subdivision plan. There is no pipe or culvert that goes to lots 22 through 25 directly, is there?
A. There is no culvert, not according to this survey.
Q. And you have no other evidence that there was ever any culvert other than the one that's potentially shown on the 1950 Shore subdivision plan; correct?
A. I don't, but there's reference of culverts and hydrological studies that was in the report submitted to us that I haven't seen, either.
Q. Okay. So you don't know because you have no personal knowledge; right?
A. I don't know about the series of culverts along the road. I had no intention to evaluate based on the information we had for the project.
Q. In fact, you don't know whether there was any culvert running under Flack

Avenue other than the one shown on the 1950 Shore subdivision plan, do you?
A. No, I don't.
Q. Now, you previously advised my client and Mr. McCulley that you would have denied the 2013 amendment to the wetlands map that your predecessor approved; right?
A. So I'm not going to say I did or did not. I honestly do not know. I do trust Jim professionally, so I would say he's probably not lying. But $I$ would say number one rule in my book is you don't make a decision before you thoroughly evaluated everything. So I never -- I very rarely in the field would $I$ burst something like that out. So I do respect Jim and I would trust that maybe I did say that, but I don't recall.
Q. You are no longer the head of the Delaware wetlands and subaqueous land section; correct?
A. Correct. I just took another position a couple months ago.
Q. Did you review Mr. McCulley's
reports?
A. Yes.
Q. Did you find any content of his report that you found to be inaccurate?
A. I think we've -- not off the top of my head. I think we covered the whole issue associated with the topographic survey and the numbers that were included in the report --
Q. What about --
A. -- and the elevations in the report and -- what's that?
Q. What about the DNREC survey of 2.3
mean high water mark that Mr. McCulley
talked about, are you familiar with that?
A. No. That's something I had asked questions about but didn't necessarily get a response as to -- I mean, I think shoreline water assessments is a totally different division, and they do surveys all the time.

And I have no idea when they completed that survey or what time. They may have done it four times in the last ten years in that area. So I don't know what was being
referenced.
Q. You read Mr. McCulley's report that said DNREC had a survey that found mean high tide to be 2.3 elevation; right?
A. Yes.
Q. And so did you check with your colleagues at DNREC to see if that was correct?
A. No. I checked with the applicant. Usually it's the burden on the applicant to coordinate with us.
Q. Okay. But couldn't you have sent an email to your colleagues at your same agency?
A. Yes. I probably could, but it probably could have been just as easy that we received a response from the applicant.
Q. And when did you ask for that from the applicant?
A. I'll tell you in one second.

MS. SPIALTER: I'm going to pull
up the email that you were just looking at.
A. So that looks like an August 21st, 2019 .

BY MR. ABBOTT:
Q. Okay. Where does it say please provide us with the DNREC report that Mr. McCulley relies upon?
A. There are several -- the last sentence of this email says, "There are several different numbers floating around here in reference to elevations of mean high tide line that are causing confusion. What is the actual elevation associated with the mean high tide line on the Miller \& Lewis survey?"
Q. Okay. And what was my response?
A. "Jim McCulley confirmed that this references prior information, complications that are merely the background for purposes not on point of the current situation. As to your comment about a site visit where we will map out the state regulated wetlands that are on the property, I assume that you are referring to a portion of the undersigned" -- or I can't -- is this -MS. SPIALTER: "Undesignated."
A. -- "undesignated two-acre lot that
lies on bayside of the dunes. Non-tidal action occurs landward on the side of the dunes. The survey, my client advises that he proposed location based on guesstimates for the high tide. So you can disregard that and go to more accurate information Jim used from the state, which I mean DNREC."
Q. Okay. Now, I think you alluded before to the fact that Mr. McCulley is a recognized environmental expert in Delaware.
A. Absolutely.
Q. I think you also testified that you did not have the NWS certification?
A. I'm not sure what NWS is.
Q. Or PWS, professional wetlands
scientist designation.
A. I do not.
Q. So you're aware Mr. McCulley
concluded there was no basis to designate
any of the six lots as state wetlands?
A. I think that's what his conclusion said, yes.
Q. And would you agree that there's been no tidal connection with the six lots
in the 21st Century?
A. The fact that the information of the elevation I would assume that water overtops Flack Avenue several times as year. Yes, I would say there is tidal influence.
Q. What several times a year?
A. Storm events, certain storm events. Spring high tides.
Q. So your belief is that a storm event is a tidal event?
A. So there's a series of tidal epidemics. I mean, there's several series of large spring tide which are associated with a moon phase that happen every year. So I wouldn't necessarily it's a hurricane event or anything like that, but, yes, some storm events and some of your typical spring tide events. In fact, I've observed the site with water on it and tons of stranded horseshoe crabs.
Q. And you're talking about on lot 26?
A. On 26? Let me make sure. I'm talking on Mr. Liberto's lots, whatever they are. I'm sorry. Hold on one second.

No, not on lot 26. It would be I observed them on lot $26,25,24$.
Q. Are you aware that you took soil borings on lot $26 ?$
A. No, I'm not. I believe the first site visit, that's very possible. I think the first site visit, there were no property boundaries. But I believe on the second site visit, Mr. Liberto clearly had everything marked.
Q. Okay. And so it's your position that tidal connection can be established pursuant to a few-time-a-year event?
A. Yes, definitely.
Q. And where does it say that in the statute?
A. References 2 feet above mean high water. So that would be several times a year.
Q. That's the elevation component?
A. Yeah, which correlates to flooding events.
Q. No, I'm not asking about the elevation component. I'm asking you about
the tidal criteria. Tidal criteria requires that it be connected to tidal waters in this century; correct?
A. Yes.
Q. Okay. And the tides of the Delaware River and the St. Jones River in that vicinity, occur two high tides per day and two low tides per day; correct?
A. Yes.
Q. Okay. Going back to the Charles Shore subdivision plan. Oh. You already covered that.

