STATE OF ILLINOIS)
)SS
COUNTY OF LEE)

In the Matter of the Petition

of

Steward Creek Solar, LLC

Lee County, Illinois

Testimony of Witnesses
Produced, Sworn and
Examined on this 19th day
of October, A.D., 2020,
before the Lee County
Zoning Board of Appeals

Present:

Mike Pratt
Gene Bothe
Glen Hughes
Rex Meyer (via Zoom)
Bruce Forster, Chairman

Alice Henkel, Secretary
Dee Duffy, Zoning Enforcement Officer

Honorable Judge Timothy Slavin, Facilitator

APPEARANCES:

LEE COUNTY STATE'S ATTORNEY CHARLES BOONSTRA
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Counsel for the County.

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Counsel for the Applicant.

In Totidem Verbis, LLC (ITV)

INDEX

Witness: TOM HUDDLESTON

Witness: SCOTT BILLINGS

Witness: MIKE LEHR (appearing via Zoom)

EXHIBITS

In Totidem Verbis, LLC (ITV)

JUDGE SLAVIN: All right. Good evening, ladies and gentlemen. Welcome back. I call out of recess Lee County Zoning Officer's Petition -- Steward Creek Solar's Petition 20 P 1555 for Special Use.

We have been in recess since last Thursday evening, and we'll pick it up again here.

A couple things. For the record, there are 22 people here in the Old Lee County Courthouse, main -- former main courtroom.

Among those present are members of the Zoning Board of Appeals: Mr. Forster, Mr. Hughes, Mr. Bothe, Mr. Pratt; and Mr. Meyer on Zoom. Mr. Buhrow did not return from our recess.

Ms. Kennedy is here for the Petitioner. The honorable Charlie Boonstra, the honorable Dee Duffy are present, as is the IT staff, including Alice Henkel. The Petitioner's here with various representatives and their attorney, Ms. Kennedy.

And, Ms. Kennedy, the ball is still in your court. You may continue.

MS. KENNEDY: Thank you, Judge. I'd like

In Totidem Verbis, LLC (ITV)

to call our next witness, Tom Huddleston.

JUDGE SLAVIN: Mr. Huddleston, want to step up somewhere here and raise your right hand, please.

(Tom Huddleston was duly sworn.)

JUDGE SLAVIN: Have a seat right there, please.

THE WITNESS: May I take my mask off, Your Honor?

THE COURT: Yes, you certainly may, whatever makes you comfortable, but I'm going to get further away from you.

THE WITNESS: That would be fine.

MS. KENNEDY: May I inquire, Your Honor?

JUDGE SLAVIN: You may.

TOM HUDDLESTON,

having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. KENNEDY:

Q. Can you state your name and spell it for the record, please.

A. Yes, ma'am. Tom Huddleston. Last name is H-U-D-D-L-E-S-T-O-N.

In Totidem Verbis, LLC (ITV)

Q. And how are you employed?
A. I'm self-employed with Huddleston McBride Drainage Company.
Q. And what is your job title there?
A. I'm partners in a group of drainage companies.
Q. And how long has Huddleston McBride been in business?
A. We actually operate four different companies: Huddleston McBride, Cooprider Drainage Company, Countryside Drainage Company, and Messer Tile Services. Messer Tile Services and Cooprider have been in business for over 70 years. Huddleston McBride has been in business and I have operated the company for 47 years.
Q. Do you have any other relevant work experience in drainage?
A. Yes. We do a lot of consulting work. We do expert witness work. We do a lot of solar. We do highway edge drain. We do about anything that has to do with subsurface drainage.
Q. And when you say you're familiar with solar, can you tell your experience in that realm?
A. Yes, ma'am. We -- we were involved with the AIMA, which is the Illinois Impact Mitigation

In Totidem Verbis, LLC (ITV)

Agreement. We testified and we made comments. We also met with many counties, also professional agencies such as Natural Resource Conservation Service, the Land Improvement Contractors Association, NRCS, and other municipalities in helping to set up ordinances and rules for -- to maintain prime farmland in solar and wind.

Q. And when you say the AIMA agreement, is that the agreement that the Illinois Department of Agriculture requires a developer to enter into prior to developing a solar energy system?

A. Yes, ma'am.

Q. And would you agree that one of the primary goals of the AIMA is to address drainage issues and preserve drainage?

A. Absolutely.

Q. You testified that you sometimes work as an expert witness for solar farms. Can you expound on that a little bit more?

A. Yes, ma'am. We have -- we have testified in many zoning hearings on agricultural drainage and how to maintain drainage from the lands of others, legal mutual drains, and we have also

In Totidem Verbis, LLC (ITV)

testified with municipalities doing the same.
Q. And you're presumably paid to testify?
A. Yes, ma'am.
Q. Are you ever paid to testify to exactly what the company wants you to testify to?
A. I'm not sure I understand that question.
Q. Meaning, if the company wants you to say, Hey, there's no drainage issues, would you say that?
A. No, ma'am.
Q. Would you base it on your own investigation and conclusions?
A. Yes, ma'am.
Q. Are you familiar with Steward Creek Solar, LLC?
A. Yes, ma'am.
Q. And how so?
A. I was approached about, I think it was four or five months ago by the company to look over the project and write a belief on what our opinion was on drainage and to consult on what measures would be used to be able to maintain the prime farmland aspects of the property.
Q. And have you had an opportunity to review the petition and the application for Steward Creek Solar?

In Totidem Verbis, LLC (ITV)

A. Just very briefly.
Q. And did you perform an investigation of the site?
A. I have been across the sites. I have done some reconnaissance, but I haven't done any site-intensive or any preliminary evaluation yet.
Q. What, if anything, can you tell me about the surrounding areas to the project?
A. It's predominately farmland. It's an area we're real familiar with. It's been farmland for -- since the late 18- -- mid- to late 1800s. It has a lot of drainage. It has a lot of early development. It's very mature, great farmland.
Q. And are you aware of the size of this proposed project?
A. Yes, ma'am.
Q. And you understand it to be 5,000 acres in size?
A. Yes, ma'am.
Q. In your experience, do you have any concerns specifically related to drainage about taking acres out of row crop production to use for a solar energy system?

In Totidem Verbis, LLC (ITV)

A. No, ma'am, I do not.
Q. And why is that?
A. Well, I think that there's methods and procedures to preserve drainage and preserve the prime farmland aspects of the properties so that when it does come out of solar and is decommissioned, it can go right back into farming.
Q. And the lease agreement for this project is 35 years; is that correct?
A. Yes, ma'am.
Q. And so do you have an opinion as to whether after this 35-year period whether the drainage system will be improved within the project footprint?
A. Yes, ma'am, it will be.
Q. And why is that?
A. Why would the drainage be improved?
Q. Correct.
A. Well, in my presentation I'll be able to explain exactly how we do evaluations and how we rebuild drainage systems so that we can warranty them for the 35-year period.
Q. Mr. Huddleston, are you familiar with HEL

In Totidem Verbis, LLC (ITV)

ground, or highly erodible land?
A. Yes, ma'am.
Q. Do you have any concerns about siting a solar energy system on this type of ground?
A. No, ma'am, I do not, because this land will not be tilled. Once it's in solar, it will be seeded and sewed to grasses, which will eliminate the surface erosion.
Q. I think at this time -- well, let me back up.

It's my understanding that you prepared a PowerPoint presentation based upon your studies; is that correct?
A. Yes, ma'am.

MS. KENNEDY: Alice, can you pull it up on the screen, please?
Q. (By Ms. Kennedy:) Mr. Huddleston, looking up at this screen, is this your PowerPoint presentation?
A. Yes, ma'am.
Q. Please proceed.
A. Thank you.

We have -- our company has testified in numerous occasions and added and contributed to the Agricultural Impact Mitigation Agreement,

In Totidem Verbis, LLC (ITV)

which is a law in the state of Illinois. It requires certain activities to take place basically in renewable energy, whether it be wind and/or solar.

The -- I think all agencies and all reviewers will concur that the primary reason for this is to protect what we consider -- all consider one of Illinois' most precious resources, and that is prime farmland.

So I have a short presentation to show some methodology on how we intend to do that.

Next slide, please.

So we are traditionalists pretty much when it comes to farm drainage. Before we go into any field to design or to modify drainage systems, it's important for us to understand the early development of the farmland and the history behind the actual draining of these lands.

In Alto and Willow Creek farm regions, farmers settled these lands back in the 1800s to -- back in the mid-1800s to about 1890. Farmers were very diligent and worked cooperatively in turning what we considered at

In Totidem Verbis, LLC (ITV)

that time natural native wet prairie land into fertile farmland, and, of course, that required a lot of intensive work and cooperation in subsurface and surface drainage.

Early farmers cooperatively built drainage systems to develop the land for farming. They first started by maintaining existing natural native channels and rivers. They then moved into digging canals and drainage ditches as primary outfalls. Next to improved surface drainage within the regions, they started to cut in swales and grass waterways to convey water to the open water courses. They then built large truck mains --

JUDGE SLAVIN: Excuse me a minute.

Sir, if you want to come in, that's great. But I prefer if you stand there at the door, if you'd have a mask, please.

AUDIENCE MEMBER: I'm just working security.

JUDGE SLAVIN: Please, thank you.

THE WITNESS: Thank you, Judge.

JUDGE SLAVIN: Sorry.

THE WITNESS: That's okay.

In Totidem Verbis, LLC (ITV)

They then built large main trunk lines and district mains that ran reasonably across the many farms. Next they built local collection systems, which are feeders of laterals within individual farms that outlet into these systems. They then improved roadways for transportation, along with the inception of guidelines. These basic principles were the beginning of what we now call Illinois prime farmland.

Next slide, please. Thank you.

Later, in the mid-1900s, professional drainage contractors and engineers began to improve and modify drainage systems, which stabilized thousands of acres of new farmland. They created new stable conditions and higher crop yields. This was actually the beginning of precision farming, and motivated new types of nutrient input systems and hybrid seeds.

Drain tile systems are basically clay drain tiles, usually in 1-foot sections that are butted against each other. The gap is sometimes raised by small tins, and those tins gap the drain tile ever so lightly so that water can get into the drain tile but sediment cannot.

In Totidem Verbis, LLC (ITV)

The drain tiles are then installed at a pitch or a grade so that when the waters free themselves up from the void within the soil structures, they settle by gravity into the drain tiles, and then convey down into the main lines, the sub main, then the rivers and channels down below.

There's several advantages to subsurface drainage. They allow the farmers to be able to till the land in the spring at a much earlier date. It warms the soil much quicker for earlier germination. It allows the crop to grow a much deeper root structure. It allows the entire farm to drain very consistently so that the wetter soils drain at the same time as the more adjacent mineral soils; therefore, the farmers can get in much earlier and they can harvest much later, which extends the growing system.

Next slide, please.

Today's drainage technology is very much different. We have started to abandon some of the older systems and put more modified systems in. Today's drainage, tillage applications,

In Totidem Verbis, LLC (ITV)

nutrient inputs and hybrid seeds have increased America farmland, including Lee County, to be some of the best of the world.

Today's drainage systems include a more complete approach to drainage. We now install pattern systems, which are drain tiles that are installed on either 40- to 70-foot centers. They are usually small-diameter polyethylene pipes that are plowed in and then we trench in with open trenchers larger main lines.

There are also -- on higher ground, more minimal soils, we're still putting in herringbone or localized systems, such as the illustration. We sometimes run random systems to large areas of the field to intercept hill seepage and other random flows.

Next slide, please.

