

ZONING BOARD OF APPEALS AGENDA

Tuesday, December 27, 2016

Boone County Board Room

1212 Logan Avenue

7:00pm

ROLL CALL Members:

Brian Van Laar, Chair
Tony Savino, Vice-Chair
Joan Krumm
Mark Rhode
Steve Schabacker

Staff:

Hilary Arther Boone County Land Use Planner
Ken Terrinoni, County Administrator

Other:

MINUTES: Approval of Minutes from November 22, 2016

PUBLIC COMMENT:

UNFINISHED BUSINESS:

Case 15-2016; Power Ventures Group LLC: The applicant and owner Power Ventures Group, LLC, 900 Ward Parkway, Kansas City, MO 64114, is requesting a Special Use Permit pursuant to Section 2.7 (Special Uses) and Section 3.16.1 (Table of Permitted Uses) of the Boone County Zoning Ordinance to allow for the operation of energy facilities, 1.0 MW or greater, commonly known as a natural gas-fired peak power plant. The subject property is located at the southeast corner of the Garden Prairie Road interchange off I-90 on 20.01 acres (PIN:08-13-200-016) in unincorporated Spring Township, Boone County, Illinois.
Staff (Approval); ZBA ()

NEW BUSINESS:

Case 23-2016; Binski: The applicant and owner Kari Binski, 14321 K-B Road, Capron, IL 61012, is requesting a variance to reduce the side yard setback from 40 feet to 20 feet to construct a Pole Barn in the A-1 Agricultural Preservation Area District pursuant to the Boone County Zoning Ordinance (Section 3.2.4.C Lot Development Standards and Section 2.8 Variances) on 5 acres at 14321 KB Road in unincorporated Boone Township, Boone County Illinois (PIN: 04-22-200-014).
Staff (Approval); ZBA ()

OTHER BUSINESS:

DISCUSSION:

COMMUNICATIONS/PLANNING REPORTS:

Staff Report

ADJORNMENT

ZONING BOARD OF APPEALS

MINUTES

Tuesday, November 22nd, 2016

County Board Room

1212 Logan Avenue

Belvidere, IL 61008

ROLL CALL:

Members Present:

Brian Van Laar, Chairman
Tony Savino, Vice-Chairman
Joan Krumm
Mark Rhode
Steve Schabacker

Staff Present:

Hilary Arther, Land Use
Planner,
Ken Terrinoni, Administrator
Drew Bliss, Zoning Inspector
Other: Deb Clarkson,
Transcriptionist.

With a quorum present Chairman Brian Van Laar called the meeting to order at 7:06 P.M.

MINUTES:

It was moved and seconded (Savino/Rhode) to approve the minutes of October 25th, 2016.

PUBLIC COMMENT:

None.

UNFINISHED BUSINESS:

None.

NEW BUSINESS:

Case 15-2016; Power Ventures Group LLC: The applicant and owner Power Ventures Group, LLC, 900 Ward Parkway, Kansas City, MO 64114, is requesting a Special Use Permit pursuant to Section 2.7 (Special Uses) and Section 3.16.1 (Table of Permitted Uses) of the Boone County Zoning Ordinance to allow for the operation of energy facilities, 1.0 MW or greater, commonly known as a natural gas-fired peak power plant. The subject property is located at the southeast corner of the Garden Prairie Road interchange off I-90 on 20.01 acres (PIN:08-13-200-016) in unincorporated Spring

Township, Boone County, Illinois.

The public hearing opened at 7:10 P.M.

Hilary Arther, the Boone County Land Use Planner, having been sworn in summarized the staff report. The previous Boone County Land Use Planner, Shelly Dunham, was participating via the phone line.

Ms. Arther stated the applicant, Power Ventures Group LLC, 900 Ward Parkway, Kansas City, Missouri, was requesting a special use permit pursuant to Section 2.7 in the Special Use and Section 3.16.1 of the table of Permitted Uses to allow for the operation of energy facilities, 1.0 MW or greater, commonly known as a nature gas-fired peak power plant. It's located on the southeast corner of Garden Prairie Road and the interchange of I-90 in unincorporated Spring Township on 20.01 acres.

The existing land use for the subject property and adjacent properties is the subject property is a vacant energy facility. And the adjacent properties are I-90 and agricultural on the north, south, east, and west, agriculture. The current zoning for the subject and adjacent properties are all A-1 agriculture Preservation. The Comprehensive Plan and the adjacent properties is agricultural and rural.

The background of this case is that in 2009, Boone County issued a Special Use Permit to Power Ventures Group, LLC, which granted PVG permission to construct the Garden Prairie Energy Facility in Spring Township, Boone County, Illinois. The plant was proposed as a nominal 100 megawatt natural gas-fired peak-load electric generating facility. Subsequent to the approval, PVG found it difficult to procure and finance the original equipment and therefore withdrew its Special Use Permit in order to re-purpose the energy facility utilizing the latest technology.

Therefore this new application reflects the utilization of state-of-the-art technology in the form of three larger turbines that replace the 12 reciprocating engines requested in the original application. In addition, given changes to the PJM rules for generators that require the ability to serve load during times of natural gas interruptions, this updated application reflects the need to utilize backup fuel during emergency conditions. This requirement will be evaluated by the Illinois EPA during the project's air permit process. All other applications remain the same.

As for other planning considerations Ms. Arther stated that the Boone County Soil and Water Conservation District stated the main natural resource concern is approximately 64% of the soil on-site are sensitive to erosion. If over an acre of land is disturbed at this site a National Pollutant Discharge Elimination System permit will be required from the State of Illinois Environmental Protection Agency. The permit requires erosion and sediment control practices to be designed, installed, and maintained during construction and until the site is stabilized. This is of particular importance because approximately 400 acres drain

through this site with a prevalent drainage present on the southwestern portion of the property.

Ms. Arther stated the Boone County Engineer, Justin Krohn, reviewed the application and stated he would like additional information on vehicle traffic volume and weight for construction and during normal operations. He would also anticipate future site plan reviews, including but not limited to entrance, site distances, and storm water detention.

The Boone County Building Department reviewed the application and stated there were no objections to the special use request; however, suggested additional language be added to condition No. 8 that would require the applicant to submit documentation showing compliance. The department does not have the equipment to measure lighting levels; therefore, no way to enforce the conditions. Lastly if approved a building permit would be required for any new construction on the property.

Ms. Arther also reported that the Boone County Health Department had reviewed the application and stated they had questions regarding produces power when and how often, how many engines operating at a time, noise reduction steps, year round operation, day and hours, number of staff, how many on-site at a time, water use and bathroom facility.

She stated the trend of the development of the subject property is it's located in unincorporated Spring Township. The subject property and surrounding properties are all zoned Agriculture Preservation District. She further stated that agriculture is the predominant land use in the general area of the property.

In summarizing the findings of fact she stated the proposed structure or use of this particular location requested is necessary or desirable to provide a service or a facility which is in the interest of the public and will contribute to the general welfare of the neighborhood and community.

While peaker power plants, like any energy producing facilities, are not typically a use that is desirable within a community, they do provide a necessary service. These facilities convert natural gas into electricity and help alleviate the strain that certain weather conditions place on the electric grid. In order to best serve their purpose, peaker plants are located in close proximity to both natural gas lines and electrical transmission lines. In this case, in addition to being placed in proximity to these facilities, the plant also will be located just south of I-90, which will provide a buffer to the properties to the north and may help shadow the noise created by the plant while in operation. This location also is not located near larger population centers, which further reduces any potential negative noise impacts.

The proposed structure or use will not have a substantial adverse effect upon the adjacent property, the character of the neighborhood, traffic conditions, utility facilities and other matters affecting the public health, safety, and general welfare.

In addition to the design of the peaker plant, conditions of approval will be enacted in order to lessen any potential negative effects on the neighboring properties.

With the installation of sound dampening devices and its location adjacent to I-90, it is not anticipated that the peaker power plant will produce a disruptive level of noise. However, conditions of approval will be enacted that will help ensure that noise levels remain at acceptable levels. The peaker plant will also be limited to a height of no greater than 75 feet which in comparison is shorter than some silos and commercial grain bins that have been constructed. Landscaping will be required to be installed to block the view of the power plant from nearby dwelling units in order to help alleviate the concern over esthetic impacts.

After construction has been completed, there will be minimal traffic accessing the site and the applicants will be required to repair any damage to the road system that was caused during the construction period.

The IEPA limits the level of emissions that can be released by the peaker power plant by regulating the number of hours it can be in operation throughout the year. However, the emissions allowed are low enough that it is not considered a major source under the Federal Prevention of Significant Deterioration.

The proposed structure or use will be designed, arranged and operated so as to permit development and use of neighboring property in accordance with the applicable district regulations.

The peaker power plant will be located south of the I-90 right of way and divided by a ComEd right of way. All development and operations will be as far away from the surrounding residences as possible. The development of the peaker power plant is not anticipated to negatively affect surrounding properties or prevent said properties from developing in accordance with district regulations. Conditions of approval will address traffic, soil erosion, noise, light and aesthetics. In addition, this kind of development is not a catalyst for sprawl and therefore should not impede on neighboring farmland.

Ms. Arther stated that the Planning Staff recommends the approval of Case 15-2016 subject to the following conditions:

1. Substantial compliance with the proposed site plans and narrative submitted with the special use application in June of 2016. Electrical generation shall be limited to natural gas turbine engines with a closed loop cooling system and an ultra-low sulfur diesel backup fuel storage system.

2. A full site plan review will need to be administered by all appropriate agencies, those agencies shall approve the site plan or required amendments before building permits may be issued.

3. The buildings and accessory structures shall be located as close to the I-90 right of way as possible.

4. No structures shall be allowed in the floodplain and any disturbance to or ingress/egress aisles located within the floodplain shall be in conformance with the Boone County Zoning Ordinance.

5. The maximum height of the buildings shall be 45 feet. The maximum height of the stacks shall be 75 feet, inclusive of the silencing system.

6. The buildings and structures facing the I-90 right of way shall be constructed of concrete split face, aggregate covered siding or other material approved by the Planning Staff.

7. A landscape plan in accordance with Section 5.4 of the Boone County Zoning Ordinance shall be submitted to the planning department for review. In addition, the minimum requirements, the landscape plan shall encompass the following requirements; A) The landscape plan shall illustrate trees being installed in the areas depicted on the aerial photo in the application package. Tree plantings shall be selected for their visibility screening qualities. The tree plantings are expected to be between an evergreen, coniferous variety consistent with trees native to the surrounding area and are anticipated to be six feet tall at the time of initial planting, growing to a mature height of approximately 18 to 20 feet. Spacing for the trees is anticipated to be 15 feet on center. B) Landscaping shall run along Garden Prairie Road excluding the southern portion referenced above. C) If it is found that berming does not cause a potential harm to neighboring properties, then a four foot berm shall be placed within the landscaped areas.

8. A photometric plan shall be submitted to and approved by the Planning Department prior to a building permit being issued. All free standing and wall mounted security light fixtures shall not exceed 30 feet in height. The lighting elements shall be shielded from view of adjacent properties and the foot candle measurement at the property line shall not exceed 0.5. If the applicant chooses to apply safety lighting to the power plant stacks, said lighting can exceed the 30 foot height limit but shall not exceed a measurement of .5 foot candles at the property line.

9. Compliance with Title 35: Environmental Protection, Subtitle H: Noise, Chapter 1: Pollution Control Board, Part 901 Sound Emission Standards and Limitations for Property Line-Noise-Sources. In no instance shall the decibel level increase by a measurement of three decibels at the property line of existing neighboring homesteads. Pre-construction and annual operational decibel readings showing compliance with this condition shall be submitted to the Boone County Building and Planning Departments.

10. Applicant shall submit design for on-site storage system for low sulfur diesel backup fuel. Said plans shall be reviewed and approved by the appropriate local, state, and federal authorities prior to issuance of any building permit for the project.

11. The peaker power plant shall not exceed 450

megawatts of electrical generating capacity.

12. The Special Use shall be subject to PVG successfully obtaining and maintaining all required Local, State, and Federal Permits, including but not limited to a lot of departments. All original and reoccurring renewal of permits required shall be provided to the Boone County Planning and Building Departments within 30 days receipt of PVG.

13. The following agreements shall be made, fully executed and maintained as required for the project: A) Electrical Transmission Interconnection Agreement; B) Fuel Supply and Delivery Agreement; C) Kinder Morgan Easement; and D) Engineering, Procurement and Construction Agreement.

14. Due to the nature of the development and the level of permits needed to be obtained from various agencies, the typical 12 month timeline for the establishment of a special use is extended to 48 months; however, the special use shall be null and void if the site is not operational by the end of 2020.

15. In the event the special use permit becomes null and void for any reason or should the peaker power plant cease to operate for a period of 12 consecutive months, then all improvements, structures and materials related to the peaker power plant shall be removed from the site within one calendar year from the date the special use permit becomes null and void or the peaker power plant ceases to operate. The costs of decommissioning shall be at the owner/developer's sole expense and the owner/developer shall restore the site to a reasonably similar condition as existed prior to the construction of the peaker power plant. Prior to the issuance of a building permit, the owner/developer shall submit bonds to cover the cost of decommissioning. The prorated amount of the bonds shall be based on an independent engineer's estimate and increased annually to reflect the building schedule as to cover the additional improvements as they are constructed, starting with the issuance of the first building permit. At the completion of construction and prior to the issuance of a certificate of occupancy, the bonds must total 150% of the engineer's estimate of the total decommission costs. It shall be the responsibility of the owner/developer to maintain the bonds in sufficient amounts at all times after the completion of construction. Such responsibility to maintain the bonds shall include, but not be limited to, any necessary renewals or the issuance of new bonds. All bonds shall be submitted to the Boone County Building Department.

16. Compliance with including letters submitted by the Building Department, Highway Department, Health Department, and others as appropriate.

17. If vehicle's weighing more than 150,000 pounds are used, a bond shall be provided to repair any damages associated with the special use. Timing of the overweight trips and the routes to the subject property shall be approved by the County Engineer, Township Road Commissioner and other affected road entities as applicable. Any contractor selected to perform the required work shall be

State of Illinois certified and work must be done at the approval of the County Engineer. All repairs shall be completed to the satisfaction of the County Engineer. The applicant is required to have a \$450,000 bond. Overweight permits will still be collected, however, if an issue develops and the bond is called to perform the repairs, an overweight permit fee refund would be considered.

18. Plans for an on-site water system shall be reviewed and approved by the Boone County Rural Fire Prevention District Two to ensure adequate volume, pressure, and flow for fire suppression. Plans shall be reviewed and approved prior to the issuance of any building permits for the project.

19. Boone County reserves the right to have site plans, building and mechanical drawings, and other planning, engineering and constructions documents reviewed by a consulting firm. Such review shall be at the expense of the applicant and shall be limited to actual expenses incurred.

20. Compliance with all other applicable local, state, and federal laws, rules, and regulations.

Upon the chairman asking for any questions from the Board Mr. Schabacker noted under recommendations that rather than this being natural gas reciprocating engines that these were turbines. He asked for clarification on that point.

Mr. Rhode inquired why they were putting a weight limit of up to 150,000 pounds when a semi was considered overweight at 80,000. Ms. Durham responded that this number was on the prior recommendations; but if the Board wanted to change it to 80,000, that was their prerogative. Mr. Rhode suggested input should be received from the township road commissioner.

Chairman VanLeer asked if notification had been sent to the surrounding neighbors and Ms. Arther replied that they had been notified as to both the cancellation of the October hearing and the resetting of the November hearing. She also informed the Board that the township road commissioner had also been notified and given a copy of the application. No correspondence had been received in her office from the Spring Township. Chairman VanLeer also asked about notification to the fire district and Ms. Arther replied they, too, had been notified.

There were no additional questions from the Board at this point and Mr. Thomas Graves of Power Ventures Group, 9400 Ward Parkway, Kansas City, Missouri was sworn in and presented testimony regarding the request for a special Use.

MR. GRAVES: In 2009 when Power Ventures Group originally applied for a permit it was based on a different technology. The facts are that the markets never really developed the way we thought it would to actually allow for that technology to become feasible. We were never able to procure the equipment at a competitive price or able to secure investment in that project.

So after several years and pursuing several years of extension, we felt like that at some point the market rules actually last year changed to require fuel backup and we knew that wasn't a permitted condition for our technology

so we decided to let our permit lapse and then decided what to do next.

Since that time and since we were notified that were letting the permit lapse, we have identified an investor that is going to purchase Power Ventures Group and they want to redevelop the project under the technology that is proposed and to comply with the market rules as they are today.

So what we put forth is our best efforts at redeveloping a site using new technology and it's to be as close as we can make it to the prior application in terms of size, in terms of impact, in terms of land impact, and those things.

Having no other real objections to anything that was stated in the staff report or any of the questions that were raised, that is all I have.

QUESTIONS FROM THE BOARD

BY MR. SAVINO:

Q Something you just said are you then -- you are with Power Ventures Group -- someone is purchasing Power Ventures Group?

A Yes.

Q So you guys are getting the permit and then selling the project and everything off?

A Yes. So Power Ventures Group is owned by Burns & McDonnell Engineering Company. We are developing the project such that we'd be able to build and engineer the property. It's always been our plan for someone else to ultimately own the project so the mechanism through which they will own the project is the purchase of Power Ventures Group. Burns & McDonnell doesn't own and operate power plants.

BY CHAIRMAN VAN LEER:

Q Who is the architect of this plan?

A Burns & McDonnell.

BY MR. SCHABACKER:

Q I see you are going to have three turbines?

A Yes, sir.

Q Are they gas fired?

A Yes, natural gas fired.

Q Now is this a combination where you pull the heat and create steam to run like another generator -- another turbine?

A No.

Q I know they have those types of systems but those will not be one of those types?

A This won't be that type. What you are referencing is what they call a combined cycle power plant and they recover the heat to make steam. Those are all and all inefficient. They participate in the market differently. The market isn't calling for those in this region right now and there isn't enough water in this area and at this site to support technology like that because they consume very large amounts of water.

Q I see this is a peaker plant and it's not a base load?

A Correct.

Q What is the reason for that?

A So this plant is designed to come on line usually in hot summer days when air conditioner load is really high and grain dryers are running maybe in the fall and it might still be the end of summer and September or something like that; but it would come on primarily in the hot summer days when the air conditioning load and peak electricity is the highest. And at that point the cost of electricity to serve electricity becomes high enough that these projects step in and provide electricity.

Q Is this a single cycle plant? Is that what it's called?

A Yes.

Q Are you familiar with any other peaker plants say within 40 miles of here or any proposals?

A Yes. Well, proposals I'm not sure of. There is a plant in Elgin that is very similar to what we're talking about.

Q Are you connected to that at all?

A No, sir.

Q Have you applied within 40 miles or so for a peaker plant?

A No, sir.

Q On the well you are going to drill, do you have an idea approximately of the depth of that well?

A We haven't completed our study to know that yet but I believe the ground water for the common wells around here are 150 or so feet but I don't know. We haven't completed our studies yet.

Q And in the paperwork here we see that you are going to use about 300 gallons a minute when in operation. Am I right on that?

A Correct.

Q What is the purpose of that water?

A That water is for cooling the inlet air to maximize the efficiency.

Q And then the water goes where?

A It goes out the stack. The air is pulled through a wet media to cool the temperature of the air and then it evaporates and comes out the stack -- not a hundred percent evaporates but a portion of it does.

Q You have two wells, one for the other and one for the plant itself?

A Correct.

Q Have you done these plans before?

A Yes.

Q How many?

A Burns & McDonnell has built probably a dozen of them over the last 15 or 20 years.

Q Any in Illinois?

A Yes. We built one in Pyott County I believe. It was before my time. And we built another one I think called Goose Creek but I'm not entirely sure. I'd have to look those up.

Q This plant -- does it have any shielding system for it?
A For -- I'm sorry?
Q How long have you been with the company?
A Sixteen years.
Q Shielding has to do with blackouts and like solar flares and stuff like that that many years ago there was some complications with the grids and they actually called sealing systems that prevent them. I know some companies have those for the blackouts. Do you know whether or not -- because if this will be approved I want the best system we can have for Boone County. Do you don't know if this has any kind of shielding system?
A It would not be what we would call black start capable so it would have to have power from the grid in order to start. It would have typical electric magnetical protection of a design of this type of technology.
Q What about any kind of blocking; any kind of blocking on that?
A Blocking? That is not a term I'm familiar with in terms of reference of beyond standard electrical design.
Q Well, in today's world with what is going on you want to protect your plants?
A Right.
Q That is where your blocking comes in so to prevent it from terrorism and stuff like that of these plants. So do you have any type of what was called blocking?
A So you are thinking like physical barriers?
Q That too but I thought maybe since you've been in the business -- and I'm not pointing any fingers -- I thought maybe you could help me understand the blocking. I know a little bit about it but not a whole lot. In your line of work I thought you might know.
A Sure. I don't think we reference it as blocking. We have worked on nuclear plants and looked at protection from terrorists. We've done designs for things like that. Peaking power plants typically we do not have that type of level of protection. They usually have a perimeter barrier of a fence and that is about the limit.

BY MR. RHODE:
Q How many gallons of water would you use on an average day when it fires up?
A So on a really hot day we would expect it would dispatch for two to four hours at most times. It could dispatch a few more hours and that 300 gallons a minute is an average value. So if you took 300 times 16 you'd end -- or times 60 -- you'd end up with around 18,000 gallons an hour. So you'd end up with -- you could have 50 to 100,000 gallons a day depending on dispatch.

BY MR. SCHABACKER:
Q I think the information you provide is 108,000 gallons a day is I believe what it said.
A Depending on how many dispatch hours it has. They usually don't run for more than two to four hours at a

time. Sometimes they might run eight or sixteen.

BY MR. RHODE:

Q Is there any other outer power plants or peaker plants that you've seen that there has been any problem with taking water supply from wells or irrigation systems in the local farm area?

A No. We'll do a well, a drilling study and a well study and a pump test, to determine what level we can pump before we have any impacts and limit our pumping. And we'll have on-site storage to make sure we don't have any major draw periods that we're having an impact like that, so we end up with an average rate of draw that isn't affecting other users.

BY CHAIRMAN VAN LEER:

Q You said this was a single cycle. Do you intend it to be a single cycle? Do you have any intention to make this a combined cycle?

A No. The site is not big enough.

Q The site is not big enough. So if we would add that as a condition that this is never to be used as a combined cycle, you wouldn't have any problem with that?

A No. That would be fine.

Q Typically single cycles operate unattended. Is that the case with this one?

A Unattended? That will be up to the ultimate owner but typically they might start unattended and then they may have a roving staff member that would come and check on that; but that would usually be the case where they dispatch at night or on weekend or something like that. They will usually have a staff during the day of four to six people that work a typical day shift. Then usually they will have somebody on call; and if they need to dispatch, they will send an operator out. They might start but then within 20 to 30 minutes somebody will be there.

Q With today's technology I'm sure gas leaks don't often happen. Is there a gas leak detection?

A Yes, there is a gas leak detection inside of any building, so inside of the generator housing and anything that would have a gas line would have a leak detection system outside. There would be a monitor that you'd be able to tell if there is a leak but it wouldn't be called a fire alarm or anything like that.

Q And you said that you'll be getting the gas from the Kinder Morgan pipeline?

A Yes.

Q And how far from your property line is this?

A It's around 800 or 900 feet, just to the south of our site.

Q How do you plan to get this?

A Kinder Morgan would be responsible for providing that as part of our contract with them. They would be responsible for securing the permits to run the pipeline but I would assume they would run along side Garden Prairie Road.

Q How far away is the -- when I was down there I noticed

there are definitely high tension lines running adjacent to this. How far away is the high tension lines from I guess it would be your switching station or your substation?

A It's adjacent to it.

Q So there is no imminent domain going on here?

A No and IPPs have been power producers -- such as this project -- do not have the power to --

Q -- this would be a design issue? Let's start with rain water. There are several opportunities with these plants that rain water can get contaminated. I think you have -- this is a loop oil system. There is always a possible spill that can happen. Is there a type of retention or curb design that you will put forth so to contain a maximum spill?

A Yes. So around the tanks and around anything that stores oil or any chemical that would be subject to leak, there is a containment basin designed around each and every one. All rain water from the site from inside of the plant row, which is where all the equipment is located, is run through a water oil separator and that way if there is any contamination the oil is separated from that and treated and disposed of off-site.

Q That would include did you say the transformers?

A Yes.

Q Had about turbine cleaning water, do these things have to be cleaned every once in awhile?

A Correct.

Q And I'm sure there are solvents being used to clean these. What happens to this water?

A So when they do compress -- water washes is what they call that -- when they run a compressor water wash through a qualified contractor is actually contracted to come do that work. They bring water in, they run it through the compressor, and they haul it off of off site and dispose of it.

Q With a closed loop system?

A It's a closed loop system.

Q The single cycle units, you mentioned that you will be abiding by the IEPA regulations for emissions?

A Uh-huh.

Q And will you use a catalytic reduction system on this?

A No. These technologies meet the EPA guidelines to not require a selective catalytic reduction system on them and that is a function of the cost of the SCR system versus the profile of the project as well the emissions that come out of the unit as their base design. They're a low combustion system so they don't require any SCR.

Q That helps the owner not having to dispose of the spit catalyst; right?

A Correct and not have to store and use ammonia on-site.

QUESTIONS ASKED BY THE PUBLIC AS FOLLOWS:

Ms. Mildred Hingosa of 3393 Garden Prairie Road, Garden Prairie, Illinois was sworn.

Q I'm actually the neighbor right next to where this is being built. My question is who would benefit from the additional electricity? You talked about peak hours during summer months and some in the fall. Would that benefit the people that are living in the county or does that benefit elsewhere?

A So power liability benefits the entire economy but with regards to Boone County and the Belvidere area reliable power supply is important for maintaining attractiveness in the industry. So the Belvidere stamping plant requires a high power, factories requires a stable power supply. And as we have changing dynamic systems that requires sometimes new generation resources to provide that stable base power supply. So it will serve to attract economic or at least retain economic activity inside of the county.

Q So it attracts economic activity but does it benefit the county at all?

A That creates a tax base and creates employment within the county, yes.

Q But does the electricity benefit the residents of the county?

A Yes, so power flows like water. It will take the path of least resistance, so when it goes on the lines, wherever the load comes off that serves -- it comes off the line and serves Boone County and the Belvidere area, the power is going to go straight to those lights.

Q You talked about a pipeline being utilized to go into the power peaker plant. How far would the pipeline be away from our actual property where we stay currently?

A I'm not familiar with exactly which house you have.

Q It's the one all the way at the end so I'm assuming based on some research the pipeline will go through our property line.

A I'd have to see that.

CHAIRMAN VAN LEER: We'll try to pull up Google map here.

BY MS. HINGOS:

Q Then you talked about also coming out to clean the turbines; is that correct?

A Uh-huh.

Q And so you talked about a company coming out, compressing, and cleaning with solvents and you spoke about having a specific company come out and dispose of the water. Where would that water be disposed at -- what county -- and does it affect the residents of Boone County?

A I do not know where it would be disposed. It would be a licensed contractor that would have the permits to do so and then they would have a disposal associated with

their business.

CHAIRMAN VAN LEER: Just a minute, we'll try to answer your question here your property.

A MS. HINGOSA: It's actually the one further north. So I believe the gas line is on the south side of your property; correct?

Q Correct.

A CHAIRMAN VAN LEER: It's going somewhere in here? Right. So Kinder Morgan when they permit and route that line, they would come to you for a right-of-way assuming they pick that route.

A CHAIRMAN VAN LEER: Because you mentioned going basically parallel right across to Garden Prairie?

A That would be the most straightforward route, yes.

Mr. Thomas Pyszka of 3344 Garden Prairie Road, Garden Prairie, Illinois was sworn.

Q One of the questions I had, doesn't the main power grid flow west to east and with this project being a quarter mile from the McHenry County line, how much benefit from that electricity -- I understand there are maybe some financial benefits of drawing companies to this area but can you explain a little bit further on that?

A So I can't tell you exactly how the power will flow because it's subject to the operating load in the lower system; however the Cherry Valley switch yard is located over in Rockford -- south of the Rockford area. It is very possible that power from the plant would flow toward the Cherry Valley switch yard and come off that as well. So power usually flows both ways when a power plant is inserted into the middle of a line and goes both directions.

Q Won't there have to be some sort of transfer station where Kinder Morgan pulls out of that pipeline, it will be some sort of a structure that is going to have to be built there as well?

A Yes. They will build a fenced in area and they will have a tap facility there. I don't know exactly what that will look like. We're making that their responsibility to get that permitted and designed but we've talked about it I think before in the prior and showing some pictures of similar ones. And it looks like a couple of pipes sticking up out of the ground like a gate city that you might see where a city would have a tap off of there.

Q But there would be some lighting involved which would be light pollution at that point?

A A lot of the ones I've seen haven't been lit but it's possible.

Q I know since this first came to light in 2009 the tollway system has changed. It went from a four lane to a six lane. It went from no light inclusion to a hundred percent more because they have lights about every hundred yards on that facility plus they built the bed of that road up so the noise is much more visible or audible from our property, which we're right across the road from Mildred.

What would happen as far as the need of water on that property if say we had a drought and you are stilling pulling 100,000 gallons a day out?

A So we would build a contingency plan and storage to allow for withdrawal periods during drought conditions -- storage enough so we don't have to withdraw during those drought conditions.

Q Another question I had was have we looked everywhere in this county and surrounding counties for facilities that are in industrial areas because this doesn't coincide with the comprehensive plan, which you know if we start breaking it out now will that lead to other situations down the road?

A When we initially looked for locations in 2009 and again when we reviewed this application we looked at other site locations in the area. We still feel this is the most viable and best location for our use.

Q Wish I could agree with you, sir.

A I understand.

Q Isn't there an agreement for the natural gas that was filed in '09 that is suppose to be updated with new procedures and such by the end of December of this year?

A An agreement to -- I'm sorry?

Q As far as I guess the technology that would be used, maybe the methods of extraction. I'm not sure exactly what that would be. There was a fuel supply delivery agreement that was filed back then and it was suppose to be looked at again before the end of December -- modification to the system?

A For our project specifically?

Q Yes.

A When we originally proposed the project we were natural gas only and our fuel plan was always with the Kinder Morgan pipeline. And we provided annual updates for the status of the project but we had nothing that was specific to the fuel supply that I'm aware of.

Q Will there be another study as far as the noise or are we basing the decimals on that from before or since they upgraded the tollway?

A We have not conducted a current noise assessment. We relied on the prior assessment in the model project based on the prior assessment which conceivably would have lower noise levels and we are still within that three decimal limit of the prior assessment.

Q You are going to have 45-foot walls on the structure and a 75-foot tall stack?

A The tanks are 75 foot tall and the administration warehouse building is about 45 feet.

Q But the trees are going to be 20-foot tall?

A Correct.

Ms. Julie Newhouse of 13407 Capron Road, Capron, Illinois was sworn.

Q So you are saying that a high transmission line is going to send electricity back west?

A It does at times. It depends on how the load

underneath behaves; but if there is higher demand at the Cherry Valley switch yard because of some industrial activities, if generation on the other side of Cherry Valley, such as the nuclear plant, that will alter the flow of power.

Q Can you speak up a little bit. I forgot my hearing aid tonight. I'm not hearing your answer. So you are saying already that transmission line is sending electricity west?

A No, I'm not saying that already. I'm saying when we build our power plant, power will eject at that point and will flow both east and west.

Q And you have proof they will do that?

A When we did modeling to determine the impact to the grid that is what showed up.

Q So you don't know what aquifer you are going to go into, if it's the same aquifer as some of your neighbor and their wells go dry what is the contingency plan?

A We will do a pump test to determine any impact that could happen to determine the maximum allowable withdrawal limit. And if we determine that we can't withdraw enough water to serve our need, then, we'll have to come up with a new plan for water.

Q That impact study will look at what drain or if you pull from one aquifer what that impact will be on a different aquifer?

A It will be limited to the aquifer that -- if we drill through one aquifer into another, yes.

Q What guarantee will the neighbors have that you will either drill them new wells if your study proved not to be true and their wells are sacrificed, what kind of guarantee will the neighbors have?

A We can enter into a guarantee that we will not adversely impact theirs.

Q So you'll agree for that to be a contingency of that?

A Yes.

Q So the EPA bases their standard of pollution and noise based on the fact you are only a peaker power plant. What is the maximum days that you would operate?

A It's limited in hours per year and right now we're looking at -- and it's actually limited by total emission.

Q What if you exceed that?

A Then we get a fine and we actually get our permit revoked.

Q Is that part of the application? I didn't see that where you would get fined.

A We have to comply with the Illinois EPA.

Q Because peaker power plants in Kansas all of a sudden became year round and the pollution increased. So we have no guarantee -- the county has no guarantee that you won't go beyond those dates. Who do you report to? How would the county know whether you exceeded those hours?

A We can file an annual emissions report with the county to show we are in compliance.

Q So you agree to having that as a condition that the emissions would also be submitted?

A Yes.

Q You said your construction crew is going to be 150 people?

A Approximately.

Q What percentage of that could Boone County look at being their residents?

A Pretty substantial actually. When we met with the union shop during the last project there is a pretty substantial qualified area here and this is a union shop area so most likely we'll use as many union laborers as possible.

Q When Eldridge went through they brought in a construction crew from Wisconsin and nobody got employed. And the nine employees that you talked about that are all year long, you said they were highly skilled or trained. What are the chances of those people coming from Boone County?

A There is a pretty good chance. There is a plant in Rockford that I would guess that Boone County residents may very well be employed at already.

Q I couldn't quite hear on the emergency response teams. If we have an explosion or if you have a fire and you are surrounded by corn fields that are ready to be picked and ready to burn and we have no pumps out there, it would be totally dependent on fire trucks. Did you say there was going to be some kind of equipment or training or what is going to happen if a disaster happens?

A So there will be fire loops completely surrounding the plant and there will be hydrants at the corners of the plant and there will be on-site storage. I don't know the volume of that storage. We'll do the engineering specs to determine what that will be and work with the fire district to determine how much storage.

Q You'll have backup generators?

A It will have emergency fire pumps. All of our plants have those.

Q So what about the noise pollution? Will that also be submitted to the county and how often will that be examined?

A We can do preconstruction and post construction monitoring and we can do periodic retesting.

Q How about when the ground is frozen and there is no vegetation to stop between the nearby residences?

A When we model the project we do it under worst case conditions, which are bare ground, frozen ground that absorbs very little sound; but we can commit to an updated compliance monitoring.

Q I think I was around in 2009 and I thought I remember in the hearing that one of the reasons they picked that spot is because -- you said viable. Would that also be equated to it's more economical to buy farmland than to buy land in the industrial corridor?

A The 345 PV transmission and the natural gas pipeline

exist at that site and the cost to build those transmission lines to another site does impact.

Q There are no transmission lines anywhere in Northern Illinois that are industrial corridors?

A Not in the sites that we were able to procure.

Q Procure because of expenses or why?

A For various reasons -- some people wouldn't sell, sometimes the price doesn't work.

Q So follow up questions to what Tom and the lady prior asked, so Tom talked about if there was a drought you said that you would pull water to the side to kind of, you know, if in case that were to happen. So you mentioned that typically the water would be extracted from the well during peak times. So will that additional water -- that controllable water that you would have to avoid the drought -- would that be happening at other times that are not during the peak times or would that be in conjunction with the peak time?

A Actually what we would do is design the well system and the pump to pump at an average rate over a long period of time and then have a tank to provide that surge -- that surge we would have. So you would never see 300 gallons per minute come out of the well per se. You might see 50 gallons a minute come out of the well. We would have a tank that stores the bulk of the water and serves that 300 gallon need and over the course of a period of time that maybe it would withdraw at 50 or 25 or whatever engineering studies show.