> You visited the site on two
occasions; correct?
A. Yes. Well, formally, yes. I think I met with Mr. Liberto on another occasion prior to submitting an application.
Q. And when you visited the site, there was no evident tidal activity on the six lots; correct?
A. I believe I visit the site originally on a spring tide and the entire -- most of the lot was flooded. Mr. -- and we actually received a phone call

Mr. Liberto was actively pumping water off the site.
Q. You mean the time that there was a storm event and storm water runoff went onto his lots?
A. I'm not sure. MS. SPIALTER: Objection.

That's a conclusion well beyond what you can make as an attorney.

CHAIRPERSON HOLDEN: The burden
is to prove that the record in front of the Secretary doesn't support the decision. So

I would ask you to focus in that arena versus arguing about email language.

MR. ABBOTT: No, no. I hear
you. Thank you, Mr. Chairman. No. My
point, I think it's made based on
Mr. Brown's answer, is he's not sure where the water came from. It might have been from a storm.

BY MR. ABBOTT:
Q. All right. Now, DNREC purchased the land at the end of Flack Avenue; correct, Mr. Brown?
A. I guess.
Q. You're not aware of that?
A. Other than what you guys are speaking of here and the fact that $I$ saw it on a tax parcel, but $I$ don't know the specifics of a purchase.
Q. Okay. The lots those two houses were located on abuts the St. Jones River; correct?
A. Yes.
Q. Is the St. Jones River tidal?
A. Yes.
Q. Were those two lots on the State Wetlands Map at any time?
A. I don't believe they were.
Q. Do you have any email communications with George Goetz regarding your work on the Delmarsh application?
A. There should be, yes. Whatever I was copied in or responded to.
Q. Why didn't you produce those emails in response to a subpoena?
A. I assume we gave everything. Right?

MS. SPIALTER: You have the
answers to your subpoenas. The witness did not answer that subpoena. I did.

BY MR. ABBOTT:
Q. Mr. Brown, you're not aware that your -- that DNREC declined to produce emails between you and Mr. Geatz?
A. Well, there's a series of emails where I'm copied on. I don't think there is any specific email between me and George about the project. Our offices are right next door. If we're going to talk, we talk.
Q. Okay. You would agree with me that the 1926 aerial photo does not show water across the entirety of the six lots; correct?
A. Can you bring that up, the '26
aerial?
MS. SPIALTER: Sure.
A. No, it does not. It looks like that
would be a low tide photo. And there is
water in the ditch feature itself and in the St. Jones and on the Delaware Bay.
Q. How can you tell it's low tide or high tide?
A. I see a wrack line on the beach.
Q. That could be a shadow, couldn't it?
A. I don't think so.
Q. All right. Now, there is a ditch that comes in from the St. Jones River, it appears on this aerial; correct?
A. There's a ditch that comes -- I'm sorry. Can you repeat that?
Q. There is ditch that comes in from the St. Jones River that's shown on this aerial?
A. Correct.
Q. And that ditch seems to be consistent with the ditch shown on the Shore subdivision plan; correct?
A. Yes. I think, yeah, I've already agreed to that, yes.
Q. What's the elevation of that ditch?
A. What is the elevation of that ditch?
Q. Yes.
A. That ditch is below mean low water.
Q. Well, how do you know if --
A. 'Cause there's water present in the future.
Q. Was it manmade?
A. I don't know that answer.
Q. How deep was it?
A. I don't know that answer.
Q. What type of plane was used to take this aerial photo?

MS. SPIALTER: Objection.
Relevance.
MR. ABBOTT: I want to know how much he knows about the background of the photo. It's very relevant to determine how it was taken, et cetera.

CHAIRPERSON HOLDEN: Mr. Abbott, again, the task here was the decision of the Secretary or the decision of DNREC valid or improper based on the record in front of them?

MR. ABBOTT: Understood,
Mr. Chairman. And this photo is central to their decision. So I just want to know what Mr. Brown knows about the photo.

THE WITNESS: It looks like a similar type of landscape to what's on the east and west side of Flack Avenue, and I
think, as all we know, the west side of Flack Avenue is an active wetland that can't even be close to being denied. BY MR. ABBOTT:
Q. Okay. So that ditch that's on this aerial probably went underneath Flack Avenue and connected to the marsh; correct?
A. Yes. It also looks like it runs to the south along Flack Avenue as well. Small feature carries that way.
Q. Well, it looks like if that's true, then there's multiple lots numbered below lot 22 that would be connected in your opinion; correct?
A. Yes. I would say that's a true statement.
Q. So let's say lot 20 that a house was built on. That would have been connected. State wetlands; right?
A. I -- yes. Yes, I think it is.
Q. But DNREC removed lot 20 from the State Wetlands Map, didn't it?
A. I believe it did, yes.
Q. And the 1926 aerial photos were
available when that happened, weren't they? MS. SPIALTER: Objection.

Relevance.
MR. ABBOTT: This is the central
exhibit. This is the complete foundation
for DNREC's entire decision.
MS. SPIALTER: Yes, but you're
not asking about the map. You're asking about prior decisions that were not made by the witness sitting in front of you.

MR. ABBOTT: They're made by
DNREC. DNREC is the defendant.

MS. SPIALTER: And DNREC has the
right to make decisions individually based on the evidence presented in front of it. The decision made here was based on the record before the Secretary. What was made in other cases is irrelevant because we do not know what was before the Secretary in those cases.

MR. ABBOTT: It directly attacks
Mr. Brown's interpretation of this photo.

CHAIRPERSON HOLDEN: Mr. Abbott,
I'm going to ask you if you can succinctly
address the questions you've got here for the witness, and shortly, I'm going to ask for an opportunity for Board members to ask questions of the witness and we can circle back to you then if you have got additional questions.

BY MR. ABBOTT:
Q. Mr. Brown, do you know anything about the background of this photograph?
A. Can you elaborate?
Q. Do you know anything about how it was taken and by whom, when, under what weather conditions, et cetera?
A. Well, I mean, you can -- obviously, it wasn't a terrible -- wasn't rough weather conditions or wasn't windy weather conditions because the plane is flying and taking a photo. It's not a extremely high event. That's obvious just looking at the water features.