This slide includes actually one of the farms in Alto Township where we would start the evaluation by what we call a preliminary drainage evaluation, which is necessary to consider what drainage elements need to be preserved and modified.

We first looked at surface drainage.

In Totidem Verbis, LLC (ITV)

Those are areas where surface waters convey stormwater flows off of surface. We then look at and identify what we call legal mutual drains. Those are main lines that run through the farm and actually drain to the lands of others. Another term for these are legal mutual drains; meaning that they are covered under Illinois Drainage Code to protect them.

Then we look at the onsite collection system, which are made up of feeders of high levels to small-diameter drain tiles. These tiles have been put in over the last hundred years and function in different manners throughout the farm.

Next slide, please.

After the -- after a preliminary evaluation, we then move into what we call a site-intensive investigation. This is an example of one. This happens to be a farm right south of the Oasis on I-88 in DeKalb. I don't know if you all have noticed, but there's a large commercial complex of 2,000 acres, which we are just completing all of the work in this area.

In Totidem Verbis, LLC (ITV)

So this particular farm is one of the million-square-foot warehouses that's going to be constructed. So therefore, in accordance with DeKalb's Ordinance, we're required to locate all the drain tiles within the site. This particular site/farm had 57,000 feet of drain tile that ranged anywhere from 15 inch down to 3 inch in size.

Next slide, please.

So the intensive survey actually starts by our team modeling the site to depict which soils would not be able to farm without subsurface drainage. We then cut slit trenches across these areas. When we locate the drain tiles, we either hand probe them or we insert tracer cables up the drain tiles, where we can accurately stake them on the surface.

After we stake the drain tiles and we repair the cuts, we then survey everything with a tremble subscription system in centimeter accuracy so that we know exactly where all the drain tiles are. Then there's logs also on the map that includes the size of the drain tile, the type of the material the drain tile was

In Totidem Verbis, LLC (ITV)

constructed of, the quality of the drain tile, the flow rate, the amount of siltation, and the classification, whether it's a main, sub main, or lateral.

And, again, careful emphasis is given to drain tiles which are regional and that we would consider legal mutual drains that travel through the lands of many and benefit other landowners. If you look at the slide in the lower left-hand corner, there's several tiles that extend in upper lands. So we have to reroute those drain tiles so that the upper landowners will continue to enjoy the benefit of those systems.

Next slide, please.

After we finish the intensive survey, all of the drain tiles are reconstructed and modified so that we can warranty them for a 35-year period. If you remember, these drain tiles were put in back in the mid-1800s and they are clay material that had no ASTM or material warranty at that time. So, therefore, we have to make sure that those drain tiles stay intact for the next 35 years. It's not easy to get into a solar farm to repair tiles or lay

In Totidem Verbis, LLC (ITV)

additional tiles.

So therefore, we reconstruct all the drain tiles with polyethylene dual-wall perforated pipe. In some cases we're able to deepen the drain tiles. In some cases we're able to enlarge the drain tile if the other landowners have an issue with needing extra capacity. And then we place all the lateral drain tiles as well through the property.

We then survey and stake the drain tiles, and we make sure that the geometry of the new drain tile system is not in conflict with the solar post operation. So we want to be sure that when the solar posts are driven, that the geometry is going to be not on the drain tile.

These drain tiles in many cases are replaced by what we call like-kind procedures, where we actually take the old tile out and insert the new tile. That gives us the ability to be able to pick up whatever feeder tiles may have been missed in the investigation. So if we do find a feeder lateral, we turn around and replace that lateral and incorporate that into the main line as well.

In Totidem Verbis, LLC (ITV)

So, therefore, it's our opinion that by following these best management practices -- including existing drain tile modification, planning deep root stable vegetation, and implementing a noxious weed control program -- that we will be able to assure that when solar -- the solar farm is decommissioned, that the prime farmland aspects will remain for future generations.

Thank you. That concludes my presentation.

Q. (By Ms. Kennedy:) Just a few follow-up questions.

How do you propose that we avoid certain construction issues --

JUDGE SLAVIN: Ms. Kennedy, can I get you to --

MS. KENNEDY: Sorry, Judge.

Q. (By Ms. Kennedy:) How can we be sure that during construction the company or its agents won't hit drainage tiles?

A. So we have a very accurate map of the drain tiles that have been GPS'd. We hand that GPS map system that we prepare to the developer's

In Totidem Verbis, LLC (ITV)

engineers. The developer then designs his solar post layout, and he does the best he can to avoid the drain tiles.

Now, these solar posts are on an average of 15-foot centers in a grid, so it's not possible in all cases to alleviate all drain tiles. So, therefore, we have all the piles staked accurately in the field before we actually rebuild the drain tiles. So when we rebuild the drain -- the drainage by like-kind procedures, if the drain tile conflicts with the solar posts, we would warp the drain tile off of that location that they are assured there are not any conflicts.

Q. Do you have any concerns about taking some of our best soils out of production for a solar energy system?

A. I actually do not, and I can explain. I think that these best management practices, where we put in these state-of-the-art systems, where we repair older drain tiles, where we plant deep-rooted grasses, native grasses, where we control the weeds, where we completely eliminate soil erosion, where we actually decrease runoff,

In Totidem Verbis, LLC (ITV)

that these benefits actually allow the land to pause or rest for a period of time to build up the nutrients, to build up the soil structures, and for the drainage to perfect.

So therefore, when the posts are pulled, then the ground is tilled and then put back into agriculture in most probably a better state than it is before it goes in.

Q. And so is it a fair statement that the soil integrity will also improve over the 35-year period?

A. Yes, it will. The root structures actually help break the ground up. It alleviates some compaction that a lot of our land is suffering from. It also adds a lot of organic nutrients to the soils as well.

MS. KENNEDY: I have nothing further, Your Honor.

JUDGE SLAVIN: All right. Turning then to, Mr. Boonstra, questions of this witness?

MR. BOONSTRA: No, Judge. Thank you.

JUDGE SLAVIN: Ms. Duffy?

MS. DUFFY: No.

JUDGE SLAVIN: How about you,

In Totidem Verbis, LLC (ITV)

Mr. Chairman? Mr. Forster?

MR. FORSTER: No.

JUDGE SLAVIN: Mr. Bothe?

MR. BOTHE: No.

JUDGE SLAVIN: Mr. Pratt?

MR. PRATT: Yes, I have a few.

EXAMINATION

BY MR. PRATT:

Q. See if I can do this right, not shuffle my papers.

So this is quite a project you're talking about, to go in and -- are you saying that you're going to replace every tile that's in 5,000 acres?

A. It wouldn't be every tile. Some of these farms have new tile in them at the time that we could warranty. Like, some of them have some plastic drain tile systems that were put in correctly and they will withhold the next 35 years. But most farms, the biggest percentage would be clay drain tile, and we would replace those.

Q. You're saying though that even plastic tile that would conflict with posts will be replaced?

A. Yes, sir. If it does conflict with a post,

In Totidem Verbis, LLC (ITV)

then yes, it would be replaced.
Q. So do you have any cost estimate of this that you have provided to the company?
A. We have done -- we have completed many of these projects. I have done around 50 small community solar projects that are 20 to 45 acres. We're working on several large systems. I'm working on a thousand-acre complete system in Champaign where we're actually grid tiling the entire site. It's a very flat site.

So the numbers are a little bit different than what new drain tile construction is because of the logistics that are required, the location and so forth. So, yes, we have cost estimates.
Q. You're surely going to miss tile. I can't imagine that you'll find every tile.

JUDGE SLAVIN: Is that a question.

MR. PRATT: It will be.
Q. (By Mr. Pratt:) So you made a comment that you can't go back in and fix in a solar farm. What's the alternative? And -- how are you going to solve that problem?
A. Well, there's one way we're going to mitigate that. And you're right, there are 3- and 4-inch

feeder tiles on top of hills sometimes where you never believed they were there, and they have a function.

So by implementing this like-kind replacement, where we actually take the old tile out, if we then run across these laterals because they're T'd in those lines, and we would find them and be able to replace them.

Now, we haven't -- in any of our projects, we haven't missed tile yet. But if we do miss tiles, then we can go in with mini excavators to be able to reconnect them, but they would most likely be a very small feeder tile, if that was the case.

Q. So you say you're going to replace the clay tile that's in the ground. How do you get that out of the ground? I mean --

A. Yes, sir. We take small excavators, and we actually cut the top out of the drain tile with the excavators, and then the laborer that's in the trench actually flips the bottom section of the drain tile out, and then that leaves a small cradle in the earth from the original drain tile. So then we stick the new polyethylene

In Totidem Verbis, LLC (ITV)

pipe in that same cradle. But most importantly, what it does is, it allows us very easily to be able to see a T connection or a lateral connection.

Q. So this is above and beyond what's requested for in the AIMA agreement, correct?

A. Absolutely, yes, sir.

Q. Did the -- is there any cost to the landowner for this?

A. I can't answer that question.

Q. Okay. So let's talk about the runoff. You mentioned that you think there will be less?

A. Yes, sir.

Q. The panels are going to concentrate the water. You don't think that will create more runoff?

A. No, sir. The water then falls on the ground. Of course, the ground is not -- is not bare land, as it would be in farming. It's a very rigorous prairie plant that has deep generation of roots to improve permeability. So the water is not able to run off the land as quickly because the runoff coefficient is very low, and then the land would soak -- the water would soak into the ground because the land is more

In Totidem Verbis, LLC (ITV)

perforated because the root structure from the prairie plants, and then the drain tiles actually de-water the storm structure during an intermittent storm so that there's plenty of storage within the soil structure to hold the water and release it slowly through the drain tiles.

Q. But the drain tiles are there already --

A. Yes, sir, correct.

Q. -- before the project was started?

A. Yes, sir.

Q. You're not going to add tile?

A. In some cases we have added tile in some areas, which you're right, but remember, we're taking all the compaction out of the soil, we're improving the permeability, so the tiles will run more efficiently.

Some of the tiles we actually often replace as well will be drain tiles that are in very poor condition. They have silt or dirt in them, may be completely broken down. So we'll be adding new tile or modifying old tile that need new characteristics.

Q. There's quite a few creeks in this property.

In Totidem Verbis, LLC (ITV)

Are you going to do anything to the creeks?
A. No, sir. We don't have any plans to dredge any creeks.
Q. Not remove any tree lines in the creeks or anything?
A. Not to my knowledge, no, sir.
Q. That wouldn't be your recommendation?
A. In some cases, some drainage channels need maintenance. I haven't looked at the drainage channels within this watershed yet, but as you well know, all farm ditches need to be cleaned and maintained from time to time.

Now, I can tell you that the solar farms will not add nearly as much silt to these ditches as the farmland does. So the ditches will have a longer life to them.

MR. PRATT: No further questions, Judge.

JUDGE SLAVIN: All right. Mr. Meyer?

MR. MEYER: No questions.

JUDGE SLAVIN: All right. Interested parties, those in the courtroom --

MR. PRATT: Judge.

JUDGE SLAVIN: Did I miss somebody? I'm sorry, Mr. Hughes. I'm sorry. I thought I went

In Totidem Verbis, LLC (ITV)

boom, boom, boom.

MR. HUGHES: No, that's fine. I have no questions.

JUDGE SLAVIN: All right. Sorry.

Interested parties in the courtroom, live in the courtroom, by raise of hand, questions of Mr. Huddleston, please.

Yes, sir. I see you first. We have got those microphones in the middle. Thank you. And if you'll help us get started with your name and the community you consider yourself living in.

MR. HUBER: Jon Huber, J-O-N, H-U-B-E-R.

