

## **BZA MINUTES**

**January 20, 2026**

Members present: Bill Davis, Jason Allen, Don Calhoun, Drew Cleveland, Jason Hawley, and Jon Peacock

Members absent: Jim Hufford

Legal Representation: Jason Welch

Staff present: Debra Johnting, Area Planning Director and Kristi Halloran, Recording Secretary

Others present: Ed Thornburg, Tom Chalfant, Brad DeBolt, Rob Davis, Steve Whittaker  
Jennifer O'Keefe, Adam Hunt, Hugh Caperton, Barbara King, Dave Tillman

Chairman Hawley: Good evening. It is January 20, 2026 and I'd like to call the Board of Zoning Appeals to order. First on the docket we have the approval of the minutes from November 18, 2025. Those were emailed out. I assume everybody here has had a chance to look those over. Are there any questions or concerns that need to be made?

D. Cleveland: I move we approve.

Vice Chairman Davis: Second.

Chairman Hawley: It is moved and seconded. Motion to approve the minutes as presented. All those in favor say Aye.

All: "Aye."

Chairman Hawley: Those opposed? Motion is carried. Next we have the election of officers for 2026. The current chairman is myself, Jason Hawley. Is there anyone else here who would like the position for the coming year?

Vice Chairman Davis: I make a motion that we keep it as or unless somebody else that wants to head it up. Have Jason and myself as first and second.

J. Peacock: Second.

Chairman Hawley: First and second, all in favor say "Aye".

All: "Aye".

Chairman Hawley: All those opposed? Motion carried. Chairman will be Jason Hawley and the Vice Chairman will continue to be Bill Davis. Before we get moving I would like all the members to state their name for the record to make things a little easier to transcribe. My name is Jason Hawley, Bill Davis, Don Calhoun, Drew Cleveland, Jason Allen, and Jon Peacock. Thank you very much. As we get started tonight I would like to remind the petitioners will have fifteen minutes to present their petition. During this time there will be no interruptions or questions. After the petition the board may ask

questions. Then anyone wishing to speak for or against will have three minutes each and then the petitioner will have an additional five minutes to respond to the comments. On the docket tonight we have BZA2026-2-SP, Adam Hunt representing One Carbon Partnership with a request to prepare and build the infrastructure needed to perform a carbon capture and sequestration in zone M-2 (Industrial, General). Is there anyone here who would like to speak on behalf? Mr. Hunt. If you would please approach the bench and state your name and address for the record.

A. Hunt: Adam Hunt, address is Cardinal Ethanol plant for the purposes of this, so 600 E, sorry don't know the rest of it.

K. Halloran: That's okay.

Chairman Hawley: Have they sent out notice of certified mail and returned receipts to the Area Planning Office and received Article V, Conduct of Hearing?

A. Hunt: Yes.

Chairman Hawley: Okay, tell us what you're looking to do and see what we can come up with tonight.

A. Hunt: Just a quick introduction of the people I have here. Adam Hunt, project manager for the One Carbon Partnership project. Hugh Caperton, he is a SVP for Development with Vault which is part of the One Carbon Partnership joint venture between Cardinal Ethanol and Vault. Jennifer O'Keefe, she is the VP of Land and Stakeholder Engagement. And we have Steve Whitaker, he is the VP of Subsurface. Just with the introductions I'll hand it over to Hugh just for an opening statement and then we'll get into some of the findings of fact.

H. Caperton: You did that awful quick! So thank you all for the time this evening. Not only in my role as Senior Vice President of Development for Vault, I also am on a Director for One Carbon Partnership as is Mr. Rob Davis who is also in attendance this evening who is the Chairman of the Board for Cardinal Ethanol. The joint venture, One Carbon Partnership, was formed in 2023 between Cardinal Ethanol and Vault 44.01 to develop a carbon capture and sequestration project associated with the Cardinal Ethanol facility in Union City. We have been engaged as partners for approximately four years. We were actually engaged before the joint venture was formed. And during that time we've been working with the local community educating on carbon capture and sequestration. As we have worked through that engagement process and also a stringent permitting process as Adam will describe further the project would be solely located on Cardinal Ethanol property. The project parameters would include an injection well for the CO<sub>2</sub> to inject CO<sub>2</sub> through that would sit at an approximate depth of about 3,700 feet. To put that into context that looks about four Sales Force towers stacked on top of each other. There'd be an above zone monitoring well which Adam will describe or Mr. Whittaker will describe as well as an in zone monitoring well. With that we will also have compression at the location. Compression already exists. We will have a new compression system there to compress the CO<sub>2</sub> before we inject it. What are some of the benefits of the project? So through our three and a half years of engagement we've engaged with