Do I know who took the aerial photograph or who was in the plane? No, I do not. All $I$ know is it is saved on a state website and it's part of our everyday
life of analyzing 1926, 1951, 1960 aerials.
Q. So how wide is the area that is dark on this photo in front of lots 22 through 25?
A. I could probably use a measuring tool, if I knew exactly the area you're talking about. I can give you an idea.
Q. Well, you're saying that there's a dark area that runs along the Flack Avenue in front of lots 22 through 25; correct?
A. So are you asking from where the, let's say, where we think the culvert is or where the culvert is referenced in the 1950 survey, how far is it running south along Flack; is that what you're asking?
Q. No. I am asking you how -- I am asking you: It is your position, your interpretation that there is a ditch that runs parallel to Flack Avenue that is a dark area on the photo; correct?
A. Yes.
Q. All right. And it is your contention that it runs along lots 22 through 25? Correct?
A. Yeah. Sure. Are we sharing the screen right now? I can measure it out exactly.
Q. No. Let's take it one at a time. Is it your position, your interpretation that there's a dark area that you think connects to the St. Jones River along lots 22 through 25?
A. Yes.
Q. Okay.
A. There's a feature there.
Q. How wide is Flack Avenue as shown on this aerial photo?
A. Around 20 feet.
Q. Okay.

MR. HORSEY: Mr. Holden?
CHAIRPERSON HOLDEN: Mr. Horsey.
MR. HORSEY: Does the witness
mind taking and tracing where he's saying,
that they're all talking about that ditch
being? I just want to make sure I
understand what the two of them are saying and they're not talking past one another. Please.

CHAIRPERSON HOLDEN: Mr. Brown, can you use maybe the measure tool to trace the alignment of the features you're talking about?

Thank you.
Mr. Brown, a question for you. Do you require the applicant to confirm the name of the pilot -- in the application from the applicant, does the department question the pilot, the weather, the type of airplane utilized in the several different aerial photos submitted as part of the application?

THE WITNESS: Absolutely not.
CHAIRPERSON HOLDEN: Mr. Abbott, is your professional wetland expert prepared to testify with that information?

MR. ABBOTT: I think he's
already testified that you need an expert aerial photograph interpreter, but --

CHAIRPERSON HOLDEN: To
determine the name of the pilot or the type of airplane?

MR. ABBOTT: No. That goes more to the weight that can be given because of
the questions about the accuracy of what it's showing.

Mr. Chairman, I think Mr. Brown had just answered that he is estimating the width of Flack Avenue at that time to be 20 feet, approximate. Is that right, Mr. Brown?

CHAIRPERSON HOLDEN: Mr. Abbott,
I certainly understand. What $I$ ask of you is to get back to the thrust of the rationale for the decision based upon the record in front of the department with the decision. It seems to me, personally, that you're tracing down the elevation and weather and type of airplane and other information, obviously not a pertinent piece, that you have related either expert photo reviewers would offer comment upon nor did your applicant provide the information when paying a public wetlands scientist to provide information to the department. And so it does not seem to be in line with the thrust of your charge here.

Mr. Horsey.

MR. HORSEY: This is for

Mr. Abbott. When Mr. Brown just traced that area of the ditch, do you concur that you're talking about the same area?

MR. ABBOTT: That's what I assumed he was referring to as the supposed connection.

MR. HORSEY: Okay.
MR. ABBOTT: So further to this photograph.

And Mr. Chairman, this
photograph is their entire case, so --
CHAIRPERSON HOLDEN: Mr. Abbott,
Dean Holden, again. Your public wetlands scientist testified that the ditch that seemed apparent in the ' 26 photo and also seemed apparent in the 1950 subdivision plat seemed to exist in both. So I heard your expert witness testify the presence of, and I've heard you say because it's not since 2000 in existence, it doesn't matter, right, we've heard that as well. We've heard both your witness and Mr. Brown testify to the likely presence of this feature.

MR. ABBOTT: No. Mr. McCulley testified that he cannot say what that dark area is that runs parallel to Flack Avenue. It could very well simply be a drainage ditch that receives storm water runoff. So he does not agree with Mr. Brown in that respect.

And if I could ask Mr. Brown the next question I intended to ask about the area adjacent to the approximate 20 -feet Flack Avenue, $I$ think we can establish that that area probably isn't even on lots 22 through 25.

MS. SPIALTER: Again, objection.
Relevance. That is not what they based their opinion on.

MR. ABBOTT: Well, then I'll
have to ask Mr. Brown because apparently I'm not understanding what his decision and his site summary state.

CROSS-EXAMINATION, cont'd
BY MR. ABBOTT:
Q. So Mr. Brown, you just drew on this aerial photo a blue line that came down

Flack Avenue; correct?
A. Yes.
Q. And in your site summary, that was the primary basis for your conclusion that you believe the six lots were state wetlands; correct?
A. I wouldn't say it was primary. That was a reference to that there was tidal connection --
Q. Okay.
A. -- in the $20 t h$ Century.
Q. Okay. So you just stated a moment ago that you estimate Flack Avenue to be 20-feet wide up. And do you recall the Shore subdivision plan shows that Flack Avenue is 30 -feet wide in terms of its right-of-way?
A. Yeah.
Q. Okay. So the dark area that is on this aerial that you believe constitutes a connection to tidal waters could be part of the Flack Avenue right-of-way?
A. I wouldn't -- in my professional opinion, no.
Q. Well, 20 feet is not 30 feet, is it?
A. No, it's not, but there's also --
we're talking about several years in
between, and you said the road wasn't -- how
do you know the road wasn't widened? And I
was giving an estimate with my shaky hand
here trying to quickly label that out for the Board.
Q. You claimed that this aerial is on some Delaware website?
A. Yes.
Q. And how do we know the Delaware website is a reliable source?

MS. SPIALTER: Objection. Not for the witness. That's a legal question, not a factual question.
Q. Mr. Brown, what I'd like to know is who does this site.
A. It's saved on First Map, and I believe my counsel already addressed that.

MS. SPIALTER: It's part of the Delaware Public Archives, as I provided to counsel and the Board in response to your motion in limine.