I guess I have a couple, simple questions.

JUDGE SLAVIN: Community?

MR. HUBER: Steward, rural Steward.

JUDGE SLAVIN: Thank you.

EXAMINATION

BY MR. HUBER:

Q. That 60 that I live on, you're familiar with it --

A. Yes, sir.

Q. -- Tom Hart put waterways in that a year ago.

A. Yes, sir.

In Totidem Verbis, LLC (ITV)

Q. And I cruise around it on my four-wheeler and stuff --
A. Yes, sir.
Q. -- because I know the farmers that farm it. Those waterways got cut really hard that first spring and then that next summer. Actually, since that --

JUDGE SLAVIN: Sir, you're telling him things. You have got to ask him question.

Q. (By Mr. Huber:) I was wondering, will the solar panels be in the waterways or will they have the panels on either side of them?
A. That one example I showed, the panels actually skip the waterway.

So these waterways have to be maintained, just as yours on your farms. They have to be mowed, and they have to be reseeded. Now, I can tell you that the waterways probably won't cut as badly in a solar project as they do a regular farm because of the intensity of surface flow.

MR. HUBER: Okay. I guess that's all the questions I have.

JUDGE SLAVIN: Okay. Thanks.

Anybody else have a question? Yes, sir.

In Totidem Verbis, LLC (ITV)

MR. LUSZ: Adam Lusz, from near Eldena.

EXAMINATION

BY MR. LUSZ:

Q. So what solar farm or solar systems have you studied for stormwater runoff to base your assessments on?

A. Well, we have worked on many of them, and I have been in many hearings with a lot of different hydrology engineers and a lot of experts, and I think the general engineering industry would all tell you that the runoff in prairie grass is much less than bean stubble or --

Q. But what -- my question was actually, what solar farms have you studied?

A. Champaign is one, uhm --

Q. Is it up? You have studied it, like, up and active?

A. No.

Q. How many active solar farms have you studied?

A. No, but there are many studies published on prairie fields and the runoff characteristics of prairie.

Q. Correct. So how does solar panels change

In Totidem Verbis, LLC (ITV)

stormwater runoff on land?
A. Well, they don't, actually. I mean, it's the vegetation on the surface that changes the runoff, and so if the surface --
Q. How --
JUDGE SLAVIN: You're interrupting. You asked him a question. You have got to let him finish.
Go ahead.
A. So the surface runoff in natural, native prairie grasses would be more retardant than it would be on bare cropland.
Q. (By Mr. Lusz:) What about the mowed prairie grass?
A. Mowed prairie grass would be the same. Actually, mowing is one of the methods to help control weeds and to help the quality and the density of the prairie grass itself.
Q. So am I correct then you have not studied any stormwater runoff of active solar farms in the country?
A. I have not personally, no.
Q. Are you aware that there's studies out there that show stormwater runoff increases one and a

In Totidem Verbis, LLC (ITV)

half times --
A. No.
Q. -- what the standard is?
A. No.
Q. What recommendations are you making to this company to help manage surface stormwater runoff; not subsurface, but surface stormwater runoff?
A. To identify and maintain surface conveyance channels and to skip those channels with solar panels so that they can be maintained.
Q. Okay. Are you proposing then that you are installing grid pattern tiling across the entire 5,000-acre parcel?
A. No, sir.
Q. So you're not updating past what is currently there then?
A. Well, if there's a pattern system that's already existing and it's clay drain tile and it's in conflict, we would replace it. But most of the parcels that I have looked at are more of a gradient, so we would not be pattern draining those systems.
Q. What drainage law governs an SES? So there's

In Totidem Verbis, LLC (ITV)

agricultural drainage law and there's industrial or commercial drainage law --

A. We abide by what's called the Illinois Drainage Code.

Q. Are there -- can you elaborate? Are there differences between --

A. Yes, sir. Illinois Drainage Code pertains mostly to agricultural interest.

Q. And so does that apply to a solar project, an industrial solar project?

A. Yes, sir, it does.

Q. Are you allowed to change the water flow under that drainage law?

A. No, sir, absolutely not.

Q. Are you aware that of this 5,000 acres, 2,897.14 acres have a PI index, or a productivity index, above 133?

A. No, sir, I'm not aware of it.

Q. Are you aware that a Class A soil type is a PI index of 133 and above?

A. Yes, sir.

Q. Do you believe that prime Class A soils should be reserved for food production agriculture use?

A. I actually think that all prime farmland should

In Totidem Verbis, LLC (ITV)

be maintained for its natural resource ability to grow food. I also believe that it's not bad for farmland to rest or pause, to be regenerated by new nutrients and to take it off the working grid for a period of time.

Q. Is there gravel roadways that will be installed on this project?

A. I can't answer that. I don't know the answer to that.

Q. Does gravel change surface water or subsurface drainage?

A. Yes, sir, it does.

Q. How so?

A. Certain gravels are impervious. If they're compacted or -- such as CA6, for example, there would be an impervious state in gravel driveway.

Q. Does that impact how you might want to drain that soil?

A. No.

Q. Does that impact the amount of stormwater runoff that neighboring farms may have from this project?

A. It would, although the new condition, which would be prairie plants, overwhelms any

In Totidem Verbis, LLC (ITV)

additional runoff that a gravel surface way would contribute.

Q. You don't have any studies for us as evidence or to back up these claims?

A. That's typical civil engineering calculations.

Q. So you -- there's no studies though on solar stormwater runoff to reference? It's just engineering?

A. I'm sure there are. I'm not prepared to produce one right now.

MR. LUSZ: Thank you. That's all I have got.

JUDGE SLAVIN: Thank you.

Still folks in this room, questions? Raise your hand. I can't -- yes, sir. Purple cap.

MR. PRESTEGAARD: Take it off?

JUDGE SLAVIN: Absolutely.

MR. PRESTEGAARD: Thank you.

JUDGE SLAVIN: Get as close to the microphone -- your first instinct is to push it away, and everybody's is.

MR. PRESTEGAARD: Oh, no, not mine. Not mine. I got no problem with the microphone,

In Totidem Verbis, LLC (ITV)

Judge.

JUDGE SLAVIN: Name and community, please.

MR. PRESTEGAARD: Joel Prestegaard, outside of Lee. I'll have a mile of these around me.

EXAMINATION

BY MR. PRESTEGAARD:

Q. Thank you for your time, first and foremost. Appreciate you being here.

A. Yes, sir, thank you.

Q. Prairie plants, do you know what kind of plants? Have you been up to speed? Any idea?

A. That's a great question. There has been an overwhelming response throughout Illinois and Indiana and Wisconsin to plant deep-rooted, large native prairie plants, which sometimes include big stem -- big blue stem, for example. Those prairie plants grow a root structure that can be 6 to 8 feet in the ground.

I have asked these -- this solar developer to consult with some ecologists who can propose some native plants that don't have root structures that get into the drain tiles. So it will be a combination of native plants that have

In Totidem Verbis, LLC (ITV)

a little lower, little shallower root growth, maybe 24 inches or 20 inches in depth.

Q. Okay. Thank you.

And with those, I assume that there's a height min- -- or maximum they can reach? That's the problem with natural prairie grasses, is they get too high for solar, correct?

A. Yes, sir, that's correct.

Q. How do they react to herbicides, such as Roundup and so forth; native grasses?

A. You would have to ask the --

Q. Fair enough.

A. -- contractor that question.

Q. HEL ground, thank you for answering that question.

A. Sure. Yes, sir.

Q. How much of this project is classified as HEL ground?

A. I haven't been privy to those private records yet for the landowner, so I'm not sure.

Q. No, understandable.

I know some of the farm ground personally just because I have lived there my whole life, so I know there is some.

In Totidem Verbis, LLC (ITV)

You did mention that HEL ground covered in vegetation shouldn't really be an issue, but what -- in your opinion, or better yet, with your profession, what would classify -- what are the factors that classify land that's highly erodible?

A. Slope and soil type.

Q. Those are the two biggest, right?

A. Yes, sir.

Q. So without -- what would driving a post every 15 foot into highly-erodible ground do during the construction phase, disturbing the soil in such a manner? You said highly-erodible ground is never tilled, correct?

JUDGE SLAVIN: Wait a minute.

MR. PRESTEGAARD: I'm sorry. That was two.

JUDGE SLAVIN: The problem with two is, he doesn't know what to answer --

MR. PRESTEGAARD: Nope, my bad.

JUDGE SLAVIN: -- and -- well, I'll explain to everybody.

-- and when you read the record, you can't tell which question he was asking.

In Totidem Verbis, LLC (ITV)

MR. PRESTEGAARD: Understood. Thank you.

JUDGE SLAVIN: So go ahead, just ask one.

Q. (By Mr. Prestegaard:) Let me back up. So they're going -- you're going to go in and tile highly-erodible ground, correct?

A. Yes, sir.

Q. They're going to put a post in every 15 foot on center?

A. Yes, sir.

Q. In your opinion, what will that do during the construction phase to the highly-erodible ground in the matter of a large rainfall?

A. The posts are actually driven in pneumatically, so there's not any soil disruption at all. So there wouldn't be any bare ground that would be subject to eroding caused by the solar post construction.

Q. So the only ground that would really be disturbed would be what you tile through?

A. Yes, sir, that's correct.

Q. With the -- this seems pretty elementary, but why do we put gutters on houses?

A. To convey the water away from the house.

Q. And if you don't have them, what happens to the

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ground beneath the roof structure?
A. It becomes saturated.
Q. Would there be any channelling if there was a slope?
A. For a house that had 4- or 5,000-square feet, yes.
Q. How many square feet are proposed in this solar panel project that will have slope?
A. I'm not sure how deep the panels are that are being proposed.
Q. Okay. Sorry about that.

And I do appreciate your work up in DeKalb. You said that was how big of a project?
A. Around 2,000 acres and growing.
Q. Has your company ever done a 5,000 single-use project before; 5,000-acre, single-use project?
A. Yes.
Q. Fantastic.

Is the topography of DeKalb any different than the topography of Steward Creek?
A. There's some farms in Steward Creek that have similar topography. The DeKalb land is pretty flat.
Q. Pretty good ground up there -- that's more of a

In Totidem Verbis, LLC (ITV)

statement. Sorry.
A. Pretty flat.
Q. I apologize here. I just have a few more questions.
Will your tile work increase the value of the current landowners'?
A. Yes.
Q. Will it increase the value of the parti- -- nonparticipating adjacent landowners?
A. Yes.
Q. And how would that be?
A. The legal mutual drains that are the main drain tiles that go through the soil farms are normally pretty old, and they would be -- there would be new tiles so that the upland landowners would have a better tile for discharge.
Q. The upland land. What about the ones that live on the downside of all this water?
A. We would discharge into the same existing tiles.
Under Illinois --
JUDGE SLAVIN: Just -- no, no. Just answer the question, please.
MR. PRESTEGAARD: Okay.

In Totidem Verbis, LLC (ITV)

JUDGE SLAVIN: No, that was directed at him.

MR. PRESTEGAARD: Oh, I'm sorry. I wasn't looking at you, Judge.

Q. (By Mr. Prestegaard:) Making sure I covered -- how many acres are -- of this project are currently enrolled in CRP?

A. I don't know the answer to that.

Q. When you make gravel driveways, you, yourself, your company, what would be the top layer then of gravel that you would use?

A. CA6.

Q. You said earlier that's one that packs in hard and won't let water permeate; is that correct?

A. Correct.

MR. PRESTEGAARD: I sure do appreciate your time. Thank you so much for taking my questions.