over 8,000 acres of land owners. We have achieved over 99% voluntary participation in our project area. We have engaged Farm Bureau. We've actually had the National Farm Bureau to the facility. So the engagement has been very broad. We've sat many times with the county commissioners. We've been with the Area Planning Commission as you all are aware. Facilitating this project not only has, as we view it, involvement from those that are directly associated with the project but also and this is a learning from the I have received is that out of the 20,000,000 bushels of corn that are that are produced in Randolph County annually 12,000,000 of those buckles end up at Cardinal Ethanol. So the reason these projects are starting to become more prominent is because it creates an environment where that ethanol facility can be more competitive in the marketplace by lowering their carbon intensity score and then ultimately that benefit rolls out to all farmers not just those directly involved in the project. The permitting process, we have been in the permitting process with the Environmental Protection Agency specifically Region 5 for over three and a half years. We anticipate our final permit to be issued in the next 90 to 120 days. That process involves about 600-page permit. Takes about eight weeks to prepare and that's what Dr. Whittaker leads up as well. All of that is involved around project safety specifically the protection of freshwater sources in an area. We will also and have gone through strict state permitting process. The state will look at land rights. The state will look that you actually have a Class VI permit before you can proceed with the injection of CO<sub>2</sub>. So we've had stringent engagement over the last three and a half years. We are continuing our permitting process that regulates carbon sequestration both at the federal and the state level and continue to engage and like I said I appreciate being here this evening.

A. Hunt: Alright, thanks Hugh. Are there any questions on that before I get into some more specifics? I can draw everybody's attention to the map that was part of the package so that's just the overview of the Cardinal Ethanol facility. I'll just do a quick walk through of actually what we're putting on site so everybody can kind of understand in context. So if everybody has a map up. Just started kind of at the center of the plant there's existing fermentation tanks. So currently right now when they produce the ethanol part of the fermentation process is the CO<sub>2</sub> comes off the east. So currently right now that just goes through an existing stack or basically scrubbers and a stack and then goes back into the atmosphere. So where the project starts is where we off take the CO<sub>2</sub> from that existing stack and bring it over to the new facilities. So that's kind of the west side of the tanks. We'll be building a new 30-inch stainless steel line that connects to the existing stack which brings it over to the compressor building. So compressor building inside a bunch of equipment essentially to compress the CO<sub>2</sub> from atmospheric pressure. So basically no pressure up to about 1,500 PSI. So it's all specialized equipment. All meets the regulated engineering requirements but essentially over six stages of compression it boosts up the pressure of the CO<sub>2</sub>. So it's in a super critical state so it's ready to be injected into the well. So after the compression building basically there's a flow line, there will be a buried flow line that goes underneath those two roads on the site and then out to the injection well. Part of it we also have the electrical building which is all the controls. Essentially it controls all the major equipment there. There's cooling tower to help with the cooling as you

compress the CO<sub>2</sub> you need to cool it after each stage. Then there's also two additional wells. So there's the above combining zone well which is near the injection well. That looks for any leakage that would happen around the injection well. Then there's an observation well. It's the same depth as the injection well and that's on the other side of the site and that's used to monitor essentially the pressure plume or the pressure front of the CO<sub>2</sub> migrating below ground in the reservoir. So that's what all the infrastructure is on site. It's all contained within site. Nothing is going anywhere off site with regards to all the equipment. So kind of moving on to the first point the first major question is around "not detrimental to public health and safety". So starting at the above ground facilities, as I mentioned, it's all an engineered product. It's all designed the appropriate standards for American National Standards Institute and meets the American Society of the Natural Engineers, meets all fire code electrical code, all of that stuff. So it's an entire engineered product that takes it all the way from off take to injection. So from a safety standpoint it is a traditional industrial facility within industrial safety measures in place both from access, egress, fire suppression, alarm systems, emergency shutdowns, there's automated shutdowns and manual shutdowns. So it's an industrial plant that's been engineered to appropriately run for what it's designed to do. When it comes to the subsurface that's where I'll bring in Steve just to talk just a little bit on the subsurface safety and protection of groundwater.

S. Whittaker: Sure. We have a team of geologists, engineers, and geophysicists who have worked on this site over a number of years actually now. So we've done it extremely detailed technical evaluation of the site for such characteristics whether it's got good reservoir or it's got a good cap rock. All that work is going into...we've used existing data we've acquired data including seismic information which gives us a good three-dimensional view of what's in the subsurface whether it's features, structures, faults, and so on and this is a very nice site to work on. All that work has gone into the documents that Hugh mentioned about a 600-page permit application that was submitted to the US EPA for their review. They've taken a couple of years of time to review that. They've sent it out to numerous consultancies and national labs to review and we've answered questions back and forth. So it's a very rigorous process and they basically have gone through it all and indicated that this site has met all the metrics for Class VI permit. We're just simply waiting now on the final permit. The impetus for the Class VI permit is really around the protection of groundwater so that's its primary focus of the EPA and so our site is designed to monitor for all aspects of what's going on under the ground. As Adam indicated both in the reservoir but also in the near surface we're doing monitoring up there to make sure everything is okay. So we inject the well the CO<sub>2</sub> into this injection well and it dissipates outwards in the reservoir. We measure the pressure continuously so that's done 24/7 all the time we're measuring pressure. Anything that's untoward we notify the EPA and we make any adjustments. We have a deep monitoring well that's also in the reservoir. It's not quite a mile away and as Adam said we measure pressure in that in that well but we can also drop sensors in there to measure how the CO<sub>2</sub> is coming in actually getting into that location. Then we use all that data to revise models and predictions and provide all that information.