BY MR. ABBOTT:
Q. I believe, Mr. Brown, you testified that it's your opinion that "connected to tidal waters" includes areas of like elevation.
A. Yes. Of like elevation? If I said that, I may have misspoken. But like I said, from the hundreds of state wetland JDs that I've completed in my seven-year tenure within the wetlands and subaqueous section, it's pretty amazing how that 2 -foot elevation is the break and the change between a salt marsh and a transition to a 404 freshwater marsh or uplands.
Q. So your decision is based on the theory that the six lots could be flooded by a major storm; right?
A. No. It was based on the three criteria of the state law.
Q. Because I'd like you to shoe me where in your site summary you based your conclusion on a few-time-a-year storm surge.
A. Are you talking about the elevation? Is that -- I mean I think you --
Q. I thought you testified that the six lots had a tidal connection because there could be a storm surge that inundates them with water.
A. Yeah. I mean, I think even though you have a lot of conflicting information in your survey, yes, I would stand by that statement.
Q. Where is that theory referenced in your Delmar, LLC on-site investigation summary?
A. I'm not sure that it specifically is, but, I mean, it's just a matter of fact.
Q. Where is it referenced in your January 30, 2020 decision?
A. Pull it up.

MS. SPIALTER: Mm-hmm.
A. I mean, it references the definition and that we feel that it meets the intent of the definitions. I mean, it's saying it meets all three criteria of the law.
Q. Where in your decision do you mention your storm surge theory of connected to tidal waters?
A. I don't have a storm surge theory.

I have a theory that it's -- the entire lot is less than 2 foot above mean high water.
Q. That's the elevation criteria. I'm talking about the connected to tidal waters criteria.
A. Well, it's the same difference.

It's a fact of the matter that on several events a year high marsh floods during spring tide events.
Q. So then the entire area along Flack Avenue, all those houses should be designated as state wetlands and the houses torn down?
A. No means did I say that. There is a lot of areas that are built which would meat the definition of state wetlands that were done prior to the law and regs. There is a lot of grandfathered area in the state.
Q. So at the end of the day, your
decision is based on the possibility that the six lots could theoretically be inundated with water based on a few-time-a-year event?
A. No. It's based on the three
criteria of the law.
Q. Well, as to the "connected to tidal waters" criteria, your testimony was that you think it's connected -- it was connected to tidal waters because it could -- all six lots could be completely inundated if the marsh tops over Flack Avenue. Correct?
A. Well, it was that the ditch has, is directly adjacent to the property and, yes, it provides a source of tidal water to the area in the 1926 aerial. That is my professional opinion, yes.
Q. But in the 1926 aerial, the only areas that you believe are connected to tidal waters is that dark area that runs parallel to Flack Avenue; correct?
A. No. That would be water, not wetlands.
Q. Your theory is that the dark area that runs parallel to Flack Avenue is connected to tidal waters; correct?
A. Yes.

MR. ABBOTT: Thank you.

No further questions, Mr. Chair.
MS. SPIALTER: May I ask for one question on redirect?

CHAIRPERSON HOLDEN:
Ms. Spialter.
REDIRECT EXAMINATION
BY MS. SPIALTER:
Q. The definitions states "connected to tidal waters"; is that accurate?
A. Yes.
Q. Can you in your professional opinion define "connected" specifically, to the best of your ability?
A. So it all correlates together. The "connected" goes back to the elevation which references that's most likely your storm event or your spring tide event. So they are going to inundate the marsh and act as a functional salt marsh.
Q. In your professional opinion, does "connected" have anything to do with zoning lots, divisions, boundaries, artificially created by man or anything similar?
A. Absolutely not. If that was the
case, there would be very few state wetlands in the state.

MS. SPIALTER: No further
questions.
CHAIRPERSON HOLDEN: Questions
from the Board for Mr. Brown?
EXAMINATION
BY MR. MARCOZZI:
Q. This is Guy. Tyler, I understand that you feel that the site is inundated with flood waters on a regular basis. Can you just elaborate on that, the evidence that you have and the frequency at which you think that that area is inundated with the flood waters?
A. So is that according to the old aerial photography or current conditions?
Q. Let's just start with the current conditions.
A. So I would say, yes, we didn't go into a thorough, in-depth study and put piezometers down and all that stuff and do a full-blown hydrological study, which apparently was already done, but we didn't
receive that information, again.
Just according to the elevation and the height, most of the lot is well below the 2 feet about mean high. The road is at a low elevation. So $I$ would say it's not a frequent basis, but I would say several times a year, it does in my professional opinion.
Q. Do you think you get back waters from the inland side or is it a flooding all coming from St. Jones River and Delaware Bay?
A. The current conditions, I would say it's coming from the back side of the marsh across the road, unless there's a crazy storm event and it blows through the dune like it has on a couple of occasions. MR. MARCOZZI: Thank you. CHAIRPERSON HOLDEN: Mr. Horsey. EXAMINATION

BY MR. HORSEY:
Q. I want to ask Mr. Brown the same question that I asked Mr. McCulley. I wrote down numbers this time before I asked Mr.

McCulley. I looked at the high tide lines and we can say that the high tide lines are either 2.3 or 3.8 . Looks like 3.8 on that Miller \& Lewis, Miller drawing, but everybody is saying that the state says it's 2.3. When $I$ look at that site out there, I look at elevations from 3.5 to 3.0. I get it that the sand dune is anywheres from 5 to just shy of 8. So the question $I$ got and this is what I asked Mr. McCulley: Is it possible your flooding can come from subsurface if the high tide mark is right and it's a 3.8, the tide comes in at 3.8, but your surface out on this site is 3, is the water coming from subsurface? You augered holes. You said you augered holes.

Is that soil pervious enough to let water come in when the tide comes in?
A. So it's very possible. I think the only real way is to actually install piezometers and monitor the tide events. It's something we considered, but we just didn't feel necessary considering the evidence that we had.
Q. And the spartina that you were talking about, switching gears just a little bit, does that grow anywheres else?
A. So it's typically in some form of salt or brackish environment. Usually it is in inner tidal zone. But $I$ can give an example.