Q Would that then cause the peak plant to continuously work then throughout the course of the year because if you aren't pulling at peak times that means you are pulling at other times to comply with that 300 per minute?

A The pump may operate when the power plant is not running; correct.

Q So my question to that is in the application you mention that if there is an operating recommendation that states that if it's running for 12 consecutive months, the plant will actually be shut down. So my question to that is does that stand for the year or for the life of the plant?

A So if the plant ceases operation for 12 consecutive months?

Q So in the application -- I can't remember what section it was in -- it talked about if the plant is running and the recommendation it states that if it's running for 12 consecutive months. Let's say for example you're having to keep pumping and running the plant and maybe peak hours so if you are running for 12 consecutive months, in your application it states that you would actually shut down. You would kind of restore everything to its original state as closely as possible. If you're having the plant run and you're having this water kind of be put on the side, does this consecutive 12 months, does this stand for the first

year the plant operates or is it for the life of the plant like if you were to start running within 24/7 kind of year round?

A I don't think the conditions or our application state that. I think the conditions state that -- maybe the staff can recite those to me.

MS. ARTHUR: So what I think you are talking about is you are talking about the recommendations of the approval?

MS. HINGOSA: Yes.

MS. ARTHUR: No. 15, "In the event the special use permit becomes null and void for any reasons or should the peaker power plant cease to operate for a period of 12 consecutive months, then all improvements, structures and materials related to the peaker power plant shall be removed from the site within one calendar year from the date of the special question permit becomes null and void."

MS. HINGOSA: So it's ceasing so I thought it was continuously running. Thank you for the clarification.
Q Then you keep talking about an average of loads, depending on the average of loads it's going to run less or run to Boone County which kind of references an original question that I asked. What is the average of loads per year? You keep talking about it could be different and the loads can make it run to Cherry Valley, it can make it run to the residents in this area or McHenry. What is the typical load per year? What is an average and does that ever get exceeded and how often does it get exceeded?

A So I can't tell you how much overall power consumption occurs in Boone County or in Illinois as a whole. What I'm referencing is the overall demand for power in the area. So I can't tell you how many kilowatt hours or megawatt hours are consumed within Boone County or offhand Illinois. We can look it up and provide that but what I'm speaking to is depending on where the location of that load is on any given day will affect the flow of the system. So whether or not that demand occurs at the Cherry Valley switchyard one day or at the Silver Lake switchyard another day, I can't tell you that.

Q The reason I'm asking is because if it's continuously running in Cherry Valley like how is it going to be directed, so that was not part of the study that you conducted, how much electricity is run on average yearly in the Cherry Valley, Boone County area, or McHenry County?

A That is not how we monitored our review. The modeling I'm referring to is we simulate the injection of the power plant at that site to make sure that the transmission system is stable and robust enough to handle the injection of power. And when we do that we can see how the power flows cross the system.

Ms. Julie Newhouse of 13407 Capron Road, Capron, IL was sworn.

Q Is the fine significant enough that it would prevent you from operating more than the hours? I mean do peaker plants ever just say, "Hey, the fine is cheaper than having the amount of controls to control the pollution that would come"?

A I can't speak to how others behave but I know how Power Ventures Group is structured and the investors of the Power Ventures Group when they purchase it how they behave and they will comply with all of the permits.

Q So if you said there is a fine out there and you are just willing to pay it, that still doesn't protect our citizens then if you are just willing to pay the fine.

A But I never stated that we'd be willing to do that.

Q So have other peaker plants ever been willing to do that?

A I couldn't tell you that, ma'am.

Q Your company has never paid -- Burns & whatever -- has never paid a fine?

A No. We comply with all laws and all rules and regulations.

Q You never exceeded -- none of your plants have ever exceeded the number of days of operation?

A Burns & McDonnell don't operate plants. We design and build power plants.

Q You design them and then whoever you sell them to may have the attitude of --

A Correct.

Q -- willing to pay the fine?

A They could very well but I do know that the people that are looking to purchase Power Ventures Group right now would have the option to purchase the project.

Q So the company could put a condition saying you can only operate within EPA standards --

A Yes.

Q -- and no more?

A Yes. We are willing to file a report. We are willing to have the condition that we would comply with all regulations that are applicable to us.

Q That would go to whoever bought it, whoever bought it, whoever bought it?

A It lives for the life of the project.

Q What would be the consequence? Would the consequence then be you lose your permit? I don't know how that works.

A We can put that in there that the special use permit becomes null and void, which then triggers the requirement that it be dismantled and removed.

Ms. Linda Anderson of 904 Kishwaukee Street, Belvidere, Illinois was sworn.

Q While I think we need to talk about concerns because I'm trying to get educated, I kind of would like to hear the other side of it, too. What are the benefits and the advantages of having you in our community?

A So the project will employ between four and eight highly professional and highly qualified people and those people will most likely reside most likely in

Belvidere; however, this wouldn't be a requirement. They live usually within 30 miles or 30 minutes of the plant so they can answer on-call duties; but they will have an average income of, I would say, close to six figures across those individual positions. That would be the plant manager, the maintenance and the guy who sweeps the floor; but there will be very highly qualified people there. The benefit is if anyone does move to Boone County to be employed at that site and they bring their family, they won't create a substantial impact on the schools or the infrastructure. They won't require increased policing. They won't require expansion of the schools or new teachers to be hired mostly because they would only bring a handful of people. They wouldn't have a lot of traffic on the roads so it wouldn't dramatically increase maintenance of the roads or the expenses of that. However, it would pay property taxes associated with the real property that would be substantial, probably greater than the amount of impact that the staff and the operation people would create.

Q So is there any other tax revenue benefit to having your plant here? Because your plant is here do we get more taxes or less taxes? You might not know that. Is there any other kind of revenue benefit for us as the product that you are producing? Do we receive taxes on that?

A There are no sales tax on electricity that anyone collects in Illinois.

Q So does your company pay like is there a higher property tax or something for that?

A The property would be assessed, I think, as an industrial use and the real property would be taxed at that rate but I don't know what that rate would look like.

Mr. Tom Pyszka of 3344 Garden Prairie Road, Garden Prairie, Illinois was sworn.

Q This plant is what -- scheduled to run maybe 50 percent of the time?

A Less than that. Peaker plants by definition dispatch less than 33 percent of the time.

Q But could you run a portion of that 100 percent of that to be within that 33 percent?

A Aggravate, yes. You could run one engine at a time and operate the plant 100 percent of the time but that is not economical and wouldn't make sense.

Q Is this buyer from the United States or someone from a foreign country?

A They're from the United States.

Q What would this do to our property values surrounding? I would think that within like a five mile radius there is an effect on this. I heard at some point there is some new figures on it but I'm not specific on it.

A I've seen various studies and property values are really hard to determine -- the impact on property values around power plants. But I've seen several

studies that would support my case that property values are not negatively affected. I've also seen studies that are skewed the other direction. I think they're subject somewhat to the person that hired to do the study. I would be willing to offer property value guarantees from the company -- the guarantee that your property value will not decrease. We can look at maybe sites around Elgin. There are neighbors very near that plant and we can look at property values and how they trend over time, assuming you can get all the data of that.

Q But isn't that one in Elgin situated in a highly industrial area?

A I think there are houses pretty close to it.

Q More than a mile, half a mile?

A I think across the street. We can do a survey and we did the last time, too. We tried to look at property values and we worked with I think her name is Pat Hillyer -- the Boone County Assessor -- to look at property values and we can look at that again.

Q If you had someone monitoring the site pollution as far as the noise and everything else, would that be an independent person separate from --

A We would agree to have an independent third party conduct those evaluations.

CHAIRMAN VAN LEER: I want to clarify a couple things.

Q You said that you would be willing to look at a property value guarantee for some of the surrounding homeowners. You also said that you would be willing to do a noise assessment preconstruction and post-construction.

A Uh-huh.

Q That post construction, would that be part of or would that entail during peak hours, peak generating hours?

A It would be when the plant is operating, yes. We'd have it run all units at the time.

Q 450 megawatts or whatever the maximum output?

A Yes.

Q The other is you will perform an aquifer test?

A Uh-huh.

Q And the aquifer test -- you will conclude by this test whether or not the neighboring or surrounding homeowners and farmers will not be negatively affected?

A Correct.

Q And you would also be willing to submit an annual emissions filing with the county?

A Yes. We have to file it with the State of Illinois for our permit anyway.

Q And if for any reason there is a non-compliance in any of this, that you are willing to have this trigger the decommissioning at the county's discretion?

A If we are non-compliant with our total hours of operation or total hours of emissions, yes.

Chairman VanLeer then opened the floor for testimony in opposition to the application.

Mr. John Cleland of 9829 Anglina Road, Capron, IL was sworn in. He appeared on behalf of the Winnebago-Boone County Farm Bureau. He presented a letter and read the contents concerning opposition to Power Ventures Group's request for a special use permit. The primary concern is that the proposed special use goes against the Boone County Code and Boone County's Comprehensive Plan and is better suited for land along the I-90 corridor zoned as industrial. He read that the Boone County Code states the intent of Boone County is to conserve, to protect, and to encourage the development and improvement of its prime agricultural land for the production of food and other agricultural products. It is also the intent to conserve and to protect prime agricultural land as valued natural and economic resources. Additional concerns include the high volume of water needed and the potential impact on existing wells in adjacent properties and the impact of additional transmission lines on farmland outside of the 20 acres that could interfere with farming operations. In addition there was a concern for the limited capacity of the volunteer fire department and emergency responders to handle potential emergencies.

Ms. Krumm asked if the 20 acres created a problem by taking out such an amount of farmland. Mr. Cleland responded it was a problem and would also set a precedence for other things to be built. Ms. Krumm asked if the concern included the fact that maybe more property would be taken for other uses once this gets in. Mr. Cleland stated that it was one of the concerns and also there are special needs -- the water and the transmission lines. He stated he believed it would be better suited in an industrial area. Ms. Krumm asked if there was anything that their plan does that detracts from any farming operations that he knows of. Mr. Cleland responded that when you have high transmission lines there is stray voltage you can get into that is very damaging to like dairies and you get into all kinds of problems with electricity. The water would be very detrimental if they misjudge how much water because of the dryness for the farm ground and the neighboring houses. No one in the audience had any cross examination for Mr. Cleland.

Ms. Donna Zuidance of 3097 Garden Prairie Road, Garden Prairie, Illinois was sworn in. She opposed the peaker plant. Her concern was the noise. She felt that the peaker plant's noise on top of the noise from I-90 was a major concern. She asked the Board to take that into consideration as well for the people who live in this area.

Ms. Krumm asked why the applicant wasn't seeking an industrial area. Chairman Van Leer asked if she meant a change in zoning. Ms. Krumm replied that, too, why isn't the Board talking about changing the zoning before this goes through.

Chairman Van Leer's response was that Table 316 states that for a one megawatt or larger power plant that in A-1 you can get that from using a special use. That was what had been mentioned in the staff's report. The Zoning Code

says they can do what they're doing. Ms. Krumm asked if they could do it anywhere in an agricultural area to which Chairman VanLeer replied that it was pursuant to the county giving them the okay for the special use.

Mr. Tom Pyszka of 3344 Garden Prairie Road, Garden Prairie, IL was sworn in. He stated that he wanted to comment regarding the fact it was only 20 acres. He stated it was 20 acres of a parcel that was 150 acres of farmland. It was cut off from there. He felt it was the wrong area and it was an industrial project. He stated there was actually a study that was done by the University of Michigan. He gave the Board a copy of the study which stated that it would reduce property value ten to fifteen percent within a mile of the plant. The other thing he mentioned was that the applicant had stated they had exhausted looking into industrial areas for this project and he would like some evidence to support that statement. He questioned whether they were just pursuing the path of least expense.

Mr. Marshall Newhouse of 13407 Capron Road, Capron, IL, having been sworn, had a question for Mr. Pyszka regarding the depth of his well. Mr. Pyszka responded it was approximately 220 feet. He then asked whether it was the top aquifer or the second one. Mr. Pyszka responded that he believed it was the second one. Mr. Newhouse then asked if he was aware that there are four aquifers in Boone County to which Mr. Pyszka responded he was not aware of that. Mr. Newhouse then asked if it was a condition that Mr. Pyszka would consider important that if there was a development to occur that the development would not be pulling water from the same aquifer as his residence. Mr. Pyszka said he definitely would like to have that knowledge.

There were no further questions from the public for Mr. Pyszka.

Ms. Mildred Hingosa of 3393 Garden Prairie Road, Garden Prairie, IL, was sworn in. She stated she was opposed to the application for a special use permit. She and her husband had only moved in a year earlier and her concern was for her animals and potential leaks and the exhaustion of natural gas and global warming. From her research she found that animals and crops and other vegetation around these emissions of the power peak plants tended not to survive based upon the pollution of the water and the emissions. She feels it is detrimental to her family's health. She found it upsetting for this industrial use and the potential for others coming forward with their industrial use.

Ms. Krumm asked if there were already power lines present. Ms. Hingosa replied yes there are power lines in the area to power her property and things of that nature and there was expansion with I-90 electric lines going to that as well. There were no further questions from the public for Ms. Hingosa.

Mr. Thomas Graves, the applicant, of 9400 Ward Parkway, Kansas City, Missouri was sworn in for rebuttal and to

answer any further questions from the Board. Mr. Graves had no significant rebuttal and stated he believed the application states the facts as they are. He understood there would be opposition. The infrastructure is located where it is and that is why they chose this site for the power plant. He reiterated that the application provides all the facts and that the applicant was willing to comply with all rules, laws, and regulations and any conditions that the county puts on this application.

Ms. Krumm asked the applicant if he had looked at other places in Boone County. The applicant stated he had actually looked at a cite along Shattuck Road. He could not remember the man's name but it was an older gentleman who was willing to sell his property on the back side of his farm. Ms. Krumm noted it was still in an agricultural area. She inquired if he investigated any industrial areas to which the applicant replied the industrial areas were too far away from the 345 KV transmission line. Ms. Krumm asked where that was coming from. The applicant replied that it came from Cherry Valley towards Silver Lake. She asked which direction it ran and Mr. Graves replied it ran west more or less. Ms. Krumm asked if the industrial area was west of this area. Mr. Graves said it's quite a bit north of the transmission line. Ms. Krumm then asked if this was pretty much right along it. The applicant said it's exactly right on it.

Chairman VanLeer asked in looking at the application and the parcels that the applicant owned, it looked like he owned two parcels and there was a parcel that is in the middle. He asked who owned that parcel. Mr. Graves responded that Commonwealth Edison owned that property. They owned the transmission line and they own the parcel underneath the transmission line. Chairman VanLeer then asked if the transmission lines that he would be hooking up to basically go through the center of his property to which the applicant responded that was correct. Mr. Rhode asked if there would be any buried electrical lines coming into there. The applicant stated no.

Mr. Schabacker stated that a few miles east there was a company that was looking to put a peaker plant in and it was going to be a gas fired turbine. He stated it didn't develop. He asked the applicant regarding the 300 gallons a minute possibly and the comparison to that location where they were looking at 2200 gallons a minute and that is for 1230 megawatts compared to the 450 figure. He asked for clarification on the difference and was it because of the type of turbines. Mr. Graves replied that the other peaker plant was a combined cycle power plant and he was familiar with that proposed project. It had a combined cycle power plant where they make steam using exhaust heat. It required substantially more water. Mr. Schabacker noted that their wells were going to be over 1300 feet deep. Mr. Graves commented that was because it was necessary to go to a really deep aquifer for that volume of water and it was not necessary for that volume of water in a single cycle.

Chairman VanLeer brought up one of the conditions that

the staff read on condition No. 14 stating the nature or the length of the special use. He stated typically this kind of special use is good for 12 months and in this special use here the staff is requesting that if this is passed and contingency No. 14 is passed, that it's extended to 48 months and asked why that was the case especially since the applicant was in the power plant business, you know what you are doing, and the architectural firms are very professional and efficient in doing so. He asked the applicant if he would see a problem lowering that 48 months. Mr. Graves stated that he wouldn't want to lower it to 12 months. He explained the reason for the extended permit period is the time needed to get the Illinois EPA permit which would take probably until next summer. The company still needed to finalize the design and procure equipment, which those three things will take at a minimum of 24 months and that doesn't account for any delays that may happen.

Chairman VanLeer also noted that the previous application stated that after one year the County Board could agree to renew it and then after two years -- if two years lapsed -- you had to come back and refile. He asked Mr. Graves if he remembered the conditions. Mr. Graves replied that the law actually states it can only be continued for one year at a time and it doesn't state a limit for how many extension. So for every year starting with the year that we knew that we weren't going to make the date, they would apply for an extension. It allowed for a one year extension and it didn't allow for anything else.

Chairman VanLeer also expressed concern for Fire District Two and if they have the equipment and training necessary. He asked if the applicant or the purchaser was willing to put up funds for training and for the equipment necessary to fight this -- any particular leaks or fires that would occur within this facility. The applicant responded that the permit would live with Power Ventures Group so anybody that owns the power plant can only do so by purchasing the company. So all the rights and all the obligations of Power Ventures Group go with that purchase. He stated that Power Ventures Group would be willing to fund any special apparatus, equipment and training necessary for a voluntary fire department to make it prepared and comfortable, in addition to their own on-site fire suppression. Mr. Graves also responded to Chairman VanLeer's question regarding working with the volunteers and training them and teaching them about power plants by saying they would not only train them and teach them about power plants but in the event that they build this facility, they will send them to professional training to understand how to deal with any type of fire that comes from this type of plant.

Ms. Krumm asked if this was already set up or was it needed to be added. The applicant replied that it could be put in and it could include any type of commitment the Board was looking for and it could be a condition. Ms.

Krumm then asked if this was something that they did any way. Mr. Graves replied that they typically would do so as they have to have fire insurance and the insurance company will want to know the capability of the fire department and it will reduce the insurance rate by training them.

Mr. Rhode brought up the fact that the Boone County Engineer had requested additional information on traffic and construction as he had concerns regarding the Spring Township roads. Mr. Rhode also had a concern that no one was present from the District Two Fire Department as they didn't have anyone present. He felt that all factored into what needed to be looked at. Ms. Krumm also mentioned her concern for the roads and hauling heavy equipment in there. Mr. Graves responded that as with the prior approval, they would put up a bond to make sure that the roads are repaired. Ms. Krumm stated the roads were very weak to which the applicant responded that they had built power plants on gravel roads actually and required not a whole lot of work to shore them up. They did want to make sure that the shoulders weren't too soft, the radius of the curves shouldn't be too tight but stated there were engineering ways to do that and not make it even a permanent change but just to get the equipment in.

Chairman VanLeer reiterated why he had asked staff if the fire department was notified. He felt it would have been good to see them here or at least a representative here.

There were no more questions for the applicant from the Board at this time.

Chairman VanLeer stated that due to the time constraints, he felt there was a lot of things to consider and rather than closing the public hearing now and adding ten conditions, it was too much. The rest of the Board were in agreement. The Chairman's recommendation was to keep the public hearing open so they wouldn't have that 30 day issue and for the Board to resume next month. In the meantime, that would give Ms. Arther and Shelley Dunham some of the conditions that we'd like to see in this, if this thing has a chance of going through.

At this point the floor was open to the Board and staff to list any of the concerns that had been raised. Mr. Savino raised his concern over the property value guarantee and the question on who would come up with that and how would it be worded. Another concern is the aquifer test that Mr. Savino would like to see ahead of time to know that it's not going to impact the neighbors or what aquifer the applicant would be going to be in. He questioned whether 300 gallons a minute was a lot or is it not a lot. He brought up the noise assessment that it was obviously a study that the applicant said they would do pre and post construction. He didn't know how you would really regulate that.

Chairman VanLeer asked the applicant to verify doing a noise testing both preconstruction and post construction during peak hours and submit it to the Building Department

or to somebody who could look at that. Mr. Savino also asked how it was going to get enforced and what the penalty is for that. And with any of the penalties, if there is any penalty on this, is this a hundred dollar day or a thousand dollars a day or shut down after three violations. He did note that the applicant said they would comply and Mr. Graves was not worried about it, as he was reassuring that they would follow the rules. Mr. Savino stated that if they added a straight penalty in there, he didn't think it would be an issue any way, meaning if they violate the noise three times then they have to shut down permanently or that kind of thing.

Mr. Savino also asked if it was possible to get the fire department present. Mr. Rhode agreed that the Board didn't have that knowledge that they did. It was recommended that staff make one more attempt, if the public hearing was still open, to contact the fire department and see if they wanted to participate.

Mr. Savino stated that a gas or oil leak wasn't as much of a concern as some of the noise and property values because as the years go on, the I.E.P.A. becomes more regulatory.

Mr. Schabacker brought up concerns that should the plant activity dissolve, who was going to come in and clean it up. He suggested a bond be set to protect the people in Boone County for the expense of removing the plant. Mr. Rhode commented that was addressed in recommendation 15 on Page 27. Chairman VanLeer read the appropriate recommendation where it talked about an independent engineer's assessment of the decommissioning cost and the bond would be set at 150 percent of the engineer's assessment and it would be increased annually to reflect the economy.

Mr. Schabacker mentioned again the blocking device and shielding. It was his opinion that if they were going to allow this special use in Boone County, he'd like to see "the best we can get" and he knows that companies do have what is called shielding and blocking and he'd like to see that included for security reasons and shielding devices that would protect solar flares and things that can cause blackouts. Mr. Schabacker believed electric companies had that in place that if something like that would happen, that they have shielding for that. And he stated he believed the blocking devices would be for any type of terrorism or anything like that, which would protect all.

Mr. Rhode mentioned that something was brought up about the usage as far as the amount of time -- the total hours of operation. Chairman VanLeer stated along with that was total emissions as well and basically being in compliance with the total hours of operation and emissions and what happened if they're not in compliance. Mr. Rhode stated he thought they said they would agree that would terminate the special use. Ms. Arther added the words complying with Illinois standards and EPA standards for total hours of operation and emissions. Chairman VanLeer asked the applicant if the total hours of operations is governed by

the I.E.P.A. to which the applicant affirmed that it was as to the total emissions and a tabulation of hours of operation, which are a calculation of hours of operation because it's a function of fuel input. Ms. Arther asked if he was saying both are, they're all the same thing and to the chairman's question if one was a subsidiary of the other, the applicant replied that was correct.

Mr. Schabacker asked if the applicant had any information regarding particulate matter on how many pounds per year that it would put out. The applicant didn't know the numbers offhand on how many pounds they had in their permit but the Illinois E.P.A. regulates that and further stated the limiting factor would be noxious oxide. He explained the way the permit works is they have a set of limits for each individual criteria and in order to go for a minor permit, in order to achieve you have to be under all of those; and if you hit one of them and go over that limit, then, you become a major source and that required another permit. The particulate matter is much lower and he didn't have that number offhand.

Mr. Terrinoni stated he heard something about that it wouldn't be used as a combined cycle and the applicant even agreed to that as being a condition. As far as the noise testing Mr. Terrinoni thought it would take staff time to analyze what that really meant and how to go about testing, how to document, and what the baseline is for before and after, and what the remedy was if you exceed.

He thought the aquifer testing was a great idea but the remedy of well impacts should be detailed out. He had heard it said they would possibly protect some private wells so he asked which ones and what was the radius, what caused the homeowner to declare that their well had been adversely impacted by the company. He believed that needed to be detailed out.

Mr. Terrinoni continued that the E.P.A. standards were already in the document but they had to comply with all I.E.P.A. standards. He also stated that the property value grantees was not new territory. They needed to get good standardized language on how that works and how homes are protected.

The offer about training for fire and personnel should be analyzed as to what that means, what kind of training, what equipment, what apparatus. The statement that non-compliance could trigger decommissioning he believed was very responsible for the company to make that statement. He felt they would need to analyze how that actually worked because he didn't think it was simple to decommission one of these facilities and so that should be spelled out a little better.

The discussion about which aquifer you are pulling from, he felt there was not enough knowledge at this point to even know which aquifer you are pulling from. He believed that all went back to the well analysis. Chairman VanLeer asked if the county's Soil and Water Department could help with that and Ken felt they could but it would take time to analyze how you even structure a condition to

address that.

Mr. Terrinoni also stated the comment on condition 14 about lowering the 48 months, 36 months might be reasonable.

Chairman VanLeer stated he would like to add some clarification on lighting and quantify what .5 candles meant in laymen's terms so it was more understandable for the homeowners.

Ms. Arther offered some wording regarding the applicant to provide documentation on the property line just based on what Mr. Bliss had suggested.

The applicant asked if he should offer a response to a couple of the conditions to give some direction. He stated he didn't know the exact ordinance numbers but that Illinois had a Noise Regulation Enforcement Program the Board could reference. He believed the State of Illinois noise regulations and enforcement could shut down an operation if it exceeded. Then with regard to the blocking and shielding, the National Electric Liability Council set all of the standards for all power plants across the US. So the applicant would have to comply with those standards along with other electrical engineering and mechanical engineering codes.

The National Electrical Liability Council regulated all power plants and how they are designed with respect to cyber security, electromagnetic shielding and those kind of things. The applicant offered to provide references to help on that.

Mr. Schabacker asked about the 36 months and the applicant thought 36 months was acceptable. Mr. Schabacker then asked if the wordage that upon written application the county board may authorize an extension for a period not more than one year would that still be in place. Ms. Arther affirmed that.

Mr. Bliss commented on Hilary's comments regarding condition No. 8, the lighting provision. He stated his office didn't have any way to enforce that condition so he asked if the applicant could provide documentation showing compliance with that condition, which would require the applicant to hire a third party consultant to do a lighting study and show that it's in compliance. Chairman VanLeer asked if this meant compliance as to the .5 to which Mr. Bliss stated correct. Mr. Schabacker also commented that those also need to be signed by a registered engineer from Illinois who had a license with the State of Illinois. Mr. Bliss asked if that could be worked into the condition.

Ms. Dunham had a few things to add that between now and when the Board reconvenes the hearing that staff should talk to the state's attorney because the details regarding the property value issue was going to be important and that the applicant be held to those agreements. Another point she brought up was revoking the special use if they violated the number of hours. She believed more information from the state's attorney was necessary for people to understand what that process was.

On the shielding devices she thought the Board may want

to get an independent contractor as there might not be a sufficient genre of what that means. And her last comment was about the noise and lighting and the other compliance issues. She suggested that rather than having the applicant providing the data that the Board be able to select their own firm to do that at the expense of the applicant.

Mr. Rhode mentioned that a determination needed to be made regarding distances from the site as to where it should begin and end to which Mr. Schabacker agreed. Chairman VanLeer thought that should be covered by whoever writes up the P.V.G. He felt the impact of a 75 foot item is not near as much as a bunch of items that are 300 feet tall. The line of site was not as detrimental so that should all be taken into account and would be something for the Board to decide what distance is a credible distance.

Ms. Arther stated that the staff would research that before the next meeting and would come up with some kind of metrics and the Board could decide whether to agree or not.

A motion was made (Krumm/Rhode) to table the hearing to the next meeting, which is December 27th. Motion passed by voice vote.

OTHER BUSINESS:

None.

COMMUNICATIONS/PLANNING REPORTS:

Ms. Arther updated the Board regarding upcoming applications and that although she had not heard back from one applicant and had no update to offer, there was another applicant scheduled for the December 27th meeting seeking a variance for a side yard setback. She would also include a schedule for the 2017 meetings in the next agenda packet. There were no proposed changes and the Board would continue to meet on the fourth Tuesday of each month.

The motion was made (Krumm/Schabacker) to adjourn.
Motion carried by voice vote at 9:58 p.m.

Recorded by:

Deborah Clarkson

Deborah Clarkson
Transcriptionist

Reviewed by:

Hilary Arther
Land Use

Tollway, as now laid out and located which runs Northwesterly and Southeasterly through the Northeast Quarter of said Section 13; thence North 68 degrees 07 minutes 44 seconds West along said South Right-of-Way Line, a distance of 1423.06 feet (1422.81 feet deeded) to the West Line of said Northeast Quarter; thence South 0 degrees 22 minutes 00 seconds West along said West Line, a distance of 342.17 feet to the Point of Beginning, containing 12.565 acres, more or less, SUBJECT TO a Sign Easement bounded and described as follows: Commencing at the Northwest Corner of the Northeast Quarter of said Section 13; thence South 0 degrees 22 minutes 00 seconds West along the West Line of said Northeast Quarter, a distance of 1269.99 feet (1269.99 feet deeded) to the Northwest Corner of premises conveyed to the Illinois State Toll Highway Commission as recorded in Book 112 of Deeds at page 522 in the Recorder's Office of Boone County, Illinois, said point being the Point of Beginning of the hereinafter described Easement; thence South 89 degrees 38 minutes 00 seconds East, a distance of 43.00 feet; thence North 0 degrees 22 minutes 00 seconds East parallel with the West Line of said Northeast Quarter, a distance of 325.23 feet to the South Right-of-Way Line of a public road designated Illinois Northwest Tollway, as now laid out and located which runs Northwesterly and Southeasterly through the Northeast Quarter of said Section 13; thence North 68 degrees 07 minutes 44 seconds West along said South Right-of-Way Line, a distance of 46.22 feet to the West Line of said Northeast Quarter; thence South 0 degrees 22 minutes 00 seconds West along said West Line, a distance of 342.17 feet to the Point of Beginning, the Easement containing 0.329 acre, more or less, also subject to all easements, agreements, county codes and/or ordinances of record, if any, all situated in the Township of Spring, the County of Boone and the State of Illinois.

PARCEL 2: SOUTHERN PARCEL

OF PROPERTY DESCRIBED AS: Part of the Northeast Quarter of Section 13, Township 43 North, Range 4 East of the Third Principal Meridian, bounded and described as follows: Commencing at the Southwest Corner of the Northeast Quarter of said Section 13; thence North 0 degrees 22 minutes 00 seconds East along the West Line of said Northeast Quarter, a distance of 511.53 feet to the Point of Beginning of the hereinafter described parcel of land; thence North 89 degrees 59 minutes 21 seconds East parallel with the South Line of property conveyed to Commonwealth Edison Company, by Document No. 79-1453 in the Recorder's Office of Boone County, Illinois, a distance of 1323.57 feet to the East Line of the West-half of said Northeast Quarter; thence North 0 degrees 24 minutes 21 seconds West along said East Line, a distance of 244.70 feet to the South Line of said property conveyed to Commonwealth Edison Company; thence South 89 degrees 59 minutes 61 seconds West along said South Line, a distance of 1323.74 feet (1323.64 feet deeded) to the Southwest Corner of said property conveyed to Commonwealth Edison Company; thence South 0 degrees 24 minutes 21 seconds West along the West Line of said Northeast Quarter, a distance of 244.70 feet to the Point of Beginning,

containing 7.435 acres, more or less, subject to that land being used for public road purposes and also subject to all easements, agreements, county codes and/or ordinances of record, if any, all situated in the Township of Spring, the County of Boone and the State of Illinois.

EXISTING LAND USE FOR SUBJECT AND ADJACENT PROPERTIES:

Subject property: Vacant energy facilities

Adjacent properties:

North: I-90 and Agriculture

South, East and West: Agriculture

CURRENT ZONING FOR SUBJECT AND ADJACENT PROPERTIES:

Subject property: A1 – Agriculture Preservation District

Adjacent properties:

North, South, East and West: A1 – Agriculture Preservation District

COMPREHENSIVE PLAN FOR SUBJECT AND ADJACENT PROPERTIES:

Subject property: Agricultural/Rural

South and West: Agricultural/Rural and Environmental Corridor

North and East: Agricultural/Rural

BACKGROUND:

In 2009, Boone County issued a Special Use Permit to Power Ventures Group, LLC (PVG), which granted PVG permission to construct the Garden Prairie Energy Facility (Plant) in Spring Township, Boone County, Illinois. The Plant was proposed as a nominal 100 megawatt (MW), natural gas-fired peak-load electric generating facility. Subsequent to the approval, PVG found it difficult to procure and finance the original equipment and therefore withdrew its Special Use Permit (SUP) in order to repurpose the Garden Prairie Energy Facility utilizing the latest technology.

Therefore, this new application reflects the utilization of state-of-the-art technology in the form of three (3) larger turbines that replace the twelve (12) reciprocating engines (units), requested in the original application. In addition, given changes to the PJM¹ rules for generators that require the ability to serve load during times of natural gas interruptions, this updated application reflects the need to utilize backup fuel during emergency conditions. This

¹ PJM is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.

requirement will be evaluated by the Illinois Department of Environmental Protection during the Project's air permit process. All other details of the application remain the same.

Project Description

Power Block. The Plant will consist of three (3) General Electric (or equivalent) 7FA combustion turbine-generator packages, each capable of producing approximately 150 megawatts (MW) for a total nominal capacity of 450 MW. The engines will be equipped to burn gas as their primary fuel, with ultra-low sulfur diesel fuel backup capabilities for emergency conditions. Each unit will be connected to an individual electric generator, the output of which is then connected to an electric switchyard to be constructed as part of the project. A conceptual rendering of the Plant, depicting the proposed facilities, existing topography, and surrounding environment is presented in Figures 1-2 through 1-5, attached to this report.

Fuel System. Natural gas will be supplied by Kinder-Morgan through the Illinois Lateral pipeline system. The Illinois Lateral 24-inch pipeline is located approximately 800 feet south of the Site. An easement to access the Illinois Lateral pipeline system will be secured by Kinder-Morgan. Natural gas will be delivered to an on-site gas metering and regulating station, which will regulate gas pressures prior to supplying gas to the engines.

Plant High Voltage Power System and Interconnection. The 13.8-kilovolt (kV) electrical power produced by the Plant will be transformed to 345 kV with a single generator step-up (GSU) transformer connected to a bank of three combustion turbine-generator packages. Power from each GSU will be delivered to a new on-site substation which is the point of interconnection for the Plant to the Commonwealth Edison transmission system. The substation includes positions for each GSU from the plant.

Water Supply and Treatment Systems. The Plant will use evaporative cooling to enhance efficiency during warm ambient temperatures. Water for the evaporative cooling process will be produced on-site via a well system. On-site storage will be utilized to eliminate surge impacts during periods of peak usage, which is expected to be as high as 300 gallons per minute. However, due to the expected dispatch of the Plant to serve only during periods of peak electric demand, total daily consumption is expected to be not more than 108,000 gallons during non-emergency summer peak conditions and will typically be less than 3 million gallons in a typical summer month. Potable water will be produced on-site via a well system, similar to that of residential users in the surrounding area. Potable water requirements of the Plant are solely for sanitary use and human consumption, and are expected to average three (3) to five (5) gallons per minute. Sanitary wastewater will be discharged into an on-site septic tank.

Storm Water Drainage. Runoff water from storm drainage areas will be collected and properly managed. Storm runoff that has the potential to come in contact with equipment will be routed to an oil/water separator. The oil/water separator will be used to separate oil from the storm runoff water before discharging. Storm water runoff will ultimately be routed through a treatment skid and discharged to an on-site detention pond. The oil will be contained in the separator and removed by a contracted waste disposal company.

Fire Protection System. The fire protection system for the Plant will consist of the following:

- Heat and smoke detection connected to a central alarm system in the control room;
- Local sprinkling systems for major equipment and structures;
- A yard loop around the site with fire hydrants fed by an on-site fire water tank; and
- A diesel fire pump to transfer water from the fire water tank to the yard loop.

Plant Auxiliary System. When the Plant is offline, electric power will be back fed through the Plant switchyard to provide station power. The Plant will also have an uninterruptible power supply (UPS) system to provide a reliable source of power for critical control and equipment loads during emergency operating conditions.

Air Quality Control System. The turbines include low NO_x combustion systems.

Maintenance and Warehouse Facilities. The Plant will include a maintenance/warehouse area within the primary building which contains an area for maintenance, repairs, and spare parts storage.