So the wells themselves are monitored continuously we're measuring the subsurface continuously. We also have a surface monitoring we do continuously including monitoring shallow groundwater. So all of that information is reported. We have to submit that to the EPA so it's publicly available and so that's really you know a lot of like the EPAs required to do so that is what we do to prevent you know to ensure that we're doing this safely anything that is out of scope. You know we have we have a protocol to address it and maintaining modifications that's required.

A. Hunt: Thanks Steve. Right moving on to "land use won't diminish nearby properties, property values, enjoyment of nearby properties". So just the first point as we've already stated everything that we're doing from a surface infrastructure is all located within the existing industrial facility of Cardinal Ethanol. So we're not putting anything else on anyone's nearby property for an infrastructure side of things. Hugh, did you want to touch on some just kind of the land side component of that.

H. Caperton: I think broadly speaking, as Adam stated, the actual facilities are all located on Cardinal Ethanol property. I think a few things as we think about this, we do not see post operation commencing an increase in traffic volume and that actually we anticipate the traffic volume should actually decrease slightly since the CO<sub>2</sub> will no longer be leaving site. It will be injected over 3,000 feet underground. And I think the other thing to speak to on this matter is you mentioned you know area farmers and their involvement and how you know they are compensated for their involvement in the project that would put forward approximately \$800,000 annually into the pockets of local land owners and then there's the additional benefits associated with the project for all farmers that are bringing feedstock to the facility. So there is the capital investment of over \$50,000,000 that will go in and there's the associated tax revenue with that the we'll come back to the county and then the area of land owners not only directly involved in the project but also bringing feedstock to the facility.

Chairman Hawley: You've got about two minutes left.

A. Hunt: So that kind of touched on the quarterly development of surrounding properties. Everything that we're doing here is not going to impact any of the surrounding properties for their own development. There are land agreements in place voluntary agreements with land owners there are some criteria associated with that but that's purely from the subsurface safety perspective. That they can't do things down there that would potentially endanger the safety of the project or the groundwater. So kind of touching on the last few final points. So adequate utilities, access road those type of things, so Indiana Michigan Power and their service station. They've done an upgrade there at the substation to allow for the additional power for this project so that infrastructure is already in place. The existing water service agreement to have in place is I'm not sure the current upgrade. No new roads are required. So from a utility standpoint there's no additional upgrades or anything required to happen at site. Ingress/egress for traffic ultimately during operation this is really maybe one to two additional employees that work within the Cardinal

control room to help control this equipment so from operation standpoint and barely any change. During construction I think peak manpower is about 20 to 30 people that would be on site during construction. So there will be a little bit of construction that would show up in the morning go home at night. All right and then just conformance with M-2. So essentially it is an industrial facility and we're applying for this special exception use to be on the existing M-2 industrial and it functions very similar to what happens at site right now. The client will or the CCS facilities will operate when the client operates. The clients down CCS is not running. So essentially they work 24/7 as long as the plants running the CCS runs but again industrial facility fits within the M-2 zoning and this is a special exception application. Any I've got about 14 and a half minutes and closing.

Chairman Hawley: Alright at this point the board will have chance and an opportunity to ask questions. After which time will open up the floor to anyone from the community who would like to speak for against this. I guess I was kind of looking at my notes that I was taking about this before we got here and there's obviously the discussion about property values. Obviously nothing is guaranteed. I mean anything can happen with those but I'm like what is some of the opportunities that we're taking to make sure the property values won't be affected too bad.

H. Caperton: I think as we think about property values. I think one of the drivers for those involved in the project. What do we hear from folks that are voluntarily participating, 99% over about a 3,600 acre area. It adds an additional source of revenue right which generally speaking in a valuation approach that farm or that farmland could be looked at more valuable than its neighbor because it offers an additional source of revenue to that property. Think of it as a rent charge. Right you can take a value associated with a future cash flow stream and that can be associated to a present value. You know statistical studies have shown a neutral valuation to a positive valuation. Now if these projects with associated projects are similar projects better stated in North Dakota and areas like that I've been online for a couple of years so they're having been a lot of land transactions associated with them. You're generally in rural communities. Land transactions or real estate transactions are sometimes few and far between so. The data is not necessarily decisive either way and we've seen some let's say it increases. Some say it's neutral and I'm talking about 0% to 3.42%. So I think one thing from a mathematical perspective that you can state is an additional cash flow to a property would be valued probably you know on a positive manner.