THE WITNESS: Yes, sir, thank you.

JUDGE SLAVIN: Anybody else in the courtroom? Yup.

And if you'll help us, please start by stating your name and the community in which you consider yourself living.

In Totidem Verbis, LLC (ITV)

MR. HUSS: Yes. My name is Andrew Huss, and I live outside of Lee, Illinois.

JUDGE SLAVIN: You may inquire.

EXAMINATION

BY MR. HUSS:

Q. The mitigation you're talking about, the measures for the negative impacts, if they have negative impacts on surrounding parcels, is this covered through the warranty?

A. I'm sorry, could you restate that, please?

Q. So if the measures that you put in to mitigate the -- the mitigation measures of the impact to others' land, will your warranty cover the other land?

A. The mitigation, which requires vegetation and the rebuilding of the existing drain tiles, would have a positive benefit to adjacent lands.

Q. Okay. So for instance, the 95 acres surrounding my house and the runoff were to come onto my property and run towards the building or something, would the warranty cover that coming towards my house or my buildings?

A. I'm not sure if there's a warranty in place for that, but the Illinois Drainage Code would

In Totidem Verbis, LLC (ITV)

certainly dictate that.
Q. Okay. Are there any studies on the land that has contained these root systems of the prairie grass and then gone back into crop production after 35 years?
A. Yes, sir, there's numerous technical studies about root and prairie plant introduction into farmland.
Q. Are there any studies that have followed drain tiles in a utility scale solar field for 35 years?
A. No, sir.

MR. HUSS: No further questions.

THE WITNESS: Thank you.

JUDGE SLAVIN: Thank you.

Any other folks here in the courtroom?

Okay. Turning to the Zoomers. Folks, if you don't remember how -- excuse me. If you don't remember how, if you're videoconferencing on Zoom, you go to Participants, I think it's the bottom center of the screen, click on that, and it should show you a drop down list that includes "raise hand." Hit "raise hand," and I will call on you in due course.

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If you are teleconferencing on Zoom; meaning, you can't see us but you can hear us, leave your phone/cell phone on, but on your dial, hit Star 9, and that should show us your hand, and I'll call on you in due time.

Now is the time to indicate if you have got a question. I'll give you ten seconds here to find your way through the technology.

Alice, are they all showing on the screen?

MS. HENKEL: Yes, and there are no hands.

JUDGE SLAVIN: Okay. Very good. Mr. Huddleston, you may step down. Thank you.

THE WITNESS: Thank you.

JUDGE SLAVIN: And I think now is a good time for a break, until 8 o'clock -- let's make it five after 8, real time, not courtroom time.

(A recess was taken at 7:54 p.m. and proceedings resumed at 8:05 p.m.)

JUDGE SLAVIN: Alrighty. That's Slavin lingo for, Everybody find their seat, please.

(Petitioner's Exhibit Number 5 marked for identification and admitted into evidence.)

In Totidem Verbis, LLC (ITV)

JUDGE SLAVIN: While everybody is finding their seat, I will note for the record and for anybody who is keeping track, I have marked Mr. Huddleston's Power -- hard copy of Mr. Huddleston's PowerPoint Petitioner's Number 5.

(Petitioner's Exhibit Number 6 marked for identification.)

JUDGE SLAVIN: I have also been handed a one, two, three, four -- five-page proposed exhibit that I have marked Petitioner's Number 6 that's entitled "Steward Creek Solar Farm, SCI Engineering, Inc., Since 1978" on the front page to identify it. That's Number 6, but that was not admitted yet; Number 5 is.

And, Ms. Kennedy, you may proceed.

MS. KENNEDY: Thank you, Judge. I would like to call Scott Billings as the next witness.

JUDGE SLAVIN: Raise your right hand, please.

(Scott Billings was duly sworn.)

JUDGE SLAVIN: Have a seat, and if you want to take off your mask while you're testifying, that's all right with me.

In Totidem Verbis, LLC (ITV)

THE WITNESS: Sure. Thank you, Your Honor.

MS. KENNEDY: May I proceed, Your Honor?

JUDGE SLAVIN: You may inquire.

DIRECT EXAMINATION

BY MS. KENNEDY:

Q. Would you state your name and spell it for the record.

A. Sure. Scott Billings, B-I-L-L-I-N-G-S.

Q. And can you give us a brief summation of your educational history?

A. Sure. I have a bachelor's in geography/GIS and a minor in economics from Southern Illinois University in Edwardsville, and I have completed my Master's classroom work in environmental science but have not yet completed my thesis work.

Q. And how are you presently employed?

A. I am a senior project scientist with SCI Engineering, and I have been there since 2006.

Q. And what are your job duties?

A. My job duties are, generally, I'm in charge of our natural resource group, so that includes wetlands, delineation, threatened and endangered

In Totidem Verbis, LLC (ITV)

species surveys, SWPPP preparation, anything and everything that pertains to natural resources in regards to anything from solar farms to subdivisions.

Q. And do you have any other work -- relevant work experience outside of SCI?

A. An internship with the IEPA right before I started at SCI in 2006.

Q. And what is your experience with solar farms?

A. We have provided similar services to what I'll explain tonight on several solar farms; one in southern Illinois, one in Missouri, and generally a few others that probably never made it to build, but, yes, so generally same sort of situation as far as natural resources with solar farms themselves.

Q. And what is the largest solar farm that you have studied?

A. I would say that the largest one was in Missouri, which was right around 3,000 acres.

Q. And is this your first time testifying as an expert witness?

A. It is. Typically in a lot of these situations, with our due diligence services being on the

In Totidem Verbis, LLC (ITV)

upfront, we don't get called in to do this too terribly often on many of our projects.

Q. Are you familiar with the Steward Creek Solar Project?

A. I am.

Q. And have you had the occasion to review Steward Creek's application and petition?

A. I have reviewed a good chunk of it, particularly those that pertain to what we were being asked to review.

Q. And what are those?

A. The appendices that include the plant-based weed and vegetation control plan and a few others that are in regards to natural resources.

Q. And you are aware that this is a proposed 5,000-acre solar farm?

A. Yes, ma'am, or more.

Q. And what did the company hire you to do?

A. We were hired to provide a preliminary desktop assessment of the project area itself, as well as review some of the documents that have been previously prepared.

Q. Have you reviewed the Lee County Ordinance as it relates to solar energy systems?

A. I have.
Q. And in the environmental context, what is a proposed developer required to do?
A. Well, as it pertains to anything that we were reviewing, there is a particular section, I think it's around -- under Number 7, entitled, "Endangered Species and Wetlands." Generally it states that the Applicants would need to run the project through the EcoCAT program, which is a threatened and endangered species assessment program administered by the Illinois Department of Natural Resources, as well as identifying the other endangered species or wetland habitat that might be on the site that could be impacted by development.
Q. And to the best of your knowledge, has the company consulted with IDNR through the EcoCAT system?
A. As far as I know, yes. The EcoCAT, it's my understanding, was submitted to IDNR. It came back clean, and when that happens usually, and in this case, the consultation is terminated.
Q. What, if anything, can you tell me about the surrounding area to the project?

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A. Just based on a desktop assessment, and we did review -- I'm sorry, we did provide a drive-by of the site using the public roads back on September 9th of 2020, it's predominately agriculture. We identified several areas, took photos of several areas where there was water, drainages, a lot of swales that go along with agriculture, as they would in any other location, so -- but overall, our assessment was predominately agriculture.

Q. And so the company had already met the threshold requirement initiating its consultation with the IDNR. Do you know why the company retained SCI for this project?

A. Well, as in any other project, there are certain loopholes -- or not loopholes, but things you have to do as part of any project; for instance, in regards to wetland water bodies. If there is going to be impacts, there are certain permits that you have to have; for instance, if you impact a jurisdictional wetland or waterbody, you would need to obtain a Section 404 permit from the Corps of Engineers and a Section 401 water quality certification from the

In Totidem Verbis, LLC (ITV)

IEPA.

So with that being said, although we have done a desktop analysis, there still is field work that will need to happen as far as that's concerned. Desktop will get you so far, but prior to construction we would assume that the agencies would require field work in that regard. And that's the same, of course, for threatened and species as well.

Q. And it's my understanding that you prepared a PowerPoint presentation for tonight?

A. That is correct.

Q. And is that your PowerPoint presentation on the screen there?

A. Yes, ma'am.

Q. Please proceed.

A. Okay. So the main reason that I wanted to provide this presentation was just to provide an overview of generally what our tasks were and generally what were covered as part of this project.

So next slide, please.

Just a little bit of background about SCI Engineering and our qualifications. We were

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started in 1987 primarily as geotechnical engineers, and over the years we have added on several disciplines as we see fit. We have offices in Missouri, Illinois, Texas, and Colorado, and we offer a full suite of engineering services from geotechnical all the way down to natural resources, which is what I'm here to talk about today.

Next slide, please.

In regards to natural resources, just a rundown generally of what we provide and how we're looking at this particular project. Again, we've done thousands of wetland waterbody delineations, anywhere from North Dakota to Mississippi and everywhere in between, the St. Louis area, north and south.

We deal with the permitting aspect of wetland and waterbody impacts, provide mitigation for wetland impacts in the way of design, banking, and monitoring of those sites, and we also deal with the stormwater side of things. So this is the development of SWPPPs and meeting these National Pollutant Discharge Elimination system.

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And lastly, we provide threatened and endangered species surveys. This could be anything from bats to birds to cave species, and everything in between again.

Next slide, please.

Okay. In regards to this project, we were asked just to provide a preliminary assessment of the desktop analysis that was provided, as well as those reports that have been previously provided as part of the application.

So as you can see there, we generally covered five different topics, including wetlands and water bodies, wildlife corridors, threatened and endangered species, stormwater management, and vegetation management.

Next slide, please.

So I'm going to run through each one of these with a couple slides and just provide our general assessment and opinion on several of the matters.

In regards to wetlands and waterbodies, so typically, and as the case in this situation as well, most solar farms and larger projects and energy projects in general try to avoid impacts

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if at all possible.

In this particular case, the Applicant looked at the topographic map. We did the same thing, looked at the National Wetland Inventory map and several other aerial photographs, and generally tried to design around those wetland waterbody impacts.

So, again, it should be noted that although this is the case, it's more than likely going to be the case that all this must be ground truthed at some point prior to construction. So although we have identified and these impacts are generally being avoided, it would still need to be proved by actually getting on the ground and doing surveys.

Next slide, please.

Again, just to cover, generally, as I just discussed, everything has to be either confirmed as present or absent on the sites. We would recommend that if there are wetland or waterbody impacts, that those impacts be avoided and things be moved in order to avoid those impacts. Again, just to clarify, impacts can be direct or indirect; it all depends.

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So many of -- many of these things, drainages, water bodies that we're discussing, some will be jurisdictional, many of them won't. So we would provide an assessment of that before construction.

And, again, unavoidable impacts, if necessary, would need to go through the permitting process with the Corps of Engineers and the Illinois Environmental Protection Agency prior to construction.

Next slide, please.

So during our assessments, we identified several wetlands and water bodies within the study area itself; however, as I stated, the -- it appears, based on our review of the site plan, that those wetlands and waterbodies that have been mapped on the desktop analysis would generally be avoided. So there is a pretty good chance that, based on our assessment, the wetlands and waterbodies would be avoided and permitting would not be necessary in this case.

Next slide.

Moving on to wildlife corridors. So, again, with the site being predominately

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agriculture, wildlife corridors are pretty minimal. What we look for when looking at wildlife corridors would include stream features, riparian corridors, long stream features, anywhere where it would be best suited for animals to move to and from the site.