Security and Access. The Plant site will be enclosed with a chain link security fence. It is anticipated that once final completion of the Project is achieved, the entrance will include a motor-operated gate with a keypad and intercom that can be used to open the gate, or to contact the control room where the gate can be remotely operated. The entrance road to the site will be accessed via Garden Prairie Road. Plant monitoring cameras will also be in place and will be monitored from the control room.

Parking Facilities. The Plant will include parking of adequate capacity to support all permanent employees and delivery vehicles. Parking facilities will be paved, striped, and feature parking accommodations in accordance with local building codes.

Landscaping Plan. The Plant will feature a perimeter road encompassing the primary facilities and Power Block, the interior of which will be paved in crushed rock of varying diameter between ½ inch and ¾ inch. Areas outside of the Power Block will be graded and seeded with grasses native to the surrounding area. The seeded areas will be regularly mowed to maintain a

presentable appearance. The Plant site will be bordered on the South, and East by tree plantings selected for their visibility screening qualities. The tree plantings are expected to be between of an evergreen, coniferous variety consistent with trees native to the surrounding area and are anticipated to be six feet tall at the time of initial planting, growing to a mature height of approximately 18 to 20 feet. Spacing for the trees is anticipated to be 15 feet on-center.

Lighting Plan. The Plant will include exterior lighting resources as necessary to ensure safety. Exterior lighting equipment will include high-cutoff shields and will be directed properly to minimize light intrusion into surrounding areas.

The applicant expects the Plant to achieve commercial operations in May 2018, with construction activities commencing approximately 15 months prior to that date. Prior to construction, the Plant must obtain multiple Federal, State, and Local permits. Additionally, during the pre-construction development phase, multiple agreements (fuel supply, power sales, engineering and construction, etc. must be secured to ensure the Plant is economically feasible.

Peaker power plants generally run during hot summer months when the excessive demand for electricity places a strain on the local energy supplier. Since peaker power plants only operate for a short time throughout the year, the Environmental Protection Agency (EPA) does not consider them a major source of pollution and therefore does not hold them to the standards and rules for Prevention of Significant Deterioration regarding air compliance. However, the EPA regulates the total number of hours that a peaker power plant may run throughout the course of a year.

OTHER PLANNING CONSIDERATIONS:

The Boone County Soil and Water Conservation District states the main natural resource concern is approximately 64% of the soil onsite are sensitive to erosion. If over an acre of land is disturbed at this site a National Pollutant Discharge Elimination System (NPDES) permit will be required from the State of Illinois Environmental Protection Agency. This permit requires erosion and sediment control practices to be designed, installed, and maintained during construction and until the site is stabilized. This is of particular importance because approximately 400 acres drain through this site with a prevalent drainage present on the southwestern portion of the property. Please refer to NRI Report #1278 completed January 6, 2009 for other natural resource concerns.

The Boone County Engineer Justin Krohn reviewed the application and stated he would like additional information on vehicle traffic (volume & weight) for construction & during normal

operations. Also anticipate future site plan reviews, including but not limited to entrance, site distances, and storm water detention.

The Boone County Building Department (Drew Bliss, Senior Building Inspector) reviewed the application and stated there are no objections to the special use request, however I suggest additional language be added to condition #8 that would require the applicant to submit documentation showing compliance. The department does not have the equipment to measure lighting levels; therefore no way of enforcing the conditions. Lastly if approved a building permit would be required for any new construction on the property.

The Boone County Health Department (Bill Hatfield) reviewed the application and stated questions he had.

1. Produces Power when? How often?
2. How many engines operating at a time?
3. Noise reduction steps?
4. Year round operation? Day and hours?
5. Number of staff? How many onsite at a time?
6. Water use and bathroom facilities?

TREND OF DEVELOPMENT:

The subject property is located in unincorporated Spring Township, Boone County, Illinois. The subject property and surrounding properties are all zoned A-1 Agriculture Preservation District. Agriculture is the predominant land use in the general area of the subject property.

COMPREHENSIVE PLAN:

The Boone County Comprehensive Plan (adopted November 10, 1999) Planned Land Use Map indicates agricultural/rural for the subject property and agricultural/rural and environmental corridor for adjacent and nearby properties. Agricultural/rural calls for agricultural uses, farmsteads, other open lands, and single-family residential at or below 1 dwelling per 40 acres. The Environmental Corridor category includes floodplains, wetlands, woodland and other sensitive environmental features.

FINDINGS OF FACT:

According to Section 2.7.3 of the Boone County Zoning Ordinance, a Special Use Permit shall not be granted unless the County Board finds the following facts:

1. **Required:** The proposed structure or use at the particular location requested is necessary or desirable to provide a service or a facility which is in the interest of the public and will contribute to the general welfare of the neighborhood or community.

Finding: The proposed structure or use at the particular location requested is necessary or desirable to provide a service or a facility which is in the interest of the public and will contribute to the general welfare of the neighborhood or community.

While peaker power plants, like any energy producing facilities, are not typically a use that is desirable within a community, they do provide a necessary service. These facilities convert natural gas into electricity and help alleviate the strain that certain weather conditions place on the electric grid. In order to best serve their purpose, peaker plants locate in close proximity to both natural gas lines and major electrical transmission lines. In this case, in addition to being placed in proximity to these facilities, the plant also will be located just south of I-90, which will provide a buffer to the properties to the north and may help shadow the noise created by the plant while in operation. This location also is not located near larger population centers, which further reduces any potential negative noise impacts.

The applicant cites the following benefits that the Project will provide to Boone County:

- The project represents approximately \$160-\$180 million of new investment. Approximately 15 percent of the estimated expenditure is expected to be spent in the Boone County regional area on building materials and construction labor.
- An average of 50 and peak of 120 construction jobs will be engaged. The Plant requires approximately 15 months for construction, testing, and certification. Primary construction activities will include: site grading and preparation; subsurface foundation construction; underground cable and pipe construction; building erection; equipment and engine-generator set placement; and testing and certification.
- Permanent operating staff jobs of four to eight will be created, with an average fully-burdened salary of approximately \$90,000 annually. Due to the Plant's technical sophistication and high level of automation, full-time positions are typically filled by highly-technical, educated personnel, which are expected to be plentiful in the Plant region. Therefore, PVG expects that a significant majority of the operational labor resources will be obtained from the local labor pool.

- Installation of a peaking power facility will strengthen local and regional power reliability. The Commonwealth Edison electric grid in the Northern Illinois region is anticipated to potentially experience electric supply shortages due to the economic retirement of numerous nuclear and coal-fired power plants in the area. The Project is intended to help alleviate those shortages, and improve power supply reliability, which is important for economic development and retention of industrial and technical businesses.
 - The project has been sited in close proximity to existing electric transmission and natural gas facilities to minimize environmental and right-of-way impacts.
 - The project will be fueled with clean-burning natural gas to minimize air quality impacts with ultra-low sulfur diesel for use only during emergency conditions when natural gas availability is curtailed.
 - The project will go through a comprehensive environmental permitting process to protect the safety, health and welfare of nearby property owners and residents.
 - The project has been sited near similar use facilities such as high-voltage transmission lines and Interstate 90 to minimize land use and development impacts.
2. **Required:** The proposed structure or use will not have a substantial adverse effect upon the adjacent property, the character of the neighborhood, traffic conditions, utility facilities and other matters affecting the public health, safety and general welfare.

Finding: In addition to the design of the peaker power plant, conditions of approval will be enacted in order to lessen any potential negative effects on the neighboring properties.

With the installation of sound dampening devices and its location adjacent to I-90, it is not anticipated that the peaker power plant will produce a disruptive level of noise. However, conditions of approval will be enacted that will help ensure that noise levels remain at acceptable levels. The peaker plant will also be limited to a height of no greater than 75 feet which in comparison is shorter than some silos and commercial grain bins that have been constructed. Landscaping will be required to be installed in order to block the view of the power plant from nearby dwelling units in order to help alleviate the concern over aesthetic impacts.

After construction has been completed there will be minimal traffic accessing the site and the applicants will be required to repair any damage to the road system that was caused during the construction period.

The IEPA (Illinois Environmental Protection Agency) limits the level of emissions that can be released by the peaker power plant by regulating the number of hours it can be in operation

throughout the year. However, the emission levels allowed are low enough that it is not considered a major source under the federal Prevention of Significant Deterioration.

Transportation and Traffic. Throughout the construction process, surface transportation routes in the immediate vicinity of the Plant will experience an increase in overall traffic volume due to construction materials delivery, and construction laborers entering and exiting the Plant site. The majority of the construction-related traffic is expected to occur during daylight hours and is not expected to significantly impact existing traffic patterns.

The anticipated primary routes to the Plant site are provided below:

If from the North:

US Highway 20 to Garden Prairie Road,
South on Garden Prairie Road to the Plant.

If from the South:

Genoa Road to Hill Road,
East on Hill Road to Pinegar Road,
North on Pinegar Road to Crawford Road,
East on Crawford Road to Garden Prairie Road,
North on Garden Prairie Road to the Plant.

The major equipment components will be delivered to the site via a heavy-haul transport rig, designed to distribute the weight of the equipment over multiple axles to prevent per-axle weight limit violations and minimize damage to the roadway.

Construction workers present at the Plant site are expected to average up to 50 per day, with a peak of approximately 120 per day during a three-month period leading up to testing and certification activities.

Construction labor traffic is expected to follow similar routes as equipment delivery traffic, and is largely expected to be obtained from the local labor pool.

Temporary construction parking and equipment lay-down space may be leased from the landowner as necessary to support the overall project construction schedule. Roadway damages attributed to the Plant's construction and operation activities will be repaired at the Plant owner's expense.

Due to the relatively small operational staff, and limited requirement for ongoing equipment or materials delivery, surface transportation impacts during operation are anticipated to be minimal.

Operational Impacts. The Plant is expected to function as a peak-load generation resource. As a peak-load serving generation facility, the majority of the expected dispatch will occur during hot, summer daytime hours when there is an increase in the demand for power. Reliability is important to a peak-load facility as annual operating hours will be limited by the air permit that is expected to be issued by the Illinois Environmental Protection Agency.

Because the Plant is expected to have relatively limited operating hours, and due to the installation of a sophisticated, highly automated control system, approximately four to eight full-time employees are expected to be employed at the Plant site. The employment positions are typically filled by highly technical, educated personnel.

Environmental Impacts

Protected Species. According to the U.S. Fish and Wildlife Service (USFWS) there is one federally-listed endangered and two threatened species that could occur in Boone County, Illinois. Additionally, the Illinois Department of Natural Resources (IDNR) species inventory website lists a total of three endangered species and six threatened species for Boone County. The proposed Project area was evaluated based on these species and their potential habitat. None of the species were observed at the Plant site. The species listed require natural prairie, marsh, perennial stream, or woodland habitats. These habitats do not occur within or adjacent to the Project area. It is expected that the proposed Project will not adversely affect threatened and endangered species due to lack of suitable habitat. Construction activities associated with the Project will disturb cultivated land. Only common wildlife species that are tolerant of constant human disturbance are likely to be present. Based on the predominance of agricultural fields, the amount of previous disturbance, and the limited potential for protected species habitat to occur in the vicinity of the proposed Project area, it is anticipated that the proposed Project will not adversely impact protected species or their habitats.

Wetlands. One relatively small (0.06 acre) palustrine emergent wetland (PEM) was identified within at Plant site. This wetland extended out into the site from a drainage culvert along Garden Prairie Road. Approximately one inch of standing water was present in the PEM wetland at the time of the survey. The PEM wetland was dominated by reed canary grass (*Phalaris arundinacea*). An un-vegetated swale extends from the PEM wetland toward the southern property boundary. The PEM wetland present along Garden Prairie Road is relatively small in size and will be avoided during construction and operational activities.

Flood Zone. A flood zone traverses the southwest corner of the south parcel. The flood zone is shown on Flood Insurance Rate Map Panel No. 55 of 55, Community Panel No.

170807 055 B, Effective Date November 17, 1982. This flood zone serves as an intermittent drainage channel that routes excess precipitation toward Spring Creek during periods of heavy precipitation. Because the flood zone does not possess a defined bank, and much of it is actively cultivated annually, modifications to it do not require coordination or approval from the U.S. Army Corp of Engineers. The conceptual design for the Plant includes rerouting this drainage pathway to prevent impedance to the natural drainage characteristics.

Air Quality. PVG is currently preparing an application for a Synthetic Minor Source Air Permit which is expected to be submitted to the Illinois EPA in September 2016. The Synthetic Minor Air Permit limits criteria pollutant emissions from the Plant to specific annual levels. In order to avoid exceeding those levels, the Plant will be limited to operating a maximum of 7,500 turbine-hours per year, which is roughly equivalent to 2,500 hours per year for each of the 3 turbines.

Water Supply. Potable water will be produced on-site via a well system, much the same as the residential water supplies in the area surrounding the Site. Potable water requirements of the Plant are solely for sanitary use, human consumption, and general housekeeping duties, and are expected to average three to five gallons per minute. Sanitary wastewater will be discharged into an on-site septic tank.

Auditory Impacts. At the time the application was submitted, noise modeling efforts to estimate the auditory impacts expected by the Plant were incomplete. However, the Plant site is located adjacent to Interstate 90, a heavily trafficked transportation route. As such, the ambient sound levels at the existing site are significantly higher than typical rural settings. The conceptual site arrangement locates the Power Block and associated major equipment on the northernmost parcel of the proposed site, positioning the primary sound emitting equipment as close to Interstate 90 as possible. This arrangement will significantly aid in mitigating any auditory impacts created by the Plant.

A noise model was developed to predict the impact to nearby residences during periodic intervals throughout the day. The model takes into account the current sound levels observed at the site prior to construction of the Project, and determines the level of insulation and mitigation required to ensure that no perceptible impact is experienced by nearby residences.

Visual Impacts. PVG plans to mitigate visual impacts from the east and south by planting evergreen trees to create a visual screen. At the time of planting, the trees are

anticipated to be six feet tall with spacing of approximately 15 feet on-center. At maturity, the plantings are expected to reach a height of approximately 18 to 20 feet.

Fragrant Impacts. The Plant will emit no detectible odors during operation.

3. **Required:** The proposed structure or use will be designed, arranged and operated so as to permit the development and use of neighboring property in accordance with the applicable district regulations.

Finding: The proposed structure or use will be designed, arranged and operated so as to permit the development and use of neighboring property in accordance with the applicable district regulations.

The peaker power plant will be located south of the 1-90 right of way and divided by a ComEd right of way. All development and operations will be as far away from the surrounding residences as possible. The development of the peaker power plant is not anticipated to negatively affect surrounding properties or prevent said properties from developing in accordance with district regulations. Conditions of approval will address traffic, soil erosion, noise, light and aesthetics. In addition, this kind of development is not a catalyst for sprawl and therefore should not impede on neighboring farmland.

4. **Required:** Such other standards and criteria as are established by the ordinance for a special use as set forth in section 2.7.4 and as applied to planned developments as set forth in section 2.10 shall apply to the property for as long as the special use permit is in effect.

Finding: The special use will be required to conform to all the applicable regulations of the zoning district in which it is located in addition to any conditions of approval enacted by the County Board and court ordered approval. A set of proposed conditions are included in the "Recommendations" section of this Staff Report.

5. **Required:** That the special use shall in all other respects conform to the applicable regulations of the district in which it is located, except as such regulations may in each instance be modified by the county board pursuant to the recommendations of the zoning board of appeals.

Finding: The Special Use shall be subject to PVG successfully obtaining and maintaining all required Local, State, and Federal Permits, including but not limited to:

Permit Title	Lead Agency
Special Use Permit	Boone County Planning Department
Natural Resource Information Report	Boone County Soil and Water Conservation District
Well Construction Permit (Test Well)	Boone County Department of Public Health
Well Construction Permit (Plant Supply Well)	Boone County Department of Public Health
Septic Tank Permit	Boone County Department of Public Health
Chemical Safety Contingency Plan	Boone County Department of Public Health
County Highway Right-of-way Use Permit	Boone County Highway Department
Building Permits	Boone County Building and Zoning Department
Air Permit for Construction and Operation	Illinois Environmental Protection Agency (Illinois EPA)
State Threatened and Endangered Species Clearance	Illinois Department of Natural Resources (Illinois DNR)
Cultural Resources Clearance	Illinois Historic Preservation Agency
Title IV Acid Rain Permit	Illinois EPA
Title V Operating Air Permit	Illinois EPA
401 Water Quality Certification	Illinois EPA
NPDES Hydrostatic Testing Authorization	Illinois EPA
NPDES Storm Water Construction Permit and Storm Water Pollution Prevention Plan	Illinois EPA
State Construction / Operation Permit (Oil-Water Separator)	Illinois DNR / Illinois EPA
Chemical Safety Contingency Plan	Illinois EPA
Section 404 Permit	Army Corp of Engineers
Federal Threatened and Endangered Species Clearance	U.S. Fish and Wildlife Service
Alternative Fuel Analysis	U.S. Department of Energy
FAA Notification	Federal Aviation Administration
Spill Prevention Countermeasure Control Plan	U.S. Environmental Protection Agency

The following agreements shall be made, fully executed, and maintained as required for the Project:

1. *Electrical Transmission Interconnection Agreement.* PVG has submitted a request to interconnect to the Commonwealth Edison electric transmission system via a new switchyard to be constructed at the site. The Interconnection Study Agreement between PVG and PJM Interconnection, LLC, the entity that manages Commonwealth Edison's high-voltage transmission system, has been executed with an effective date of September 29, 2008 and a queue position of U3-021 has been issued. The interconnection study process occurs in multiple phases, the first of which is currently in process. The entire interconnection study and negotiation process is expected to take greater than one year, at which point the necessary system modifications to support the Plant will be identified, their costs defined and an Interconnection Agreement executed.
 2. *Fuel Supply and Delivery Agreement.* PVG submitted a natural gas supply deliver interconnection study request to Kinder Morgan on October 21, 2008. The interconnection study is currently in process, with preliminary results regarding the necessary system modifications to support the Plant expected by December 31, 2016.
 3. *Kinder Morgan Easement.* Natural gas will be supplied by Kinder-Morgan through the Illinois Lateral pipeline system. The Illinois Lateral 24-inch pipeline is located approximately 800 feet south of the Site. An easement to access the Illinois Lateral pipeline system will be secured by Kinder-Morgan. Natural gas will be delivered to an on-site gas metering and regulating station, which will regulate gas pressures prior to supplying gas to the engines.
 4. *Engineering, Procurement and Construction Agreement.* PVG expects the Project will be designed and constructed by Burns & McDonnell Engineering Company, Inc., once all required permits have been secured.
6. **Required:** That the potential public benefits of the special use outweigh any potential adverse impacts of the special use after taking into consideration the applicant's proposal and any requirement recommended by the applicant to ameliorate such impacts.

Finding: The peaker power plant will provide additional electricity during times when the electrical grid is overburdened with demand. It is anticipated that the peaker power plant will prevent potential blackouts that can occur during peak times of energy usage. Conditions of approval being placed on the peaker power plant as well as its proposed site design will mitigate any negative effects on surrounding properties. While the proposed use is often times not a desirable one the subject property location near a natural gas line, major transmission lines and removed from major population centers support the approval of this special use.

SUMMARY OF FINDINGS:

The proposed structure or use at the particular location requested is necessary or desirable to provide a service or a facility which is in the interest of the public and will contribute to a general welfare of the neighborhood or community. Peaker power plants along with any energy producing facility is not typically a use that is desirable within a community, however they are a necessary service at times. These kinds of facilities convert natural gas into electricity and help alleviate the strain that certain weather conditions can place on the electrical grid. In order to best serve their purpose peaker power plants locate in close proximity to both natural gas lines and major transmission lines. In addition to being placed in close proximity to these power sources, the plant will also be located south of 1-90 which will provide a buffer to the properties to the north and is also anticipated to help shadow noise created by the peaker power plant while it is in operation. The subject property is also located away from larger population centers to further reduce any potential negative impacts from noise.

The proposed structure or use will not have a substantial adverse effect upon the adjacent property, the character of the neighborhood, traffic conditions, utility facilities and other matters affecting the public health, safety and general welfare. In addition to the design of the peaker power plant, conditions of approval will be enacted in order to lessen any potential negative effects on the neighboring properties. With the installation of sound dampening devices and its location adjacent to 1-90, it is not anticipated that the peaker power plant will produce a disruptive level of noise. However, conditions of approval will be enacted that will help ensure that noise levels remain at an acceptable level. The peaker plant will also be limited to a height of no greater than 75 feet which in comparison is shorter than some silos and commercial grain bins that have been constructed. Landscaping will be required to be installed in order to block the view of the power plant from nearby dwelling units in order to help alleviate the concern over aesthetic impacts.

Also, after construction has been completed there will be minimal traffic accessing the site and the applicants will be required to repair any damage to the road system that was caused during the construction period. The IEPA (Illinois Environmental Protection Agency) limits the level of emissions that can be released by the peaker power plant by regulating the number of hours it can be in operation throughout the year. However, the emission levels allowed are low enough that it is not considered a major source under the federal Prevention of Significant Deterioration.

The proposed structure or use will be designed, arranged and operated so as to permit the development and use of neighboring property in accordance with the applicable district regulations. The peaker power plant will be located south of the 1-90 right of way and divided

by a ComEd right of way. All development and operations will be as far away from the surrounding residences as possible. The development of the peaker power plant is not anticipated to negatively affect surrounding properties or prevent said properties from developing in accordance with district regulations. Conditions of approval will address a number of factors, including but not limited to traffic, soil erosion, noise, light and aesthetics. In addition, this kind of development is not a catalyst for sprawl and therefore should not impede on neighboring farmland.

RECOMMENDATION:

Planning staff recommends the **approval** of Case #15-2016, subject to the following conditions:

1. Substantial compliance with the proposed site plans and narrative submitted with the special use application in June 2016. Electrical generation shall be limited to natural gas turbine engines with a closed loop cooling system and an ultra-low sulfur diesel backup fuel storage system.
2. A full site plan review will need to be administered by all appropriate agencies, those agencies shall approve the site plan or required amendments before building permits may be issued.
3. The buildings and accessory structures shall be located as close to the 1-90 right of way as possible.
4. No structures shall be allowed in the floodplain, and any disturbance to or ingress/egress aisles locating within the floodplain shall be in conformance with the Boone County Zoning Ordinance.
5. The maximum height of the buildings shall be 45 feet. The maximum height of the stacks shall be 75 feet, inclusive of the silencing system.
6. The buildings and structures facing the I-90 right of way shall be constructed of concrete split face, aggregate covered siding or other material approved by planning staff.
7. A landscape plan in accordance with Section 5.4 of the Boone County Zoning Ordinance shall be submitted to the planning department for review. In addition, the minimum requirements, the landscape plan shall encompass the following requirements:
 - a) The landscape plan shall illustrate trees being installed in the areas depicted on the aerial photo in the application package. Tree plantings shall be selected for their visibility screening qualities. The tree plantings are expected to be between

of an evergreen, coniferous variety consistent with trees native to the surrounding area and are anticipated to be six feet tall at the time of initial planting, growing to a mature height of approximately 18 to 20 feet. Spacing for the trees is anticipated to be 15 feet on-center.

- b) Landscaping shall run along Garden Prairie Road (excluding the southern portion referenced above.
- c) If it is found that berming does not cause a potential harm to neighboring properties, then a four-foot berm shall be placed within the landscaped areas.

8. A photometric plan shall be submitted to and approved by the planning department prior to a building permit being issued. All free standing and wall mounted security light fixtures shall not exceed 30 feet in height. The lighting elements shall be shielded from view of adjacent properties and the foot candle measurement at the property line shall not exceed 0.5. If the applicant chooses to apply safety lighting to the power plant stacks, said lighting can exceed the 30-foot height limit but shall not exceed a measurement of .5 foot-candles at the property line. Applicant is responsible for hiring contractor to perform tests to confirm that lighting does not exceed 0.5 foot-candles at property line during construction and completion of construction. The Boone County Building Department has the right to approve firm to perform assessment.

9. Compliance with Title 35: Environmental Protection, Subtitle H: Noise, Chapter 1: Pollution Control Board, Part 901 Sound Emission Standards and Limitations for Property Line-Noise-Sources. In no instance shall the decibel level increase by a measurement of 3 decibels at the property line of existing neighboring homesteads. Pre-construction and annual operational decibel readings showing compliance with this condition shall be submitted to the Boone County Building and Planning Departments. The Boone County Building Department has the right to approve firm that performs the assessment.

10. Applicant shall submit design for on-site storage systems for low-sulfur diesel backup fuel. Said plans shall be reviewed and approved by the appropriate local, state, and federal authorities prior to issuance of any building permit for the project.

11. The peaker power plant shall not exceed 450 megawatts of electrical generating capacity.

12. The Special Use shall be subject to PVG successfully obtaining and maintaining all required Local, State, and Federal Permits, including but not limited to:

Permit Title	Lead Agency
Special Use Permit	Boone County Planning Department
Natural Resource Information Report	Boone County Soil and Water Conservation District
Well Construction Permit (Test Well)	Boone County Department of Public Health
Well Construction Permit (Plant Supply Well)	Boone County Department of Public Health
Septic Tank Permit	Boone County Department of Public Health
Chemical Safety Contingency Plan	Boone County Department of Public Health
County Highway Right-of-way Use Permit	Boone County Highway Department
Building Permits	Boone County Building and Zoning Department
Air Permit for Construction and Operation	Illinois Environmental Protection Agency (Illinois EPA)
State Threatened and Endangered Species Clearance	Illinois Department of Natural Resources (Illinois DNR)
Cultural Resources Clearance	Illinois Historic Preservation Agency
Title IV Acid Rain Permit	Illinois EPA
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401 Water Quality Certification	Illinois EPA
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NPDES Storm Water Construction Permit and Storm Water Pollution Prevention Plan	Illinois EPA
State Construction / Operation Permit (Oil-Water Separator)	Illinois DNR / Illinois EPA
Chemical Safety Contingency Plan	Illinois EPA
Section 404 Permit	Army Corp of Engineers
Federal Threatened and Endangered Species Clearance	U.S. Fish and Wildlife Service
Alternative Fuel Analysis	U.S. Department of Energy
FAA Notification	Federal Aviation Administration
Spill Prevention Countermeasure Control Plan	U.S. Environmental Protection Agency

All original and reoccurring renewal of permits required shall be provided to the Boone County Planning and Building Departments within thirty (30) days receipt by PVG.

13. The following agreements shall be made, fully executed, and maintained as required for the Project:

- a) *Electrical Transmission Interconnection Agreement.* PVG has submitted a request to interconnect to the Commonwealth Edison electric transmission system via a new switchyard to be constructed at the site. The Interconnection Study Agreement between PVG and PJM Interconnection, LLC, the entity that manages Commonwealth Edison's high-voltage transmission system, has been executed with an effective date of September 29, 2008 and a queue position of U3-021 has been issued. The interconnection study process occurs in multiple phases, the first of which is currently in process. The entire interconnection study and negotiation process is expected to take greater than one year, at which point the necessary system modifications to support the Plant will be identified, their costs defined and an Interconnection Agreement executed.
- b) *Fuel Supply and Delivery Agreement.* PVG submitted a natural gas supply deliver interconnection study request to Kinder Morgan on October 21, 2008. The interconnection study is currently in process, with preliminary results regarding the necessary system modifications to support the Plant expected by December 31, 2016.
- c) *Kinder Morgan Easement.* Natural gas will be supplied by Kinder-Morgan through the Illinois Lateral pipeline system. The Illinois Lateral 24-inch pipeline is located approximately 800 feet south of the Site. An easement to access the Illinois Lateral pipeline system will be secured by Kinder-Morgan. Natural gas will be delivered to an on-site gas metering and regulating station, which will regulate gas pressures prior to supplying gas to the engines.
- d) *Engineering, Procurement and Construction Agreement.* PVG expects the Project will be designed and constructed by Burns & McDonnell Engineering Company, Inc., once all required permits have been secured.
- e) *Property Value Guarantee.* The applicant, at its own cost, shall have an independent property appraisal conducted on the neighbor property (defined as within 1 mile of the applicant's location as the crow flies and has ownership as of the application date of the Special Use Permit) establishing a base case valuation. The appraiser chosen by applicant shall maintain its principal place of business in

Boone or Winnebago County and its license shall be in good standing with the State of Illinois. In the event that the neighbor disagrees with the results of the independent appraisal, the neighbor, at its own cost, may have its own appraisal commissioned from an independent appraiser with its principal place of business in Boone or Winnebago County and its license shall be in good standing with the State of Illinois.

In the event that a neighbor property experiences a loss of property value as a result of a bonafide, third party sale, the applicant will make up the difference between the sale price and the appraised base-line valuation. The applicant shall have the right to have a first right of refusal on any neighbor property placed for sale.

14. Due to the nature of the development and the level of permits needed to be obtained from various agencies, the typical 12-month timeline for the establishment of a special use is extended to 36 months; however, the special use shall be null and void if the site is not operational by the end of 2020.
15. In the event the special use permit becomes null and void for any reason or should the peaker power plant cease to operate for a period of 12 consecutive months, if at any point the applicant has a pattern of non-compliance with any and all local, state, and federal laws, rules, and regulations then all improvements, structures and materials related to the peaker power plant shall be removed from the site within 1 calendar year from the date the special use permit becomes null and void or the peaker power plant ceases to operate ("Decommissioning"). The costs of Decommissioning shall be at the owner/developer's sole expense and owner/developer shall restore the site to a reasonably similar condition as existed prior to the construction of the peaker power plant. Prior to the issuance of a building permit, owner/developer shall submit bond(s) to cover the cost of Decommissioning. The prorated amount of the bond(s) shall be based on an independent engineer's estimate and increased annually to reflect the building schedule as to cover the additional improvements as they are constructed, starting with the issuance of the first building permit. At the completion of construction and prior to the issuance of a certificate of occupancy, the bond(s) must total 150% of the Engineer's estimate of the total decommission costs. It shall be the responsibility of owner/developer to maintain the bonds in sufficient amounts at all times after the completion of construction. Such responsibility to maintain the bond(s) shall include, but not be limited to, any necessary renewals or the issuance of new bond(s). All bonds shall be submitted to the Boone County Building Department.

16. Compliance with (include letters submitted by Building Department, Highway Department, Health Department, and others as appropriate departments).
17. If vehicles weighing more than 80,000 pounds are used, a bond shall be provided to repair any damages associated with the special use. Timing of the overweight trips and the routes to the subject property shall be approved by the County Engineer, Township Road Commissioner and other effected road entities as applicable. Any contractor selected to perform the required work shall be State of Illinois certified and work must be done at the approval of the County Engineer. All repairs shall be completed to the satisfaction of the County Engineer. The Applicant is required to have a \$450,000 Bond. Overweight permits will still be collected, however if an issue develops and the bond is called to perform the repairs, an overweight permit fee refund would be considered.
18. Plans for on-site water system shall be reviewed and approved by the Boone County Rural Fire Prevention District #2 to ensure adequate volume, pressure, and flow for fire suppression. Plans shall be reviewed and approved prior to the issuance of any building permits for the project.
19. Boone County reserves the right to have site plans, building and mechanical drawings, and other planning, engineering and construction documents reviewed by a consulting firm. Such review shall be at the expense of the applicant and shall be limited to actual expenses incurred.
20. Water Supply and Well Testing. The applicant shall, at its own cost, have a licensed well engineer conduct a pre-construction hydrologic investigation of the neighbor property well property (defined as within 1 mile of the applicant's location as the crow flies and has ownership as of the application date of the Special Use Permit) and determine the pre-construction production and volume conditions of the exiting neighbor property well. This evaluation may also include well monitoring to evaluate the average, peak flow, and seasonality effects of well production over time, to develop a historic base line of productivity. This evaluation will be based on the current condition volumes.
 - a) In the event that a neighbor property well experiences a loss of well water productivity at any time post construction, the applicant shall engage a licensed well engineer to conduct an additional hydrologic investigation of the well in question, and develop an independent assessment to confirm any impact to neighbor property wells vis a via the pre-construction baseline results.
 - b) In the event that a neighbor property well productivity has been affected, as confirmed within the pre and post construction water engineering reports, the applicant shall perform the following to correct any degradation of water supply:

- Modify the existing neighbor property well, using best engineering practices, to return the existing well to pre-construction volume and pressure productivity levels; or
- Install a new well that will return the neighbor's well to pre-construction volumes and pressure productivity levels. In all of these restoration activities, time is of the essence.

21. The applicant shall at no point become or apply for a combined cycle peaker plant.

22. Applicant shall act in conformance with industry standards to protect the facility from solar flares, cyber-attacks, and acts of terrorism.

23. Applicant shall file an annual IEPA emissions report to the Boone County Building Department to show they are in compliance.

24. Compliance with all other applicable local, state, and federal laws, rules, and regulations.

ZONING BOARD OF APPEALS

The Zoning Board of Appeals shall not vary the regulations of the Zoning Ordinance unless the findings indicate there are practical difficulties or hardships present. The concurring vote of three (3) members of the Zoning Board of Appeals shall be necessary to approve a variance. All decisions shall be subject to judicial review.

Submitted by:



Hilary Arther, Land Use Planner

&



Shelly R. Dunham, AICP Interim Planner

Application for Special Use

**Power Ventures Group, LLC
Garden Prairie Energy Facility**

Prepared For

**Belvidere-Boone County
Planning Department**



Project Number 47819

June 2016

BURNS  MCDONNELL

**Power Ventures Group, LLC
Garden Prairie Energy Facility**

prepared for

**Belvidere-Boone County
Planning Department**

June 2016

Project No. 47819

prepared by

**Burns & McDonnell Engineering Company, Inc.
Kansas City, Missouri**

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FORM OF APPLICATION

FORM OF APPLICATION

The following pages present the completed Belvidere-Boone County Planning Department Application for Special Use forms.

**BELVIDERE - BOONE COUNTY
PLANNING DEPARTMENT**

401 Whitney Blvd. Suite 400 - Belvidere, Illinois 61008 PH(815) 544-5271 FAX(815) 547-9214

APPLICATION FOR SPECIAL USE

(I N S T R U C T I O N S)

If you have any questions about this application, please contact the Planning Department at (815) 544-5271.

NOTE: Applications can be filed at anytime. Applications will not be processed until all of the required information has been submitted. See the attached schedule of meeting dates and deadlines for submittals.

FOR ALL SPECIAL USE CASES:

An acceptable application includes the following:

- 1. A certified plat, site plan, survey, or other professional illustration;**
- 2. A detailed written statement explaining the reason for the request;**
- 3. Legal description of the property;**
- 4. Completed application with the appropriate signatures;**
- 5. Application fee as listed on the attached fee schedule;**
- 6. NRI report or letter from the SWCD; and**
- 7. Any other information required by planning staff (ie. landscaping plan, elevation plan, exterior lighting plan, etc.).**

Review the **FILING PROCEDURES** section within the application and select one of the local newspapers for publication of your legal notice. Planning staff will prepare the legal notice and deliver it to the newspaper.

APPLICATION FOR SPECIAL USE

BELVIDERE - BOONE COUNTY PLANNING DEPARTMENT

**Belvidere City Hall
401 Whitney Blvd. Suite 400
Belvidere, Illinois 61008**

FOR OFFICE USE ONLY

Belvidere

Boone County

Case Number _____	PZC Date _____	ZBA Date _____
Filing Date _____	CC Date _____	PZB Date _____
Zone District _____	CC Date _____	CB Date _____

If this application is approved, it is understood that it shall only authorize the special use described in the application with any conditions placed on the special use per the governing body. If the conditions are not met and/or the use is not established (or substantially underway) within one (1) year from the date of approval, the special use shall be null and void.