Ted Harvey Little Creek
Impoundments on Fish and Wildlife property. They do hold that, and basically, you know, they let water in and out of that structure, but it's a brackish environment. So it will grow in salt and brackish environments.

MR. HORSEY: That's all I have.
CHAIRPERSON HOLDEN:

Mr. Mulrooney.
MR. MULROONEY: I have a couple.
EXAMINATION
BY MR. MULROONEY:
Q. Mr. Brown, did you look into the rationale behind the 2013 decision to make changes to the tidal wetlands map? It seems that the area that had considered is essentially the same area. So the
conditions you're talking about in terms of being subject to tidal waters, I would think that would have had applied to that area as well. So could you talk a little bit about that in terms of whether you had looked into the 2013 decision?
A. Yeah, sure. I did look into it. So it looks like to me it was solely based off the fact that everything was above that

2 feet above mean high elevation. In fact, if you actually look at Bowers Beach -- it's labeled "Bowers Beach Map Changes Map 2," which I think it's Exhibit 11, that actually, if you look, it looks like a small portion that's labeled. So there's two -there's two legend -- a legend at the bottom. There's a "Wetlands Removed" and a "Wetlands Added." It actually looks like an area was actually added to the stateregulated wetlands map, oddly enough, as well. Or retained or added.
Q. So that area was generally above the

2 feet, then, you're saying?
A. Yes.

MR. MULROONEY: Thank you.
MR. HORNE: This is Randy. I have a couple questions.

CHAIRPERSON HOLDEN: Go ahead. BY MR. HORNE:
Q. If wetlands are defined by the local mean high tide elevation, why would you then -- not you personally, but why would someone use a spring high tide or a storm surge to define tidal connectivity? It seems like you're using two different standards within the same butt -- butt process.
A. Right. So going back to the definition of "state regulated wetlands." One of the criteria, if it's at an elevation at mean high water or 2 foot above, there's that zone which is typical of growing -- you know, salt marsh, being in a salt marsh environment.
Q. Okay. I'm not sure that answers, but that's all right.

And with respect to all the contradictions on mean high tide, did you
happen to look at what the NOAA mean high tide was or a local tide gauge?
A. We did not. I think in order to do that, we would have to go through a full blown survey ourselves and actually, you know, verify everything. No. The short answer is no.
Q. Why would you not trust NOAA data if it was a local gauge? I can understand if it was a remote gauge. But it's a local gauge. I would think you would trust the NOAA data.
A. And I would agree to that, but it also has to be correlated and referenced to how the elevations were taken on that property.
Q. Oh, I understand that. I understand that.
A. Yeah.
Q. Which brings up another question. You've made some statements with respect to the elevations and you were talking about this 2 foot above and you're basing it on that -- your comments on that survey, but
you've also said you don't know what that survey is based on. Because you say it references the Delaware State Plane and you don't think that constitutes a vertical relation datum. So, therefore, how can you comment?
A. So, again, the burden is on the applicant to provide some of this data, and even if --
Q. I understand that. I understand
that. But you made the statement.
A. Right. Well, I don't want to seem misleading or not, but all -- either of the three of the elevations, we're still in the same situation where all or the majority of the property, even if you take one of the three elevations that they have referenced is at that below 2 feet above mean high. MR. HORNE: That's it. CHAIRPERSON HOLDEN: Thank you, Mr. Horne.

Ms. Riddle, any questions? MS. RIDDLE: Yes. I do have just one. Again, a
clarification question.
EXAMINATION
BY MS. RIDDLE:
Q. If you go back to the 1926 map, there is the area that comes from St. Jones

River. And then there is that apparent gray area that continues parallel to Flack

Avenue. In the 1950 map, $I$ don't see the parallel stretch on Flack Avenue. Would your decision have changed if that part of the ditch or the gray area in the ' 26 map were not there and it were just the connection to the St. Jones to Flack

Avenue -- and then put the culvert into the marsh?
A. I'm sorry. I didn't quite catch the last couple, the last sentence or so about the culvert.
Q. Yeah. If that gray area in the 1926
map, which is the one that goes straight down Flack Avenue -- 1950 map --

THE COURT REPORTER: I'm sorry.
You're keep cutting out, part of your sentence. I'm not sure what the issue is.

Some of your words are being lost.
CHAIRPERSON HOLDEN: We're
getting most of it. Just give it a try one more time, please.

BY MS. RIDDLE:
Q. Okay. Let me -- I can't adjust my volume up any more. It's to the maximum. But my question basically is
your decision based on connection to tidal area, does that hinge on not only the part of the ditch that goes through St. Jones to Flack Avenue but also from Flack Avenue -directly -- the properties in question?
A. I lost a little bit again, but I think $I$ have enough to get what you're saying. Basically, just -- sorry. Let's say, for example, that feature wasn't present, that -- yeah, if it just went straight keep going. So what you're saying, if that's all the feature depicted and if it didn't head kind of to the southeast there, is that what you're asking, if that doesn't exist?
Q. Exactly.
A. I think that would have no bearing on the decision. It's just additional proof, in my mind, that there's additional feature heading down south or down Flack Avenue.

MS. RIDDLE: Okay. Thank you.
CHAIRPERSON HOLDEN: Ms. Riddle, any other questions?