So we did an assessment of that and got a general idea of where those sites are, and, again, much like wetlands and water bodies, it appears that most of those areas are going to be avoided during construction.

Next slide.

The one thing that came up and needed to be discussed was the fencing situation. Obviously, with projects such as this, fencing needs to be installed from a security standpoint and to make sure that people are staying out of these systems. So our only recommendation would be, you know, there are some new fencing options that allow some of the smaller species to get in and out. Again, birds would not be affected by that, by any means; it would just be the larger animals.

However, you know, as is the case in any

In Totidem Verbis, LLC (ITV)

development, the animals will find a way to get to and from this site. So with it being predominately agricultural and avoiding forested areas, it shouldn't have a significant impact.

Next slide.

In regards to threatened and endangered species, we did a -- just a quick analysis of any species within Lee County that may pop up on a project such as this, and we identified four. Those include the Indiana bat, the northern long-eared bat, eastern prairie fringed orchid, and the prairie bush clover. So two of those obviously are bat species; the other two are plant species.

It should be noted that these are federally-listed species. And I'll generally go through each one here real quick and provide our assessment.

Next slide.

In regards to bats, so the Indiana bat and northern long-eared bat are two federally-endangered -- I'm sorry. Let me rephrase that. The Indiana bat is federally endangered, while the northern long-eared bat is

In Totidem Verbis, LLC (ITV)

federally threatened.

So both species generally hibernate in caves during the winter and they roost in trees during the summer. So with that being said, based on the fact that tree-clearing will generally be avoided during construction, it was our assessment that, although the bats may be in the area, any construction as part of this project would not have a negative effect on those species. So, again, in regards to the EcoCAT, the consultation should be terminated in that regard as well.

Next slide.

In regards to the prairie bush clover and the eastern prairie fringed orchid, the bush clover is generally found in tall grass prairies. So when we did our assessment and determined that the significant amount of the project site was in agriculture, we can generally assume that that species would not be impacted by the particular project.

And the same thing generally goes for the eastern prairie fringed orchid. So they like wet prairie conditions and also wetland habitat

with full sun. So, again, by converting the ag land to solar, it generally would not have a negative effect on these species, and it may actually have a positive effect on species if the seed bank is there.

So with that being said, as far as those four species, we don't foresee any major obstacles in regards to their project; however, much like the wetland and water body situation, we would likely have to ground truth anything to identify those species if they were there.

Next slide.

We generally mentioned this already, but the project has gone through the EcoCAT system through the Illinois Department of Natural Resources. Nothing was identified during the EcoCAT, and the consultation was terminated with the Heritage Database.

And just so everybody understands, that includes natural areas, dedicated nature preserves, and registered land and water reserves; and none of those areas were identified as part of the EcoCAT as well.

Next slide.

In Totidem Verbis, LLC (ITV)

In regards to stormwater management, it is my understanding that grading will generally not be necessary as part of this project. So we generally looked at what that would look like and what would need to happen as far as the stormwater management was concerned.

So, again, with it being generally agriculture, it was our opinion that basically when you convert it over and include the native vegetation, that a lot of that stormwater is not going to be significant.

I know Mr. Huddleston covered a lot of this as well, so I won't repeat everything he said, but as part of the project, we would also need -- or somebody would need to provide a stormwater pollution prevention plan, or a SWPPP. And in that case, generally that would cover any stormwater that would leave the site, and that would include BMPs that I'll cover in this next slide.

Next slide, please.

So again, a site-specific SWPPP must be prepared based on the fact that there's greater than one acre of impact. So that would include,

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again, your BMPs, such as stormwater retention and detention basins, ditch checks, silt fence, things of that nature, that were designed to keep any silt on the site during and post-construction.

A change in land use from predominately agricultural should not have a negative effect on the environment, again, for the same reasons that were told by Mr. Huddleston.

Then once the solar farm is stabilized, we don't anticipate any major stormwater effects based on the change in vegetation, as well as the fact that the large majority of the drain tile would be kept in place or added, for that matter.

Next slide, please.

So we also reviewed the landscape weed and vegetation control plan that was prepared by Steward Creek, LLC, to kind of get a better idea of what that vegetation plan is going to look like. Again, solar farms typically are sited on land that is unsuitable for other development and or on agriculture land, which is the case on this particular project as well.

In Totidem Verbis, LLC (ITV)

No tree-clearing -- it's our understanding that no tree-clearing will be necessary as part of this project. So there won't be any effects in that regard.

In non-native and invasive species, it will actually increase the control of those as part of this project as well, based on the management plan that we reviewed.

Next slide.

So as I said, we reviewed the landscape, weed, and vegetation control plan, reviewed the native seed mix that would go into planting between the solar arrays, and looked at generally what effect that would have on native populations.

Some things that -- to note, that the seed mix would increase the pollinator species that are going to use the site; it would increase some wildlife value, as we discussed; and, again, provide invasive species control throughout the 5,000 acres.

So overall, when we looked at those five different topics, we did not identify anything that wasn't covered or that would have a

In Totidem Verbis, LLC (ITV)

significant effect on the project itself.

And that concludes my presentation.

Q. Thank you.

When you mentioned that the wetlands and the waterways would be avoided, do you mean that the project will be set back from all wetlands, floodplains, and waterway?

A. That is my understanding, correct.

Q. And does the same ring true from that wildlife corridor?

A. Correct.

MS. KENNEDY: I have nothing further, Your Honor.

JUDGE SLAVIN: Excuse me just a minute.

MS. KENNEDY: Judge, I actually lied to you. I would like to admit this into evidence.

JUDGE SLAVIN: Done.

MS. KENNEDY: Thank you.

(Petitioner's Exhibit Number 6 admitted into evidence.)

JUDGE SLAVIN: Okay. Mr. Boonstra, questions of Mr. Billings?

MR. BOONSTRA: No questions, Judge.

JUDGE SLAVIN: How about you, Ms. Duffy?

In Totidem Verbis, LLC (ITV)

MS. DUFFY: Sure.

EXAMINATION

BY MS. DUFFY:

Q. Sir, are you aware of the pesticides that they're proposing to use -- oh, that's right. Mr. Microphone.

Do you know what kinds of pesticides that Hexagon is proposing to use to keep the vegetation down around the fence lines and under the solar panels?

A. I do not at this time.

Q. Do you know if bats roost under the solar panels?

A. I can't say for sure that they won't, but there's no studies to show that they would. They generally -- it would be too -- it would be too open of an area for the particular bats that we looked at for them to likely roost in those areas.

MS. DUFFY: That's all, Judge. Thank you.

JUDGE SLAVIN: Thank you.

All right. Interested parties -- no. Zoning Board members. Mr. Forster?

MR. FORSTER: No questions.

In Totidem Verbis, LLC (ITV)

JUDGE SLAVIN: Mr. Hughes?
MR. HUGHES: No questions.
JUDGE SLAVIN: Mr. Bothe?
MR. BOTHE: No questions.
JUDGE SLAVIN: How about you, Mr. Pratt?
MR. PRATT: Yes, I have a few.

EXAMINATION

BY MR. PRATT:

Q. Do your wetland and water body delineations -- what did you use to do that?

A. We have only done a desktop analysis using USGS topographic maps, national wetland inventory maps, aerial surveys. So we have not done any field work as of yet. All of that would need to happen during project development.

Q. So you talked about avoidable impacts/ unavoidable impacts. What's a waterway?

A. A waterway is -- well, if you're asking me what something -- a jurisdictional waterway is, a jurisdictional waterway is a waterway that has a defined bed and bank and a defined watermark.

There's a new rule that went into place per the federal government known as the National Water Protection Rule, and generally what is

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stated is that for something to be jurisdictional it has to be either intermittent or perennial, meaning -- which generally is defined by the water flow.

So as part of any project development, including this one, we would need to assess each and -- each and every water body that's within the study limits.

Q. I should have been a little better on that question. As a farmer, a waterway to me is what's -- a grass strip through the field where the water runs down. Do you call that an avoidable impact?

A. I don't. How I can speak to that is, is in most cases that would be a non-jurisdictional feature. So impacts to that area would likely not need permitting; however, I -- as not part of the design team, I don't know if those areas would be avoided or not avoided, and I'm sure it would go piece by piece.

Q. You don't make that determination to the company?

A. No. We will identify during field surveys what is jurisdictional and what would be regulated by

the Corps of Engineers.
Q. I see. Okay.
On the wildlife corridors, fencing --
JUDGE SLAVIN: Mr. Pratt, can you get a little closer?
Q. (By Mr. Pratt:) On the wildlife corridors, fencing, there's creeks with trees. Are you going to recommend fences on each side of that flowing water?
A. My understanding, based on the preliminary site plans that we reviewed, is there will be no fencing near those creeks or those water bodies.
Q. So how does that create a wildlife corridor?
A. Well, so our assessment of the wildlife corridor was just to identify where we felt those species are likely to concentrate. So with that being said, the project, including the fence plan, could be designed around those areas. So that was really all the purpose of our assessment was at this point.
Q. So you won't make a recommendation to put a fence on each side of --
A. We will tell the Applicant where the wildlife corridors generally are, which generally

In Totidem Verbis, LLC (ITV)

correlate to the wetland water bodies that are -- that have been identified on the desktop assessment, but ultimately it will not be our decision on where the fence will actually go. We would just provide our recommendation on where those wildlife corridors are.

Q. So on the vegetation plans, have you ever thought about seeding the property before construction of the solar farms?

A. So with there being no grading, what generally happens is, as soon as construction is over, you would provide an earth crop or a cover crop, something like oats, which basically is a quick-growing crop that would be put down generally as soon as it's completed, and then the seed mix would go on top of that in an effort to avoid any erosion or any significant erosion.

But to answer your question, it would be difficult to seed it prior to construction because it would likely not grow, based on the fact that you're going to be utilizing that area.

Q. So how much time do you think is necessary to

get that cover crop established satisfactorily?
A. It's usually a few weeks, but again, if we're not grading and there's no bare soil, it would -- it would take that long, but we would assume that a lot of that erosion wouldn't happen just based on the fact that you're not tearing up the topsoil right off the ground.
Q. I guess my further question was, to get established to the prairie grass vegetation that the previous testimony said that would be good.
A. Sure. There -- in the landscape plan itself -- and I don't remember right off the top of my head, but as far as the management itself, there's a very defined schedule on what that will look like, but I'm not prepared to tell you exactly what that is at this moment.

MR. PRATT: Okay. No further questions, Judge.

JUDGE SLAVIN: Thank you.

All right. Now interested parties in the room. By raise of your hand, questions of this gentleman?

Yes, sir. Mr. Illini, I'm going to call you, unless the I stands for the Hawkeyes.

In Totidem Verbis, LLC (ITV)

MR. PRESTEGAARD: No. God, no. This may have been a free jacket.

JUDGE SLAVIN: Or Indiana or Idaho.

MR. PRESTEGAARD: I appreciate you being here and --

JUDGE SLAVIN: Please state your name.

MR. PRESTEGAARD: Oh, yes. Good point. Joel Prestegaard. I live outside of Lee.

EXAMINATION

BY MR. PRESTEGAARD:

Q. Why didn't the other projects, the ones that didn't go to build, why didn't they go to build, in your opinion?

A. Oh, that could be for a number of reasons. In reality, I highly doubt it had anything to do with any of the studies that we were providing.