PLEASE PRINT IN BLACK INK OR TYPE

1) The address or general location of the property for which this application is filed is:
~~13-43-4 PT NE 1/4; BEG 1269.99' S NW COR NE 1/4 E 43' S 347.41' E 1280.92' N 159.48' NWLY
1423.06' S 342.17' TO POB & BEG 511.53' N SW COR NE 1/4 E 1323.57' N 244.7' W 1323.74' S
244.7' TO POB~~ _____ and its

Parcel Identification Number is: 08-13-200-016
and the legal description for the subject property is: **Lot** _____, **Block** _____,
Tract _____, **Subdivision Name** _____.
(NOTE - If there is no lot, block, or tract, then attach a legal boundary description hereto.)

2) **Applicant Name:** Power Ventures Group, LLC
Mailing address: 9400 Ward Parkway
Kansas City, MO **Zip:** 64114
Daytime Phone: 816-822-3379 **Fax:** 816-822-3027 **Email:** tgraves@burnsmcd.com

3) **Property Owner Name:** Power Ventures Group, LLC
Mailing Address: 9400 Ward Parkway
Kansas City, MO **Zip:** 64114
Daytime Phone: 816-822-3379 **Fax:** 816-822-3027

4) **Attorney Name:** Jim Hursch
Mailing Address: 321 W. State Street, Suite 700
Rockford IL **Zip:** 61101
Daytime Phone: 815-962-5490 **Fax:** _____ **Email:** _____

5) **Project Manager:** In order to reduce confusion, planning staff requests one contact person be designated to discuss issues concerning this petition.

Name: Thomas Graves

Mailing Address: 9400 Ward Parkway
Kansas City, MO Zip: 64114

Daytime Phone: 816-822-3379 Fax: 816-822-~~9927~~ Email: _____

6) Describe the current use of the subject property: Electric Power Generating Plant

7) List the Special Use, as specified within the Zoning Ordinance, that you are seeking the approval of and describe the proposed use of the subject property in detail:

Section 3.16, Paragraph E. Public or Institutional Uses:

Energy facilities, 1.0MW or greater production

8) Total number of acres the Special Use will occupy: Twenty (20)

9) **LIST THE OWNERS OF RECORD: Boone County applicants** shall list the owner of record for all properties located adjacent to and across the street or alley from the perimeter of the subject property. **City of Belvidere applicants** shall list the owner of record for all properties within 250 feet of the subject property (exclusive of public right-of-ways). This information is found at the Supervisor of Assessments Office, 1208 Logan Ave. or the Planning Office. Verifying the accuracy of information is the responsibility of the applicant (use additional pages if necessary).

PIN #	Name/Trust No.	Street	City	Zip
08-13-200-008	COMMONWEALTH EDISON CO	THREE LINCOLN CENTRE 4TH FLR	OAKBROOK TERRACE, IL	60181
08-13-200-017	COSMAN FAMILY LIMITED PARTNERSHIP LP	24508 TOMLIN RD	MARENGO, IL	60152
08-13-200-014	COSMAN FAMILY LIMITED PARTNERSHIP LP	24508 TOMLIN RD	MARENGO, IL	60152
08-13-100-005	CHILTON, MAYBELLE R	434 COLLEGE AVE	CARLINVILLE, IL	62626
08-13-100-006	ERNESTI, LAWRENCE (MARY) TR	1502 N WOOD ST #2	CHICAGO, IL	60622
08-13-200-012	VOLKENING, MELINDA	10816 GENOA RD	GENOA, IL	60135

10) SUPPORTING INFORMATION: Attach a vicinity map and a site plan drawn to scale regarding your proposal. Illustrate any existing and proposed buildings, parking and loading areas, traffic access and circulation drives, open space, landscaping, utilities, signs, refuse and service areas, and dimensions of setbacks and yard areas, as they apply to this application and as may be required by the Zoning Ordinance. Also include a detailed written statement relative to the above listed requirements, fully explaining your proposal and any measures to mitigate negative affects of your proposal on neighboring properties.

Incomplete applications will be returned to the applicant after sixty (60) days.

Natural Resource Information: Pursuant to state law, a copy of this application is to be provided to the Boone County Soil and Water Conservation District (SWCD). The SWCD is located at 211 N. Appleton Road, P.O. Box 218, Belvidere, and may be contacted at (815) 544-2677. Their business hours are Monday through Friday 8:00 a.m. to 4:30 p.m. An application fee is required. The SWCD has thirty (30) days to respond and provide their Natural Resource Information (NRI) Report to the Planning Office. **The SWCD must send a report to the Planning Department for your application to proceed.**

NOTE: The "Endangered Species Act" entitles the Illinois Department of Natural Resources (IDNR) to review all special use permit applications for their impact on endangered or protected species. Illinois law allows thirty (30) days for their response. The applicant is responsible for contacting the IDNR, via the EcoCAT website at DNR.EcoCAT@illinois.gov.

The "National Historic Preservation Act" entitles the Illinois Historic Preservation Agency to review all special use permit applications for their impact on cultural or historical resources if the proposed development involves State or Federal funding. Illinois law allows thirty (30) days for their response. The applicant is responsible for contacting the Illinois Historic Preservation Agency at (1-217-782-4836).

DECLARATION

I, the applicant, of the above legally described property on which the special use is proposed, have provided answers to the questions given herein that are true to the best of my knowledge. I have been granted permission by the property owner(s) of the above legally described property to apply for a special use on said property.

By virtue of my application for a special use, I do hereby declare that the appropriate appointed and elected officials responsible for the review of my application are given permission to visit and inspect the property proposed for a special use in order to determine the suitability of the request.

Applicant Signature:  Date Signed: 6/28/2016

Owner(s) Signature: _____ Date Signed: _____

_____ Date Signed: _____

STAFF SIGNATURE: _____ Date Signed: _____

Filing Fee - Amount Paid: _____ Check Number: _____

FILING PROCEDURE

- A. Submit this form and supporting information accompanied by an application fee (make checks payable to the **Boone County Treasurer**). See the attached fee schedule.
- B. Submit application and supporting information with fee to the Boone County Soil and Water Conservation District.
- C. Selection of newspaper publication. See the attached newspaper selection sheet.
- D. City of Belvidere Applicants must appear before the Belvidere Planning and Zoning Commission, Building, Planning and Zoning Committee and the Belvidere City Council.

Boone County Applicants must appear before the Boone County Regional Planning Commission, Boone County Zoning Board of Appeals, Planning, Zoning and Building Committee, and the Boone County Board. Boone County applicants must appear before the Joint Planning Commission rather than the County Commission if their property is located within 1.5 miles of Belvidere.

**Special Use for Corporations, Partnerships, and Joint Venture
(If Applicable)**

1. Is the petitioner or applicant a corporation, partnership or joint venture?

Coporation

2. State the name for which the business is conducting business under.

Power Ventures Group, LLC

3. Are you acting for yourself, or in the capacity of agent, alter ego or representative of a principal?

Self

4. State the name(s) and address(es) of the actual and true principal(s).

Burns & McDonnell Engineering Company, Inc.

9400 Ward Parkway

Kansas City, MO 64114

5. State the names and address of all officers, directors and all stockholders or shareholders owning any interest in excess of 20% of all outstanding stock of such corporation (use a separate sheet if necessary).

Power Ventures Group, LLC is a wholly-owned subsidiary of

Burns & McDonnell Engineering Company, Inc.

LEGAL NOTICE REQUIRED

According to Illinois State Statutes, "notice of each hearing shall be published at least 15 days in advance thereof in a newspaper of general circulation published in the township or road district in which such property is located."

A Notice of Public Hearing will be completed by Planning Staff for publication in a newspaper of local distribution. Please select one of the following newspapers for publication:

*****THE COST OF THE PUBLICATION IS TO BE PAID BY THE APPLICANT*****

Belvidere Daily Republican
(815) 547-0084 (publishes 5 days a week)

Boone County Journal
(815) 544-4430 (publishes weekly)

NOTE: Fees are based on the length of the Notice of Public Hearing. If you wish to seek the lowest price, please contact the above newspapers at the telephone numbers provided.

CERTIFIED MAIL NOTICE REQUIRED FOR CITY APPLICATIONS

According to Ordinance #51H approved by the City Council on March 1, 2010, items requiring a public hearing, excluding text amendments, shall provide notice of the hearing by certified mail – return receipt requested – to all properties within 250 feet of the subject property. The cost of the required mailing is the responsibility of the applicant and is not included in the required application fee.

In order to complete the required mailing notice the procedure is as follows:

- The applicant shall provide the required names and addresses of the owners of record within the application form.
- Planning staff will prepare the required forms and labels for the certified mailings.
- The green cards (receipts showing the mailings were received) are delivered to the planning department by the post office and must be received prior to the public hearing as proof that the mailings have been completed and provided as required.
- Two options exist for covering the cost of postage.
 - The City will cover the cost to mail the letters upfront, an invoice will be provided to the applicant with payment required prior to the public hearing (payable to the City of Belvidere). If payment is not received prior to the public hearing the case will be delayed until such time as payment is received.
 - The applicant may pick up the completed mailings, take them to the post office and pay the required fee at that time. If this option is chosen, the white receipts shall be provided to planning staff to verify that the mailings were sent out and sent out at the proper time.

NOTE: Cost of the mailing is based on the number of letters and weight of each mailing.

PUBLIC HEARING PROCEDURE

The Belvidere Planning & Zoning Commission, and the Boone County Zoning Board of Appeals conduct public hearings pursuant to State Law. Public hearings are conducted according to the following procedure:

1. After the staff presentation, the applicant will be sworn in by stating his/her name and address. "Do you swear to tell the truth to the best of your knowledge?"
2. The applicant will be requested to fully present his/her case and furnish the Board/Commission with pertinent information concerning their petition.
3. Other parties who favor the petition will be heard next, and those who oppose the petition will be heard last.
4. Each person making a statement will be requested to state their name and address and be sworn in.
5. Please refrain from repeating what has been said before you and please do not involve personalities.
6. Be as factual as possible.
7. The Board/Commission reserves the right to question any speaker.
8. All statements or questions must be directed to the Chairperson.
9. The Board/Commission will make a decision on the matter during the public hearing.
10. If the Board/Commission feels that information is lacking, they may entertain a motion to table the approval of the petition pending additional information to be brought forth at the next meeting.

BELVIDERE – BOONE COUNTY PLANNING DEPARTMENT

CITY FEES

*Per Ordinance Number 153H

Annexation: \$500

Zoning Change:

RH: \$600 + \$75/acre (or portion thereof)
SR-3, SR-4, SR-6, TR-7, \$600 + \$75/acre "
MR-8S, & MR-8L: \$600 + \$75/acre "
CB, GB, PB, NB, NO, & PO: \$700 + \$75/acre "
GI, PI, HI, & I: \$700 + \$75/acre "

Planned Community Development (Special Use): \$700 plus subdivision plat fees, if applicable.

Subdivision Plat:

	<u>Preliminary</u>	<u>Final</u>	<u>Replat</u>
Residential:	\$500 + \$75/lot	\$500 + \$75/lot	\$500 + \$75/lot
Commercial & Industrial:	\$600 + \$75/lot	\$600 + \$75/lot	\$600 + \$75/lot

**Final Plat Reinstatement/
Extension Fee:** \$50% of Initial Fee

Special Use: \$500 when accessory to an established primary use
\$700 when establishing a primary use

Variation: \$350

Text Amendment: \$500

**Comprehensive Plan
Text or Map Amendment:** \$350

Appeal: \$250

Zoning Verification Letter: \$25 per lot.

Natural Resource Information Report

Boone County Soil and Water Conservation District
211 North Appleton Road, Belvidere, Illinois 61008-1983
815-544-2677 Ext. 3

Owner's Name: Power Ventures Group, LLC

Address: 9400 Ward Parkway, Kansas City, MO 64114

Petitioner's Name: Power Ventures Group, LLC

Address: 9400 Ward Parkway, Kansas City, MO 64114

Contact Information:

Phone Number(s): () Tom Graves / 816-822-3379

E-Mail Address: tgraves@burnsmcd.com

If a letter, would you like a copy for your records? Yes or No

We will send copies via e-mail unless specifically told to mail.

Note: If a report is required the applicant will receive a copy, in addition to the applicant's legal representation, if applicable.

Type of Request:

Change in Zoning from _____ to _____

Subdivision- Attach proposed plat, if available.

Variance (Explain Type) _____

Other (Describe) Special Use Permit

Legal Description Attached: Yes or No .

If yes, Section 13 and Township Spring. Note: Please include a map outlining the exact boundaries of the parcel.

If no, please list the address of the property for the proposed request:

Street/Road Address	Village, Town, or City
<u>08-13-200-016</u>	<u>20 Acres</u>

Parcel Identification Number(s), if known	Total Acres
--	--------------------

Natural Resource Information Fee Schedule

0-5 Acres	\$400.00
5 or more Acres	\$400.00 plus \$20.00 per acre for each acre over five acres
Letter/No Report	\$75.00

Note: Unfortunately, we do not accept credit or debit cards at this time. Before the report or letter can be started a payment must be received in full. We are sorry for any inconveniences.

Checks payable to:

Boone County SWCD
211 North Appleton Road
Belvidere, IL 61008-1983

I (We) understand the filling of this application allows an authorized representative of the Boone County Soil & Water Conservation District to visit and conduct any necessary on-site investigations on the site described above. Completion of this report may require 30 days as allowed under State Law.

Thomas H. Graves
Petitioner's Name Printed


Petitioner's Name Signed

6/28/2016
Date of Request

Approved by the Soil & Water Conservation District Board

Date of Approval

This report is issued as a guide in making land use decisions and does not preclude further refinement of soil type boundary lines during more detailed on-site investigations. Interpretations are based on criteria established by the National Soils Handbook (USDA-Natural Resources Conservation Service) and are subject to change by this office and appropriate agencies.

INTRODUCTION

1.0 INTRODUCTION

In 2009, Power Ventures Group, LLC (PVG) was issued a Special Use Permit by Belvidere- Boone County which granted PVG permission to construct the Garden Prairie Energy Facility (Plant) in Spring Township, Boone County, Illinois. The Plant was proposed as a nominal 100 megawatt (MW), natural gas-fired peak-load electric generating facility. Subsequent to the approval, PVG found it difficult to procure, and finance the original equipment and therefore withdrew its Special Use Permit (SUP) in order to repurpose the Garden Prairie Energy Facility utilizing the latest technology.

Therefore, this new application reflects the utilization of state-of-the-art technology in the form of three (3) larger turbines that replace the twelve (12) reciprocating engines (units), requested in the original application. In addition, given changes to the PJM rules for generators that require the ability to serve load during times of natural gas interruptions, this updated application reflects the need to utilize backup fuel during emergency conditions. This requirement will be evaluated by the Illinois Department of Environmental Protection during the Project's air permit process. All other details of the application remain the same.

The Plant will consist of three (3) F-Class combustion turbine generators (units). Each unit will be connected to an individual electric generator, the output of which is then connected to an electric switchyard to be constructed as part of the project. A conceptual rendering of the Plant, depicting the proposed facilities, existing topography, and surrounding environment is presented in Figures 1-2 through 1-5.

Figure 1-2: Conceptual Rendering (View from Garden Prairie Road)



Figure 1-3: Conceptual Rendering (View from Nearby Residence East of Site)

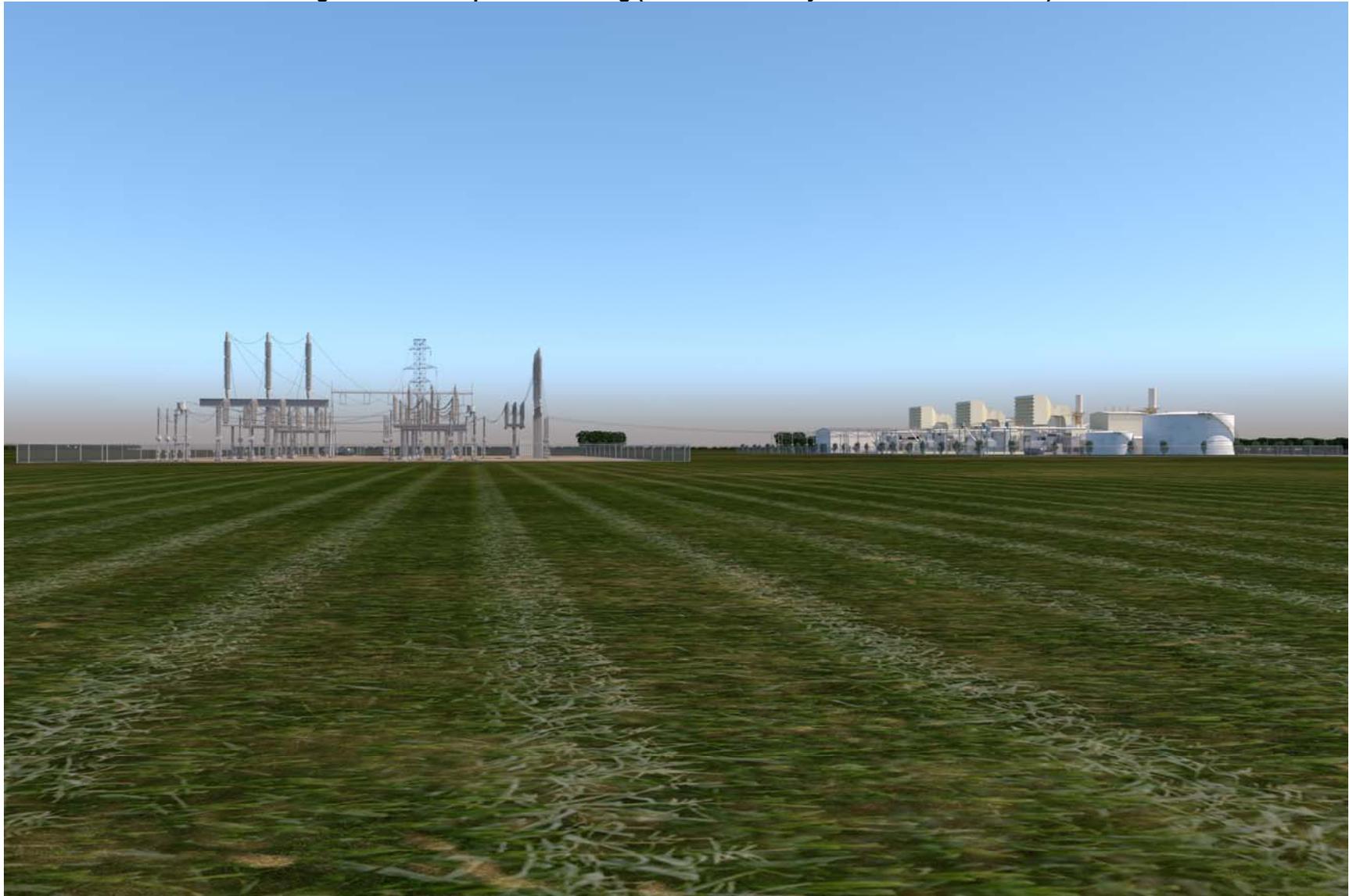


Figure 1-4: Conceptual Rendering (View from Nearby Residence South of Site)



Figure 1-5: Conceptual Rendering (View from Nearby Residence SW of Site)

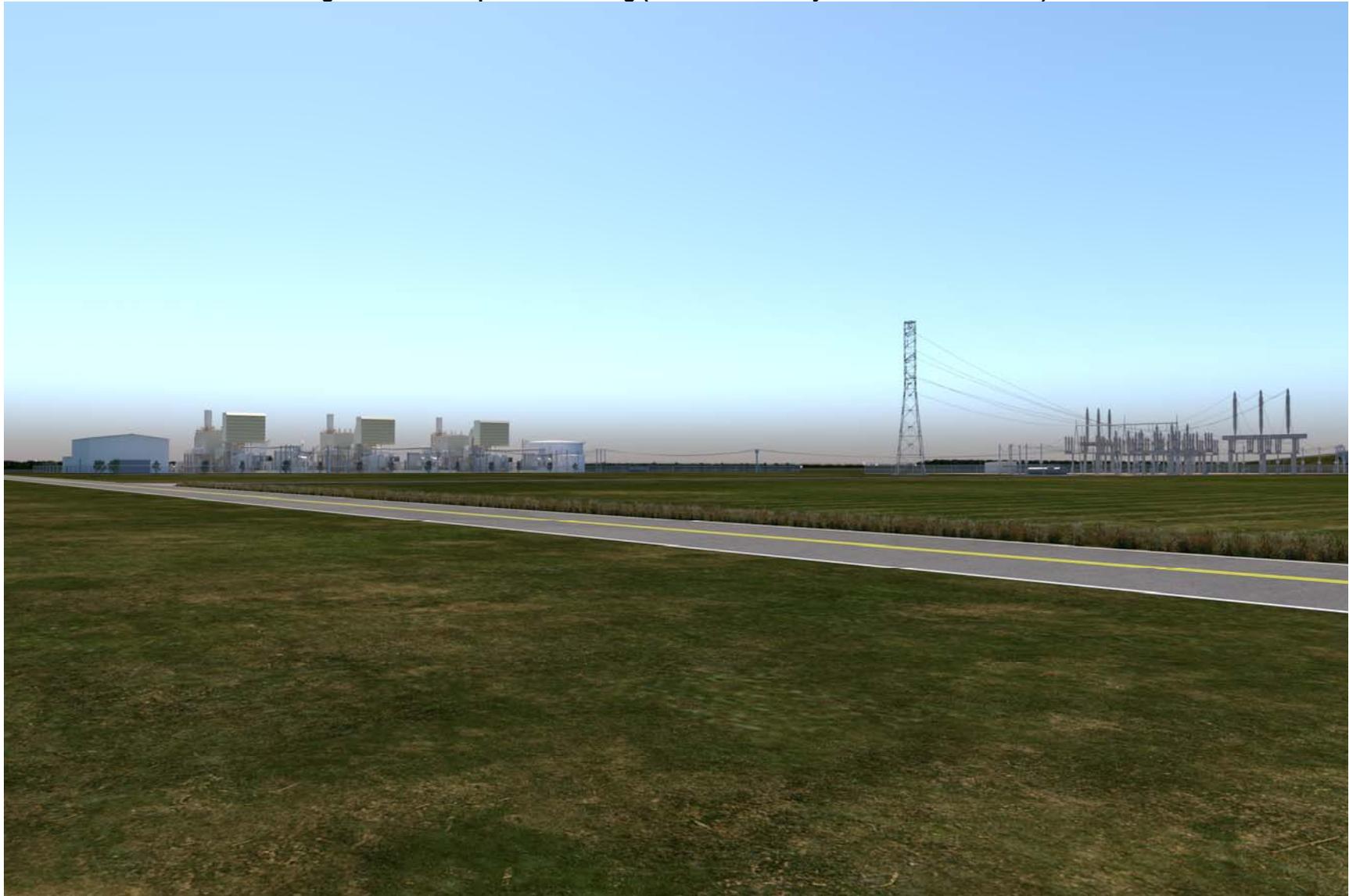
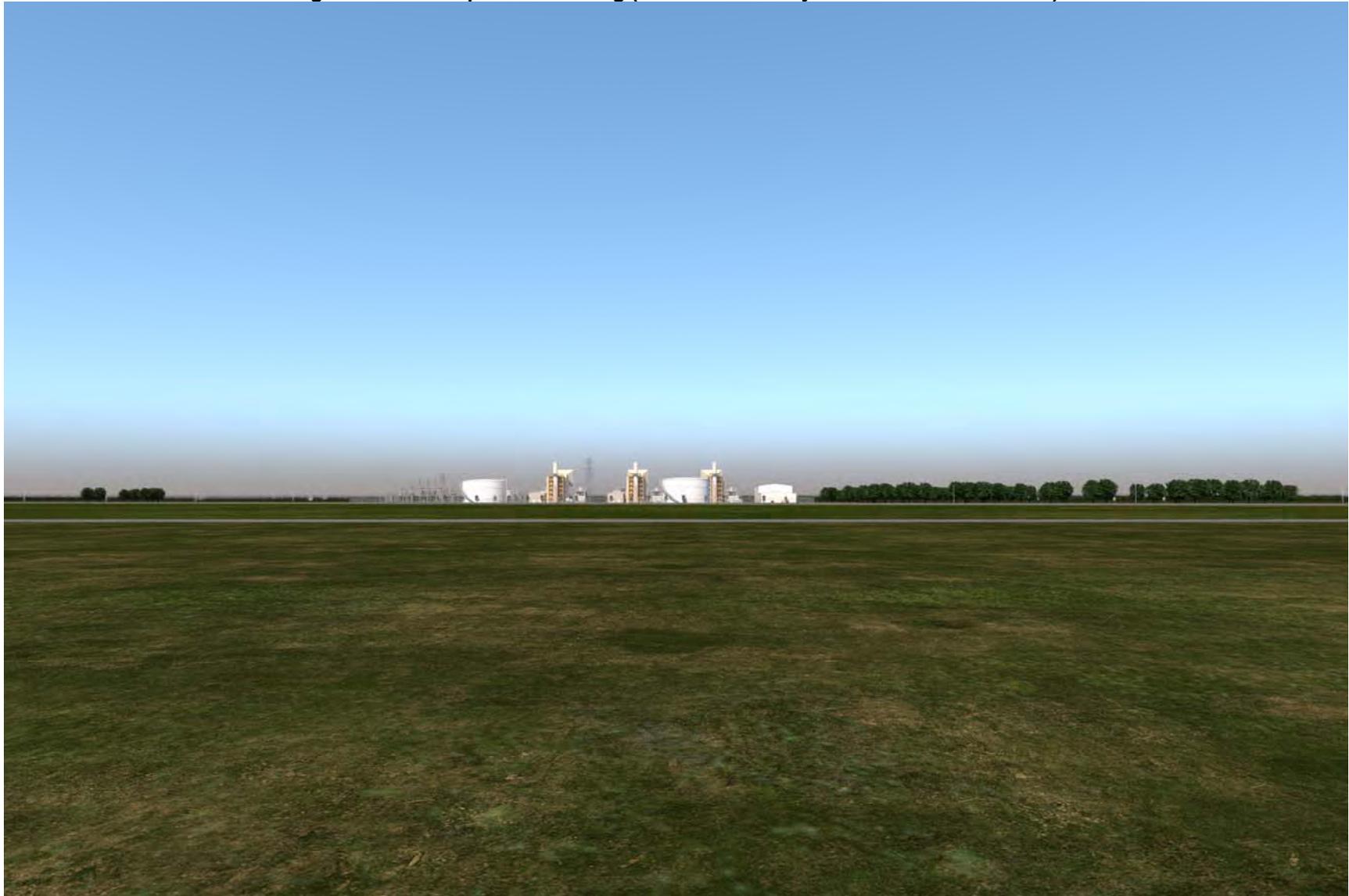


Figure 1-6: Conceptual Rendering (View from Nearby Residence North of Site)



1.1 DEVELOPMENT AND CONSTRUCTION SCHEDULE

The Plant is expected to achieve commercial operations in May 2018, with construction activities commencing approximately 15 months prior. Prior to construction, the Plant must obtain multiple Federal, State, and Local permits. Additionally, during the pre-construction development phase multiple agreements (fuel supply, power sales, engineering and construction, etc.) must be secured in order to ensure the Plant is economically feasible.

1.2 POWER VENTURES GROUP, LLC

PVG is a wholly-owned subsidiary of Burns & McDonnell Engineering Company, Inc. (B&McD) and was formed for the purposes of developing natural-gas fired electric generating resources throughout the United States. In the fulfillment of its role, PVG identifies, acquires, and permits viable locations for new electric generating resources and then markets the newly developed locations to prospective Plant owners. B&McD, through its ownership of PVG, will serve as the engineer and construction contractor of the Plant upon identification of the eventual Plant owner.

1.3 BURNS & MCDONNELL ENGINEERING COMPANY, INC.

B&McD is an internationally recognized engineering and consulting firm that has been serving clients since 1898. B&McD is incorporated in the State of Missouri and has world headquarters located in Kansas City, Missouri and offers a full range of consulting, engineering, architectural, and design-build services.

Since 1986, B&McD has been a 100 percent employee-owned firm, whose operations are directed by an officer corps that practices a management philosophy grounded in participation and attention to client and employee matters. This ownership ensures that everyone within B&McD has a direct interest in providing a quality product.

The B&McD staff, currently numbering in excess of 5,300 employee-owners, includes professional engineers, economists, financial analysts, architects, geologists, planners, estimators, environmental scientists, and computer and other technicians, representing virtually all design disciplines.

1.4 BENEFITS OF THE PROJECT

The construction and operation of the Project will provide significant benefits to Boone County and the Belvidere-Boone County planning area with minimal impact.

- The project represents approximately \$160-180 million of new investment.
- An average of 50 and peak of 120 construction jobs will be engaged.
- Permanent operating staff jobs of four to eight will be created.
- Installation of a peaking power facility will strengthen local and regional power reliability.
- The project has been sited in close proximity to existing electric transmission and natural gas facilities to minimize environmental impacts and right-of-way impacts.
- The project will be fueled with clean-burning natural gas to minimize air quality impacts with ultra-low sulfur diesel for use only during emergency conditions when natural gas availability is curtailed.
- The project will go through a comprehensive environmental permitting process to protect the safety, health and welfare of nearby property owners and residents.
- The project has been sited near similar use facilities such as a high-voltage transmission line and Interstate 90 to minimize land use and development impacts.

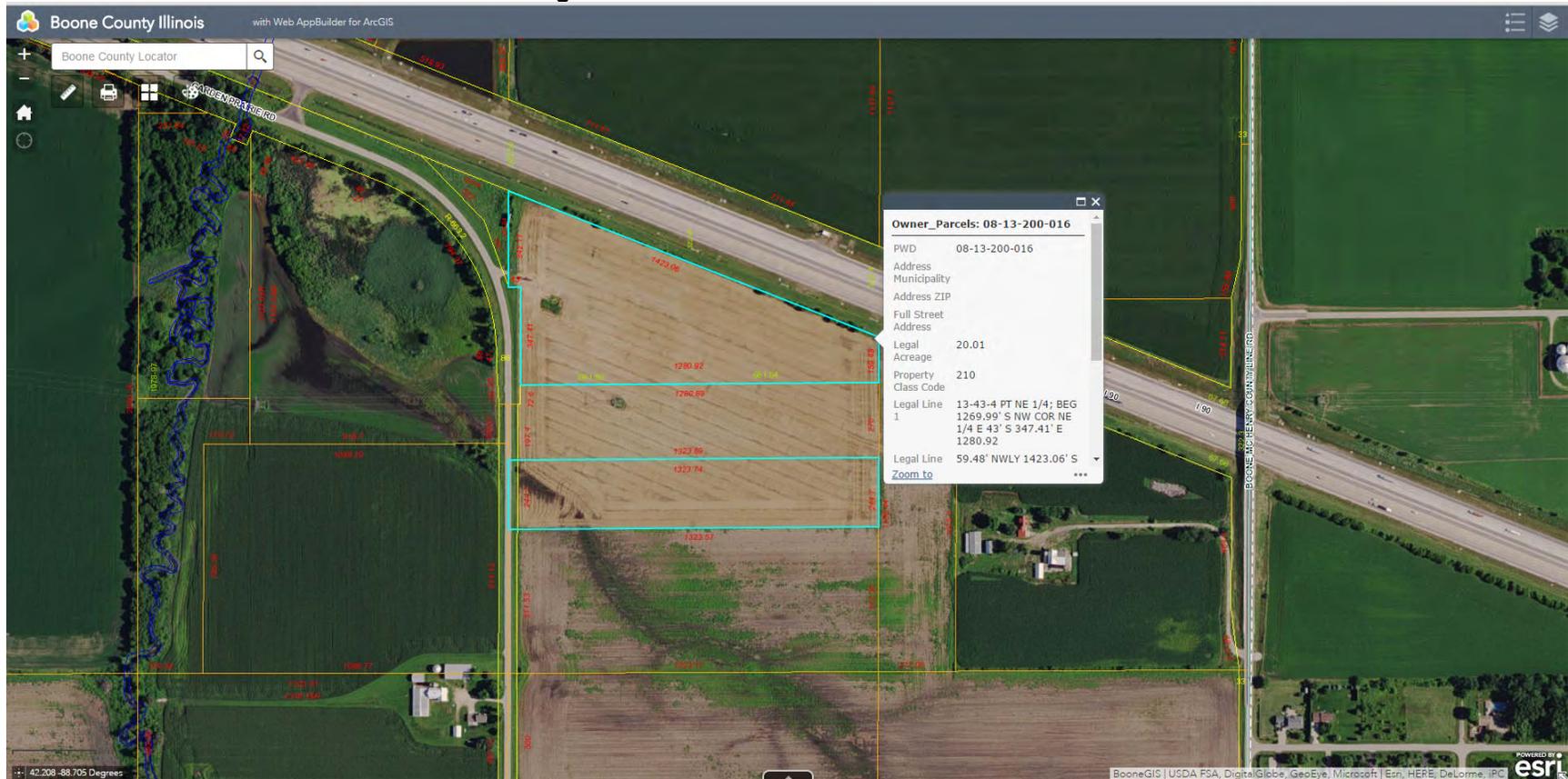
* * * * *

SITE DESCRIPTION

2.0 SITE DESCRIPTION

The Plant will be located on 20 acres of property owned by Power Ventures Group, LLC, which is currently zoned Agriculture Conservation. The current Parcel Identification Number for the property is 08-13-200-016. The parcel is bisected by property, Parcel 08-13-200-008, which is owned by Commonwealth Edison Co. and contains a high-voltage electric transmission line. Figure 2-1 presents the existing site boundaries of the host parcel the Plant site will be constructed on, as well as the parcel owned by Commonwealth Edison.

Figure 2-1: Parcel 08-13-200-016 Boundaries



The primary structures and operational activities associated with the Plant are proposed to be located on Parcel 1, which consists of approximately 12.6 acres located south of and immediately adjacent to Interstate 90 and north of the Commonwealth Edison Co. property. The switchyard will be located on Parcel 2, which consists of approximately 7.4 acres located south of and immediately adjacent to the Commonwealth Edison Co. property.

2.1 LEGAL DESCRIPTION

The legal description for the Site is provided below:

PARCEL 1: NORTHERN PARCEL

OF PROPERTY DESCRIBED AS: Part of the Northeast Quarter of Section 13, Township 43 North, Range 4 East of the Third Principal Meridian, bounded and described as follows:

Commencing at the Northwest Corner of the Northeast Quarter of said Section 13; thence South 0 degrees 22 minutes 00 seconds West along the West Line of said Northeast Quarter, a distance of 1269.99 feet (1269.99 feet deeded) to the Northwest Corner of premises conveyed to the Illinois State Toll Highway Commission as recorded in Book 112 of Deeds at page 522 in the Recorder's Office of Boone County, Illinois, said point being the Point of Beginning of the hereinafter described parcel of land; thence South 89 degrees 38 minutes 00 seconds East, a distance of 43.00 feet; thence South 0 degrees 22 minutes 00 seconds West parallel with the West Line of said Northeast Quarter, a distance of 347.41 feet (347.40 feet deeded) to the North Line of property conveyed to Commonwealth Edison Company, by Document No. 79-1453 in the Recorder's Office of Boone County, Illinois; thence North 89 degrees 59 minutes 21 seconds East along the North Line of said Commonwealth Edison Company property, a distance of 1280.92 feet (1280.80 feet deeded) to the East Line of the West-half of said Northeast Quarter; thence North 0 degrees 24 minutes 21 seconds East along said East Line, a distance of 159.48 feet (158.87 feet deeded) to the South Right-of-Way Line of a public road designated Illinois Northwest Tollway, as now laid out and located which runs Northwesterly and Southeasterly through the Northeast Quarter of said Section 13; thence North 68 degrees 07 minutes 44 seconds West along said South Right-of-Way Line, a distance of 1423.06 feet (1422.81 feet deeded) to the West Line of said Northeast Quarter; thence South 0 degrees 22 minutes 00 seconds West along said West Line, a distance of 342.17 feet to the Point of Beginning, containing 12.565 acres, more or less, SUBJECT TO a Sign Easement bounded and described as follows: Commencing at the Northwest Corner of the Northeast Quarter of said Section 13; thence South 0 degrees 22 minutes 00 seconds West along the West Line of said Northeast Quarter, a distance of 1269.99 feet (1269.99 feet deeded) to the Northwest Corner of premises conveyed to the Illinois State Toll Highway Commission as recorded in Book 112 of Deeds at page 522 in the Recorder's Office of Boone County, Illinois, said point being the Point of Beginning of the hereinafter described Easement; thence South 89 degrees 38 minutes 00

seconds East, a distance of 43.00 feet; thence North 0 degrees 22 minutes 00 seconds East parallel with the West Line of said Northeast Quarter, a distance of 325.23 feet to the South Right-of-Way Line of a public road designated Illinois Northwest Tollway, as now laid out and located which runs Northwesterly and Southeasterly through the Northeast Quarter of said Section 13; thence North 68 degrees 07 minutes 44 seconds West along said South Right-of-Way Line, a distance of 46.22 feet to the West Line of said Northeast Quarter; thence South 0 degrees 22 minutes 00 seconds West along said West Line, a distance of 342.17 feet to the Point of Beginning, the Easement containing 0.329 acre, more or less, also subject to all easements, agreements, county codes and/or ordinances of record, if any, all situated in the Township of Spring, the County of Boone and the State of Illinois.