D. Cleveland: What's the time frame on the lease agreement with landowners?

H. Caperton: The land agreements that we have for access to subsurface. So our agreements are tailored such that you know since all of our surface activity or excuse me surface construction is going on on Cardinal property we're only actually working with the land owners for the specific formation we are going to inject CO<sub>2</sub> in. So if they want to build a house, if they want to build a shed, they can do that right. The only restriction that we would say is if they wanted to drill a gas well. Please go ahead and do it or if they wanted to mine coal. They can go and do that but

if they're going to drill a well we want to know about that because that is part of the safety of the project we don't want somebody to drill into this zone to allow CO<sub>2</sub> to escape so.

J. O'Keefe: 20 years initially with a 10-year option to extend.

H. Caperton: That's why I brought her.

J. Welch: How large of an underground area will be affected? You talked a lot about everything's going to be on Cardinal property but that's not really true. Correct? Because you're going to be injecting the carbon dioxide and it's going to spread under a lot of people's property right.

S. Whittaker: That's right. It's got probably about a mile radius.

J. Welch: So everybody within a mile radius will technically be affected. Is that right?

S. Whittaker: Well the CO<sub>2</sub> will be in the in the subsurface.

J. Welch: I'm not a scientist so what's exactly the danger to groundwater from the process that you're doing?

S. Whittaker: So, let's define groundwater. So you're worried about probably drinking water, right?

J. Welch: Correct.

S. Whittaker: So we're injecting into this formation that's roughly 3,500 feet deep about 500 foot cap rock on it. There's wells that go down to into that. So the potable water that we're looking at here is roughly in the upper two to three hundred feet. So we'll monitor that so the risk is somehow the CO<sub>2</sub> would get up into that into that drinking water. So it would take quite a you know unusual circumstances for anything like to happen but that would be the risk. That somehow CO<sub>2</sub> which is injecting somehow gets up into the into the potable water. We do increase the pressure in the reservoir down at that depth. So there is a you know if you had an open hole the pressure in the reservoir would be enough to push fluids upwards to some degree and that's in an area called perry field. So if that happened you could get sort of this very saline water from the Mount Simon formation into the freshwater so you see an increase in salinity. The other thing is we do increase you will decrease the pH so slightly more acidic because carbon dioxide and water is carbonic acid just like soda pop so it's a bit more acidic so you might find some dissolution of minerals that might react with you know with the slightly more acidic things such as limestones. And that which will react with limestone then actually in the buffering the situation so you really struggle to see it change much within the drinking water system from that perspective but that is the risk that could exist.

J. Welch: So if there was some contamination, how large of an area of drinking water would this affect?

S. Whittaker: Well we've done some studies on that and typically you know if you're seeing this we've seen things that it's really quite minimal it's like thirty-foot radius. So it's not really despite all that much outwards in that regard. So if it's a very much a point source coming up and the impact of that is quite minimal in terms of the area. Obviously, it depends on how much for how long but you know in our monitoring system we would be identifying things happening extremely quickly so we would take measures to mitigate and stop any kind of things.

J. Welch: Have you seen contamination in any of your other facilities?

S. Whittaker: No, there's actually you know there's never been any indication of contamination from one of these projects in drinking water so far. If you're familiar with Archer Daniels Midland site, there they had an issue with their well but that was very deep down and nothing was actually impacted the drinking water. So there have been a number of studies that have been done to try and inject CO<sub>2</sub> directly in groundwater and see what the impacts are but we do have the research on what would happen and it basically is what I just indicated from like lower the pH level. But we do have in our permitting we're required to have financial assurance component. So there's money already in the EPA so if anything happens we opportunities to remediate it so there's money there so there's some variety of things that can be done like pump and treat. Just basically treat it all if that happens the one thing about CO<sub>2</sub> is it's very it's gas near surface and it's you know it's not a toxic material basically so if something that you can easily get out of the surface out of the system because it's a gas and the proper treatment would clean it up.

J. Welch: Thank you. I don't have a vote but I thought you might want some more clarification.

A. Hunt: Just the one thing I will add is that is the entire purpose of the Class VI application with the EPA to review safety of groundwater. What would happen if there was a leak? What measures you have in place to monitor leaks? How you would remediate it? And then the associated financial insurance and guarantees of having money in place to fix any issues. So that is the entire process that we've been in with the EPA for three and a half years now?

Chairman Hawley: I guess with that in mind, my big concern obviously we all kind of share off of the same aquifer here kind of in the area. I live on well water at my house. I'm like I get that there's money for that but I don't want to have to sell or lose my house because things get contaminated. So I guess I'm kind of looking for what kind of assurances can myself provide for me and my family and my kids and hopefully one day grandkids that everything's going to be on the level and nobody 's going to get hurt.