MS. RIDDLE: No. That's it.
EXAMINATION
BY CHAIRPERSON HOLDEN:
Q. Question for you, and it relates a little bit to what $I$ believe the appellant's argument is relative to "this century" and whether "this century" means from the year 2000 forward. Has the department historically put their blinders on for permit submission post 2000 to any preexisting condition previous to the year 2000?
A. I would say I'm not a hundred percent sure on that. I've asked the question. Unfortunately, the section has had a lot of turnover. But $I$ would assume
from what I've seen on some of these others, that, yes, that has been overlooked adjacent to this particular property.
Q. Sorry. I didn't necessarily mean to ask about this property. I'm more referencing within the definition of "state wetlands," that if it had been tidally connected some time previous this century. Right. So what's the lookback period for any permit submission? Does it -- now that we're in the 21st Century, are you not allowed to look past the year 2000?
A. So -- and this is -- you know, this project did take longer than what we anticipated and it mainly went back to -- in my opinion here is seven years is the first time really come across a situation like this.
Q. Right.
A. I think it's kind of unique. I've authorized, I've completed map changes myself, but it's never been in an area, that

I can recall, that we thought could have tidal connection historically. It was all
an err in the map where it may have been 5 or 6 feet that were mis-mapped in the uplands or something of that nature. So in my opinion, anyway. I can't think of any site, any relative to this. It would compare to -- I can give you a good example. I could reference Ted Harvey and Little Creek Impoundments again. Those sites were historic -- historically salt marshes, and they were altered by man as a waterfowl refuge and habitat. They were mapped as state wetlands, I think off the premise that it was in the 20th Century. Q. Let me interconnect the question. The Watershed Eco's wetlands report provides a number of maps using aerials that predate the year 2000. Are their inclusion viewed as valid to the department or does the department only review aerial -- allow submission of documents, aerial photos post the year 2000?
A. We review everything. Again, the more information, we have the better, so it's -- yes, it most certainly would. There
are other aerials that show where the breach had blown through and there is water standing on the property. That's things we looked at in general anyway, also.

MR. HOLDEN: Thank you. Any
other questions from the Board?
MR. MARCOZZI: Dean, either this
is for you or for Tyler.
CHAIRPERSON HOLDEN:

Mr. Marcozzi, thank you. Just identifying who you are for the record.

EXAMINATION
BY MR. MARCOZZI:
Q. If this ditch connects, then that's one criteria. And the century thing is part of that. And then the other key point, I guess, would be if the information alone is sufficient to create the connectivity. It seems to me that those are the principal issues. Am I getting that correctly?

CHAIRPERSON HOLDEN: I think
that's really a question for Mr. Brown.
THE WITNESS: Yeah, I would
agree. Yes.

MR. MARCOZZI: Okay. So I know you guys do a lot, you know, and you bring us a lot of background, but at the end of the day, it always comes down to a couple key things we need to decide. I just want to make sure the Board had those issues clearly defined.

CHAIRPERSON HOLDEN: Thank you,
Mr. Marcozzi.

Any other questions from the
Board for Mr. Brown?
Thank you, Mr. Brown.
(Witness excused.)
CHAIRPERSON HOLDEN:
Ms. Spialter, any other witnesses?

MS. SPIALTER: No. I had listed
potentially other witnesses, but at this
point, I believe that Mr . Brown has
testified as to everything I need to
introduce into the record. So with that, I will rest.

CHAIRPERSON HOLDEN: Very good.
I think, Mr. Abbott, closing
argument for you.

MR. ABBOTT: Yes, Mr. Chairman. As I indicated at the beginning, the issues are, number one, "areas." That's the first key term. The second key term in the statute is "connected to tidal waters." And the third key term or phrase is "in this century." So, again, have to be areas that are connected to tidal waters in this century.

Taking those in reverse order.
"In this century," as we've pointed out, the clear and plain meaning of the language when someone tells you this century is the 21st Century because that is the Century that we currently live in.

In terms of the theory that it
could be the 20th Century, as I stated before, if that is what the General Assembly intended, then that's what they would have said. All they had to do was say "20th Century" or they could have said "1900 forward." There's other ways to say it as well, but they could have put a specific date -- instead, they said "this century."
"This century" clearly means the 21st Century. And there is no evidence that's been presented in the record that there was any connection to tidal waters in the 21st Century for any of these six lots.

Next. We have the "connected to
tidal waters" issue. "Connected" means
joined or linked. That's in my memorandum of law. I gave you the dictionary definition. And so there has to be a direct connection.

What DNREC has presented for the first time, by the way, because it's not in its decision and it's not in the site summary that its decision was based on, but suddenly, DNREC came up with a new theory for purposes of this hearing that
"connected" means adjacent or nearby or even areas that could have a storm surge or, this new term, "spring tide" a few times a year. So that's not a connection. It's not joined or linked. It's occasionally inundated by a major, unusual event.
So also when you look at the

1926 aerial photograph, the only thing that that photograph shows, according to Mr. Brown, is a supposed ditch running parallel to Flack Avenue, which he theorizes is connected to the ditch that runs to the

St. Jones River that's shown on the 1950
Shore subdivision plan. Even assuming that's true, that is the only area that he has shown any evidence could have been connected to the tidal waters. So only that dark area on the 1926 photograph qualifies under the specific unambiguous definition of the language in Title 7 Section 6603(h) definition of "wetlands."

The other point that the Board should keep in mind is that there is no accurate way to determine if that supposed ditch along Flack Avenue in the 1926 aerial photo is in fact a swale that receives storm water runoff similar to the swale that's there today that receives storm water runoff. That wouldn't seem to have changed.

Why would that change in 94 years? Flack Avenue was there then, Flack Avenue is there
now, and it is quite common for there to be storm water runoff swales adjacent to roadways. So there is no plausible evidence that can show with any reasonable degree of certainty that there was any connection of any of these six lots to tidal waters.

In addition, I pointed out the width issue. Flack Avenue is laid out at 30-feet wide. Mr. Brown conceded that in the 1926 aerial, it was, at most, 20-feet wide. So that dark area that he believes is a ditch connected to the St. Jones River could just as easily be in the right-of-way. We don't know how wide it is. It may only be 10-feet wide. So that tells us that there may be a portion of Flack Avenue that qualifies under Mr. Brown's theory as state wetlands. But that's not proof that any of the lots 22 through 25 are wetlands. In addition, the aerial photo showed zero connection -- I repeat, zero connection with lot 32 and parcel D. Again, this is just

Mr. Brown's what we call hearings or litigation construct arguments that he's
just created recently for this hearing that he's now going to argue, well, "connected" means adjacent. "Connected" could mean elevation criteria. "Connected" could mean the few-time-a-year storm surge or spring tide. That's not what a connection is. And I think we all know that. I think everybody understands what connected is. It's not periodic and it's not tidal. "Tidal" means the ebbs and flows, as was referred to earlier, that occur on a daily basis. That's tidal.