PARCEL 2: SOUTHERN PARCEL

OF PROPERTY DESCRIBED AS: Part of the Northeast Quarter of Section 13, Township 43 North, Range 4 East of the Third Principal Meridian, bounded and described as follows:

Commencing at the Southwest Corner of the Northeast Quarter of said Section 13; thence North 0 degrees 22 minutes 00 seconds East along the West Line of said Northeast Quarter, a distance of 511.53 feet to the Point of Beginning of the hereinafter described parcel of land; thence North 89 degrees 59 minutes 21 seconds East parallel with the South Line of property conveyed to Commonwealth Edison Company, by Document No. 79-1453 in the Recorder's Office of Boone County, Illinois, a distance of 1323.57 feet to the East Line of the West-half of said Northeast Quarter; thence North 0 degrees 24 minutes 21 seconds West along said East Line, a distance of 244.70 feet to the South Line of said property conveyed to Commonwealth Edison Company; thence South 89 degrees 59 minutes 61 seconds West along said South Line, a distance of 1323.74 feet (1323.64 feet deeded) to the Southwest Corner of said property conveyed to Commonwealth Edison Company; thence South 0 degrees 24 minutes 21 seconds West along the West Line of said Northeast Quarter, a distance of 244.70 feet to the Point of Beginning, containing 7.435 acres, more or less, subject to that land being used for public road purposes and also subject to all easements, agreements, county codes and/or ordinances of record, if any, all situated in the Township of Spring, the County of Boone and the State of Illinois.

* * * * *

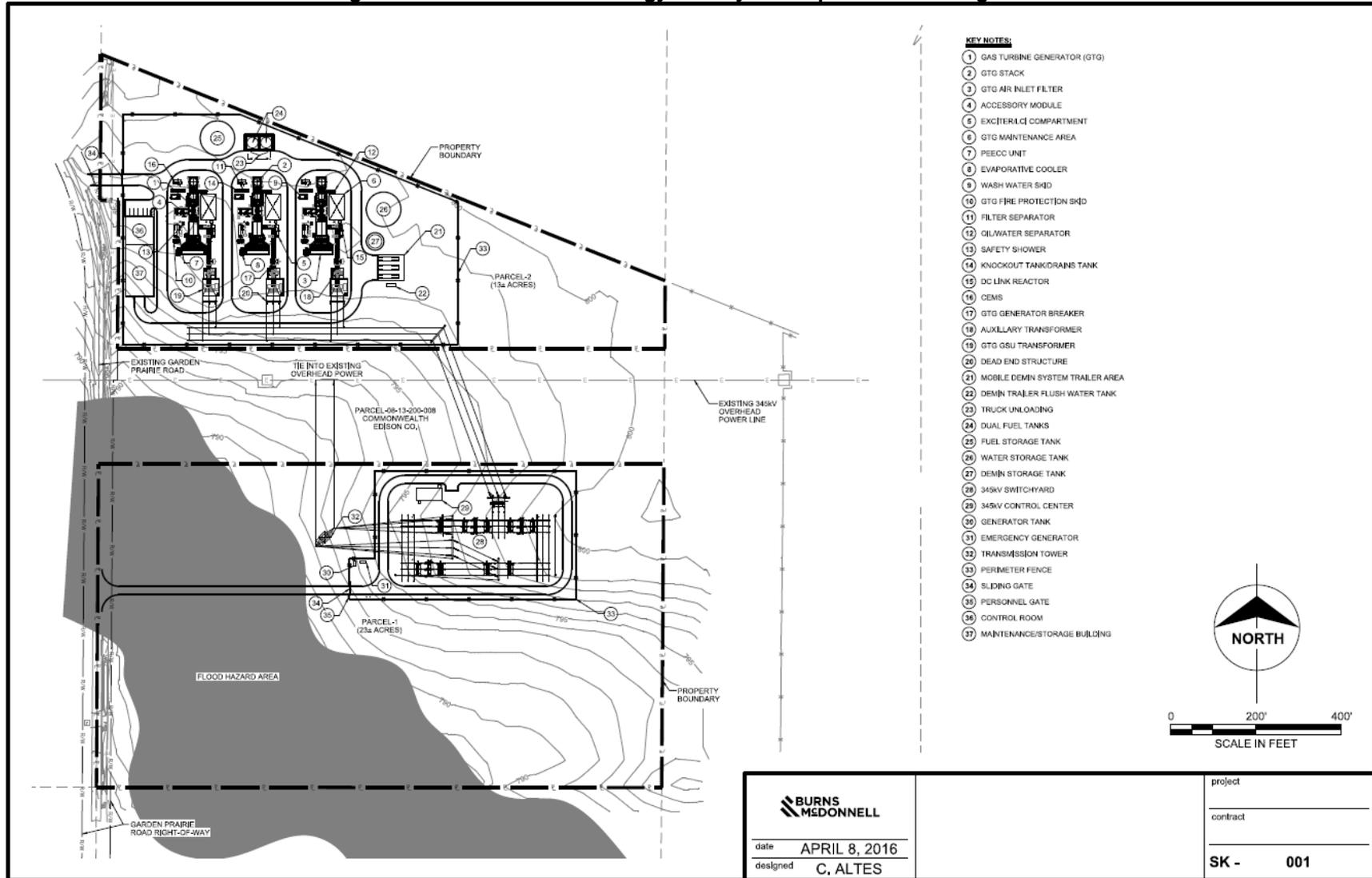
PLANT DESCRIPTION

3.0 PLANT DESCRIPTION

The Plant is a nominal 450 megawatt natural gas-fired combustion turbine electric generating facility. The Plant consists of three combustion turbine generator packages (turbines), each capable of producing approximately 150 megawatts (MW) of electricity. Natural gas fired combustion turbines for electric power generation have been implemented throughout the utility industry for decades and is a proven, reliable, and safe practice.

Figure 3-1 presents the conceptual site arrangement of the Plant, including labels for the primary components.

Figure 3-1: Garden Prairie Energy Facility Conceptual Site Arrangement



3.1 POWER BLOCK

The Plant will consist of three (3) General Electric (or equivalent) 7FA combustion turbine-generator packages, each capable of producing approximately 150 megawatts (MW) for a total nominal capacity of 450 MW.

The engines will be equipped to burn natural gas as their primary fuel, with ultra-low sulfur diesel fuel backup capabilities for emergency conditions.

3.2 FUEL SYSTEM

Natural gas will be supplied by Kinder-Morgan through the Illinois Lateral pipeline system. The Illinois Lateral 24-inch pipeline is located approximately 800 feet south of the Site. An easement to access the Illinois Lateral pipeline system will be secured by Kinder-Morgan. Natural gas will be delivered to an on-site gas metering and regulating station, which will regulate gas pressures prior to supplying gas to the engines.

3.3 PLANT HIGH VOLTAGE POWER SYSTEM AND INTERCONNECTION

The 13.8-kilovolt (kV) electrical power produced by the Plant will be transformed to 345 kV with a single generator step-up (GSU) transformer connected to a bank of three combustion turbine-generator packages. Power from each GSU will be delivered to a new on-site substation which is the point of interconnection for the Plant to the Commonwealth Edison transmission system. The substation includes positions for each GSU from the plant.

3.4 WATER SUPPLY AND TREATMENT SYSTEMS

The Plant will use evaporative cooling to enhance efficiency during warm ambient temperatures. Water for the evaporative cooling process will be produced on-site via a well system. On-site storage will be utilized to eliminate surge impacts during periods of peak usage, which is expected to be as high as 300 gallons per minute. However, due to the expected dispatch of the Plant to serve only during periods of peak electric demand, total daily consumption is expected to be not more than 108,000 gallons during non-emergency summer peak conditions and will typically be less than 3 million gallons in a typical summer month.

Potable water will be produced on-site via a well system, similar to that of residential users in the surround area. Potable water requirements of the Plant are solely for sanitary use and human consumption, and are expected to average three (3) to five (5) gallons per minute. Sanitary wastewater will be discharged into an on-site septic tank.

3.5 STORM WATER DRAINAGE

Runoff water from storm drainage areas will be collected and properly managed. Storm runoff that has the potential to come in contact with equipment will be routed to an oil/water separator. The oil/water separator will be used to separate oil from the storm runoff water before discharging. Storm water runoff will ultimately be routed through a treatment skid and discharged to an on-site detention pond. The oil will be contained in the separator and removed by a contracted waste disposal company.

3.6 FIRE PROTECTION SYSTEM

The fire protection system for the Plant will consist of the following:

- Heat and smoke detection connected to a central alarm system in the control room
- Local sprinkling systems for major equipment and structures
- There will be a yard loop around the site with fire hydrants
 - The yard loop will be fed from an on-site fire water tank
- A diesel fire pump will transfer water from the fire water tank to the yard loop

3.7 PLANT AUXILIARY SYSTEM

When the Plant is offline, electric power will be backfed through the Plant switchyard to provide station power. The Plant will also have an uninterruptible power supply (UPS) system to provide a reliable source of power for critical control and equipment loads during emergency operating conditions.

3.8 AIR QUALITY CONTROL SYSTEM

The turbines include low NO_x combustion system.

3.9 MAINTENANCE AND WAREHOUSE FACILITIES

The Plant will include a maintenance/warehouse area within the primary building which contains an area for maintenance repairs and spare parts storage.

3.10 SECURITY AND ACCESS

The Plant site will be enclosed with a chain link security fence. It is anticipated that once final completion of the Project is achieved, the entrance will include a motor-operated gate with a keypad and intercom that can be used to open the gate, or to contact the control room where the gate can be remotely operated. The entrance road to the site will be accessed via Garden Prairie Road. Plant monitoring cameras will also be in place and will be monitored from the control room.

3.11 PARKING FACILITIES

The Plant will include parking of adequate capacity to support all permanent employees and delivery vehicles. Parking facilities will be paved, striped, and feature handicapped parking accommodations in accordance with local building codes.

3.12 LANDSCAPING PLAN

The Plant will feature a perimeter road encompassing the primary facilities and Power Block, the interior of which will be paved in crushed rock of varying diameter between ½ inch and ¾ inch. Areas outside of the Power Block will be graded and seeded with grasses native to the surrounding area. The seeded areas will be regularly mowed to maintain a presentable appearance.

The Plant site will be bordered on the South, and East by tree plantings selected for their visibility screening qualities. The tree plantings are expected to be between of an evergreen, coniferous variety consistent with trees native to the surrounding area and are anticipated to be six feet tall at the time of initial planting, growing to a mature height of approximately 18 to 20 feet. Spacing for the trees is anticipated to be 15 feet on-center.

3.13 LIGHTING PLAN

The Plant will include exterior lighting resources as necessary to ensure safety. Exterior lighting equipment will include high-cutoff shields and will be directed properly to minimize light intrusion into surrounding areas.

* * * * *

PROJECT IMPACTS

4.0 PROJECT IMPACTS

4.1 SUPPORT OF REGIONAL RELIABILITY

The Commonwealth Edison electric grid in the Northern IL region is anticipated to potentially experience electric supply shortages due to the economic retirement of numerous nuclear and coal-fired power plants in the area. The Project is intended to help alleviate those shortages, and improve power supply reliability, which is important for economic development and retention of industrial and technical businesses.

4.2 LOCAL ECONOMIC BENEFITS

Total capital expenditure required for development, design, and construction of the Plant is currently estimated at \$160 to \$180 million in 2016 U.S. Dollars. Approximately 15-percent of the estimated expenditure is expected to be spent in the Belvidere/Boone County regional area on building materials and construction labor.

4.3 CONSTRUCTION EMPLOYMENT BENEFITS

During the construction phase, the Plant will employ an average of 50 construction laborers per day. The employment profile during the construction phase is shaped like a bell-curve. Initially less than 10 construction laborers are expected to be located at the construction site, with the quantity steadily increasing to an expected peak of approximately 120 construction laborers during the three month peak period, and gradually diminishing to a handful of construction laborers at completion. Much of the construction activities that will be required on the Plant site require heavy construction laborers, which are expected to be plentiful in the Plant region. Therefore, PVG expects that a significant majority of the construction labor resources will be obtained from the regional labor pool.

4.4 OPERATIONAL EMPLOYMENT IMPACTS

During operation, the Plant will likely require six to eight full-time employees, with an average fully-burdened salary of approximately \$90,000 annually. Due to the Plant's technical sophistication and high level of automation, full-time positions are typically filled by highly-technical, educated personnel, which are expected to be plentiful in the Plant region. Therefore, PVG expects that a significant majority of the operational labor resources will be obtained from the local labor pool.

4.5 CONSTRUCTION IMPACTS

In addition to a comprehensive permitting process, the Plant requires approximately 15 months for construction, testing, and certification. Primary construction activities will include:

- Site grading and preparation
- Subsurface foundation construction
- Underground cable and pipe construction
- Building erection
- Equipment and engine-generator set placement
- Testing and certification

4.5.1 SURFACE TRANSPORTATION

Throughout the construction process, surface transportation routes in the immediate vicinity of the Plant will experience an increase in overall traffic volume due to construction materials delivery, and construction laborers entering and exiting the Plant site. The majority of the construction-related traffic is expected to occur during daylight hours and is not expected to significantly impact existing traffic patterns. The anticipated primary routes to the Plant site are provided below:

If from the North:

US Highway 20 to Garden Prairie Road,
South on Garden Prairie Road to the Plant.

If from the South:

Genoa Road to Hill Road,
East on Hill Road to Pinegar Road,
North on Pinegar Road to Crawford Road,
East on Crawford Road to Garden Prairie Road,
North on Garden Prairie Road to the Plant.

The major equipment components will be delivered to the site via a heavy-haul transport rig, designed to distribute the weight of the equipment over multiple axles to prevent per-axle weight limit violations and minimize damage to the roadway.

Construction workers present at the Plant site are expected to average up to 50 per day, with a peak of approximately 120 per day during a three month period leading up to testing and certification activities. Construction labor traffic is expected to follow similar routes as equipment delivery traffic, and is largely expected to be obtained from the local labor pool.

Temporary construction parking and equipment lay-down space may be leased from the landowner as necessary to support the overall project construction schedule. Roadway damages attributed to the Plant's construction and operation activities will be repaired at the Plant owner's expense.

4.6 OPERATIONAL IMPACTS

The Plant is expected to function as a peak-load generation resource. As a peak-load serving generation facility, the majority of the expected dispatch will occur during hot, summer daytime hours when there is an increase in the demand for power. Reliability is important to a peak-load facility as annual operating

hours will be limited by the air permit that is expected to be issued by the Illinois Environmental Protection Agency.

Because the Plant is expected to have relatively limited operating hours, and due to the installation of a sophisticated, highly automated control system, approximately four to eight full-time employees are expected to be employed at the Plant site. The employment positions are typically filled by highly-technical, educated personnel.

4.6.1 SURFACE TRANSPORTATION

Due to the relatively small operational staff, and limited requirement for ongoing equipment or materials delivery, surface transportation impacts during operation are anticipated to be minimal.

4.7 ENVIRONMENTAL IMPACTS

As part of its due diligence efforts to ensure the viability of developing a new peak-load generating facility at the Plant site, B&McD has performed physical and database research. It is B&McD's opinion that the Plant will present minimal adverse environmental impacts to the site and surrounding areas.

4.7.1 PROTECTED SPECIES

According to the U.S. Fish and Wildlife Service (USFWS) there is one federally-listed endangered and two threatened species that could occur in Boone County, Illinois. Additionally, the Illinois Department of Natural Resources (IDNR) species inventory website lists a total of three endangered species and six threatened species for Boone County. These species are identified in Table 4-1 below. The proposed Project area was evaluated based on these species and their potential habitat.

Table 4-1: Protected Species Known or Likely to Occur in Boone County, Illinois

Scientific Name	Common Name	Status	Habitat
<i>Ammodramus henslowii</i>	Henslow's sparrow	State Threatened	Tallgrass prairie
<i>Aster furcatus</i>	Forked aster	State Threatened	Woodlands
<i>Elliptio dilatata</i>	Spike mussel	State Threatened	Streams and lakes
<i>Etheostoma exile</i>	Iowa darter	State Threatened	Creeks
<i>Grus canadensis</i>	Sandhill crane	State Threatened	Grasslands, marshes
<i>Ixobrychus exilis</i>	Least bittern	State Threatened	Marshes
<i>Notropis heterolepis</i>	Blacknose shiner	State Endangered	Creeks, ponds
<i>Sambucus racemosa ssp. pubens</i>	Red-berried elder	State Endangered	Woodlands
<i>Xanthocephalus xanthocephalus</i>	Yellow-headed blackbird	State Endangered	Wetlands, marshes
<i>Myotis sodalis</i>	Indiana bat	Federally Endangered	Forests, caves, stream corridors
<i>Platnathera leucophaea</i>	Eastern prairie fringed orchid	Federally Threatened	Wet prairies
<i>Lespedeza leptostachya</i>	Prairie bush clover	Federally Threatened	Mesic prairies

Sources: U.S. Fish and Wildlife Service, Region 3 (2008): <http://www.fws.gov/midwest/endangered/LISTS/illinois-cty.html>; Illinois Department of Natural Resources, Threatened and Endangered by County, Natural Heritage Database Website, and accessed October 2008.

None of the species listed in Table 4-1 were observed at the Plant site. The species listed in Table 4-1 require natural prairie, marsh, perennial stream, or woodland habitats. These habitats do not occur within or adjacent to the Project area. It is expected that the proposed Project will not adversely affect threatened and endangered species due to lack of suitable habitat. Construction activities associated with the Project will disturb cultivated land. Only common wildlife species that are tolerant of constant human disturbance are likely to be present.

Based on the predominance of agricultural fields, the amount of previous disturbance, and the limited potential for protected species habitat to occur in the vicinity of the proposed Project area, it is anticipated that the proposed Project will not adversely impact protected species or their habitats.

4.7.2 WETLANDS

One relatively small (0.06 acre) palustrine emergent wetland (PEM) was identified within at Plant site.

This wetland extended out into the site from a drainage culvert along Garden Prairie Road.

Approximately one inch of standing water was present in the PEM wetland at the time of the survey. The PEM wetland was dominated by reed canary grass (*Phalaris arundinacea*). An un-vegetated swale extends from the PEM wetland toward the southern property boundary. The PEM wetland present along

Garden Prairie Road is relatively small in size and will be avoided during construction and operational activities.

4.7.3 CULTURAL RESOURCES

The Plant site was assessed by a Burns & McDonnell archaeologist. The goal was to determine if any potential impacts to known cultural resources or historic properties would occur as a result of project implementation. To complete this assessment, background research was completed to identify cultural resources and historic properties within the vicinity of the proposed project. Background research was conducted at the Illinois Historic Preservation Agency (IHPA) off-site collection facility in Springfield, Illinois, on November 12, 2008. The results of the background research indicated that no cultural resource sites were recorded on or within 1 mile of the project site, no archaeological reports were filed for the project site or within the general vicinity, and no historic structures were recorded on or in the vicinity of the project site. No further Section 106 evaluation is required because no known cultural resource sites will be impacted, no federal agency permits are being sought, and this is not a federally funded project.

4.7.4 FLOOD ZONE

A flood zone traverses the southwest corner of the south parcel. The flood zone is shown on Flood Insurance Rate Map Panel No. 55 of 55, Community Panel No. 170807 055 B, Effective Date November 17, 1982. This flood zone serves as an intermittent drainage channel that routes excess precipitation toward Spring Creek during periods of heavy precipitation. Because the flood zone does not possess a defined bank, and much of it is actively cultivated annually, modifications to it do not require coordination or approval from the U.S. Army Corp of Engineers. The conceptual design for the Plant includes rerouting this drainage pathway to prevent impedance to the natural drainage characteristics.

4.7.5 AIR QUALITY

PVG is currently preparing an application for a Synthetic Minor Source Air Permit which is expected to be submitted to the Illinois EPA in September 2016. The Synthetic Minor Air Permit limits criteria pollutant emissions from the Plant to specific annual levels. In order to avoid exceeding those levels, the Plant will be limited to operating a maximum of 7,500 turbine-hours per year, which is roughly equivalent to 2,500 hours per year for each of the 3 turbines.

4.7.6 WATER SUPPLY

Potable water will be produced on-site via a well system, much the same as the residential water supplies in the area surrounding the Site. Potable water requirements of the Plant are solely for sanitary use, human consumption, and general housekeeping duties, and are expected to average three to five gallons per minute. Sanitary wastewater will be discharged into an on-site septic tank.

4.7.7 AUDITORY IMPACTS

At the time this document was published, noise modeling efforts to estimate the auditory impacts expected by the Plant were incomplete. However, the Plant site is located adjacent to Interstate 90, a

heavily trafficked transportation route. As such, the ambient sound levels at the existing site are significantly higher than typical rural settings. The conceptual site arrangement locates the Power Block and associated major equipment on the northernmost parcel of the proposed site, positioning the primary sound emitting equipment as close to Interstate 90 as possible. This arrangement will significantly aid in mitigating any auditory impacts created by the Plant.

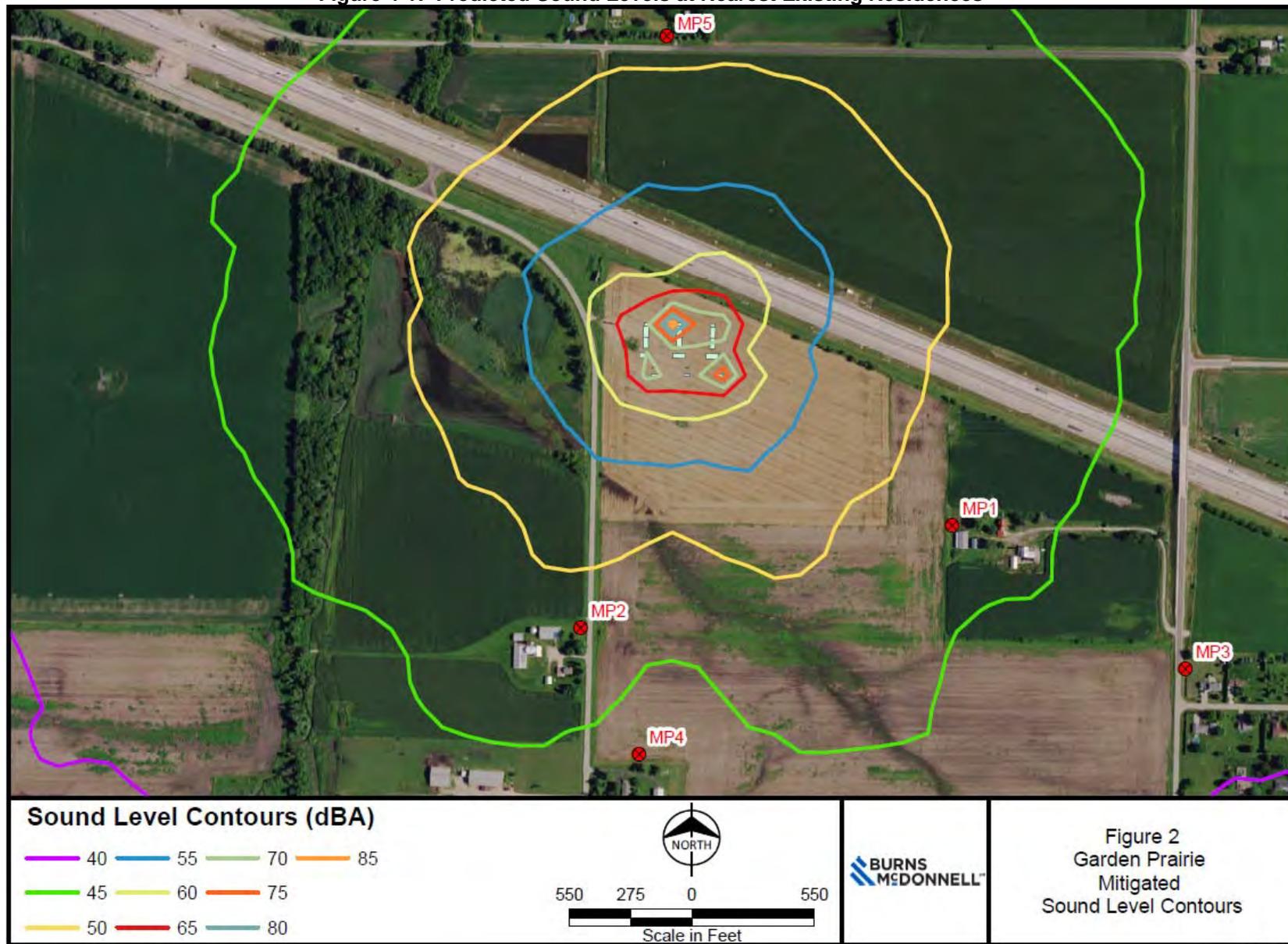
A noise model was developed to predict the impact to nearby residences during periodic intervals throughout the day. The model takes into account the current sound levels observed at the site prior to construction of the Project, and determines the level of insulation and mitigation required to ensure that no perceptible impact is experienced by nearby residences. Table 4-2 details the sound levels predicted at each of the identified residences.

Table 4-2: Predicted Sound Levels at Nearby Residences

Measurement Points Locations	Time Period	Existing Background Noise Level L_{eq}	New Equipment Projected Noise Level L_{eq}	Projected Noise Levels (Background Plus Equipment) L_{eq}	Projected Sound Level Increase
MP1	7-8am	59	48	59	0
MP2	7-8am	62	48	62	0
MP3	7-8am	69	42	69	0
MP4	7-8am	54	43	54	0
MP5	7-8am	58	49	59	1
MP1	11am-1pm	59	48	59	0
MP2	11am-1pm	66	48	66	0
MP3	11am-1pm	52	42	52	0
MP4	11am-1pm	59	43	59	0
MP5	11am-1pm	63	49	63	0
MP1	6-8pm	64	48	64	0
MP2	6-8pm	63	48	63	0
MP3	6-8pm	64	42	64	0
MP4	6-8pm	58	43	58	0
MP5	6-8pm	68	49	68	0
MP1	11pm-Midnight	58	48	58	0
MP2	11pm-Midnight	56	48	57	1
MP3	11pm-Midnight	59	42	59	0
MP4	11pm-Midnight	55	43	55	0
MP5	11pm-Midnight	61	49	61	0

Figure 4-1 presents a map of the site location with the modeled sound levels at each of the nearest existing residences.

Figure 4-1: Predicted Sound Levels at Nearest Existing Residences



4.7.8 VISUAL IMPACTS

PVG plans to mitigate visual impacts from the east and south by planting evergreen trees to create a visual screen. At the time of planting, the trees are anticipated to be six feet tall with spacing of approximately 15 feet on-center. At maturity, the plantings are expected to reach a height of approximately 18 to 20 feet.

4.7.9 FRAGRANT IMPACTS

The Plant will emit no detectible odors during operation.

* * * * *

REQUIRED PERMITS AND AGREEMENTS

5.0 REQUIRED PERMITS AND AGREEMENTS

In addition to the Special Use Permit, the Plant will require approval from several regulatory bodies before construction and operation activities can commence.

5.1 LOCAL PERMIT REQUIREMENTS

Listed in Table 5-1 are the various other local permits, those administered by other than state and federal regulatory bodies, which are expected to be required for the Project, the agency tasked with reviewing each application, and the status of each application.

Table 5-1: Required Local Permits

Permit Title	Lead Agency	Status
Special Use Permit	Belvidere – Boone County Planning Department	Application Submitted
Natural Resource Information Report	Boone County Soil and Water Conservation District	No Action
Well Construction Permit (Test Well)	Boone County Department of Public Health	No Action
Well Construction Permit (Plant Supply Well)	Boone County Department of Public Health	No Action
Septic Tank Permit	Boone County Department of Public Health	No Action
Chemical Safety Contingency Plan	Boone County Department of Public Health	No Action
County Highway ROW Use	Boone County Highway Department	No Action
Building Permits	Boone County Building and Zoning Department	No Action

5.2 STATE AND FEDERAL PERMIT REQUIREMENTS

Table 5-2 provides a list of the permits which are expected to be required by the State of Illinois and Federal Government for the Project, the agency tasked with reviewing each application, and the status of each application.

Table 5-2: Required State and Federal Permits

Permit Title	Lead Agency	Status
Air Permit for Construction / Operation	Illinois EPA	Application Preparation In Process
State Threatened and Endangered Species Clearance	Illinois Department of Natural Resources	Application Submitted
Cultural Resources Clearance	Illinois State Historical Society	Application Submitted
Title IV Acid Rain Permit	Illinois EPA	No Action
Title V Operating Air Permit	Illinois EPA	No Action
401 Water Quality Certification	Illinois EPA	No Action
NPDES Hydrostatic Testing Authorization	Illinois EPA	No Action
NPDES Storm Water Construction Permit and Storm Water Pollution Prevention Plan	Illinois EPA	No Action
State Construction / Operation Permit (Oil-Water Separator)	Illinois Department of Natural Resources / Illinois EPA	No Action
Chemical Safety Contingency Plan	Illinois EPA	No Action
Section 404 Permit	Army Corp of Engineers	Application Preparation in Process
Federal Threatened and Endangered Species Clearance	U. S. Fish and Wildlife Service	Application Submitted
Alternative Fuel Analysis	U. S. Department of Energy	No Action
FAA Notification	Federal Aviation Administration	No Action
Spill Prevention Countermeasure Control Plan	U. S. EPA	No Action

5.3 ELECTRIC TRANSMISSION INTERCONNECTION AGREEMENT

PVG has submitted a request to interconnect to the Commonwealth Edison electric transmission system via a new switchyard to be constructed at the site. The Interconnection Study Agreement between PVG and PJM Interconnection, LLC, the entity that manages Commonwealth Edison's high-voltage transmission system, has been executed with an effective date of September 29, 2008 and a queue position of U3-021 has been issued. The interconnection study process occurs in multiple phases, the first of which is currently in process. The entire interconnection study and negotiation process is expected to take greater than one year, at which point the necessary system modifications to support the Plant will be identified, their costs defined and an Interconnection Agreement executed.

5.4 FUEL SUPPLY AND DELIVERY AGREEMENT

PVG submitted a natural gas supply delivery interconnection study request to Kinder Morgan on October 21, 2008. The interconnection study is currently in process, with preliminary results regarding the necessary system modifications to support the Plant expected by December 31, 2016.

5.5 ENGINEERING, PROCUREMENT AND CONSTRUCTION AGREEMENT

PVG expects the Project will be designed and constructed by Burns & McDonnell Engineering Company, Inc. once all required permits have been secured.

* * * * *

From: Graves, Tom
To: [John Ragone](#); [Hilary Arther](#)
Subject: RE: 11/22/16 ZBA Meeting
Date: Monday, November 21, 2016 3:01:25 PM

Good afternoon, Hilary.

Below are the responses that we can provide at this time.

1. Stack Height: Final stack heights will be set by air emissions modeling required for the Illinois EPA application for an air permit, however indicative modeling tell us that a stack height of no more than 75' will be required. We are comfortable with a limit of 75' for the exhaust stacks and air inlet filters.
2. Fuel-Oil Storage: A final cost/benefit analysis has not been performed to optimize the volume stored onsite, however PVG is proposing a maximum of 4 Million gallons.

Thanks,
Tom

Thomas Graves \ Burns & McDonnell
Business Development Manager \ Market Strategist
O 816-822-3379 \ M 816-516-8230 \ F 816-822-3027
tgraves@burnsmcd.com

From: John Ragone [mailto:jragone@energydp.com]
Sent: Monday, November 21, 2016 9:10 AM
To: Hilary Arther <harther@boonecountyl.org>
Cc: Graves, Tom <tgraves@burnsmcd.com>
Subject: Re: 11/22/16 ZBA Meeting

Hilary. I am sorry but I do not remember Shelly asking for these items. I've copied Tom Graves who can answer definitively - I'm traveling today and would be guessing.

Thank you.

John

John Ragone
Energy Development Partners
(804) 305-3688

On Nov 21, 2016, at 10:00 AM, Hilary Arther <harther@boonecountyl.org> wrote:

Good Morning John,

I wanted to know if you had received and or responded to the two requests below? If so could I have a copy of the correspondences?

Thank you,

Hilary Arther | Land Use Planner | Boone County, Illinois

1212 Logan Avenue, Suite 102 | Belvidere, IL 61008

Phone: 815-547-6698 | Fax: 815-547-3579 | Email: harther@BooneCountyIL.Org

From: Shelly Dunham [<mailto:sdunham@fehr-graham.com>]

Sent: Monday, November 21, 2016 8:43 AM

To: Hilary Arther

Subject: RE: 11/22/16 ZBA Meeting

Hilary:

Yes, I plan to be available. Do you want me to call in at the beginning of the hearing? If so, what number should I call?

Also - did we ever get the two pieces of additional information I requested?

1. Height of stacks
2. Volume of backup (diesel) fuel to be stored on site.

I also encouraged them to have a conversation with the fire department that has jurisdiction in that area and have some sort of letter or statement from them about fire suppression capability and/or recommendation on placement of the diesel tank. Did that happen?

Thanks!

SHELLY R. DUNHAM, AICP | Senior Community Development Specialist
Fehr Graham - Engineering & Environmental

From: Hilary Arther [<mailto:harther@boonecountyil.org>]

Sent: Monday, November 21, 2016 8:37 AM

To: Shelly Dunham <sdunham@fehr-graham.com>

Cc: Ken Terrinoni <ktboone@boonecountyil.org>

Subject: 11/22/16 ZBA Meeting

Good Morning Shelly,

Hope you had a great weekend! I wanted to double check that you were available by phone tomorrow night at 7:00 CT for the Zoning Board of Appeals meeting with the Peaker Plant on the agenda?