A. Hunt: Understood completely. Completely agree that we don't want it to leak out. So just to explain a little bit of the monitoring. So for example to date we've taken from wells nearby we do take groundwater samples from everybody well not everybody but basically a ring around the facility. We've established the baseline water conditions in people's wells so we know what it's like today before any injection has ever started. Once the facility is online and running we've kind of

touched on all the different monitoring systems in place it's a real time industrial facility in the event that there is any type of leak or that something's not expected happens it's an automatic shutdown. Immediately we notify the EPA and then we start to investigate. Steve mentioned the depth of this the 3,500 feet plus 500 feet of shale rock which is an impermeable barrier so when you look at this these projects from a risk standpoint you look at well where credit leaked from. Generally it's right around the injection well coming down right there so maybe there is a well integrity issue that allows it to migrate up. The other main pathway that you look at is faulting or if there's any type of faulting in the rock below which would create a leakage pathway. We've looked at it we've done the 3D seismic survey is essentially images below ground. Gives you a three-dimensional picture of like what the rock looks like and if there's any fault in there we've done that survey looks like a very solid cap rock no faulting so no migration pathways. We know there's no wells drilled in the area to penetrate the cap rock so from a risk standpoint of actually leakage occurring is incredibly low. In the event that it does happen with what you're concerned about as I mentioned it shuts down immediately and then we work with EPA to understand what went wrong what's the risk to the public or groundwater and then remediation options everything from pump and treat which is treating large volumes where you can pump it out treat it with industrial systems put it back down. There's contingency plans in there for remediating individual houses if there's an issue we put a system in to treat their groundwater. So there's a bunch of different measures in place essentially to deal with any type of leakage scenario.

S. Whittaker: Maybe one of the things to me is this above stone margin that we mentioned a couple of times. So Adam mentioned the cap rock right above that cap rock there's a there's a bit of rock there that we stick the well down into and measure pressure in that zone. So if there's any kind of migration of CO<sub>2</sub> upwards it's extremely sensitive you can measure pressure very well in the subsurface. It's one of the things that really measure. You would see a change in that pressure. We can also take fluid samples from that zone. So that's kind of the first indication of anything would be coming out of this, out of the reservoir. And really Adam mentioned the fault. There's a minimal chance that fault in this area would be transmissive. The places of concern would be the wells themselves and those are wells are monitored 24/7 and you know they're made they're constructed with very high alloyed chrome casing material so it's resistant to corrosion. We test them for mechanical integrity annually like I said just pressure gauges monitoring it constantly with the analysis of the well that's the entire inside of the well and the external part of the well is also measured is also monitored and is cemented with two resistance in a compound mixture so. From that perspective the risk of leaking is extremely low for getting anything to the surface.

D. Cleveland: Do you replace that well pipe at some point or do you cap it and put a new one?

S. Whittaker: The casing itself you can repair it but there is a tubing that goes down in this in the middle of the casing so you have essentially this outer casing which is the rigor you know strength of the well and then you have tube that goes down the middle which injects the CO<sub>2</sub>. That tube can be replaced.

H. Caperton: And in this case we actually have three layers of steel casing that will be protecting your freshwater aquifer and then you're actually injecting down through the tubing so it's really kind of four layers of steel, three layers of cement. So it's not just one well bore with tubing in it. It's what we would call conductor string, the surface string, the intermediate string, and well string.

D. Cleveland: What is the expected life of those?

S. Whittaker: Well they're minimum 30 years but you know they'll last longer.

J. O'Keefe: And then tubing on the inside I think is. We budgeted with every five years or so and that's tested annually to ensure that there's no corrosion, no pitting, any string integrity issues with that tubing and if there is we can replace it.

D. Cleveland: So routine maintenance every five years is that what you're saying.

J. O'Keefe: Well it depends I mean at least I mean you could think it later you know on average every five years but it will be as necessary because we're doing that annual testing and we have the continuous monitoring within that well in order to ensure that there is no leakage. So between the integrity testing which is kind of running you know equipment all the way down hole and making sure taking a good look at that pipe and making sure that there's no integrity issue with that tubing carrying the CO<sub>2</sub> if there was anything then we would we would pull tubing and that's a common workover, pull that tube and replace it.

S. Whittaker: We have corroded coupons to enter materially. The bills are made up and we measure the corrosion on the chrome.

J. Allen: Okay, I have a slew of questions. Literally. And you just touched on was the longevity of the well and so that was really good as far as getting that information but the other thing is I'm curious too is that you hit on the fact that the well goes down and it goes out into the underground about a mile. What is the full capacity of that? Is there any way that that could actually fill up you know to where there's a capacity? I mean I know it's a gas obviously and I get the part where you are saying about the water where it's 3,700 feet underground and obviously aquifer drinking water is usually 200 to 300 feet so you're going to have to go 3,000 feet above where your well head is at the bottom before it gets to the drinking water. What is the chances of that rising to that point or is there a monitoring systems there say at 2,500 feet might say oh crap there's something starting to leak at this level before it gets to the drinking water. Is there monitoring sensors to that depth before it gets to the drinking water?

S. Whittaker: So that's this above zone monitoring rock that I was mentioning. It's well that goes down just sits on top of the caprock and measures pressure and include samples here so that will then that's the first line of defense essentially above it.