Q. What part of Missouri was that large?

A. That was in -- just north of St. Charles County. I'm drawing a blank on what county that actually is.

Q. St. Charles County? South?

A. North of St. Charles County.

Q. Okay. Predominately farm ground.

A. Not as much as this, but -- and a lot more

In Totidem Verbis, LLC (ITV)

slopes. So that is a particular project that I don't think actually went to construction yet for a number of different reasons that I don't know.

Q. So they wouldn't have had an average PI on that? You probably -- that's probably a bad question. Don't worry about it.

So you say to date you have only done a desktop assessment and review of prepared documents?

A. That's correct.

Q. Prepared by -- who were those documents prepared by? I am sorry.

A. Well, the majority were provided by Steward Creek Solar, LLC, and then we also reviewed the Natural Resource Plan that was provided by the Lee County Soil and Water Conservation District.

Q. All right. Your engineering firm hasn't had any boots on the ground then to date?

A. Other than just the drive-by analysis on September 9th, which basically we didn't even leave the truck, that would be it.

Q. On that drive-by you said you saw a few swales. Can you define a swale?

In Totidem Verbis, LLC (ITV)

A. Sure. So we identified a number of different things, one of those being swales. We generally classify a swale as a grassed area that is used to basically drain -- drain farm fields that's not used -- or that's not included as part of the drain tile system.
Q. Thank you.
EcoCAT, kind of a cool term. It's an Illinois thing, right? That's a drop-down of questions -- prepared questions for qualification --
A. So generally -- I'm sorry. Go ahead.
Q. No, that's all right.
A. Just to give you a general idea of what an EcoCAT is, basically it's an online system where you input your project information, particularly your site and what those boundaries are, and the State looks at it, does a general assessment of any identified species, threatened and endangered species that are in that area, and it provides a report.
Q. Okay. But it's not an in-person or actual on-the-ground audit?
A. It is not. It is online only.

In Totidem Verbis, LLC (ITV)

Q. Okay. I guess, in your recommendation then as the hired engineer, meaning, it sounds like you -- sorry. Trying to get to a question here.

It sounds like -- am I hearing you right that you'd rather have boots on the ground, exploring the terrain and so forth before you make any type of recommendations or qualifications to the project?

A. That would generally be correct, and the main reason is, is the regulatory agencies, including the Corps of Engineers, IEPA, IDNR, are going to require those surveys, require them to actually permit any project, regardless.

Q. And to your knowledge, the SWPPP hasn't been done yet?

A. To my knowledge, yes, that's correct.

Q. Would that be something that would be -- just as Mr. Huddleston's work, your work, everybody else's, would that be something that would -- could directly impact a project of this size if it was of a negative performance?

A. Well, so we have done a significant number of large-scale projects, whether it's solar or wind or oil and gas or whatever it is, and I mean,

In Totidem Verbis, LLC (ITV)

like I said, you can provide a desktop analysis, but until you actually get boots on the ground and actually determine what's on the site -- because there very well could be surprises. Those maps are only as good as they are just for providing, you know, a preliminary assessment.

So there has been many cases where we've identified something that maybe we didn't see on the map, and went back and a developer or a client basically had to change something based on the information we brought to the table.

Q. I think the magnitude of this project is part of the problem. So let's break it down. In your opinion, in your professional opinion, would a small municipality or town ever move forward with a project without first doing the SWPPP analysis?

A. Well, it really depends on what they want to do. You know, there's -- we -- there are developers out there every single day that do projects without doing any of this analysis at all, based on their own judgment. So, you know, they do a risk rewards analysis, and if they determine that they -- you know, based on their

In Totidem Verbis, LLC (ITV)

site, they don't need to do these things, they just don't do them.

There's some risk there, obviously. You know, they could miss something and be in trouble for it later, but, you know, that's just up to the developer. Sometimes we don't even get that phone call, and that's just the way that goes.

Q. Certainly, and I appreciate that.

So the two years of bare ground during construction, how well is that going to hold off rain water, erosion?

A. I am not sure where the two years comes from.

Q. I'm sorry. They told us there would be two years of build time.

JUDGE SLAVIN: Just the way you asked the question. If you were told that the construction was going to last two years --

Q. (By Mr. Prestegaard:) Let's say you were told the construction process was going to last two years, what would mitigate, stop any runoff, in your professional opinion?

A. Well, that's where the nurse cover crop comes in. So obviously, like any large-scale

In Totidem Verbis, LLC (ITV)

projects, 5,000 acres isn't going to get built at the exact, same time. So I'm assuming that this would be phased, and each particular phase, once that part of that project was done, it would be seeded almost immediately, at least with nurse crop, and then pretty quickly with the native seed mix.

Q. As long as it was a time of year where a nurse crop would actually germinate and grow, it might actually help?

A. That's correct. I know the majority of the nurse crops will grow generally most of the year. There are a few months, obviously, over the winter where it would be tough, but there are some other things that the client could do in that case, like hydro seeding and things like that as well that may help prevent that erosion.

But, again, I can't speak to you what the timetable looks like on that construction.

Q. Are all the endangered species in Lee County listed in your packet, to your knowledge?

A. Based on our assessment, using the tools we have, that is correct.

Q. Okay. I can't believe I'm going to ask this

In Totidem Verbis, LLC (ITV)

question. Have you ever heard of a blandings turtle?
A. Repeat that one more time.
Q. Have you ever heard of a blandings turtle?
A. Blandings turtle? We -- I have not had a -- any dealings with the blandings turtle, no.
Q. Me neither, but I do know that as early as this year there was a large --
JUDGE SLAVIN: Now you're telling him things.
Q. (By Mr. Prestegaard:) Do you --
JUDGE SLAVIN: The trouble with --
Q. (By Mr. Prestegaard:) Are you of any knowledge of a release of blandings turtles in Lee County in 2020?
A. I am not knowledgeable of that, no.
Q. Okay. Would that be something that could be researched by a common individual such as myself?
A. Well, based on the fact that you're bringing it to the table, I would guess the answer is yes.
MR. PRESTEGAARD: I sure appreciate your time in answering my questions here this evening. Thank you, sir.

In Totidem Verbis, LLC (ITV)

THE COURT: Thank you.

Other people in the room? Yes, sir, Mr. Lusz.

MR. LUSZ: Adam Lusz, from near Eldena.

EXAMINATION

BY MR. LUSZ:

Q. Why just a desktop impact study as we sit here today?

A. I can't answer that question, because obviously that would be more of a question for the client themselves, the Applicant, but I do -- it is my understanding that field studies will be happening at some point.

Q. Do you believe that field studies should be required before this County would approve a permit like this?

A. I can't answer that question.

Q. Is it required for you to actually complete more surveys then after this approval or this hearing or whatever we're having? Is it a requirement of you to complete this?

A. That would depend on the regulatory agencies and what they were asking for.

Q. If I'm a nonparticipating landowner and I'm

In Totidem Verbis, LLC (ITV)

worried about a change in stormwater runoff that may impact me, is your study going to help put me at ease that you're studying this, you're studying to mitigate or to ensure that I'm safe?

A. Ensure is a strong word. We can't really, in our profession, ensure anything. We can just provide our best knowledge and put that into a plan.

So to answer your question, as part of the project, we would provide a SWPPP plan, which would -- it -- that plan, you know, it has to be approved by the IEPA and the County themselves. So hopefully, you know, the purpose of us preparing that SWPPP plan is to meet the needs and to keep any stormwater on site or do the best we can with the BMPs that are available.

MR. LUSZ: Thank you. I have got no further questions.

JUDGE SLAVIN: Thank you.

Any other folks in the room? Yes, sir.

NR, GUASTO: I have just got one.

JUDGE SLAVIN: Yes, sir.

MR. GUASTO: My name is Loren Guasto, Steward.

JUDGE SLAVIN: Would you spell your last name for my court reporter?

MR. GUASTO: G-U-A-S-T-O.

JUDGE SLAVIN: Thank you.

EXAMINATION

BY MR. GUASTO:

Q. Have you noticed a lot of this property, proposed site, is up along the interstate?

A. Yes.

Q. Okay. We have got -- well, how would that affect the deer population? Would there be enough room for deer to, you know, move around? I work for the State in the wintertime, and I pick up a lot of dead deer.

JUDGE SLAVIN: That's a statement. Just ask him a question.

Q. (By Mr. Guasto:) Okay. How would it affect the deer population? Would that be a problem, the interstate and fencing?

A. Without having any studies on it, I'm not a hundred percent sure, but I wouldn't see it being -- really changing anything in that regard.

Q. You wouldn't think it would cause more

In Totidem Verbis, LLC (ITV)

accidents?
A. Well, that's kind of the purpose of avoiding a lot of that corridor. I mean, obviously, the deer wouldn't be in particular ag fields where the fence is, but they're still moving along the same corridors.
Q. Yeah, they're -- how do I ask this question?
They are in the fields all the time.
JUDGE SLAVIN: That's a statement.
MR. GUASTO: Oh, I'm sorry.
JUDGE SLAVIN: If you ask him, just say, are they in the fields all the time?
Q. (By Mr. Guasto:) Are they in the fields all the time, the deer?
A. They can be. I mean, obviously there are certain times of the year when they are more prone to be in fields than others.
MR. GUASTO: Thank you.
JUDGE SLAVIN: Thank you.
Any other folks, by the raise of your hand?
Yes, sir, in the gray vest.
MR. HUBER: Jon Huber, Steward.
I think we should all watch Jeopardy more

In Totidem Verbis, LLC (ITV)

often. We could all ask better questions.

EXAMINATION

BY MR. HUBER:

Q. Is this going to increase --

JUDGE SLAVIN: I'm just like Alex Trebek. I say, Please phrase it in the terms of a question.

MR. HUBER: We'll have to watch it before the next meeting.

Q. (By Mr. Huber:) Do you think it would increase the coyote population, since they have kind of a hidden spot, they can get under the fences in those low areas, and they can be invasive.

A. It would really be hard for me to say yes or no to that question.

Q. Would those corridors be a nice place to put a deer stand?

A. As a hunter, yes.

MR. HUBER: That's all I have.

JUDGE SLAVIN: Thank you.

Any other folks in the room?

Okay. Turning to the Zoomers, I remind you Zoomers, if you are videoconferencing and you want to ask a question of this witness, go

In Totidem Verbis, LLC (ITV)

to Part- -- move your cursor down to view to bottom of the page, middle says "participants." Click on "participants," and up should pop a list, and click on "raise hand."

If you're teleconferencing; in other words, if you can just hear us, keep your cell phone on but hit Star 9, and we should be able to see I think a hand raised then.

MS. HENKEL: We have one.

JUDGE SLAVIN: Okay. It looks like Dee Duffy.

MR. HENKEL: No, it would be Ali Huss.

JUDGE SLAVIN: Oh, she's in the upper -- okay. I see, yes, Ali Huss.

Can you hear me?

MS. HUSS: Yes.

JUDGE SLAVIN: Okay. You have got a question of the witness? Go right ahead.

EXAMINATION

BY MS. HUSS:

Q. Yes. You mentioned your company has multiple locations. Which office are you out of?

A. I am out of our O'Fallon, Illinois, office.

Q. I'm sorry, I can't hear your response.

In Totidem Verbis, LLC (ITV)

A. O'Fallon, Illinois.
Q. Okay. You identified that there are wildlife corridors. How many are there?
A. We haven't numerically put a number on that. We just -- like I said, we have only done a very preliminary desktop analysis of where those forested areas are. But overall, like I had mentioned, they are predominately along riparian areas, along the water bodies within the survey area. But, again, the majority of the site is agriculture.
Q. Okay. Have there been studies that follow the impact on wildlife and threatened or endangered species for the duration of a 35-year solar project?
A. Not that I'm aware of, other than the assessments that we have -- these preliminary assessments we have been providing.
Q. Okay. And when do you plan to do these fieldwork observations?
A. To my knowledge, that timeline has not been determined yet.
Q. Is there a guarantee that these fieldwork observations will happen?