Thank you,

Hilary Arther | Land Use Planner | Boone County, Illinois

1212 Logan Avenue, Suite 102 | Belvidere, IL 61008

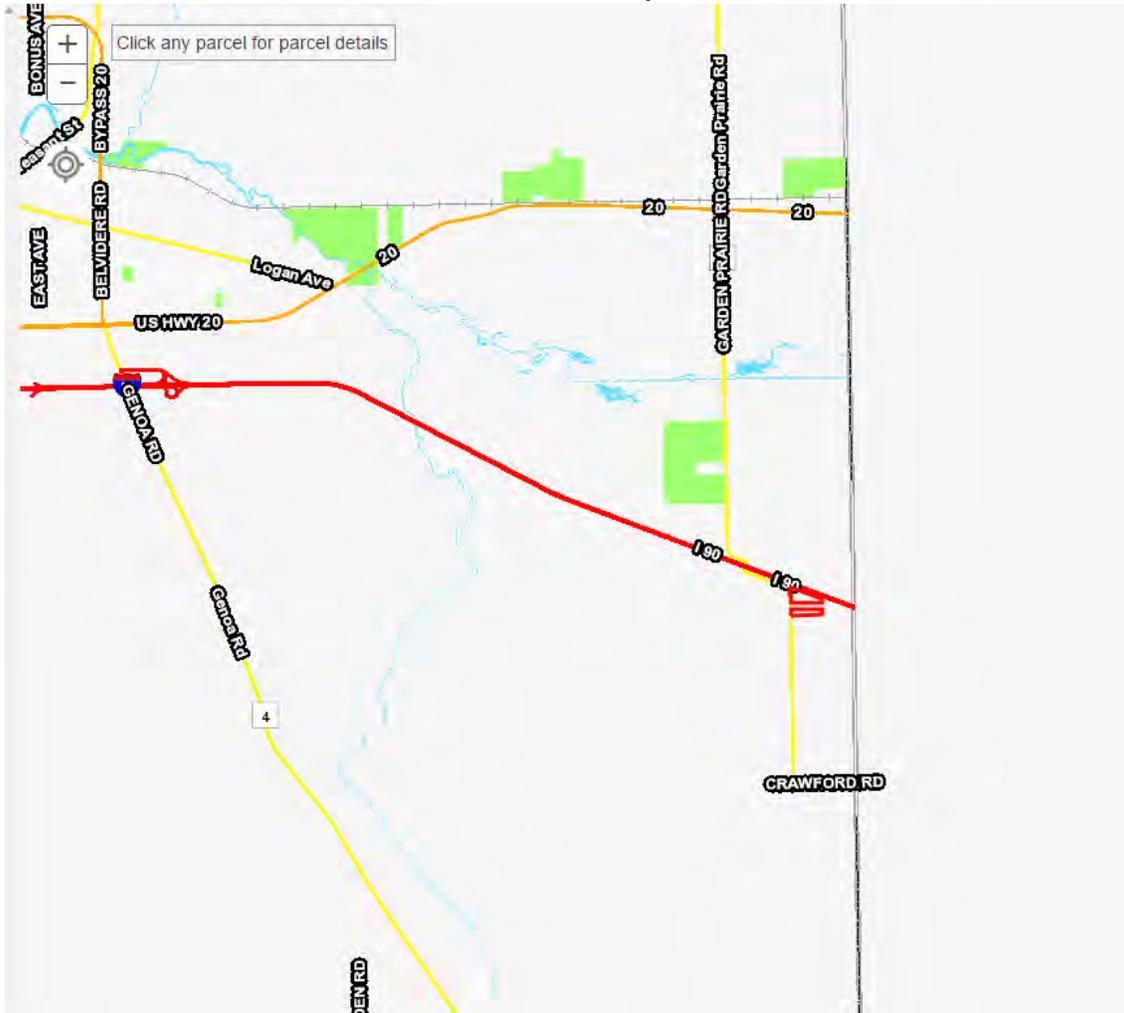
Phone: 815-547-6698 | Fax: 815-547-3579 | Email: harther@BooneCountyIL.Org

<image001.jpg>

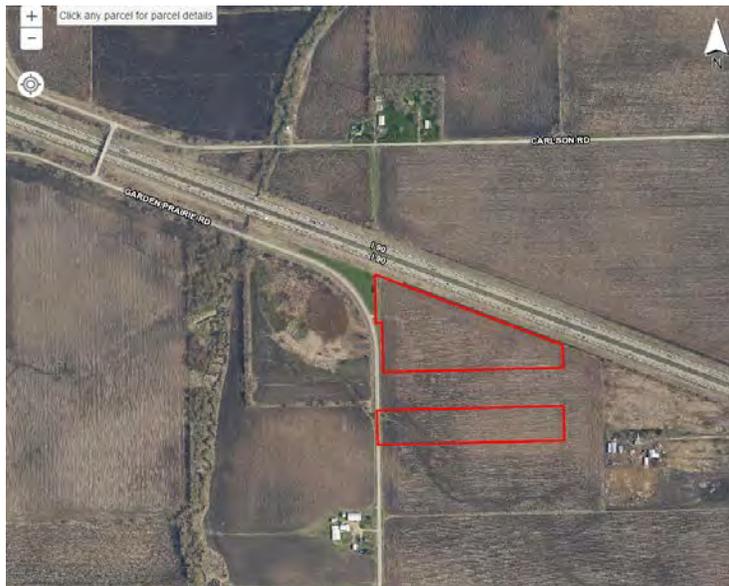
ATTACHMENTS

1. Location Map, by Planning Staff.
2. Aerial Photo, by Planning Staff.
3. Letter submitted by the Boone County Highway Department, Justyn Miller, dated October 12, 2016.
4. Letter submitted by the Boone County Building Department, Drew Bliss, dated October 11, 2016.
5. Letter submitted by Boone County Soil and Water, Jennifer Becker, dated November 4, 2016.
6. Letter submitted by the Boone County Health Department, Bill Hatfield, dated November 8, 2016.
7. Natural Resources Information Report # 1278, dated January 6, 2009.
8. 2009 Ordinance for operation of an energy facility producing 1 megawatt or greater, commonly referred to as a Peaker Power Plant, dated March 18, 2009.
9. Letter submitted by the Winnebago-Boone Farm Bureau, Richard Beuth, November 22, 2016.
10. Excerpt from Davis, Lucas W. "The Effect of Power Plants on Local Housing Values and Rents: Evidence from Restricted Census Microdata." SSRN Electronic Journal. Received November 22, 2016.
11. Spring Township Board of Trustees Letter, received December 13, 2016
12. Boone County Fire District #2, Brad Bartell, dated December 13, 2016
13. Boone County Conservation District, Dane Kane, dated December 14, 2016

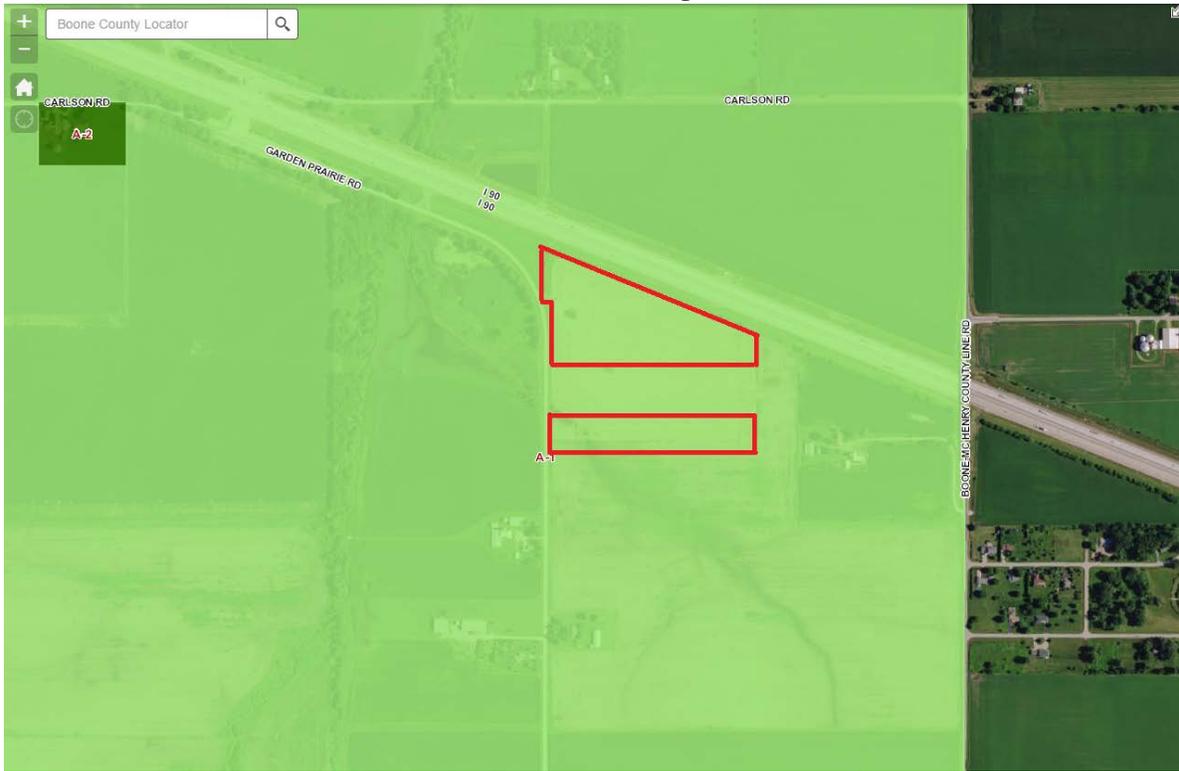
Location Map



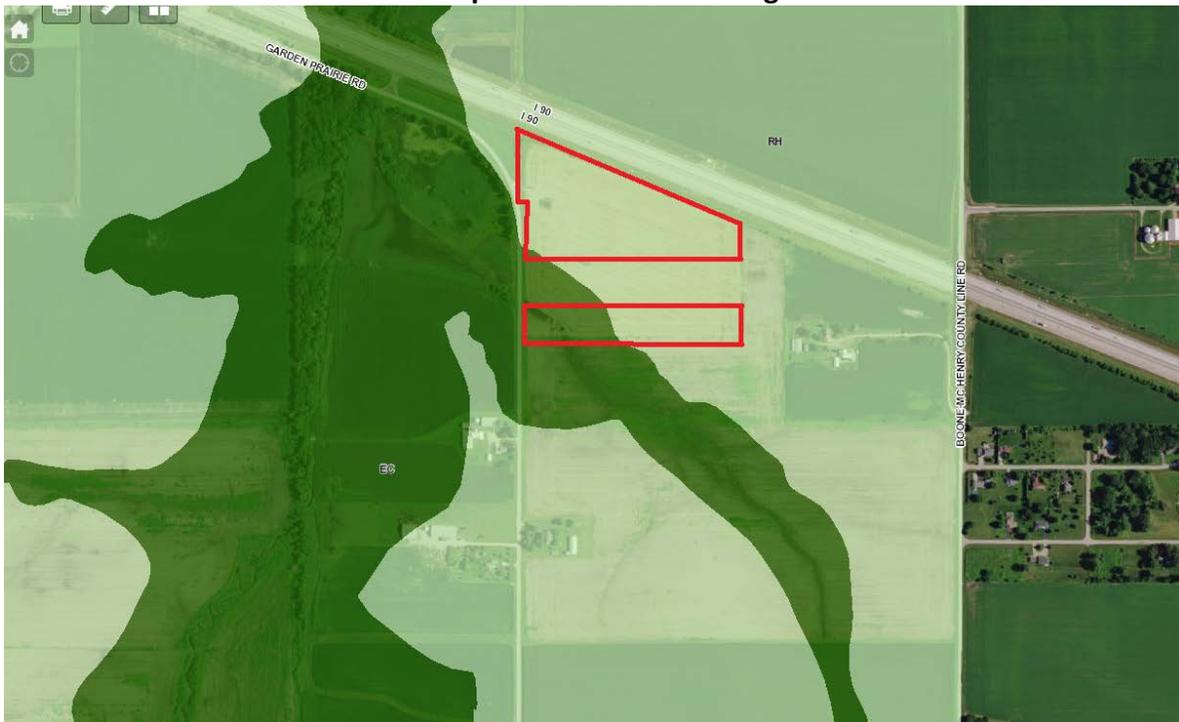
Ariel View of Location



Current Zoning



Comprehensive Plan Zoning





BOONE COUNTY HIGHWAY DEPARTMENT

9759 Illinois Route 76
Belvidere, Illinois 61008

JUSTIN D. KROHN, P.E.
COUNTY ENGINEER

OFFICE 815-544-2066
GARAGE 815-547-6142
FAX 815-544-8329
E-MAIL boonecohwy@comcast.net

October 12, 2016

Hilary Arther
Land Use Planner Boone County, Illinois
1212 Logan Avenue, Suite 102
Belvidere, IL 61008

RE: Power Ventures Group, LLC (a.k.a The Peaker Plant) – Special Use Permit

Dear Ms. Arther,

The following comments are the results of reviewing the above referenced Special Use Permit.

- Request additional information on vehicle traffic (volume & weight) for construction & during normal operations.
- Future site plan review is expected (includes but not limited to entrance/site distance & storm water detention).

If the expected truck traffic does not exceed the road weight limits, the Highway Department does not have any issues with this Special Use Permit.

Respectfully,

A handwritten signature in blue ink, appearing to read "Justin D. Krohn", is written over a light blue horizontal line.

Justin D. Krohn, P.E.
Boone County Engineer

**BOONE COUNTY
BUILDING DEPARTMENT**

**1212 Logan Ave. Suite 101 Belvidere, Illinois 61008
(815)544-6176
(815)-547-0906(fax)**

October 13, 2016

To: Hilary Arther
Land Use Planner

From: Drew Bliss
Senior Building Inspector

RE: Case: 15-2016

Dear Ms. Arther,

Our office has no objections to the special use request; however I would like to see additional language added to condition #8 that would require the applicant to submit documentation showing compliance. My department does not have the equipment to measure lighting levels; therefore I have no way of enforcing the condition.

Please notify the applicant that building permits will be required for the structures if the case is approved.

If you have any further questions, please feel free to contact our department at (815) 544-6176.

Thank you,



Drew Bliss
Senior Building Inspector
Boone County Building Department



Boone County
Soil & Water
Conservation District

211 N. Appleton Road
Belvidere, IL 61008
815-544-2677 ext. 3

November 4, 2016

Boone County Planning Department
1212 Logan Ave.
Belvidere, IL 61008

NRI#1519

Dear Sir/Madam,

John Ragone, on behalf of Power Ventures, has submitted a request for a Natural Resource Information Report. The request was for special use for an electric power generating plant for PIN 08-13-200-006 in Spring Township, Garden Prairie, Illinois.

A main natural resource concern is approximately 64% of the soils onsite are sensitive to erosion. If over an acre of land is disturbed at this site a National Pollutant Discharge Elimination System (NPDES) permit will be required from the State Illinois Environmental Protection Agency. This permit requires erosion and sediment control practices to be designed, installed, and maintained during construction and until the site is stabilized. This is of particular importance because approximately 400 acres drain through this site with a prevalent drainage present on the southwestern portion of the property. Please refer to NRI Report #1278 completed January 6, 2009 for other natural resource concerns.

Sincerely,

Jennifer Becker
Boone County Soil & Water
Conservation District



Boone County
DEPARTMENT OF
PUBLIC HEALTH

1204 Logan Avenue ♦ Belvidere, Illinois 61008

Main Office: 815-544-2951 ♦ Clinic: 815-544-9730

Fax: 815-544-2050 www.boonchealth.org

The mission of the BCDPH is to protect and promote health in Boone County.

November 8, 2016

Hilary Arther
Boone County Planning Dept.
1212 Logan Ave.
Belvidere, IL 61008
Fax 815-547-3579

Re: 15-2016; Power Ventures Group

Dear Hilary,

We are in receipt of the request special use permit for the above case. During the review of the file we found questions we had asked in this same case back in 2008. Our file does not show if they were asked and answered. If you have the information you could forward to this office the answers or please put these questions as our response.

1. Produces power when? How often?
2. How many engines operating at a time?
3. Noise reduction steps?
4. Year round operation? Day and hours?
5. Number of staff? How many onsite at a time?
6. Water use and bathroom facilities?

Please let us know if you need any other information.

Thank you,

William L. Hatfield
Director of Environmental Health
skm

Natural Resources Information Report

Number: 1278

Prepared by:

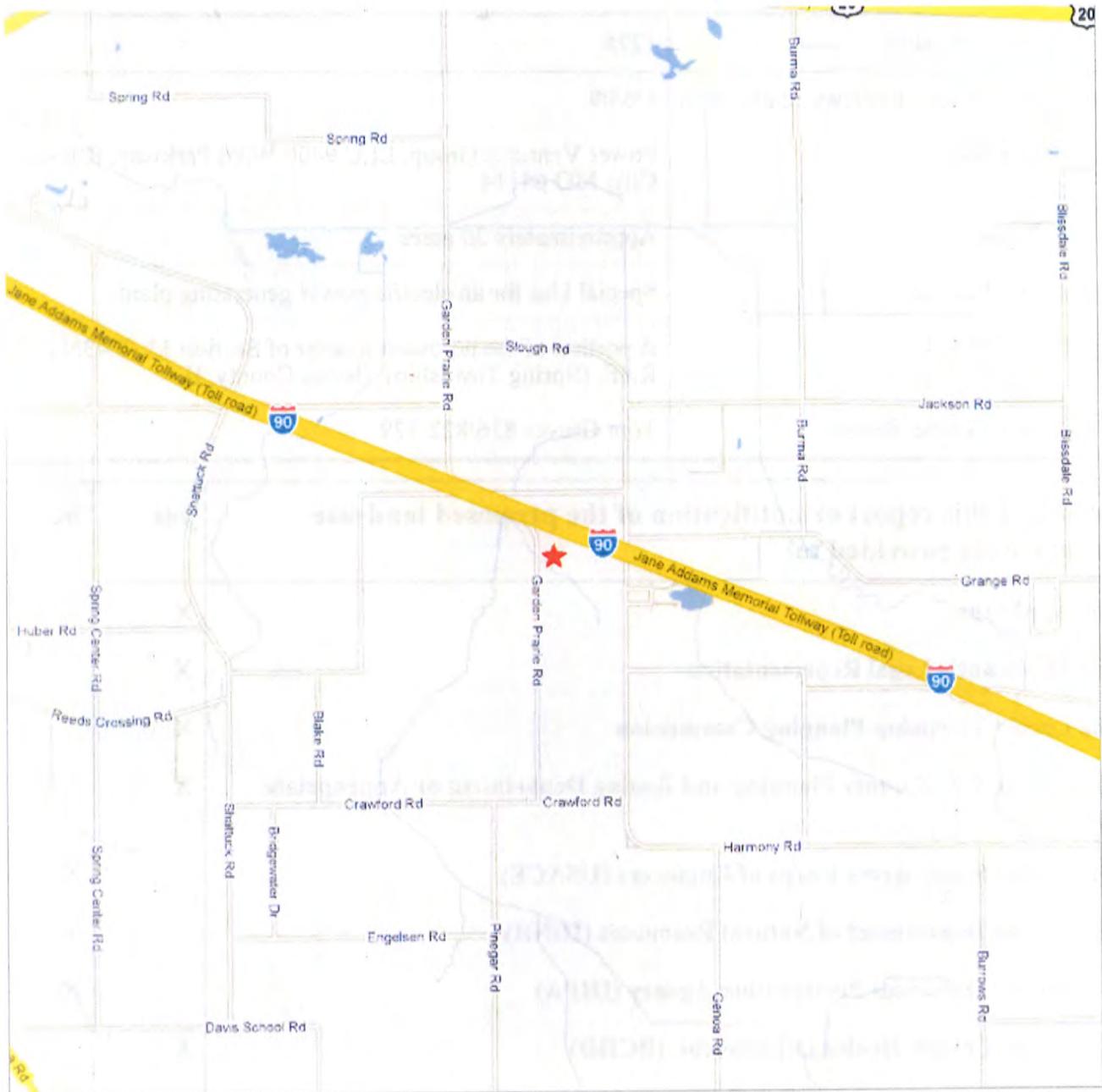
The Boone County Soil and Water Conservation District
Reviewed by the NRI Committee: January 6, 2009

**BOONE COUNTY SOIL AND WATER CONSERVATION DISTRICT
NATURAL RESOURCE INFORMATION REPORT (NRI)**

NRI Report Number	1278
Date District Board Reviews Application	1/6/09
Petitioner's Name	Power Ventures Group, LLC 9400 Ward Parkway, Kansas City, MO 64114
Size of Parcel	Approximately 20 acres
Petitioner's Request	Special Use for an electric power generating plant
Location of Parcel	A portion of the northeast quarter of Section 13, T.43N.-R.4E. (Spring Township), Boone County, IL
Applicant's Contact Person	Tom Graves 816/822-379

Copies of this report or notification of the proposed land-use change were provided to:	<i>yes</i>	<i>no</i>
The Applicant	X	
The Applicant's Legal Representation	X	
The Local / Township Planning Commission	X	
The Village/City/County Planning and Zoning Department or Appropriate Agency	X	
The United States Army Corps of Engineers (USACE)		X
The Illinois Department of Natural Resources (IDNR)		X
The Illinois Historical Preservation Agency (IHPA)		X
The Boone County Health Department (BCHD)	X	
Members of the Boone County Planning, Zoning, and Building Committee	X	
The Boone County Soil and Water Conservation District Files (BCSWCD)	X	

REPORT PREPARED BY: Michael J. Foutch POSITION: Resource Conservationist



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Site Picture 1. Picture of the northern parcel of the site. Taken from the west side of the parcel looking to the east. Taken 1-2-09.



Site Picture 2. Picture of the southern parcel of the site. Taken from the west side of the parcel looking to the east. Taken 1-2-09.



Site Picture 3. Picture of the drainageway that flows through the southern parcel of the site. Taken from the west edge of the site looking to the southeast. Taken 1-2-09.



Site Picture 4. Picture of the farm located to the east of this site. Taken from southwest of the farm looking to the northeast. Taken 1-2-09.

Foreword

Soil & Water Conservation Districts are required to prepare Natural Resource Information (NRI) reports under the Illinois Soil and Water Conservation Act “Ill. Compiled Statutes, Ch. 70, Par. 405/1 et seq.” “Ill. Revised Statutes, Ch. 5, Par. 106 et seq.”

This report provides technical data necessary to evaluate land use changes. The scope of this report is limited to information researched by the Boone County Soil & Water Conservation District (BCSWCD) staff. The framework of this report is based on several key references: the *Soil Survey of Winnebago & Boone Counties* produced by the United States Department of Agriculture; *Geology for Land Use Planning in Boone And Winnebago Counties (circular 531, 1984)* produced by the Illinois Department of Energy & Natural Resources; and United States Geological Survey Topographic Maps. This information may therefore be subject to modification based on a more detailed on-site investigation.

Additional references are cited throughout this report and are listed in the reference section. Most of these references are technical publications specific to one topic area. A field visit to the site was made to verify the general physiographic characteristics of the area. No soil borings were taken during this visit.

Overview

This report details information on a number of natural resource topics. Most of the details for individual topics are presented in a specific section or heading. This section has been created to highlight the natural resource concerns, which are most important to this site, the environment, and the community.

The natural resource concerns for this site include:

- 1) Approximately 400 acres of offsite drainage area flows through this site.
- 2) The Illinois Drainage Guide identifies approximately 21.98% or 4.69 acres of the site soils as areas that may have been drained using a subsurface drainage system. There is a strong likelihood that subsurface drainage systems exist in these areas. A subsurface drainage investigation needs to be completed at this site before development is allowed. Information collected during the subsurface drainage investigation should be used to design and develop a new subsurface drainage system that will provide drainage for the site. The new system should not disrupt or alter the functional capacity of any existing or connected subsurface drainage system.
- 3) There is a drainageway that flows through this site. This drainageway is a tributary to Spring Creek. This drainage should be protected from impacts associated with the proposed development.
- 4) Approximately 63.76% or 13.61 acres of the soils mapped at this site are considered to be sensitive to erosion. With a tributary to Spring Creek flowing through the site extra precaution needs to be taken to prevent sediment from leaving the site. Therefore, it is very important to have erosion and sediment control practices designed, installed, and maintained if development is allowed.
- 5) Approximately 14.26% or 3.04 acres of the soils on this site are subject to flooding. Flooding can cause significant problems to roads, buildings and other structures.
- 6) The land evaluation score for this parcel is 86.43 points. Parcels scoring 76 points or higher in Boone County are identified as being prime agricultural land. On this parcel 100% of the soils are rated as prime agricultural land.
- 7) The Comprehensive Plan for Belvidere and Boone County identifies portions of this area as being planned for Agriculture/Rural and Environmental Corridor for future land uses.

The Boone and Winnebago Regional Greenways Plan shows portions of this site as critical and sensitive land. This critical and sensitive land includes the floodplain area mapped on the site (Figure 11).

- 8) Wetlands were not observed and are not mapped as being present on this site. However, wetlands are located just downstream from this site to the west.

Opinion of the BCSWCD Board

The Boone County Soil & Water Conservation District Board has an unfavorable opinion regarding the proposed land use change. This opinion is based on the natural resource concerns detailed throughout this report. Most of these concerns are stressed in the "Overview" section of this report. More detailed information for each of the concerns is presented throughout the various sections of this document.

Agricultural Areas Information

Agricultural practices occurring on lands adjacent to this parcel need to be considered in light of the long-term coexistence being proposed.

Archaeological Information

The Illinois Historic Preservation Agency (IHPA) has not been notified by the BCSWCD of the proposed land use change. The applicant may need to contact the IHPA according to current Illinois law.

Drainage & Runoff

Watershed Impacts – Cumulative Effects

Dramatic changes occur as a watershed is converted from an undeveloped landscape to a more urbanized and developed landscape. This is largely due to changes in ground cover. Areas planted to crops, grass, or other vegetation can absorb a certain percentage of rain and water from melting snow and ice into the ground. A portion of this water becomes groundwater. The majority of the water that does not become absorbed into the soil runs across the surface as either sheet flow (water that isn't concentrated into some type of channel, natural or constructed) or concentrated flow (water that is concentrated into some type of channel).

Natural drainage systems develop a complex and interactive system that allows for the conveyance, storage, and overflow of surface water runoff. The various components of this system are continuously adapting to accommodate the current flow conditions. When land is developed, people tend to disrupt one or more components of the natural drainage system. These changes to the drainage system are easily over-looked when development pressures are either just beginning, or are few and far between. But, as development pressure expands to encompass more area of a watershed, the changes become more obvious.

The usual cause and effect resulting from urbanizing land development within a given watershed goes something like this:

There is usually an increase in the volume of surface water runoff being contributed to the watershed. This is typically the result of an increase of impervious surfaces. Impervious surfaces are things like roads, driveways, buildings with rooftops, etc. These impervious surfaces now occupy land area in the watershed that would have absorbed a percentage of the precipitation that falls there.

The time of concentration is shortened. This means that water gets to the actual stream channel sooner than the water did when it was allowed to flow under natural conditions. Precipitation that falls onto an urbanized portion of a watershed is manipulated to maximize efficient drainage. Beginning with the rain gutter, rainwater or snowmelt is generally routed offsite and downstream as quickly and efficiently as possible.

The combined effect of the increased volume of flow and the shortened time of concentration causes several reactions including, but not limited to:

- ✓ An increased severity and frequency of floods;
- ✓ More runoff as storm water;
- ✓ Less infiltration of stormwater;
- ✓ Increased water velocities in streams;
- ✓ Reduced groundwater recharge;
- ✓ The watershed system becomes impaired and degraded.

In many areas, land uses are not restricted to the upland portion of the watershed. Urbanized development may also occur in and along the floodplains of streams and rivers in the watershed. Natural floodplains act as buffers by providing storage area for floodwaters. Urbanized development in a floodplain occupies storage area for floodwater, which may cause flood impacts upstream. In addition, those urbanized areas are much more likely to experience flood related damage.

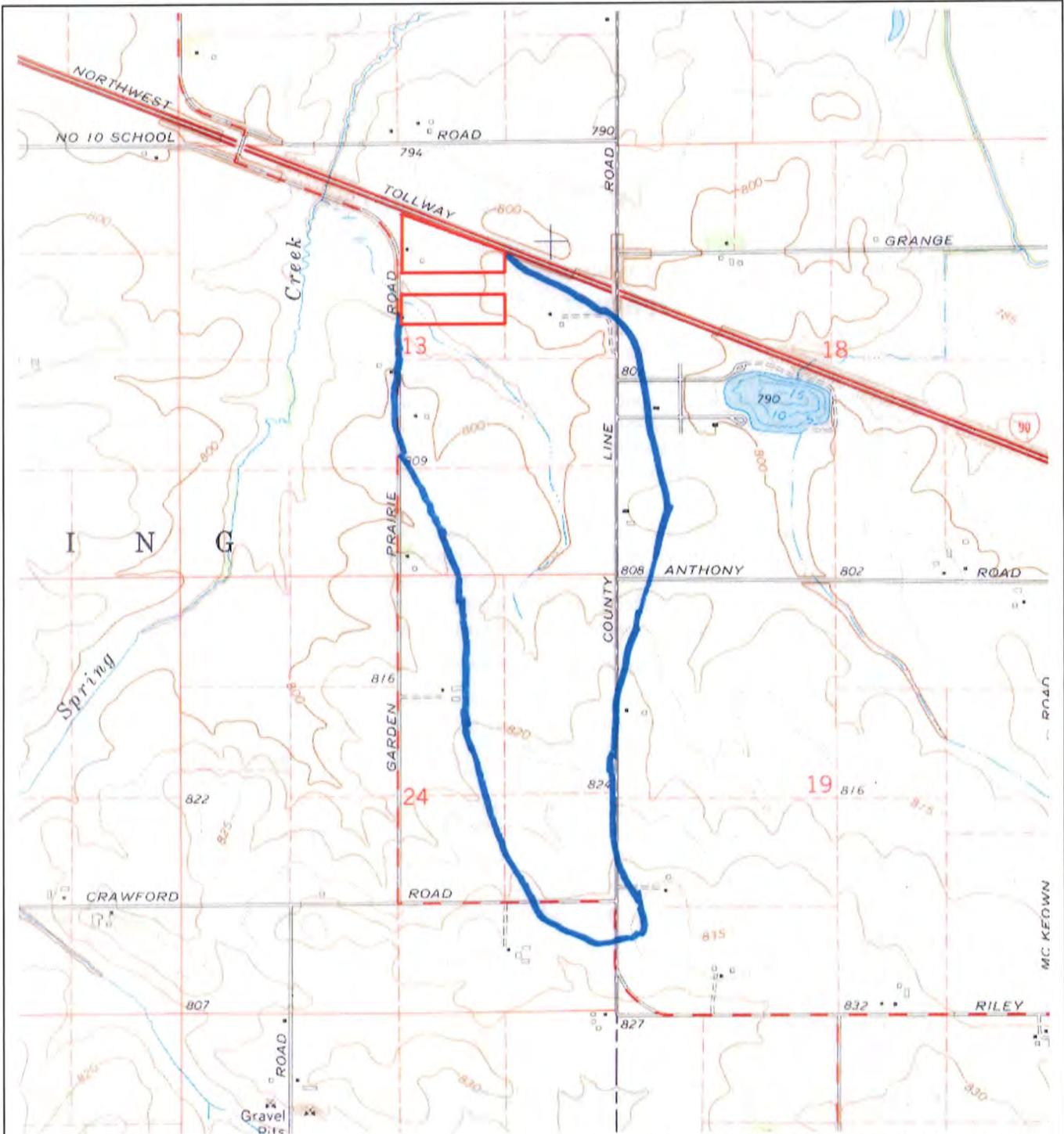


Figure 1. United States Geological Survey map showing the site area outlined in red and the watershed boundaries outlined in blue. Approximately 400 acres of off-site drainage flows through the site.

Characteristics of the Watershed Affecting This Site

Position of Site Area in Relation to Watershed

Figure 1 shows the site located on a small tributary to Spring Creek.

Size of Drainage Area Affecting This Site

Approximately 400 acres of drainage area contributes to the off-site runoff of the site area. The drainage area was determined by delineating the watershed area on the United States Geological Survey map (Figure 1). Once the watershed area was determined, an electronic planimeter was used to establish the drainage area acreage.

Potential Impacts to the Watershed

The request for this site is for a special use permit to construct an electric power generating plant.

This type of development has the potential to increase offsite runoff. This creates the need for careful planning and implementation of practices that are designed to minimize the potential impacts associated with this type of development.

Erosion during construction phases has the potential to degrade the water quality of the watershed and the downstream environment. This office recommends the development and implementation of a stormwater management plan that addresses the potential watershed impacts that may result from or be contributed to the proposed land development.

Topographic Information

Topographical data is taken from the United States Geological Survey Quadrangle map (Figure 1). The highest elevation on the site is approximately 800 feet above sea level and the lowest elevation is approximately 790 feet above sea level. Relief of the site is approximately 10 feet.

Subsurface Drainage

The Illinois Drainage Guide identifies approximately 21.98% or 4.69 acres of the site as areas that may have been drained with subsurface drainage. Figure 2 shows the extent and location of these areas on the soil survey map. Drain tile lines may also be located in or along the drainage swales located at this site. Given the historic use of drain tile in Boone County by local farmers, there is a strong likelihood that subsurface drainage systems could exist in these areas.

Existing subsurface drainage systems may cause serious water-related problems. Problems can range from flooded basements, cracked foundations, sump-pumps that run frequently, to drainage problems on other properties due to the disruptions of subsurface drainage lines carrying off-site water. These problems can be avoided or minimized by knowing which soil types or landscape positions are most commonly associated with subsurface drainage systems.

A subsurface drainage investigation needs to be completed at this site before development is allowed. Information collected during the subsurface drainage investigation should be used to design and develop a new subsurface drainage system that will provide drainage for new development. The new system should not disrupt or alter the functional capacity of any existing or connected subsurface drainage system.

Failure to address subsurface

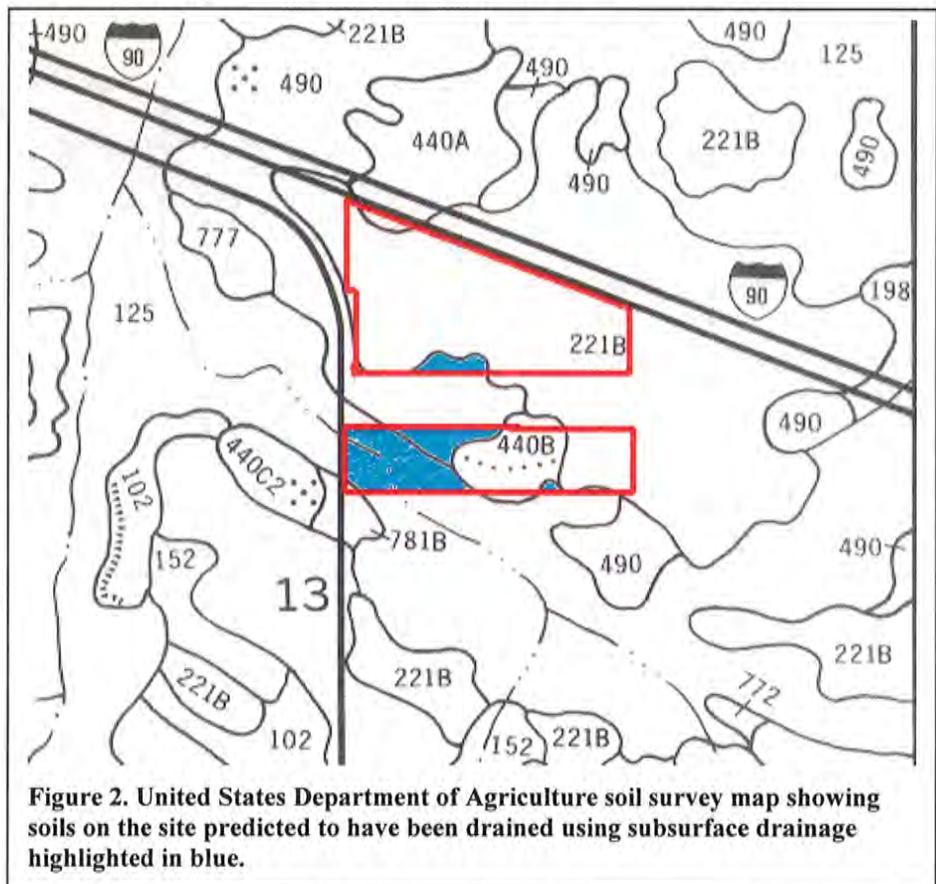


Figure 2. United States Department of Agriculture soil survey map showing soils on the site predicted to have been drained using subsurface drainage highlighted in blue.

drainage issues in the planning stages may cause water related problems for future development and surrounding properties.