J. Allen: How big is the cap rock?

S. Whittaker: It's about 2,800 feet here.

A. Hunt: The above zone confining well it's about 1,700 feet deep so that's where that sensor will be so 1,700 feet from the surface that will be really like if something migrates up through the cap rock it will detect it at that location.

J. Allen: Which is right above the cap rock? So that's where you'll be first line of the defense.

S. Whittaker: And to answer your question about capacity—will it ever fill up? Not really. It won't and the reason why this is not sort of a laterally continued container. The geological formation, this Mount Simon formation which goes from here well into Ohio, past Ohio over into almost basically into Iowa so it is a very extensive unit and so basically what we do as we're injecting over the period of the project it keeps pushing out farther so we could if it was more continue to inject in there not really reach the limit of this reservoir. What the limit is is the rate at which we can inject. You can only inject so fast because of porosity and the is the characteristics of the reservoir but the reservoir itself has a tremendous capacity beyond what we're injecting.

J. Allen: I'm glad you said that because my next question goes into the fact that obviously we're never going to get rid of ethanol out of our gas again and so is their plans with Cardinal Ethanol every with their growth that they've had over the few years that they have continued to grow. Is there plans for another well?

A. Hunt: That is not anything that...

J. Allen: Obviously you're pumping out so much CO<sub>2</sub> currently. Cardinal Ethanol continues to grow with the capacity it's growing you're going to need more area to disperse more CO<sub>2</sub>.

H. Caperton: The current volume that Cardinal puts in the air every day. That the reservoir itself that that single well could handle basically twice that volume.

J. Allen: Okay.

H. Caperton: And if there were to be another well added you would have to go back through the entire permitting process.

S. Whittaker: That well would be placed a distance away that's not...

J. Allen: You probably couldn't put them in the same place. So at that point you'd probably have to acquire more land.

A. Hunt: Yes.

S. Whittaker: I think that's hypothetical.

J. Allen: I'm only 45 we got a long time to go.

Chairman Hawley: Are there any other questions that the board may have at this point?

J. Peacock: So just so I understand for sure. When you pump this in the ground 3,500 feet deep. It's not air down there it's brine solution right? It's a seawater basically salt-water solution.

S. Whittaker: It's very salty. It's far more salty than seawater.

J. Peacock: And when we put the pressure down there because there was already a fairly high level of pressure right. 3,500 feet down so you get this 10,000 horse pressurizer putting it down there and it will just in 25 to 30 years to spread a mile or two probably right? The pressure dissipates as it goes out from that?

S. Whittaker: That's correct so the pressure front is in advance of the CO<sub>2</sub> plume itself as pressure dissipates much faster than the material products do. So that pressure will dissipate up new so it will expand outwards and it will just dissipate through this huge reservoir with the pressure front is obviously bigger than the CO<sub>2</sub> put right. Right so the pressure from the CO<sub>2</sub> is about a mile. Pressure is a bit bigger than that and that and that defines our area of review.

J. Peacock: So how many facilities like this are operating right now?

S. Whittaker: Uh there's a couple in North Dakota. There's one in Illinois and there's quite a few in contemplation are getting close.

H. Caperton: Two in Texas. I think in North America, I think there's currently twelve operating facilities not all associated with ethanol.

J. Peacock: Have they had any challenges?

S. Whittaker: Well not really transaction and so on in the United States. We did mention that Archer Daniel Midlands in Illinois had an issue with one of their wells. Down hole they had some equipment down hole to get sampling and it failed and there's some migration of CO<sub>2</sub> I would go to the formation of the storage formation. So that's been the biggest challenge so far.

J. Peacock: And that's what is happening with that one in Illinois now? Is it operating again?

S. Whittaker: It's operating again.

J. Peacock: I heard there was something happened there it wasn't quite sure what so we're just testing we're testing you a little bit.

S. Whittaker: Yeah it was a well design. It was a research well to be frank and so they put a bunch of fancy equipment down there and it was too complicated and eventually things didn't work and valves didn't open and close properly. Our design is completely different than that. And but that is one of the issues and there's been no real no incidents of leakage in a CCS storage project to date.

H. Caperton: And in the incident in Illinois it was 3,700 feet from any fresh water aquifer.

S. Whittaker: Yeah it was it was contained deep there. It didn't get closer to the surface.

A. Hunt: At the end of the project as well like after we stop injecting it was actually it's called it post injection site care period. So we have to monitor this for 50 years to ensure that the CO<sub>2</sub> stays where it was intended to stay and all of that work actually funded upfront as well as part of the permit application so it's not like we stopped injecting and walk away. No we still have to monitor it for 50 years to ensure that the CO<sub>2</sub> plume is stable or if there's no migration and then I believe it's after 50 years and the state takes over. The state takes liability anything after that.