In Totidem Verbis, LLC (ITV)

A. The timelines and the need will generally be determined by the dealings with the County and then the regulatory agencies. So, no, I can't guarantee that any and all of these surveys will happen, but in most cases it's been our -- it's been our understanding that on larger-scale projects such as this they will generally be required.

Q. Okay. And if these statistical estimations that you have made change upon the field observation, how will the public be notified of this?

A. I can't particularly answer that question. All I can say is that we will provide our analysis and our reports to the Applicant and then provide general recommendations based on our findings. So what happens with those is generally out of our hands at that point.

Q. Okay. So is it a fair statement that the field observations may not be made public to anyone other than the interested parties?

A. I don't know the answer to that question.

Q. I'm sorry, I didn't hear your response.

A. I don't know the answer to that question.

In Totidem Verbis, LLC (ITV)

MS. HUSS: Okay. Thank you for your time.
THE WITNESS: Thank you.
JUDGE SLAVIN: Thank you.
Any other Zoomers? Give you ten seconds to hit the icons.
All right. Seeing none, Mr. Billings, you may step down.
THE WITNESS: Thank you.
JUDGE SLAVIN: Ms. Kennedy, are you prepared to go any further this evening?
MS. KENNEDY: We are, Your Honor.
JUDGE SLAVIN: Okay.
MS. KENNEDY: I'd like to call Mike Lehr as our next witness. I believe he's on Zoom.
JUDGE SLAVIN: Mr. Lehr, I don't see you. Mr. Lehr, are you -- say something to your -- you pop up on the --
MR. HENKEL: He's over here.
JUDGE SLAVIN: Oh, there's his name.
Are you there? Can you hear me? You are on mute.
Can you hear him?
MR. HENKEL: He is not muted.
JUDGE SLAVIN: Okay. Mr. Lehr?

In Totidem Verbis, LLC (ITV)

MR. LEHR: Yes. Can you hear me?

JUDGE SLAVIN: I can hear you now. Have you got a video camera?

MR. LEHR: I'm sorry, there's a lot of echo. Can you say that again?

JUDGE SLAVIN: Yes.

Do you have a video camera you can turn on?

MR. LEHR: Yes, I do.

JUDGE SLAVIN: There you are.

Mr. Lehr, you want to raise your right hand for me, please.

(Mike Lehr was duly sworn.)

JUDGE SLAVIN: Okay. You may inquire, Ms. Kennedy.

MS. KENNEDY: Thank you.

MIKE LEHR,

having been duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MS. KENNEDY:

Q. Mr. Lehr, can you hear me all right?

A. I can. There's a lot of echo in the room, so I may have to ask you to repeat, but please bear

In Totidem Verbis, LLC (ITV)

with me.
Q. Sure. We'll give it our best shot.
Can you state your name and spell it for the record.
A. Yes. It's Mike Lehr, L-E-H-R.
Q. And can you give us a brief summation of your educational history?
A. Yes. I have a bachelor of science degree in mechanical engineering, I have a master's degree in business administration, and I am a licensed professional engineer.
Q. And how are you employed?
A. I'm employed by a company called Leidos Engineering.
Q. And what does Leidos Engineering do?
A. We have provided -- over the last 60 years, we provide consulting services to the electric power industry. We have consulted on all kinds of projects all around the world: nuclear, coal, gas turbines, a lot of solar, a lot of wind, hydro. So we have seen pretty much every power-plant-type project there is.
Q. And what is your position with Leidos?
A. I'm a managing director.

In Totidem Verbis, LLC (ITV)

Q. And what does that entail?
A. Basically what it is, is I'm the person that deals mainly with clients. We do -- just to give you a little background on Leidos, Leidos provides owner-engineering-type services to clients, as well as independent engineering services. So I manage both sides of that.
Q. Are you familiar with Steward Creek Solar, LLC?
A. Yes, I am.
Q. And how so?
A. I have reviewed all the documents. For example, I have reviewed the preliminary site layout drawings, I have read through the project description in detail, I have taken a look through the Lee County Ordinances regarding solar projects, I have looked at the AM -- the -- I can't remember the acronym. The AIM- -- AIMA, I guess is what it's called. So I have read through that. I have looked through all of the attachments that were to the project description, and I believe that's about everything I have reviewed.
Q. And are you aware that Steward Creek Solar is a proposed 600-megawatt solar energy system that's

In Totidem Verbis, LLC (ITV)

to be constructed on about 5,000 acres?
A. Yes.
Q. And you mentioned some experience with solar farms. What is the largest solar farm that you have interacted with?
A. The largest one I have worked on is a 412-megawatt solar farm. It's currently under development and getting ready to start construction down in Texas.
Q. And what is the largest wind farm that you have interacted with?
A. Myself, I have not done much on the wind side. Our company has. We have got a lot of wind experience, but that's one of the areas I really have not done much work in.
Q. Is it fair to say that you're responsible for developing a construction plan for this project?
A. Yes.
Q. And could you describe for this ZBA what that plan is or what it will encompass?
A. Well, the construction plan would start out basically as a high-level document. It would identify the requirements for the design that would have to go -- that would start initially.

In Totidem Verbis, LLC (ITV)

It would outline the Code requirements, the permit requirements, would also outline any of the studies that would be incorporated into the project, such as the studies that have just been reviewed here tonight and any other studies that are done.

So that whole plan becomes the high-level document with which administering the construction of the project begins, and any details get filled in as the project progresses prior to the start of construction.

Q. And what does the construction schedule look like?

A. The construction schedule for a project this size -- again, a detailed schedule has not been developed, but for a project this size, and you probably heard this, it's probably about a 21- to 24-month construction schedule. Some of that is based on weather.

The schedule starts basically with -- once the permits are issued -- the schedule could even contain the permitting process, but typically the construction schedule starts once the permits are issued, the design starts, then

In Totidem Verbis, LLC (ITV)

the procurement and onsite construction activities start, and it takes it all the way through testing and commercial operation procedures.

Q. And are there any construction activities that will take place that would involve any disturbances or any impacts that residents in the area will see?

A. Yes. As any project, especially one of this size, there are going to be things that the residents will see. There's no large -- with solar projects, there's no large pieces of equipment out there. You wouldn't see cranes out there like you would on other either building construction or power plant construction. Everything is very low-level.

The biggest types of equipment that you'll see onsite would be forklifts to move the materials and equipment around and the pile-driving units. Those aren't large units, the pile-driving units. So as a resident, you will see that equipment. It would obviously be off in a distance, probably even from the nearest residence, until -- even with the setbacks.

In Totidem Verbis, LLC (ITV)

You would hear some noise during the pile-driving, but that noise is relatively -- by the time it gets to where the site boundary is, is usually very, very low level. You could still carry on a conversation while they're driving piles if you were standing at the site boundary.

It's very -- from a power plant standpoint, the construction of the solar plants is very minimal impact to residents.

Q. And is it a fair statement that those disturbances or impacts would cease once construction is complete?

A. Correct.

Q. Will the construction for this project require the construction of any new roads?

A. Yes. Yes, it will. The roads would be internal roads to the project site. No new county or township roads, but it would be roadways into the different areas of the project.

Q. And I'm not certain that I heard you correctly, but you said there would be no new county or township roads; is that correct?

A. As far as I understand, that's correct.

In Totidem Verbis, LLC (ITV)

Q. How will the materials for construction be stored?

A. The materials on a solar site, it's a little different than a -- some of the other power plants or maybe even some large industrial constructions in that the solar site is very spread out and, as you well know, it's 5,000 acres.

So the materials would come in, there's usually a central receiving area at the site that's designated by the construction contractor. Once the materials are received at that point, they are inspected, and then most of that material, again, due to the large area of the site, that material gets moved out and staged to where it's going to be needed at the -- in the particular area of the site. So you don't usually end up with a big storage area with all the equipment and all the materials for the site. The area gets staged out fairly quickly.

Q. And would the storage of those materials be within the project site?

A. Yes. Yes, they would be maintained within the

In Totidem Verbis, LLC (ITV)

fenced boundaries of the project site.
Q. How many employees will be utilized during this construction process?
A. Typically a project this size would range in the order of maybe 300 to -- on average, maybe 250 people on the site. During the peak time, it might go up to possibly 400, 450 people.
Q. And where will those individuals park?
A. They would park on the site. As the site starts construction, not 400 people are going to show up on day one. So the way the construction and the parking would progress is, as the project -- and I'll go through this in a little more detail in my presentation.

It's a phased project. So there would be a main parking area on the north side of the site, where it starts construction. Then as the project moves south, other parking areas would be developed so that the craft labor that's working in the areas as the project develops would drive to those particular parking areas so that they're close to where they are doing the work.

Q. Are you familiar with what's known as a road

In Totidem Verbis, LLC (ITV)

use agreement?
A. Yes, I am.
Q. And are you aware that the Lee County Ordinance for solar energy systems requires the applicant to enter into a Road Use Agreement with the county and townships affected?
A. Yes. Yes, I am.
Q. And to the best of your knowledge, does Steward Creek intend to enter into a Road Use Agreement with the County and the Townships?
A. Yes, to the best of my knowledge, that's true.
Q. Now, you mentioned the AIMA, or the Agricultural Impact Mitigation Agreement. Can you tell me what that is?
A. Well, it's an agreement that has several points, and I'll touch on some of these in my slide presentation. It has several points that have to be addressed as a part of constructing the project. As an example, it discusses support structures, above-ground facilities that are going to be on the project site, topsoils, how they are going to be handled, rock removal, compaction on the site, the erosion -- prevention of erosion during construction on the

In Totidem Verbis, LLC (ITV)

site, clearing of any trees or grubbing of the land prior to starting construction. It talks about access roads. So it kind of covers the whole gamut of the activities that would happen during construction.

Q. And so is it a fair statement that the AIMA sets forth certain guidelines that must be followed during the construction process?

A. Yes.

Q. Are you familiar with what's known as the stormwater prevention pollution plan?

A. Yes, I'm familiar with that.

Q. And what is that?

A. What it is, is a plan that's put together prior to the start of construction that describes how stormwater on the site during construction is going to be handled, whether there's going to be additional, new runoff channels required. Some of this may come from some of the studies that Huddleston and McBride may do. There may be some other hydrologists that look at that as well.

But what it does is, it establishes areas where the runoff is, whether there's going to be

In Totidem Verbis, LLC (ITV)

any temporary ponding or site collection ponds needed, and it would also identify how the erosion control is going to be handled around the perimeters of the site: silt fencing, hay bales, and those types of things.

Q. And is this SWPPP plan required prior to construction?

A. Yes.

Q. But it's not required to be entered into or to have been designed at the time of this hearing; is that correct?

A. No, that's correct. You have to -- the plan is put together and it's best if it's put together once you have a construction company selected, because they can provide input on the best ways to control certain things on the site. They would take into account the hydrology studies and so forth and have input into developing that.

So usually the SWPPP becomes -- is issued out -- again, it's prior to construction, but not this early in the project.

Q. And at the time of the execution of this SWPPP plan, the Lee County Soil and Water Conservation

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District would surely weigh in on that; is that correct?