Ecologically Sensitive Areas

The dominant ecological feature at this site is the drainageway that flows through the property. This drainageway is a tributary to Spring Creek. This drainage should be protected from impacts associated with the proposed development.

The Illinois Department of Natural Resources, Natural Heritage Division, is notified by the BCSWCD of all potential land-use changes (zoning changes) occurring within the boundaries of the BCSWCD.

Soil Erosion and Sediment Control

Significance of Erosion and Sediment Control

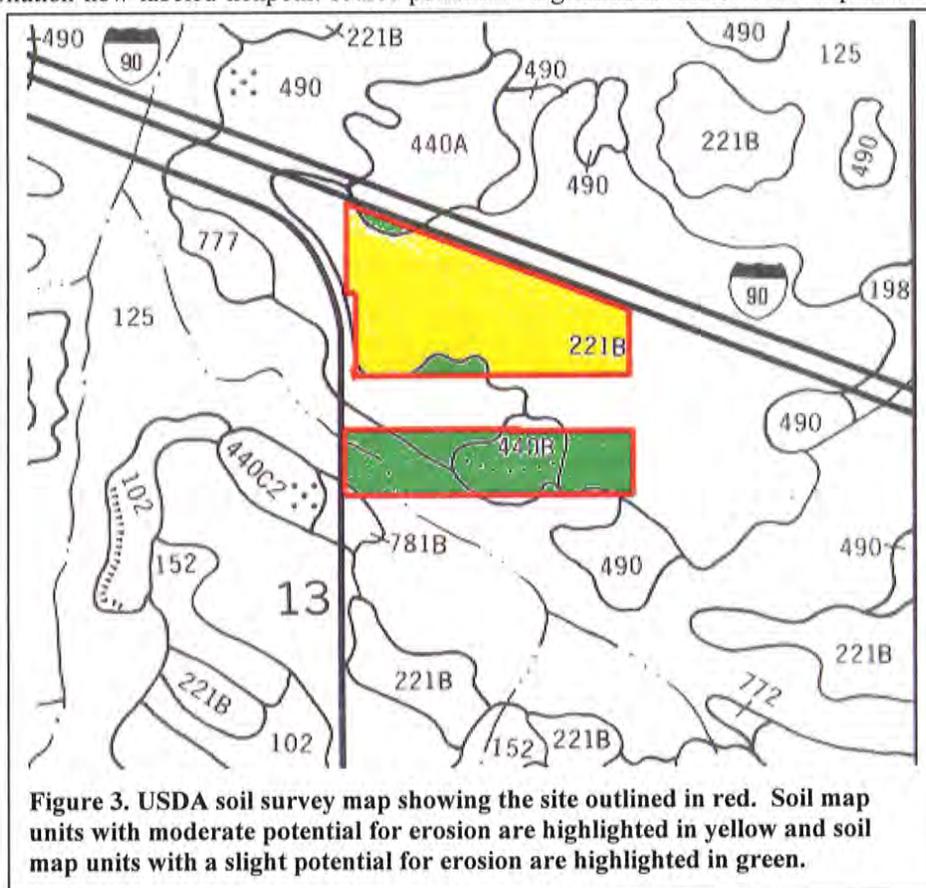
Erosion and sediment control is an element of planning that is commonly overlooked. When given consideration, erosion and sediment control practices are frequently poorly planned and implemented improperly.

Sediment loading is the leading form of pollution now degrading the quality of our surface waters. This pollutant has many sources. Farm fields, streambanks, lakeshores, and construction sites are common sources of sediment. The public has a growing concern regarding the improvement of water quality and minimizing pollution. Many levels of government are now involved in managing the effects of erosion and sedimentation. Federal, state, and local laws have been developed and implemented to reduce this form of pollution now labeled nonpoint source pollution. Agricultural interests developers and others involved in land management are all under some form of governmental regulation directed toward controlling erosion and its side effects.

Proper planning and implementation of erosion and sediment control practices can be very effective. With the exception of subdivisions in areas governed by Boone County, the City of Belvidere, and the Village of Poplar Grove, erosion and sediment control is a voluntary practice. The three mentioned governmental bodies have erosion and sediment control requirements detailed in their respective subdivision codes.

Erosion Concerns For This Site

Approximately 63.76% or 13.61 acres of the soils mapped at this site are considered to be sensitive to erosion (Figure 3). Slopes observed in the field appeared to be consistent with the references. To be effective soil erosion and sediment control practices need to be planned and installed before any construction activity begins.



Flood Information

Flooding can, if not given proper consideration, cause significant problems to roads, buildings and other structures. The Federal Emergency Management Agency Floodway map indicates the floodplain area mapped at this site (Figure 4).

Soil survey data is very useful in determining if an area or drainageway is subject to flooding. Figure 5 is a copy of the soil survey map for this parcel. This reference indicates the presence of one soil map unit, approximately 14.26% or 3.04 acres, that is subject to flooding.

Soil map unit 125 Selma loam is subject to occasional flooding of brief duration most commonly between the months of April and June. Occasional flooding describes a frequency of 5 to 50 percent chance of occurrence in any given year. A brief duration is defined as a period of 2 to 7 days.

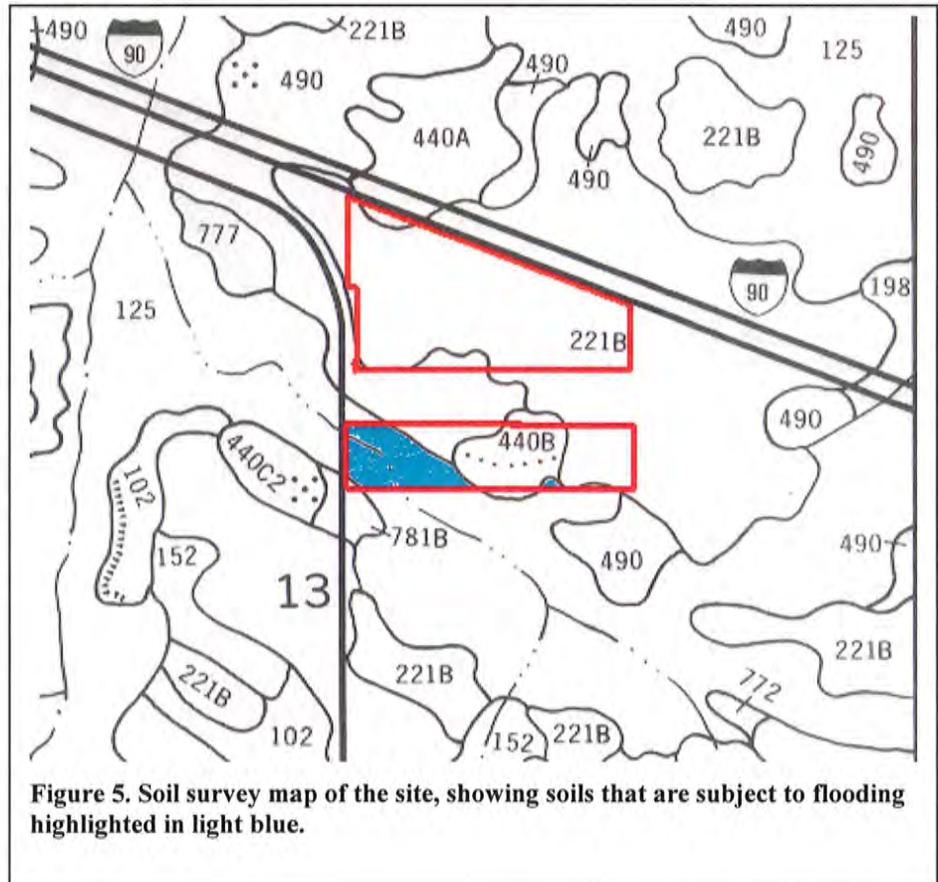
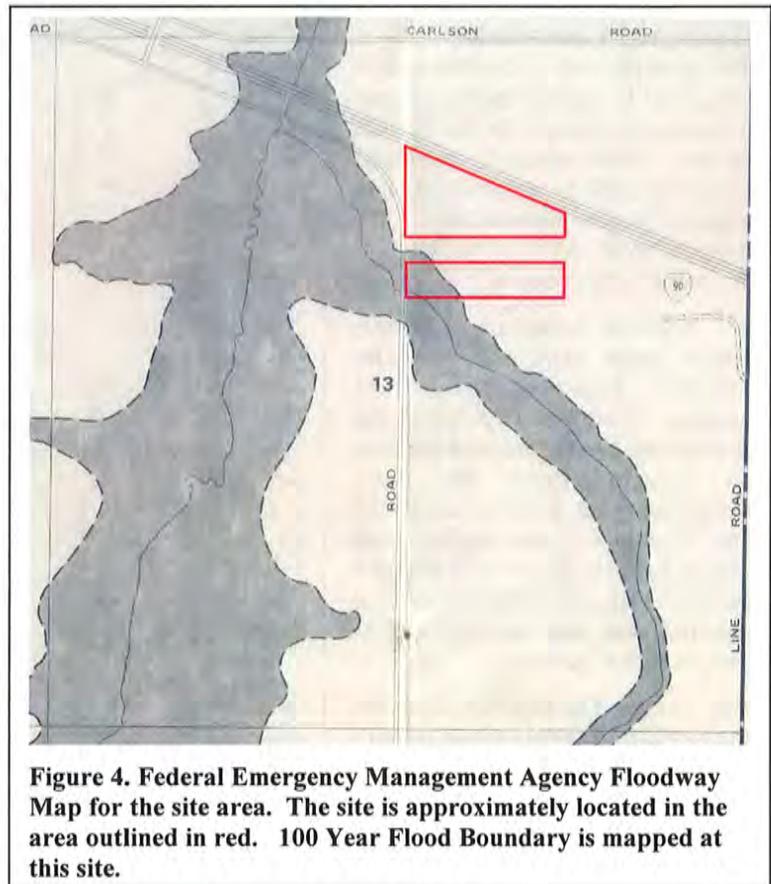
This section should be reviewed in coordination with the wetland section of this report. Alteration of any portion of a floodplain may require a permit from one or more of the regulatory agencies listed in the wetland section of this report.

Geologic Information

Significance of Geologic Information

Geologic information is an important component of each NRI report. Even maps and reports of statewide scale can provide important information about a specific area's suitability for a given land use. Generalizations about the potential for groundwater contamination, mineral resources, development potential, groundwater recharge, etc. can be made. The local geology is an important element of the natural resource base.

Geologic information used in this report is taken directly from *Geology For Planning In Boone & Winnebago Counties* (circular 531, 1984). Other references will be cited in the text when used.



Geologic Framework

The geologic setting for this area is influenced by several factors. Figure 6 details the geology for the surficial 20 feet. These materials are subject to current geologic processes such as erosion and sedimentation. The deposits most likely to be found in this area are described as:

c: **Cahokia Alluvium** – Mostly poorly sorted sand, silt, and clay (organics locally); deposited by modern rivers and streams on floodplains, in channels, and in places on terraces along the Rock, Pecatonica, and Kishwaukee Rivers and Piskasaw Creek during peak floods; Cahokia Alluvium is always a surficial material. The () indicate that this unit may or may not be present at that location.

gor: **Oregon Till Member, Glasford Formation** – Pinkish-brown or buff-tan, fairly compact sandy till up to 15 feet thick; the average sand-silt-clay percentage is 50-31-19. It occurs mostly as a surficial unit in southwestern Boone County and southeastern Winnebago County in extreme downslope positions along the lower portions of the Kishwaukee River; it is also the surficial deposit in south-central and southwestern Winnebago County; illite averages 50 percent; stratigraphically underlies the Esmond Till and overlies the Creston Till; east of the Rock River the till generally lacks a loess cover and a paleosol; while west of the Rock River a strong paleosol with more than 5 feet of loess.

pr: **Peoria Loess and Roxana Silt** – Windblown silt 2 to 5 feet thick, generally yellowish brown; occurs on uplands throughout the counties; locally overlain by a thin Parkland Sand deposit east of the Rock River; overlies glacial materials of Illinoian and early Altonian age.

gbl: **Belvidere Till Member, Glasford Formation** – Pinkish-brown or pale brown, fairly compact silty till; locally it may be more than 40 feet thick, but it is usually less than 20 feet thick; the till stratigraphically underlies the Winnebago Formation Tills, and overlies the Esmond Till; the surface of the Belvidere Till is eroded.

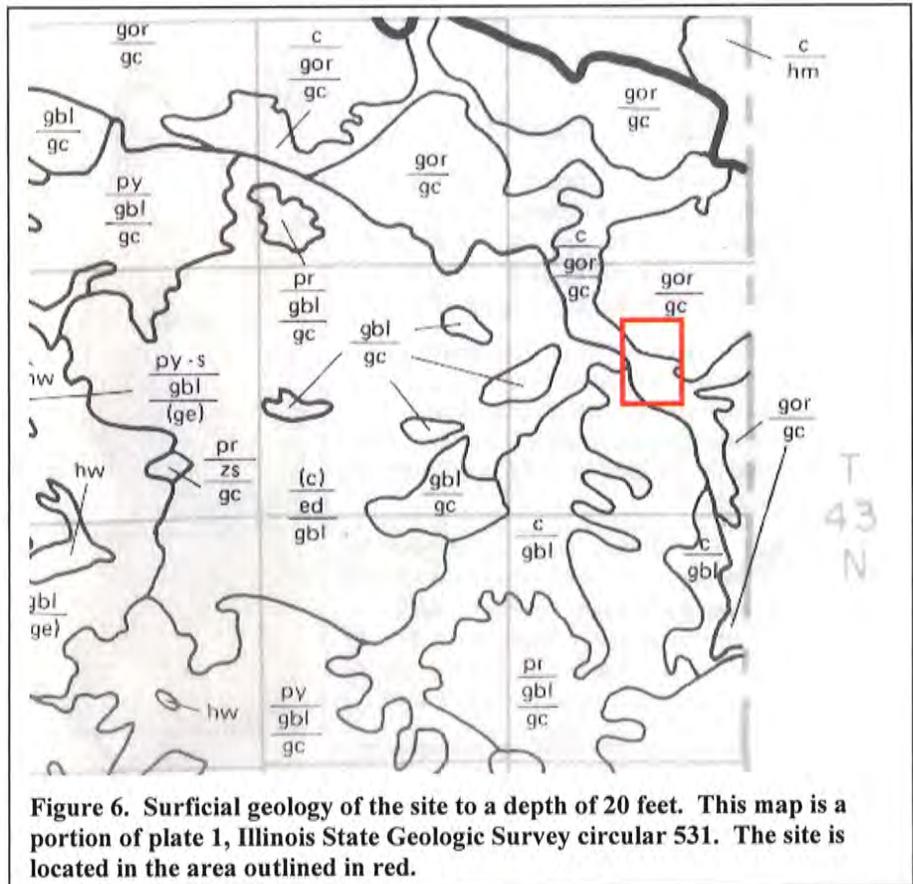


Figure 6. Surficial geology of the site to a depth of 20 feet. This map is a portion of plate 1, Illinois State Geologic Survey circular 531. The site is located in the area outlined in red.

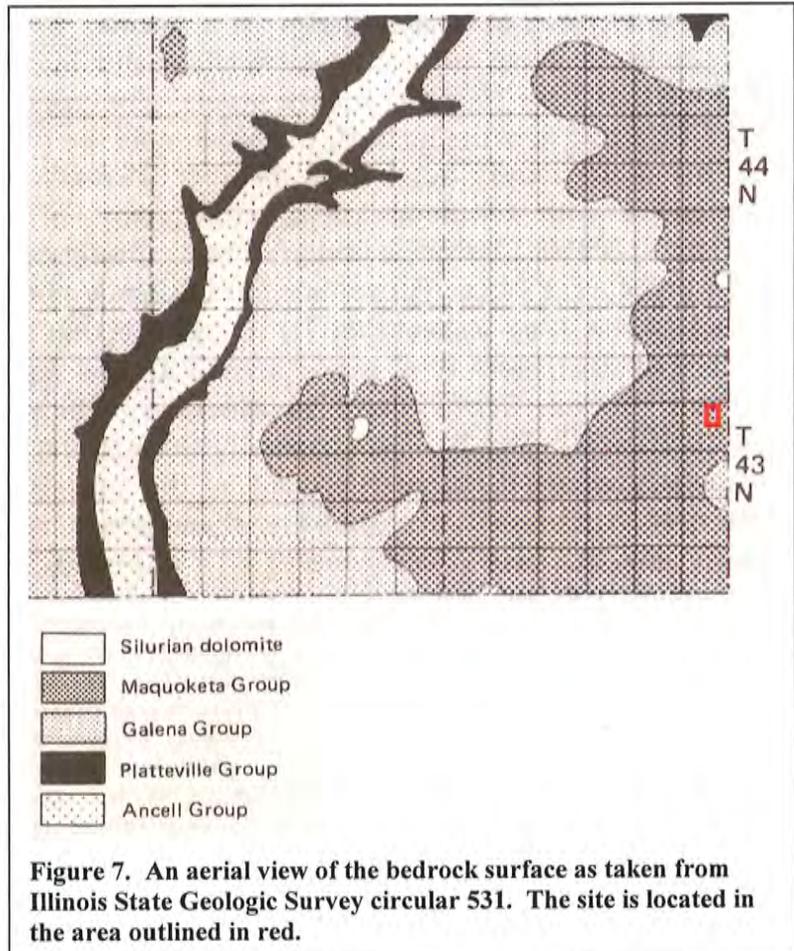


Figure 7. An aerial view of the bedrock surface as taken from Illinois State Geologic Survey circular 531. The site is located in the area outlined in red.

ed: Dolton Member, Equality Formation – Generally thin-bedded, medium- to coarse-grained sand deposited in former shallow water lakes and deltas; most extensive deposits in southeastern Boone County; usually overlain by Cahokia Alluvium, loess, or Parkland Sand; coarse-grained equivalent of Carmi Member of Equality.

gc: Creston Till Member, Glasford Formation – Pinkish-brown, somewhat compact loamy till up to 20 feet thick; average sand silt clay percentage of 30-35-35; illite averages 62 percent; occurs fairly extensively within the subsurface within 20 feet of the surface beneath the Oregon and Belvidere Till in southeastern Boone County; a small area of surficial exposure possibly exists in south-central Boone County; it stratigraphically underlies the Oregon Till and possibly is genetically related to it, and overlies the Fairdale Till; there is no weathering or paleosol separating the Creston from the material above.

The Maquoketa Shale Group is predicted to be the first bedrock units beneath the glacial deposits (Figure 7). The Maquoketa Shale consists mostly of shale with dolomite stringers. The Maquoketa Group overlies dolomite of the Galena Group. In the subsurface the Maquoketa often contains beds of siltstone and, in some places, limestone or dolomite. The shale attains a thickness of about 110 feet in Boone County; its average thickness is 50 feet. However, thicknesses up to 200 feet are reported in neighboring counties. Because of the tightly packed nature of shale, the Maquoketa is not considered a reliable groundwater source, although small quantities can be obtained in some places. The shale of the Maquoketa is a hydrologic barrier between the shallower and deeper permeable formations. This rock unit is predicted to exist between 50 and 100 feet below the ground surface in this area (Figure 8).



Figure 8. Drift thickness interpreted as depth to bedrock, taken from Illinois State Geologic Survey circular 531. The site is generally located in the area outlined in red.

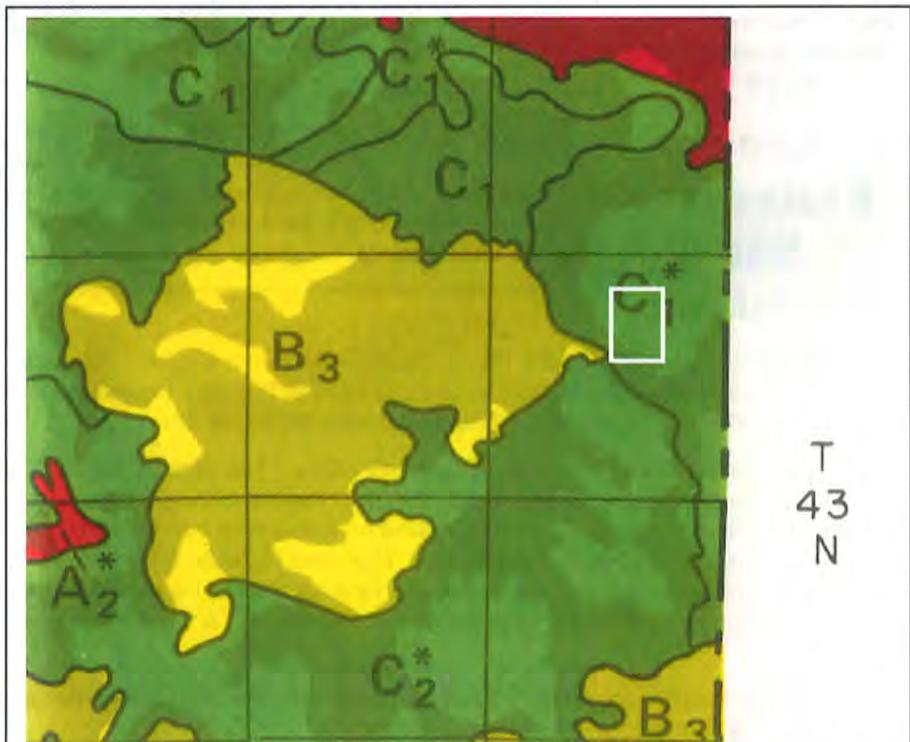


Figure 9. Geologic sensitivity to groundwater contamination on plate 3 of ISGS circular 531. The site is generally located in the area outlined in white.

Subsurface Hydrology

Plate 3 of the ISGS Circular 531 (Figure 9) rates this area as map unit C₁ or as having the low potential for aquifer contamination.

Land Use Plans

The Comprehensive Plan for Belvidere and Boone County identifies portions of this area as being planned for Agriculture/Rural and Environmental Corridor for future land uses (Figure 10).

The Boone and Winnebago Regional Greenways Plan shows portions of this site as critical and sensitive land. This critical and sensitive land includes the floodplain area mapped on the site (Figure 11).

Land Evaluation Site Assessment



The BCSWCD cooperates with the Boone County - Belvidere Regional Planning Commission in the evaluation of zoning requests for land evaluation site assessments (LESA). The Planning Department staff evaluates the site assessment portion of LESA and BCSWCD staff prepares the land evaluation portion of this review.

The land evaluation score for this parcel is 86.43 points. The BCSWCD Board has established a policy to oppose zoning changes with land evaluation scores higher than 76. Parcels scoring 76 points or higher in Boone County are identified as being prime agricultural land. "Agricultural land uses should be interpreted to mean all agricultural and related uses that can be considered to be part of the farm operation. This would include farmland (cropland), pasture lands, truck farms, or timber lands, whether or not in current production, and farm residences, barns, and out buildings." Figure 12 shows the extent and location of the prime agricultural soils mapped on this parcel. A Land Evaluation score sheet is attached at the end of this document.

The BCSWCD Board's opinion is strongly influenced by the land evaluation score, nearly every request having a score higher than 76 will receive an unfavorable opinion.

Prime Agricultural Land

Prime Agricultural Soils

Prime agricultural soils are an important resource to Boone County. Some of the most productive soils in the United States occur locally. The BCSWCD has established a policy that aspires to protect and preserve prime agricultural lands.

Each soil map unit is assigned a prime or nonprime rating. All of the soils on this parcel are rated as prime agricultural land (Figure 12). Soils do not have to be in the production of food & fiber to be rated as prime agricultural land.

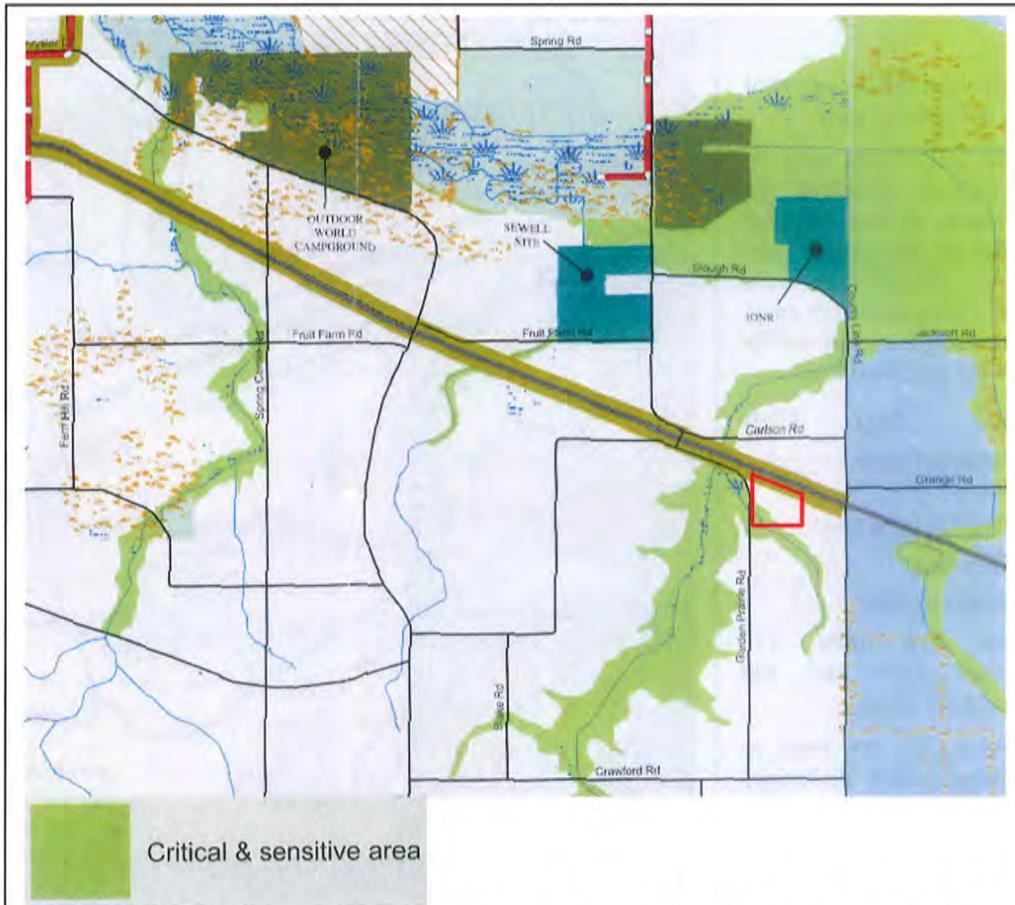


Figure 11. The Boone and Winnebago Regional Greenways Plan showing portions of this site as Critical and Sensitive Area. The site is generally located in the area outlined in red.

Soils Information

Significance of Soils Information

Soils information is taken from the Soil Conservation Service Soil Survey of Winnebago & Boone Counties unless otherwise noted. This information is vital for all parties involved in determining the suitability of the proposed land use change. Each soil map unit will be described in detail for a variety of commonly proposed uses such as the construction of dwellings with or without basements etc. At the conclusion of this section there is a summary chart (Table 2) of the overall potential for the site with respect to the proposed land use change.

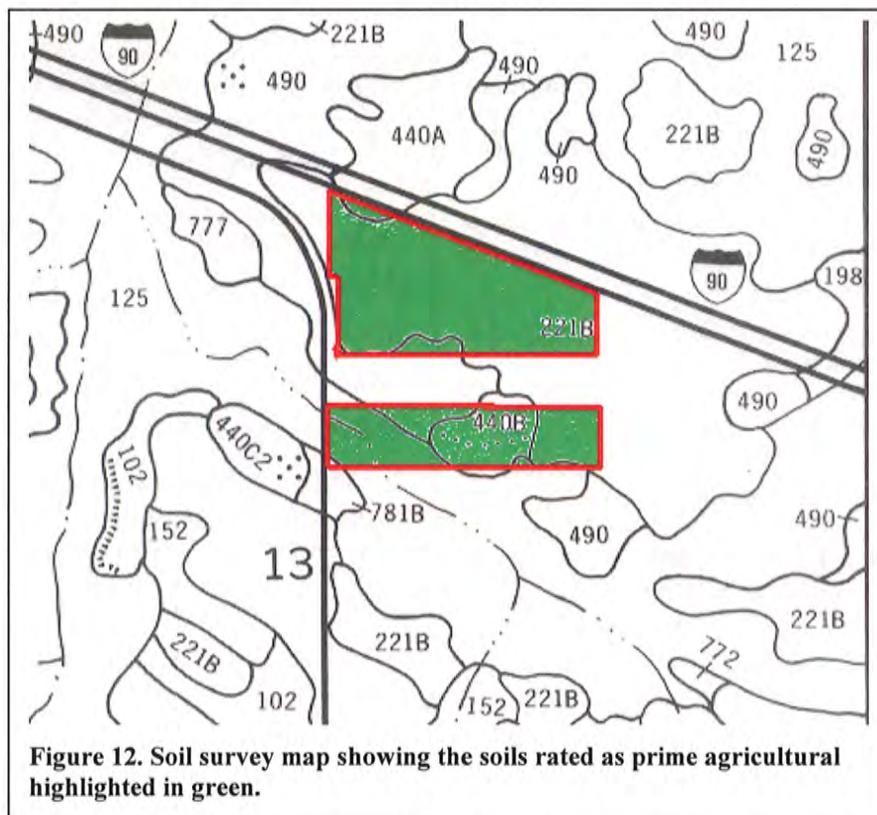


Figure 12. Soil survey map showing the soils rated as prime agricultural highlighted in green.

Soil map units indicated on soil survey map

The soil survey map of this area indicates the presence of five soil map units on this site (Figure 13). These map units have limitations that range from slight to very severe for the proposed uses.

Soil Map Unit Descriptions

Characteristics affecting construction

Soil map units: 125 Selma loam and 490 Odell silt loam

These soils are rated as having severe limitations for most construction related uses. Shallow depth to a fluctuating watertable, flooding and/or ponding, low strength for supporting loads, and the potential for frost action are the major soil limitations.

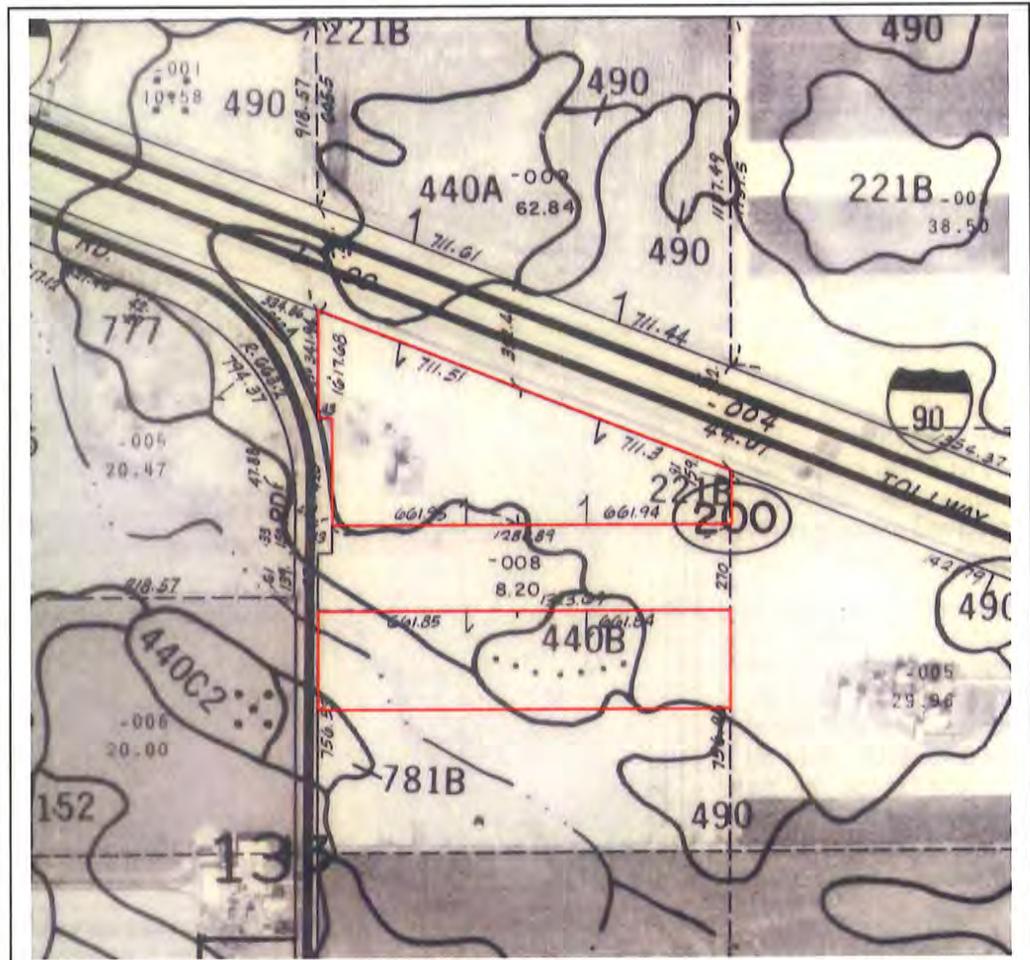


Figure 13. Sidwell aerial photograph with soil survey data imposed on it. The site is outlined in red.

Shallow depth (0 to 3 feet below the ground surface) of a fluctuating watertable is a serious concern. Many water related problems associated with basements, roads, and other structures are impacted by a shallow depth to groundwater. Cracked foundations, wet basements, and sump pumps that run frequently are concerns that need to be addressed.

Flooding can cause significant damage to foundations, basements, road, and other structures.

Low bearing strength for supporting loads is a limitation for local roads and streets as well as foundations for buildings and other structures.

Frost action is another process that can affect structures. Roads or other structures can be damaged by frost action if measures are not taken overcome the limitation.

Soil Map Unit	Range of Slope	Percentage of Site Area	Approximate Acres
125 Selma loam	Near level	14.26%	3.04 acres
221B Parr silt loam	2-5%	63.76%	13.61 acres
440B Jasper silt loam	2-5%	13.93%	2.97 acres
490 Odell silt loam	Near level	7.72%	1.65 acres
781B Friesland sandy loam	2-6%	0.34%	0.07 acres

Table 1. Soil map units identified on USDA-NRCS Soil Survey Map of the site area.

Soil Map Unit	Dwelling With Basement	Dwelling without Basement	Septic Ratings	Flooding	Groundwater Pollution Potential	Local Roads & Streets	Lawns & Landscaping Potential	Erosion Hazard	Hydric (wet) Soil
125 Selma	Severe	Severe	Severe-very severe	Occasional	Severe	Severe	Severe	Slight	Yes
221B Parr	Slight	Slight	Severe-very severe	None	Slight	Severe	Slight	Moderate	No
440B Jasper	Slight	Slight	Moderate	None	Slight	Moderate	Slight	Slight	No
490 Odell	Severe	Severe	Severe-very severe	None	Severe	Severe	Moderate	Slight	No*
781A Friesland	Slight	Slight	Moderate	None	Slight	Moderate	Slight	Slight	No

Table 2. Summary chart of soil ratings. An * next to the response in the hydric soil column indicates that hydric soil inclusions are likely to occur in draws or swales associated with that map unit.

Soil map units: 221B Parr silt loam, 440B Jasper silt loam, and 781B Friesland sandy loam

These soils are rated as having slight to moderate limitations for construction related activities.

Low strength for supporting loads, shrink-swell, and the potential for frost action are the major soil limitations.

Shrink-swell is caused by minerals that swell as the soil becomes wet and shrink as the soil dries-out. Buildings with or without basements, roads or other structures may be affected by this limitation. Structures may require design features that overcome these soil limitations.