S. Whittaker: Only once they've convinced that there's no issue and no risk.

J. Peacock: So the simple question is why are we injecting CO<sub>2</sub>?

A. Hunt: That is a bigger macro question. Basically you know the United States is set policy that they would they would like to see emissions reduced and this is one of the mechanisms that is part of the inflation reduction act is that there are tax credits associated with it reducing your emissions and sequestering CO<sub>2</sub> so that's the main driver for it.

H. Caperton: I think on a local basis I would say that why are ethanol facilities you know Vault itself was working with Cardinal Ethanol as One Carbon Partnership. We're also engaged at eleven other ethanol facilities right. Why are ethanol facilities pursuing this? Via legislation that dates back to Bush One until to enable these projects we actually started the company under the first Trump administration obviously continued through Biden still here under Trump Two. But really it's ultimately lowering the carbon intensity of their ethanol. That opens up different markets for these ethanol facilities to access and therefore maintains the viability of those facilities. Opening up new markets they're able to diversify their market base and you know the view today is from all the ethanol producers that we work with does lower carbon intensity markets could be willing to pay a higher value for that lower carbon intensity ethanol and that trickles back here to the community.

A. Hunt: This mean maintains the long term competitiveness of the facility as well.

D. Cleveland: Cardinal will get up the price of corn. Is that what I'm hearing?

A. Hunt: You have to ask the guys in the back.

J. O'Keefe: I think to that point I may add you know Canada is the largest importer of US ethanol. They're demanding lower carbon intensity fuel sources. Europe demands lower carbon intensity and so that's a new market for US ethanol to go to. To maintain the market that we currently have in to Canada, to open up new markets into Europe, US ethanol has to reduce their intense their carbon intensity score which is why you see all of the ethanol facilities you know across the corn belt looking at these projects is to maintain those markets and open up new markets which then increases the competitiveness of corn across the corn belt.

Chairman Hawley: Are there any other questions the board may have this evening? Seeing none I would like to throw the floor open to anyone who would like to speak in favor or opposed to the proposal? Again anyone that would like to speak in favor or against proposal you'll have three

minutes to state your comments or concerns and the petitioner will have five minutes to respond. If you'd like come up please sir and state your name and address for the record.

B. DeBolt: Brad DeBolt, 2400 North 400 East, Winchester.

Chairman Hawley: The time is yours sir.

B. DeBolt: We just moved here a year ago and found out about this so I've been trying to educate myself and of what's going on.

J. Peacock: Can you pull the mic closer to you?

B. DeBolt: I had a written object. I don't know if you guys have read it.

Chairman Hawley: Yeah got it.

D. DeBolt: Uh yeah so the reason really for this was just for me to figure out how this board makes people like this do their due diligence in meeting provisions set forth in the Zoning Ordinance. Quite frankly you know a lot of this stuff. I guess I don't know how to put it just some of the things that they were talking about with 99% of the land being under lease that which may be true but that's not 90% of the owners because there's certain owners that own a lot of land and most of the people that I've talked to didn't sign and didn't want this to happen. Which you know that's whatever what they had to get was there 99% of the land and so if that's what they got that's what they got. The biggest thing for me was in here when it talks about the diminished use of property talking about the contracts that land owners signed. I don't know if how many of them took them to lawyers or how many of them just signed it or whatever but the there are certain sections in there that sure look like it is restrictive and diminishes the use of property in the 3,600 mile range because of you know not be able to drill down. Do certain things you have to have permission. I know they talked about you know you got to drill so deep in order to even ask for their permission but as the provision states that is a diminishment of use if they deny what you want to do on your own property. I also wanted to, I was also interested in how the board would go about making sure that the safety provisions were met and what was the other one. Provisions and diminishment use. And then also yeah the property values we've talked about they try to address that as well so. Let's see what else they were talking about uh the. They were talking about the community and how much money they're bringing to the community. And given the land owners 800 K what they didn't mention you know how much money they bring or they make.

Chairman Hawley: Sir I do apologize but I that was the three-minute timer. I would like to be petitioners to give them five minutes to respond to the observations made.

J. O'Keefe: Related to the restricted use that is in the agreement that we have with land owners we talked about the deep subsurface so our agreements are for that deep subsurface we have a responsibility to the community. We have a legal responsibility under our permit as well to maintain the integrity of that storage facility. So restricting drilling through the storage facility so that 3,000

feet underground is a necessary restricted use that land owners would have voluntarily signed. So when we talk about you know there are the 1% that have not signed voluntary agreements they are smaller land owners. They would not be able to drill under Indiana rules a well to that depth because we need a certain amount of land to do that so there's no restricted use to those land owners that have not signed agreements for their use of property. As far as property values go, again we touched on that a little bit there's not a lot of data out there. There was a study by the Economic Bureau, sorry I'm going to look it up so I can get this right, National Bureau of Economic Research which states that the CCS projects could have a positive impact on property values near sequestration sites. That's one study could be argued and we understand that our voluntary agreements do have provisions with an MSA if there is a change in tax. Right so if there are increased taxes as a result of this project that impacts property owners that we cover that. You know that doesn't cover all property values but it is a way that we are trying to make sure that land owners see this project as a benefit for the long term.