A. Yes. Yes, exactly.

Q. Will you work with Huddleston and McBride to identify and avoid drain tiles within the project area?

A. Yes. As they kind of alluded to in their presentation, they would survey the site and identify all the drain tiles and the paths that they take. And then once the layout for the site is fairly well established -- and, again, that's later on in the project rather than right now, but before construction. Once that is established, then you would lay out basically the location of all the piles that are driven and all the underground electrical cables. And if there is any conflict between the drain tiles, then you would obviously want to work with Huddleston and McBride to either reroute the drain tiles around where the obstruction -- where the conflict would be, or you could alter the design a little bit to some extent, move a pile here or there or move a trench over to miss the drain tile.

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So it usually ends up kind of being a give-and-take as the project gets designed.

Q. Does the AIMA have any requirements as to what happens when a drain tile is hit?

A. Well, obviously the -- it would have to be corrected. I don't recall the exact words in the AIMA, but I know for this project it's commitment by the owners that if a drain tile is hit, it would be -- work would stop and that drain tile would -- at least in that area would be rerouted around or repaired so that the drain tile effectively would still be intact afterwards, after the repair.

Q. It's my understanding that you prepared a PowerPoint presentation for tonight; is that true?

A. Yes, that's correct.

Q. I'm going to ask you to share your screen and to proceed with your PowerPoint presentation.

A. Okay.

Okay. Can everybody see my screen?

Q. We can, thank you.

A. Okay. Great.

So first of all, let's start off with,

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again, you know my name is Mike Lehr. I have stated that upfront. I'm the Steward Creek consulting construction manager.

I work for a company called Leidos, and as I alluded to earlier, we have extensive experience in large renewable energy projects, including wind, even though my experience personally hasn't been a lot of wind, but I certainly have a lot of solar, nuclear, coal, natural gas projects under my belt.

A little bit about Leidos, Leidos on the solar side, we have advised over 64 gigawatts of solar projects. And I know that gigawatt, that may not mean a lot to everybody, but that can power several large, large cities with that kind of output across the country.

As an example, a couple of the projects that Leidos has done, Copper Mountain Solar Complex was a 557-megawatt solar project located outside of Las Vegas. It was kind of similar to this project in that it was made up really of four smaller projects that totaled up to the 557 megawatts. So it was a stage project similar to Steward Creek.

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The California Flats Solar Project was outside of San Luis Obispo and provides all the renewable power to Apple Computer.

And then the AV Solar Ranch Project is a 241-megawatt project, again located in California, and it's outside of Los Angeles and provides some of the power for the City of Los Angeles.

So that's just kind of a brief -- I mean, Leidos has way more than that, but it's just kind of a snapshot of a few solar projects Leidos has done.

My experience, I have done several large solar projects. The Intersect Solar Project I'm working on right now is a 412-megawatt project. It's located in Texas.

The Mount Signal III Project was -- is a project that just finished up here recently. It's located in El Centro, California. Again, that project is similar to this one. A lot of these are, because they were out on farmland. Particularly, the Mount Signal III Project was on a 5,000-acre site, farmland, spread out just about like this project was.

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So this slide shows the overall layout for the project. So the project is bounded on the north side by Gurler Road. It's bounded on the east side basically by the West County Line Road. It's bounded on the west side by Highway -- Interstate Highway -- Interstate Highway 39, and on the south side by Highway 30. So that kind of gives the whole encompassing site of the project.

So the project is going to be phased in three phases. You may have already heard that. I'll show you those phases in a little more detail in a couple of following slides here.

So the phases will be from north to south, and that's how construction will proceed. Correction is slated right now to start in late 2022.

So following on from that slide, this is the -- kind of the layout that would be in the north phase of the project. And, again, it's bounded on the north side by Gurler Road and on the south side by Perry Road, and this -- the size of this project will probably be just a little less than one-third -- the output of this

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project, on megawatt scales, about a little less than one-third of the total output of the project.

The project will then, construction-wise, move from the north as things progress to the central portion of the project. And the central portion of the project is bounded by Perry Road on the north and Herman Road on the south side, and the output of this central portion of the project would be just a little over one-third of the output of the project.

And then the south phase of the project is shown here, and it's bounded by Herman Road to the north and Willow Creek Road, basically, to the south. There's one portion that might be a little -- that's a little south of Willow Creek, but that's kind of the guidelines, just to give everybody a feel for what that south project is. And the size of this output of this portion of the project would be, again, about one-third of the output of the project.

So with that in mind, one of the early-on things that has to be looked at is the -- how the sites are going to be accessed, and so this

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slide gives you an idea of exactly how we're planning to access the sites specifically. So all of the access would come off of Interstate 39 basically at two points: at Perry Road and down at Highway 30.

So the access would be up the local roads and into the sites. So, as an example, access to the north site, you would go up Paw Paw Road to whichever crossroad you would need to go to, to get entrance to where you're working on the north side.

Then for the central portion of the project, again, most of the deliveries and access would be off of Perry Road, down Paw Paw Road, into the central portion of the project, as you can see, for access to that portion down through Herman Road.

And then for the south portion of the project, the access would mainly be off of I-39 through the Highway 30 exit and then north on Paw Paw Road to gain access to the sites.

So based on that, preliminary road use has been -- an agreement has been put together, and it's been reviewed by the Willow Creek Township

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and the Alto Township and their -- the preliminary -- there hasn't been any concerns voiced about the road use -- preliminary road use.

So there will be a final Road Use Agreement, and again, it will be with the townships, and that would be in place before the project started construction.

You asked earlier about the AIMA and some of the things that it talks about. This provides a list of the topics that are in the AIMA. I'm not going to touch upon every one of those bullet points, but there's a few here that -- bolded that I will touch on.

The topsoil removal and replacement, there's no plan to take the topsoil off the project site at all and sell it -- take it off the project site. If there's topsoil that has to be removed to either level or fill in, it will all be topsoil from the project site and used at the project specifically. There won't be anything removed from the project site.

Q. The routing of the drain tiles, the previous presentation touched on that in a lot more

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detail than what I plan to talk about, but, again, if -- as I stated earlier, if a drain tile -- during the design of the project, once the drain tiles are surveyed and laid out, if the design identifies where it would interfere with a drain tile, the drain tile will either be slated to be moved to allow the -- either the post or the underground cable burial there, or if it's amenable, maybe a post can be moved or the underground trench can be moved. So it will be worked out at that point to minimize any impact on the drainage tiles.

Prevention of soil erosion, again, that would be -- and the SWPPP covers some of this. But, again, that would be the -- putting in -- compacting the soil for the roadways, putting in gravel roadways for the sites, limiting the speed limits on the sites, putting in silt barriers around the project sites and hay bales around the project sites during construction.

And then as it moves into the operation phase once construction finishes up, as was in the previous presentation, then there would be native grasses planted to prevent the erosion.

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And if there is any -- during construction, any identified specific areas where there's a lot of dust generated or erosion-type things, the construction company could come in and spray those areas to prevent the dust-type erosion from the project site during construction.

So additionally, there's going to be permits that are going to be required to construct this: the SWPPP, which we have already touched on, there's going to be building permits, electrical permits, and as well as the Road Use Agreement. So those are the types of things that get in place prior to starting construction.

So this slide is to give everybody kind of an idea of construction, how it progresses a little bit. As I stated earlier, construction on a project of this size, being 21 to 24 months, it will be in the three phases we have discussed.

So at the start of construction, what happens is the site gets prepared, and that doesn't necessarily mean the whole site has gone in and recreated. A lot of these solar projects

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anymore like to maintain -- and, again, from drainage, they like to maintain the topography of the site because that helps the drainage as it is, and tries not to disturb if there's low vegetation on the site. By "low," I mean grasses or something like that, tries not to disturb that. There's no need to really just make the site completely bare ground to install these solar facilities anymore.

So the site would be prepared for the start of construction. The access roads would be installed. The gravel would be placed down and compacted for the roads. Then the SWPPP for the construction portion would be implemented for, like, the silt barriers, and those types of things would be erected. Any drainage channels that may be needed or drainage ponds, those would all be put in at the start of construction.

As I said earlier too, the topsoil will be retained on site. And the civil work, really we try to minimize that. There's no need to go in and regrade those sites.

The -- then once the site is really

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prepared from a topography standpoint, then the piles are driven. In the picture on the upper right, it shows the pile-driving machine. There's a guy standing next to it so you can get an idea of how big that machine is.

The piles are driven typically about 6 to 8 feet. That gets determined by a geotechnical report that will be done that will establish the actual depth of the piles that need to be driven. In some cases they get driven less, some cases more. But in general, it will probably be in the order of 4 to 6 feet -- or 6 to 8 feet, I'm sorry.

So once the piles are installed -- and not all the piles have to be installed at the site before the erection of the solar panels begins. They'll -- the way construction will progress is, piles will get driven in a certain area, and then the racking for the solar panels will start coming in where they'll bolt on to the piles. So even though they're driving piles on another portion of the project, maybe in that same area just further down, they'll start bolting the racking up and putting the solar panels in

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place.

And you can see what the solar panels -- how they're installed in the picture on the lower right. Everything that's put in from the solar -- onto the piles, the solar racking and the panels, it's all bolted connections. There's nothing welded on it.

The -- then once the solar panels are up -- and again, it doesn't have to be for the full site. Just once a -- several rows of the solar panels are up, the electricians will come in and start connecting the wires. They join them in series down the panels. Now, the panels produce direct current. So the electricity flows through some wires over to an inverter. There will be some inverters on site, and they will take this direct current out of the solar panels and convert it to alternating current, which is then routed over to the substation and out to the power grid.

As stated earlier in some of the other presentations, there will be a 6-foot chain link fence around each of the project sites, and it will have stranded barbed wire on the top.

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The operation and maintenance phase, I wanted to touch on that just a little too. Once the plan is constructed and deemed commercially operable, the operation and maintenance phase, the plan will actually be controlled off site. So there will be very few people actually on site, and they would be mainly just a few folks coming and checking on the project, making sure nothing has been damaged, doing any preventative maintenance that may need to be done, spraying weeds as needed and mowing as needed.

So there's very little -- once the project is in place, there's very little amount of people coming onto the project site and very little noise at all. It's just mainly vehicles on and off the site.

So with that, that concludes my presentation.

Q. Thank you. Just a few follow-up questions for you, Mr. Lehr.

A. Sure.

Q. Does that SWPPP plan end once construction is completed?

A. It's usually dictated by what the County

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requires, or the local ordinance, I guess I should say. Yes, the SWPPP, from that standpoint, usually ends at the end of construction. I have not seen projects in the past where the SWPPP has continued on past construction during operation. So in all, in my experience, yes, it usually ends at the end of construction.

Q. But the AIMA would continue throughout the general operation of the project; is that correct?

A. Yeah, that's correct.

MS. KENNEDY: I have nothing further.

JUDGE SLAVIN: All right. I hate to do this, but we're going to. Mr. Lehr, we'll see you tomorrow night. Tomorrow will begin at 7 o'clock. You can be cross-examined by the State's Attorney, the Zoning Officer, the ZBA, and other interested parties who are here or on Zoom.

So 7 o'clock tomorrow night okay with your schedule, sir?

THE WITNESS: Yes. Yes, it is.

JUDGE SLAVIN: Okay. We'll flip your

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image up then. Thank you.

THE WITNESS: Okay. Thanks.

JUDGE SLAVIN: Have a good evening, everybody.

(The hearing was recessed at 9:30 p.m.)

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On this 19th day of October, A.D., 2020, I do signify that the foregoing testimony was given before the Lee County Zoning Board of Appeals.

Bruce Forster, Chairman

Dee Duffy,
Zoning Enforcement Officer

Callie S. Bodmer
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