> Because taken to its logical
conclusion, Mr. Brown could map virtually the entire state of Delaware on the state wetlands map because, theoretically, there could be a flood. There's a flood in Newport, Delaware. There's a flood in -- at the beach. There is a flood in the Dewey Beach, for example. Does that mean that Dewey Beach is now all state wetlands because there was a storm event that caused water to surge and flood? No. A flood and a storm surge are not a tidal connection.

And I think that's -- you don't have to be an expert to understand that simple proposition.

The other thing that was
attempted in this hearing today is to the confuse the different criteria to qualify as wetlands. There is an elevation criteria. We're note arguing that. That is irrelevant today. None of that elevation discussion has anything to do with what's before this Board. Instead, what's before this Board is areas connected to tidal waters in this
century. Elevation is not at issue. That's a red herring that's been put forth by Mr. Brown to come up with a new theory for why his decision says what it says.

Finally, I'll point you to the decision itself. The decision itself actually contains no explanatory basis for its conclusion. It's what we lawyers call a conclusory statement. He has a conclusion, and the conclusion says -- I'm going to paraphrase -- we evaluated the map change. We evaluated the site, reviewed supporting
documentation. Upon reviewing the supporting documentation and conducting an on-site evaluation, and then it lists the property parcel numbers, it has been determined that no error exists in the Delaware wetland map DNR 183. This property has been found to meet the definition of
"wetlands." Therefore, the area will remain as state wetlands. That provides absolutely no basis for the conclusion. So we know that this storm surge/spring tide theory that's just recently been put forth and the adjacent equals connected theory is new because not only is it not mentioned in the decision, it's not even mentioned in the Delmarsh, LLC on-site investigation summary. So the third paragraph of that particular document that Mr. Brown testified Mr. Geatz prepared starts out by talking about the 1926 aerial photo. It mentions that legal advice has told them that this century is the 20th Century. It then says,
"The St. Jones River being tidal in this area and having a clear tidal connection to the sites in 1926, we consider this criterion of a wetland to be fulfilled." So that's it. There's nothing about storm surges. There's nothing about spring tides. There's nothing about anything other than that aerial showing what he theorizes is a connection. And then it says, "Additionally, a culvert" -- and then it talks about this culvert appears to connect.

Well, Mr. Brown has conceded in this hearing under oath that he doesn't know of any culvert. He can't find any culvert. In fact, he's conceded that the only culvert that could have existed is the one shown running underneath Flack Avenue on the 1950 Shore subdivision plan. So that just doesn't establish any tidal connection at all.

And, again, as a matter of law, the new storm surge/spring tide story that he's trying to throw out at the Board for
justification for the first time here today just doesn't comport with the statute. The statute: Again, "areas"; "connected to tidal waters"; "in this century." That is it. And he didn't provide you with any evidence whatsoever that that existed, and his only theory that predated this hearing here today was the dark area on the 1926 aerial photograph running next to Flack Avenue, which for the reasons I've already cited is not reliable, it's not discernible, and they have not provided you anything but his guess, his surmise, his speculation and his conjecture. And that simply cannot the carry the day.

This is an important issue.
DNREC wants to prohibit my client from building on six building lots that have been approved since 1950. And it's too late, the cow is out of the barn, and DNREC has already conceded through all of the wetland map amendments all up and down Flack Avenue and Bayshore Drive that if you don't show that your lands are inundated with water,
tidal water, then you're not going to be on the map. There is no such proof here. And these lots should likewise be removed in their entirety from the map. And we would respectfully request that the Board reverse DNREC's decision so that the maps will be amended in accordance with the law.

Thank you.
CHAIRPERSON HOLDEN: Thank you, Mr. Abbott.

Ms. Spialter.
MS. SPIALTER: Thank you, Chair Holden.

Today you've heard a lot of different definitions of what one very simple sentence in the regulations means. However, the legal standard is clear. On appeal to the Board, the appellant bears the burden of proving that the Secretary's decision is not supported by the evidence on the record before the Board.

Further, substantial weight and deference is accorded to the construction of a regulation enacted by an agency which is
also charged with it enforcement. The agency's interpretations need not be the only possible reading or even the best one to prevail. The administrative agency's interpretations will not be reversed unless it is clearly wrong.

So we return to the regulation in question that we keep analyzing. The regulation states in pertinent part, because we've all agreed that while there are three criteria, only one is in question here. Section 5 provides definitions, and one of the parts of the definition of "wetlands" is "areas which are now or in this century have been connected to tidal waters."

The simple fact that DNREC and appellant have offered two competing definitions makes it clear that there is ambiguity. Accordingly, DNREC is afforded deference, unless DNREC's definition is clearly wrong.

> So as Mr. Abbott did, I'm also
going to walk through the three portions of
this definition, make it clear what DNREC's definition is, what its interpretation is and how it was applied here.

First we have "areas." Area is not defined. As you heard from Mr. Brown, the ecology does not care for the manmade lines like zoning ordinances, roads, lot divisions or any other manmade boundary. Accordingly, "area" was defined by DNREC to be a cohesive area, a cohesive lot of land with similar characteristics.

We then move on to "which are now or in this century." "In this century" is also clearly ambiguous. It could mean the 20th Century. It could mean the 21 st Century. It could also mean a 100-year period, going back 100 years from when the regulation was promulgated. It could mean a hundred years from today.

In a case where a regulation or a statute is ambiguous, we try to discern legislative intent. And other elements of the wetlands statute make it clear that the purpose of Chapter 66, which is the wetlands
chapter of Title 7, was to preserve the wetlands of the state. For example, if you look at Section 6602 of Title 7, it reads: "It is declared that much of the wetlands of this state have been lost or despoiled by unregulated dredging, dumping, filling and like activities and that the remaining wetlands of the state are in jeopardy." It continues to discuss the ways in which the wetlands are in danger. And then it goes on at the very end to say: "It is hereby determined that the coastal areas of Delaware are the most critical for the presence and future quality of life in the state and that the preservation of the coastal wetlands is crucial to the protection of the natural environment of these coastal areas. Therefore, it is declared to be the public policy of this state to preserve and protect the productive public and private wetlands and to prevent their despoliation and destruction consistent with the historic right of private ownership of land."