J. Allen: I know you were asking about the diminishing property values from you know not allowing them to drill basically you're they're only saying that you're not you're being restricted drilling that deep so say if you get a landowner as well goes bad and he has to put it in a new well for this property. Typically you're only going to go 200 to 300 feet maybe if they unless they have a shallow well they can do that without letting you guys know.

J. O'Keefe: Correct.

J. Allen: So there's no worry for them to do that because they're not going to that 3,500 foot depth.

J. O'Keefe: Correct.

J. Allen: Only if they're going to that depth which obviously they're going to have to have a certain amount of land space to be able to do that anyway but through this M VI process that you guys went through for three years.

J. O'Keefe: Yes.

J. Allen: Okay, that makes sense then. If I was a land owner there, like somebody that had a well on my property and the well went bad and I had to call you guys to get permission to get drinking water in my house. Yes, that would be a big problem.

J. O'Keefe: We wouldn't want that either.

J. Peacock: Another point of clarification. I've heard the 99% number tossed around more than once. How far out are you counting for the 99% of 3,600 acres is what number was. How far out from the injection site is that?

J. O'Keefe: We would have to look at what the exact number is but that we have 99% of the pore space that we need for the project so that is that you know.

A. Hunt: It's close to that one-mile radius. I have to check it exactly.

J. O'Keefe: And it's not a perfect circle.

J. Peacock: I'm just asking because I know there was a couple of farms not signed up.

A. Hunt: Yeah and there are two types of agreements. There's the pore space and then there's the seismic access agreements. Pore space 99% the seismic access which allows us to run our seismic surveys every five years to the image where the plume is we don't have 99% of those access agreements but the access agreements we do have are enough for us to adequately run those surveys.

J. O'Keefe: For the 99% would be well here one mile out. Outside of that we have agreements with land owners and that's just to get to access for ...

J. Peacock: What's that percentage?

J. O'Keefe: That percentage is ...

J. Peacock: I'm truth seeking here.

J. O'Keefe: Across the project area I want to say it's like 78%.

J. Allen: For the landowners around there, just thinking proactively over the course of time, that they're reading the property is there a place or a contact that they can call and if they wanted to get any of the maintenance orders? Like how is this doing? Has there been any issues? How can they get either on a yearly or biannually you know type of scenario where they can have I guess a sense of security to know that this thing is actually working like it should.

J. O'Keefe: That's a great question. So all of our reporting, our testing has to be reported to the EPA and that information is made public so.

J. Allen: Right you ever called the EPA?

J. O'Keefe: It's actually on their website.

J. Allen: Right you ever looked on the government website?

Collective: We look every day.

J. Allen: Other people I guess it's a nightmare.

A. Hunt: We have owners asked us to and we tell them this is exactly where you're looking this is the information that's there.

J. O'Keefe: Here's the link to where this information is.

J. Allen: Okay that would be great. Maybe if they had it on the contact source to be able to get that to give them peace of mind to know that this thing is actually working like it should.

D. Cleveland: I have a quick question on the taxing you mentioned. Were you talking about if there was additional tax at some later point?

J. O'Keefe: Yeah I mean it's trying to look into the future right. So land owners are always worried about property taxes and they're like well if there's a tax assessed on our property because of this right it is an additional income stream right so they're saying well if at some point in the future somebody decides to add a tax to our property because of this project we shouldn't be responsible for that and we said we agree.

D. Cleveland: Okay thank you.

J. O'Keefe: We've not heard of anybody doing anything like that but just trying to cover it.

Chairman Hawley: Is there anyone here else here this evening that would like to speak in favor or against the proposal? Seeing none are there any other questions that the board may have this evening?

J. Welch: I would note that the objection that was filed was made part of the record in the case because it was filed timely.

Chairman Hawley: And I believe every member has had a copy in their packet.

D. Johnting: And we shared it with them.

Vice Chairman Davis: I'll make the motion to take a roll call.

D. Cleveland: Second.

Chairman Hawley: Okay, motion for a roll call vote is approved.

K. Halloran: Drew Cleveland, yes. Don Calhoun, yes. Jason Hawley, yes. Bill Davis, yes. Jason Allen, yes. Jon Peacock, yes.

Chairman Hawley: Congratulations your motion has been approved. Moving on do we have any old business to attend to? Seeing none is there any new business that we need to attend to? Seeing none reports on officers, committee, and staff? I also have noted here to recognize appointments to BZA for 2026. The mayor appointment Winchester 's largest municipality Jason Hawley and County Commissioner appointment citizen Jon Peacock. With that being said I motion to adjourn this evening.

D. Cleveland: Second.

Chairman Hawley: Thank you very much ladies and gentlemen.

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Chairman, Jason Hawley

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Kristi Halloran, Recording Secretary

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Vice Chairman, Bill Davis