To have a statute with a stated purpose of conservation in the future, to arbitrarily determine that at the turn of one random day, all of a sudden a hundred years of history mean nothing is literally an absurd reading and, therefore, cannot be correct. Therefore, DNREC believes that DNREC has interpreted the regulation statute to have "in this century" mean either the 20th Century or perhaps a hundred years from when the regulation was first promulgated. And either way, we are still talking about well before 1926.

Lastly, we have to talk about
"connected." Appellant would have you believe that the term "connected" requires a strict dictionary definition of alongside or adjacent or touching. But, again the dictionary definition has to be applied in context. And in the context of wetlands "connected" means hydrologically connected, ecologically connected.

And when Mr. Abbott tries to conflate the issue by saying that we were
conflating the three elements of the wetlands definition, that ignores the fact that "connected" by its very nature in this regulation and by its very nature in terms of the definition of "wetlands" implies all three of the criteria, because that is how we determine connection. We determine connection by looking at the elevation, by looking at the soils, by looking at the vegetation. Everything about the site made it clear that from the preexisting ditch, the connection to the St. Jones River, through and beyond the applicant's property is connected in all of the scientific ways that matter and are, therefore, clearly tidal wetlands.

You've heard the evidence to back each of these elements. You've heard the evidence regarding the soils on site that are associated with brackish and salty areas. You heard the testimony regarding the vegetation that is associated with brackish and salty areas. You've heard the testimony regarding Mr . Brown's experience
in the field where generally areas up to 2 feet above mean high tide carry the same ecological markers and the same scientific delineation of wetlands.

DNREC went out to the site, analyzed it, evaluated it, looked at the historical information available and repeatedly asked for clarification about information that seemed to be misleading or inconclusive.

Presented as an exhibit in front of you today is a survey that suggests the mean high water line is a foot and a half higher than that put forth by the expert, by appellant's expert. At no point, not even before this Board, was the applicant able to produce what they claim to be the corrected survey.
Accordingly, it's clear, and
incontrovertible that based on the evidence before the Secretary, and before the Board, that by the definitions in the regulations, all six of the lots in the question are tidal wetlands, and therefore, this case
should be ruled in DNREC's favor. And the map change denial should be upheld.

CHAIRPERSON HOLDEN: Thank you, Ms. Spialter.

With that, is there a motion for the Board to go into executive session.

MR. HORNE: This is Randy. I make a motion we move to executive session for discussion.

MR. MULROONEY: Second.
CHAIRPERSON HOLDEN: Thank you,
Mr. Horne.

Mr. Mulrooney, was that a
second?
MR. MULROONEY: That's a second.

CHAIRPERSON HOLDEN: All right.
So we're going to move over to executive session here.

Does Ms. Mohammed have contact info for Mr. Abbott and Mr. Spialter so we can get back to you? It's 3:00 o'clock now. We certainly will endeavor come back before 4:30 and let you know otherwise. Okay. Very good.

With that, Board members will
$\log$ off here and we'll get back to you.
Thank you.
(Executive session held off the
record.)

CHAIRPERSON HOLDEN: I think we
have everybody back. I see Mr. Abbott,
Ms. Spialter as well. Very nice.
Is there a motion from the

Board?
MR. HORSEY: Mr. Chairman.
CHAIRPERSON HOLDEN: Mr. Horsey.

MR. HORSEY: I make a motion to affirm the Secretary's decision.

CHAIRPERSON HOLDEN: There is a motion. Is there a second?

MR. HORNE: Randy Horne. I second the motion.

CHAIRPERSON HOLDEN: Mr. Horne,
I see a second.

Any discussion on the motion?
All right. I'm going to do a roll call vote.

Ms. Riddle.

MS. RIDDLE: In favor.
CHAIRPERSON HOLDEN: All right.
Mr. Horsey.
MR. HORSEY: In favor.
CHAIRPERSON HOLDEN: Mr. Horne.

MR. HORNE: In favor.
CHAIRPERSON HOLDEN: Mr.
Mulrooney.
MR. MULROONEY: In favor.
CHAIRPERSON HOLDEN:

Mr. Marcozzi.
MR. MARCOZZI: In favor.

CHAIRPERSON HOLDEN: Dean
Holden. Vote in favor of the motion.
So the motion passes
unanimously.
I thank everybody for working
through the technical glitches here of a Webex video conference today. It's taken a little bit of patience. I appreciate that.

We'll get the decision out here within 90 days.

Ms. Reeder, appreciate your help here as well. With that, our hearing is
concluded.
(Hearing concluded 3:44 p.m.)
concluded. $\quad$ (Hearing concluded $3: 44 \mathrm{p.m)}$.

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                        I N D E X
    APPELLANT'S EVIDENCE
    WITNESS NAME DIRECT CROSS REDIR RECROSS
    JEFFREY LIBERTO 39 61 -- --
    EXAMINATION BY THE BOARD:
                PAGE
    BY MR. HORSEY 66
    WITNESS NAME DIRECT CROSS REDIR RECROSS
    JAMES C. McCULLEY, IV
                68 93
EXAMINATION BY THE BOARD:
                                    PAGE
    BY MR. HORSEY 113
    BY MR. HORNE 114
    BY CHAIRPERSON HOLDEN 114
APPELLEE'S EVIDENCE
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TYLER BROWN 119 150 191 ---
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```

State of Delaware )
New Castle County )

## CERTIFICATE OF REPORTER

I, Lucinda M. Reeder, Registered Diplomate Reporter, Certified Real-time Reporter and Notary Public, do hereby certify that the foregoing record is a true and accurate transcript of my stenographic notes taken on August 11, 2020, in the above-captioned matter.

IN WITNESS WHEREOF, I have hereunto set my hand and seal this 20th day of August 2020 at Wilmington, Delaware.


Lucinda M. Reeder, RDR, CRR

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