Characteristics affecting onsite wastewater treatment

Issues related to onsite wastewater treatment need to be reviewed and evaluated very carefully with respect to the proposed land use.

Approximately 86.07% or 18.37 acres of the soils on this site are rated as having severe-very severe limitations for the treatment of septic system wastewater according to Boone County Health Code Standards (Figure 14).

Two major factors influence soil's ability to treat effluent. The first factor, permeability is directly related to soil texture and the interconnection of pore spaces (air space between soil particles or soil aggregates). Septic systems are, in part, sized according to the soil's permeability. If permeability is too slow it can create problems associated with system back up or overload as well as create anaerobic conditions, which greatly reduce effluent treatment. If permeability is too fast it usually means sandy or gravelly conditions are present. This situation allows for rapid

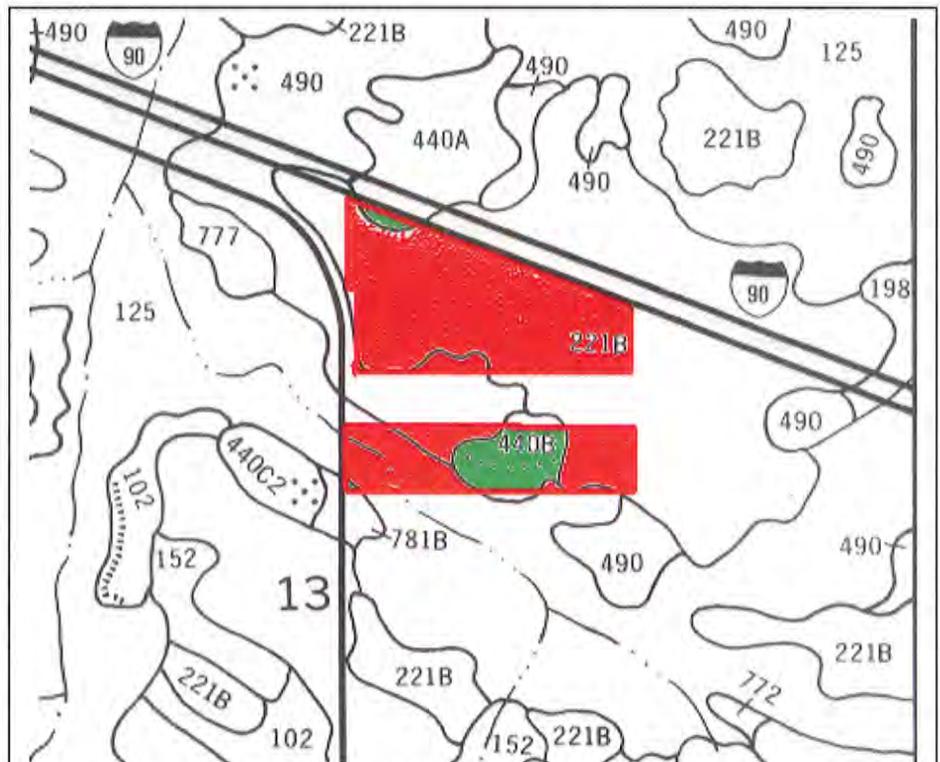


Figure 14. USDA soil survey map showing soils rated as having severe-very severe limitations for the treatment of septic system wastewater are highlighted in red and soils rated as having moderate limitations for the treatment of septic system wastewater highlighted in green.

downward movement of effluent. This rapid movement may not allow biological activity sufficient time to effectively treat effluent and may result in contamination of shallow aquifers. Both types of failure may lead to problems affecting the health and safety of nearby residents or the environment.

Anaerobic soil conditions (the absence of air in the soil pore spaces) in a zone beneath the field distribution lines are a critical factor. Contaminants such as viruses, bacteria, and nitrates are directly associated with septic system wastes. Aerated conditions are necessary for biological treatment to occur. Information pertaining to the performance of onsite wastewater treatment concurs with this assessment. "Providing an unsaturated zone below the soil absorption area is absolutely essential or the efficiency of soil treatment is negated" (Technical Review Committee Report - Individual Sewage Treatment Systems, 1990). *Septic System Density and Groundwater Contamination In Illinois: A Survey of State and Local Regulation* and *Estimating Wastewater Loading Rates Using Soil Morphological Descriptions* are examples of the many professional reports and papers which focus on onsite wastewater treatment.

This development is currently being platted utilizing wells and septic systems. The developers and their contractors need to take extra precautions when building this development. With limited room to locate a primary and secondary septic drain field it is very important that usable soils on each lot are not disturbed. Excavated material from construction activities will need to be spread or stored in a defined area away from potential septic system locations. Also, equipment traffic lanes need to be defined and used to minimize potential soil compaction in usable septic system areas. Failure to take these precautions could pose serious problems for locating septic systems in this development.

An onsite soils investigation was not completed for this site at the time this report was prepared. This office strongly recommends the use of a municipal sewage treatment system for the treatment of all the effluent generated at this site.

WETLAND INFORMATION & REGULATIONS

Importance of Wetland Information

Wetlands provide a multitude of benefits which have a significant effect on water quality, groundwater recharge and discharge, erosion and sediment control, flood water management, biological diversity, and more (A Citizens' Guide to Protecting Wetlands, 1989). Because of the economic and biological importance of these benefits there are several laws passed to protect and enhance wetlands.

Are wetlands present on this site?

Wetlands were not observed and are not mapped as being present on this site. Wetlands are located adjacent to this site. These wetlands could be negatively impacted by this development if precautions are not taken to avoid such impacts. The primary concern is the potential for earth altering activities and erosion and sedimentation.

The US Fish & Wildlife Service Wetland Inventory Map identifies the presence of wetlands adjacent to this site across the road to the west (Figure 15). The Natural Resource Conservation Service Wetland Inventory Map concurs with the USF&WS

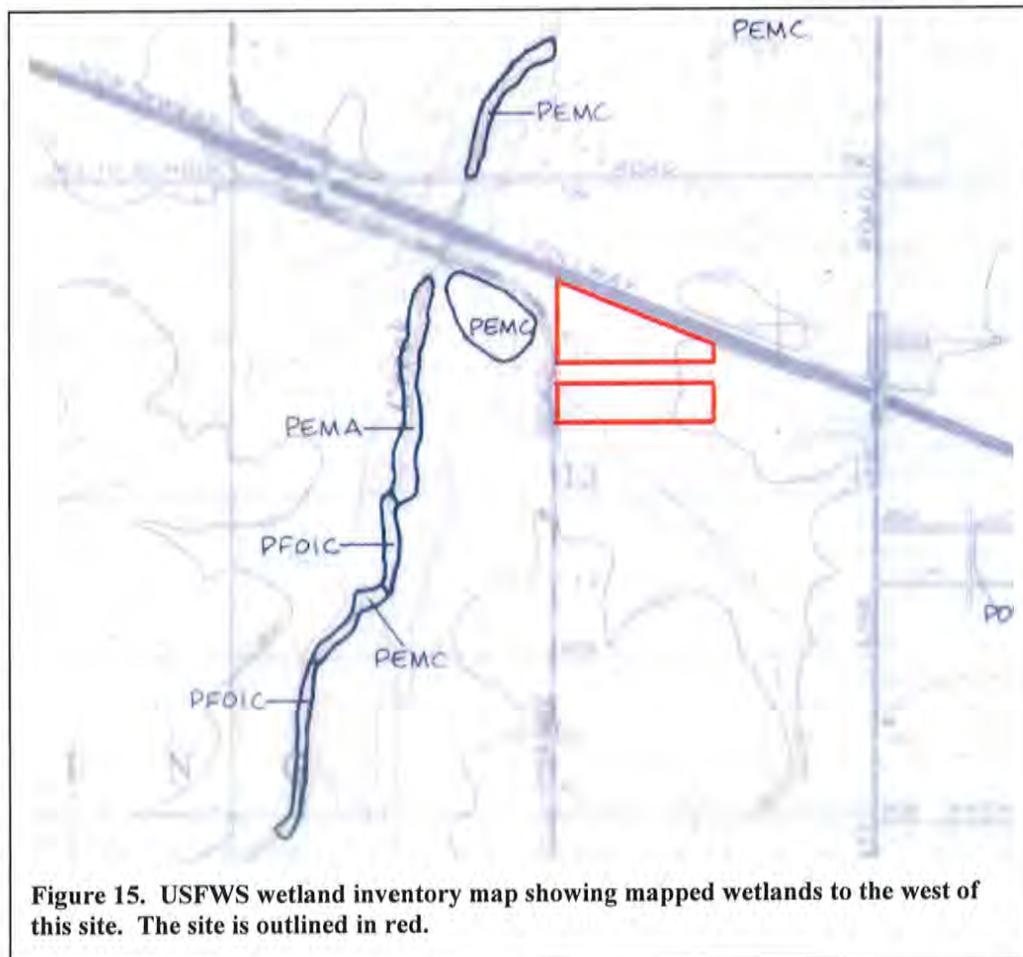


Figure 15. USFWS wetland inventory map showing mapped wetlands to the west of this site. The site is outlined in red.

wetland map (Figure 16).



Figure 16. USDA-NRCS Wetland inventory map with the site approximately outlined in red. W-Wetland, FW-Farmed Wetland, FWP-Farmed Wetland Pasture, NI-Not Inventoried, PC-Prior Converted, NW-No Wetland.

PLEASE READ THE FOLLOWING IF YOU ARE PLANNING TO DO ANY WORK NEAR A STREAM (THIS INCLUDES SMALL UNNAMED STREAMS), LAKE, WETLAND OR FLOODWAY

Under the laws of the United States and the State of Illinois, certain agencies have been assigned specific and different regulatory roles, which are designed to protect the waters within the State's boundaries. These roles, when considered together, include protection of navigation channels and harbors, protection against floodway encroachments, maintenance and enhancement of water quality, protection of fish and wildlife habitat and recreational resources, and, in general, the protection of total public interest. Unregulated use of the waters within the State of Illinois could permanently destroy or alter the character of these valuable resources and have an adverse impact on the public. Therefore, it is important to contact the proper regulatory authorities before performing any work associated with Illinois waters so that proper consideration and approval can be obtained.

WHO MUST APPLY

Anyone proposing to dredge, fill, rip rap, or otherwise alter the banks or beds of, or construct, operate, or maintain any dock, pier, wharf, sluice, dam, piling, wall, fence, utility, floodplain or floodway subject to State of Federal regulatory jurisdiction should apply for agency approvals.

REGULATORY AGENCIES:

1. **US Army Corps of Engineers**, Rock Island District, Clock Tower Building, Post Office Box 2004, Rock Island, Illinois 61204-2004. Phone: (309) 794-5369, Contact(s): Jeff Sniadach; Steve Vanderhorn; Donna Jones
2. **Illinois Division of Water Resources (IDNR)**, District 1, 1000 Plaza Drive, Schaumburg, IL 60196, phone: 708-782-4211.
3. **Illinois Environmental Protection Agency**, Division of Water Pollution Control, Permit Section, Watershed Unit, 2200 Churchill Road, Springfield, IL 62706, phone 217-782-0610.

Water Coordination

Early coordination is recommended with the regulatory agencies BEFORE plans for work are finalized. This will allow measures to mitigate/compensate for adverse impacts to be recommended as well as possible environmental enhancement provisions made early in the project planning stages. This could reduce time required to process necessary approvals.

CAUTION: Contact with the United States Army Corps of Engineers before commencement of any work in or near a water of the United States is strongly advised. This could save considerable time and expense. Persons responsible for willful and direct violation of Section 10 of the River And Harbor Act of 1899 or Section 404 of the Federal Water Pollution Control Act are subject to fines ranging up to \$25,000 per day of violation and imprisonment for up to one year or both.

Glossary

AGRICULTURAL PROTECTION AREAS (AG AREAS) - Allowed by P.A. 81-1173. An AG AREA consists of a minimum of 350 acres of farmland, which is contiguous and compact as possible. Petitioned by landowners, AG AREAS are protected for a period of ten years initially, then reviewed every eight years thereafter. AG AREA establishment exempts landowners from local nuisance ordinances directed at farming operations, and designated land can not receive special tax assessments on public improvements that don't benefit the land, i.e. water and sewer lines.

AGRICULTURE - The growing, harvesting and storing of crops including legumes, hay, grain, fruit and truck or vegetable including dairy, poultry, swine, sheep, beef cattle, pony and horse production, fur farms, and fish and wildlife farms; farm buildings used for growing, harvesting and preparing crop products for market, or for use on the farm; roadside stands, farm buildings for storing and protecting farm machinery and equipment from the elements, for housing livestock or poultry and for preparing livestock or poultry products for market; farm dwellings occupied by farm owners, operators, tenants or seasonal or year around hired farm workers.

BEDROCK - Indicates depth at which bedrock occurs. Also lists hardness as rippable or hard.

FLOODING - Indicates frequency, duration, and period during year when floods are likely to occur.

HIGH LEVEL MANAGEMENT - The application of effective practices adapted to different crops, soils, and climatic conditions. Such practices include providing for adequate soil drainage, protection from flooding, erosion and runoff control, near optimum tillage, and planting the correct kind and amount of high quality seed. Weeds, diseases, and harmful insects are controlled. Favorable soil reaction and near optimum levels of available nitrogen, phosphorus, and potassium for individual crops are maintained. Efficient use is made of available crop residues, barnyard manure, and/or green manure crops. All operations are combined efficiently and in a timely manner to create favorable growing conditions and reduce harvesting losses—within limits imposed by weather.

HIGH WATER TABLE - A seasonal high water table is a zone of saturation at the highest average depth during the wettest part of the year. May be apparent, perched, or artesian kinds of water tables.

WATER TABLE, APPARENT - A thick zone of free water in the soil. An apparent water table is indicated by the level at which water stands in an uncased borehole after adequate time is allowed for adjustment in the surrounding soil.

TABLE, ARTESIAN - A water table under hydrostatic head, generally beneath an impermeable layer. When this layer is penetrated, the water level rises in an uncased borehole.

WATER TABLE, PERCHED - A water table standing above an unsaturated zone. In places an upper, or perched, water table is separated from a lower one by a dry zone.

HYDROLOGIC GROUP - The soil is placed in one of four (A,B,C,D) hydrologic groups based on runoff characteristics due to rainfall. Soils in group A have lowest runoff potential and soils in group D have the highest.

JOINT FRACTURE - A fracture in the rock, generally more or less vertical along which no appreciable movement of the rock has occurred.

LIQUID LIMIT - The moisture content at which a soil passes from a plastic to a liquid state expressed as percent of the soil dry weight.

INTENSIVE SOIL MAPPING - Mapping done on a smaller more intensive scale than a modern soil survey to determine soil properties of a specific site, i.e. mapping for septic suitability.

LAND EVALUATION AND SITE ASSESSMENT (LESA) - LESA is a systematic approach for evaluating a parcel of land and to determine a numerical value for the parcel for farmland preservation purposes.

MODERN SOIL SURVEY - A soil survey is a field investigation of the soils of a specific area, supported by information from other sources. The kinds of soil in the survey area are identified and their extent shown on a map, and an accompanying report describes, defines, classifies, and interprets the soils. Interpretations predict the behavior of the soils under different uses and the soils' response to management. Predictions are made for areas of soil at specific places. Soils information collected in a soil survey is useful in developing land-use plans and alternatives involving soil management systems and in evaluating and predicting the effects of land use.

MOTTLING, SOIL - Irregular spots of different colors that vary in number and size. Mottling generally indicates poor aeration and impeded drainage. Descriptive terms are as follows: abundance - few, common, and many; size - fine, medium, and coarse; and contrast - faint, distinct, and prominent. The size measurements are of the diameter along the greatest dimension. Fine indicates less than 5 millimeters; medium, from 5 to 15 millimeters; and coarse more than 15 millimeters.

PERMEABILITY - Values listed are estimates of the range in rate and time it takes for downward movement of water in the major soil layers when saturated, but allowed to drain freely. The estimates are based on soil texture, soil structure, available data on permeability and infiltration tests, and observation of water movement through soils or other geologic materials.

PLASTICITY INDEX - The numerical difference between liquid limit and plastic limit expressed in percent.

POTENTIAL FROST ACTION - Damage that may occur to structures and roads due to ice lens formation causing upward and lateral soil movement. Based primarily on soil texture and wetness.

PRIME FARMLAND - Prime farmland soils are lands that are best suited to food, feed, forage, fiber and oilseed crops. It may be cropland, pasture, woodland, or other land, but it is not urban and built up land or water areas. It either is used for food or fiber or is available for those uses. The soil qualities, growing season, and moisture supply are those needed for a well-managed soil economically to produce a sustained high yield of crops. Prime farmland produces in highest yields with minimum inputs of energy and economic resources, and farming the land results in the least damage to the environment.

Prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation. The temperature and growing season are favorable. The level of acidity or alkalinity is acceptable. Prime farmland has few or no rocks and is permeable to water and air. It is not excessively erodible or saturated with water for long periods and is not frequently flooded during the growing season. The slope ranges mainly from 0 to 5 percent. (Source USDA Soil Conservation Service)

PRIME TIMBERLAND - Prime timberland is land that has soil capable of growing wood at the rate of 85 board feet or more per acre per year (at culmination of mean annual increment) in natural stands and is not in urban or built-up land uses or water. Generally speaking, this is land currently in forest, but does not exclude qualifying lands that could realistically be returned to forest. (US Forest Service)

PRODUCTIVITY INDEXES - Productivity indexes for grain crops express the estimated yields of the major grain crops grown in Illinois as a single percentage of the average yields obtained under basic management from several of the more productive soils in the state. This group of soils is composed of the Muscatine, Ipava, Sable, Lisbon, Drummer, Flanagan, Littleton, Elburn and Joy soils. Each of the 425 soils found in Illinois is found in Circular 1156 from the Illinois Cooperative Extension Service.

SHRINK-SWELL POTENTIAL - Indicates volume changes to be expected for the specific soil material with changes in moisture content.

SOIL MAPPING UNIT - A map unit is a collection of soil areas of miscellaneous areas delineated in mapping. A map unit is generally an aggregate of the delineations of many different bodies of a kind of soil or miscellaneous area but may consist of only one delineated body. Taxonomic class names and accompanying phase terms are used to name soil map units. They are described in terms of ranges of soil properties within the limits defined for taxa and in terms of ranges of taxadjuncts and inclusions.

SOIL SERIES - A group of soils, formed from a particular type of parent material, having horizons that, except for texture of the A or surface horizon, are similar in all profile characteristics and in arrangement in the soil profile. Among these characteristics are color, texture, structure, reaction, consistence, and mineralogical and chemical composition.

SUBSIDENCE - Applies mainly to organic soils after drainage. Soil material subsides due to shrinkage and oxidation.

TERRANE - The area or surface over which a particular rock or group of rocks is prevalent.

TOPSOIL - That portion of the soil profile where higher concentrations of organic material, fertility, bacterial activity and plant growth take place. Depths of topsoil vary between soil types.

UNIQUE TIMBERLAND - Unique timberlands are lands that do not qualify as prime timberland on the basis of producing less than 85 board feet/acre/year, but are growing sustained yields of specific high-value species or species capable of producing specialized wood products under silvicultural system that maintains soil productivity and protects water quality (US Forest Service).

WETLAND - An area that has a predominance of hydric soils and that is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances does support, a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions.

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Soil	Dots	%	Aeres	Value	Score
125	85	14.26	3.04	87	12.41
221B	380	63.76	13.61	85	54.20
440B	83	13.93	2.97	85	11.84
490	46	7.72	1.65	100	7.72
781B	2	0.34	0.07	76	0.26
	<u>596</u>	<u>100.01</u>	<u>21.34</u>		<u>86.43</u>



Boone County Government

601 NORTH MAIN STREET – SUITE 201
BELVIDERE, ILLINOIS 61008
PHONE: (815) 547-4770
FAX: (815) 547-3579

ORDINANCE NO. 09-06

**AN ORDINANCE GRANTING A SPECIAL USE WITHIN THE A-1, AGRICULTURAL PRESERVATION DISTRICT FOR THE OPERATION OF AN ENERGY FACILITY PRODUCING 1 MEGAWATT OR GREATER, COMMONLY REFERED TO AS A PEAKER POWER PLANT
(SE Corner of Garden Prairie Road and I-90)**

WHEREAS, an application has been made by Power Ventures Group, LLC, applicant, on behalf of the owner, Donald Busch, for a special use permit pursuant to the applicable provisions of Appendix A, Zoning of the Boone County Code; and,

WHEREAS, the application for a special use permit was published, in accordance to the Illinois State Statutes, in a newspaper of general circulation that is distributed within Boone County; and,

WHEREAS, after due notice the Zoning Board of Appeals held a public hearing on January 27, 2009 to consider the special use permit and has transmitted its findings of fact and recommendation on the matter to the County Board; and,

WHEREAS, the County Board has considered the Zoning Board of Appeals findings of fact and recommendation.

NOW THEREFORE, BE IT ORDAINED BY THE COUNTY BOARD CHAIR AND COUNTY BOARD OF BOONE COUNTY, ILLINOIS, AS FOLLOWS:

Section 1. That a special use within the A-1, Agricultural Preservation District to permit the operation of an energy facility producing 1MW or greater, commonly refered to as a peaker power plant on the property legally described on attachment A, be and is hereby approved, subject to the following conditions:

1. Substantial compliance with the proposed site plans and narrative submitted with the special use application in December 2008. Electrical generation shall be limited to natural gas reciprocating engines with a closed loop cooling system.
2. A full site plan review will need to be administered by all appropriate agencies, those agencies shall approve the site plan or required amendments before building permits may be issued.

3. The buildings and accessory structures shall be located as close to the I-90 right of way as possible.
4. No structures shall be allowed in the floodplain, any disturbance to or ingress/egress aisles locating within the floodplain shall be in conformance with the Boone County Zoning Ordinance.
5. The maximum height of the buildings shall be 45 feet. The maximum height of the stacks shall be 75 feet, inclusive of the silencing system.
6. The buildings and structures facing the I-90 right of way shall be constructed of concrete split face, aggregate covered siding or other material approved by planning staff.
7. A landscape plan in accordance with Section 5.4 of the Boone County Zoning Ordinance shall be submitted to the planning department for review. In addition the minimum requirements, the landscape plan shall encompass the following requirements:
 - The landscape plan shall illustrate trees being installed in the areas depicted on the aerial photo dated 1/14/09, the landscaping shall be comprised of a minimum of 2 species of trees that will grow to a minimum height of 25 feet and planted 20 feet on center.
 - Landscaping shall run along Garden Prairie Road (excluding the southern portion referenced above), the landscaping shall be comprised of a minimum of 2 species of trees that will grow to a minimum height of 15 feet and a minimum of 2 species of shrubs. The trees shall be planted 30 feet on center with shrubs equally dispersed throughout.
 - If it is found that berming does not cause a potential harm to neighboring properties then a four foot berm shall be placed within the landscaped areas.
8. A photometrics plan shall be submitted to and approved by the planning department prior to a building permit being issued. All free standing and wall mounted security light fixtures shall not exceed 30 feet in height, the lighting elements shall be shielded from view of adjacent properties and the foot candle measurement at the property line shall not exceed 0.5. If the applicant chooses to apply safety lighting to the power plant stacks, said lighting can exceed the 30 foot height limit but shall not exceed a measurement of .5 footcandles at the property line.
9. Compliance with Title 35: Environmental Protection, Subtitle H: Noise, Chapter 1: Pollution Control Board, Part 901 Sound Emission Standards and Limitations for Property Line-Noise-Sources. In no instance shall the decibel level increase by a

measurement of 3 decibels at the property line of existing neighboring homesteads. Pre-construction and operational decibel readings showing compliance with this condition shall be submitted to the Boone County Building and Planning Departments.

10. No liquid fuel being utilized for the production of electricity for the purpose of sale shall be stored onsite.
11. The peaker power plant shall not exceed 100 megawatts of electrical generating capacity.
12. Updates as to the progress of and/or copies of the various permits which need to be obtained before the site is fully operational shall be submitted every December 1 to the Boone County Planning and Building Departments.
13. Due to the nature of the development and the level of permits needed to be obtained from various agencies, the typical 12 month timeline for the establishment of a special use is extended to 48 months; however the special use shall be null and void if the site is not operational by the end of 2013.
14. All original and reoccurring renewal of permits required by the Army Corps of Engineers, EPA, etc shall be provided to the Boone County Planning and Building Departments.
15. In the event the special use permit becomes null and void for any reason or should the peaker power plant cease to operate for a period of 12 consecutive months, then all improvements, structures and materials related to the peaker power plant shall be removed from the site within 1 calendar year from the date the special use permit becomes null and void or the peaker power plant ceases to operate ("Decommissioning"). The costs of Decommissioning shall be at the owner/developer's sole expense and owner/developer shall restore the site to a reasonably similar condition as existed prior to the construction of the peaker power plant. Prior to the issuance of a building permit, owner/developer shall submit bond(s) to cover the cost of Decommissioning. The prorated amount of the bond(s) shall be based on an independent engineer's estimate and increased annually to reflect the building schedule as to cover the additional improvements as they are constructed, starting with the issuance of the first building permit. At the completion of construction and prior to the issuance of a certificate of occupancy, the bond(s) must total 150% of the Engineer's estimate of the total decommission costs. It shall be the responsibility of owner/developer to maintain the bonds in sufficient amounts at all times after the completion of construction. Such responsibility to maintain the bond(s) shall include, but not be limited to, any necessary renewals or the issuance of new bond(s). All bonds shall be submitted to the Boone County Building Dept.

16. Compliance with the letter submitted by the Boone County Building Department, Drew Bliss, dated December 29, 2008.
17. Compliance with the letter submitted by the Boone County Highway Department, Rich Lundin, dated January 5, 2009. If vehicles weighing more than 150,000 pounds are used, a bond shall be provided to repair any damages associated with the special use. Timing of the overweight trips and the routes to the subject property shall be approved by the County Engineer, Township Road Commissioner and other effected road entities as applicable. Any contractor selected to perform the required work shall be State of Illinois certified and work must be done at the approval of the County Engineer. All repairs shall be completed to the satisfaction of the County Engineer.
18. Compliance with numbers 2, 3 and 4 of NRI #1278 submitted by the Boone County Soil and Water Conservation District, dated January 6, 2009.
19. Compliance with all other applicable codes and ordinances.

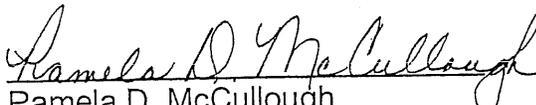
Section 2. That this ordinance shall be in full force and effect from and after its passage as provided by law and pursuant to the Illinois Compiled Statutes. This written and foregoing ordinance is published by authority of the county authorities of Boone County on this date.

PASSED by the County Board of Boone County, State of Illinois, this 18th day of March, 2009.



Robert Walberg, Chairman
Boone County Board

ATTEST:



Pamela D. McCullough
Boone County Clerk

Ayes: 9

Nays: 2

Absent: 1



1925 S. Meridian Rd
Rockford IL 61102-2397
Phone: (815) 962-0653
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Email: wbfmanager@live.com
www.winnebago-boonefarmbureau.org

November 22, 2016

Dear Boone County Zoning Board of Appeals:

The Winnebago-Boone Farm Bureau® requests that you deny Case 15-2016; Power Ventures Group LLC's request for a Special Use Permit to allow for the operation of energy facilities, 1.0 MW or greater, commonly known as a natural gas-fired peak power plant in unincorporated Spring Township.

The subject property is located at the southeast corner of the Garden Prairie Road interchange off I-90 and is zoned as A1- Agriculture Preservation District. The Winnebago-Boone Farm Bureau's primary concern is that this proposed special use goes against the Boone County Code and Boone County's Comprehensive Plan and is better suited for land along the I-90 corridor zoned as Industrial.

The Boone County Code states in Chapter 1- General Provisions, 1.1. PURPOSE AND APPLICABILITY , "In addition, it is the intent of Boone County to conserve, to protect and to encourage the development and improvement of its prime agricultural land for the production of food and other agricultural products. It is also the intent of Boone County to conserve and to protect prime agricultural land as valued natural and economic resources. Agricultural land is the county's most valuable economic resource and its long term viability is desirable for future operations..."We ask that the county's growth continue to be guided by this long-range vision.

The Boone County Comprehensive Plan Map 7a: Planned Land Use Boone County (projected build-out 2050) adopted: November 10, 1999, amended: February 5, 2008 shows the subject property is to remain zoned as Agricultural.

Additional concerns include the high volume of water needed for the evaporative cooling process and the potential impact it may have on existing wells in adjacent properties; the impact additional transmission lines will have on farmland outside of the 20 acre footprint that could interfere with farming operations; and the limited capacity of the volunteer fire department/emergency responders to handle potential emergencies.

Winnebago-Boone Farm Bureau® opposes the granting of a Special Use Permit to allow the construction of a peaker plant in an agricultural district. Instead, for all the reasons mentioned above, the project is better suited for a location nearer current industrial development, designed and intended for such purposes.

We appreciate you taking the time to review our concerns. We look forward to working with Boone County to protect our agricultural and non-agricultural communities.

Sincerely,

Richard Beuth, President
ac

Mission Statement

*Be the voice, resource, and advocate for farm families and agriculture,
while promoting stewardship for today and future generations.*

The Effect of Power Plants on Local Housing Values and Rents: Evidence from Restricted Census Microdata

Lucas W. Davis*

University of Michigan

June 18, 2008

Abstract

Current trends in electricity consumption imply that hundreds of new fossil-fuel power plants will be built in the United States over the next several decades. Power plant siting has become increasingly contentious, in part because power plants are a source of numerous negative local externalities including elevated levels of air pollution, haze, noise and traffic. Policymakers attempt to take these local disamenities into account when siting facilities, but little reliable evidence is available about their quantitative importance. This paper examines neighborhoods in the United States where power plants were opened during the 1990s using household-level data from a restricted version of the U.S. decennial census. Compared to neighborhoods farther away, housing values and rents decreased by 3-5% between 1990 and 2000 in neighborhoods near sites. Estimates of household marginal willingness-to-pay to avoid power plants are reported separately for natural gas and other types of plants, large plants and small plants, base load plants and peaker plants, and upwind and downwind households.

Key Words: Power Plants, Siting, Local Air Quality, Housing Markets

JEL: D62, D63, H23, Q51

*Department of Economics, University of Michigan, 611 Tappan Street, Ann Arbor, MI 48109, USA. I am grateful to Soren Anderson, Matias Busso, Dallas Burtraw, Meredith Fowlie, Matt Kahn, Ian Lange, Matt White and seminar participants at the University of California Energy Institute, Wharton, Resources for the Future, the Harris School of Public Policy, the University of Michigan and Stanford for helpful comments. The research in this paper was conducted while the author was a Special Sworn Status researcher of the U.S. Census Bureau at the Michigan Census Research Data Center with generous guidance from Clint Carter, Maggie Levenstein, Arnold Reznick and Stan Sedo. Research results and conclusions expressed are those of the author and do not necessarily reflect the views of the Census Bureau. This paper has been screened to insure that no confidential data are revealed.

1 Introduction

Electricity consumption in the United States is forecast to increase by 41% between 2005 and 2030, according to baseline estimates from the U.S. Department of Energy.¹ Despite recent increased attention to renewable energy sources, the share of electricity production in the United States from fossil-fuel power plants is forecast to increase during this period from 71% to 74%. This will require a 47% increase in electricity generation from fossil fuel plants, necessitating a substantial investment in new plants over the next several decades. This investment has already begun, with 319 new fossil-fuel generators scheduled to be opened between 2008 and 2011.²

Power plant siting in the United States has become increasingly contentious, in part because power plants are a source of numerous negative local externalities including elevated levels of air pollution, haze, noise and traffic. In most states these factors are taken into account during the siting approval process, but this is typically done qualitatively. As siting decisions become more and more difficult, there are large potential social gains from incorporating formal cost-benefit analysis into this process. One of the limiting factors has been the lack of reliable estimates in the literature for household valuation of the local disamenities from power plants.

This paper examines neighborhoods in the United States where power plants were opened during the 1990s. Compared to neighborhoods farther away, the evidence shows that housing values and rents decreased by 3-5% between 1990 and 2000 in neighborhoods near plant sites. Estimates of household marginal willingness-to-pay (MWTP) to avoid power plants are reported separately for natural gas and other types of plants, large plants and small plants, base load plants and peaker plants, and upwind and downwind households. The evidence implies an average housing market capitalization within two miles of a plant of \$14.5 million, with large variation in capitalization across sites depending on the size of the affected population.

This study is germane to an extensive literature that uses hedonic methods to make inference about household preferences for local public goods. This literature has shown that estimates of household MWTP can be inferred for a variety of environmental local public goods including air quality (Chay and Greenstone, 2005; Bayer, Keohane and Timmins, 2006) and water quality (Leggett and Bockstael, 2000). There is also a literature that examines housing values in neighborhoods near hazardous waste sites (Gayer, Hamilton and Viscusi, 2000; Greenstone and Gallagher, 2008), waste incinerators (Kiel and McClain, 1995), nuclear power plants (Nelson, 1981; Gamble

¹U.S. Department of Energy (2007a), p. 82.

²U.S. Department of Energy (2007b), Table 2.5.

and Downing, 1982), fossil fuel plants (Blomquist, 1974), and other sites.

In practice hedonic price functions have proven difficult to estimate because neighborhood amenities are not distributed randomly across locations. For example, power plants tend to be located in industrial areas near rail lines or waterways. Because locations with power plants differ from other locations and neighborhood characteristics are imperfectly measured it is difficult to disentangle the causal impact of power plants on housing values. This omitted variables problem is compounded by an important sorting issue. Households move to locations endowed with amenities that match their preferences. When households near the amenity of interest are not representative of the population at large it becomes difficult to interpret observed price differentials.

This paper addresses these empirical difficulties in several ways. First, the analysis focuses on changes over time, exploiting power plant openings to control for unobserved neighborhood characteristics. Second, the empirical strategy relies on highly-localized comparisons across neighborhoods to control for omitted variables that vary over time. In the main specification, homes located within two miles of power plant sites are compared to homes located two to five miles from sites. In addition, results are presented from a specification in which MWTP to avoid living near a power plant site varies flexibly with distance. In all cases, the estimates are derived from comparisons both across time and across locations. This difference-in-difference approach for addressing concerns about omitted variables and sorting is not without its limitations, as discussed in the paper, but it offers distinct advantages over a cross-sectional approach.

A key feature of this study is that it uses restricted census microdata. These data, which must be accessed at a census research data center under authorization from the Census Bureau, include all of the demographic and housing characteristics available in public-use versions of the decennial census. In addition, whereas in public-use microdata households are identified at the PUMA (a census region with an average of approximately 100,000 individuals), these restricted microdata identify households at the census block (approximately 100 individuals). This precision is important for the analysis because of the highly-localized nature of these externalities. In addition, the large (1 in 6) national sample ensures broad geographic coverage, even in the non-urban areas where many power plants were opened during this period.

The format of the paper is as follows. Section 2 provides background about the local impact of power plants and describes how plants are sited. Sections 3 and 4 describe the data and empirical strategy. Section 5 presents estimates of MWTP for a variety of alternative specifications and section 6 presents concluding remarks.

2 Background

2.1 The Local Impact of Power Plants

In 2005, power plants in the United States emitted 2,500 million metric tons of carbon dioxide, 10 million metric tons of sulfur dioxide and 4 million metric tons of nitrogen oxides.³ Most of the social costs from these emissions are borne far away from plants. Carbon dioxide is associated with climate change and sulfur dioxide is associated with acid rain. These externalities do not disproportionately affect households who live near power plants. Studies using regional atmospheric models (e.g., Levy and Spengler, 2002, Levy, et al., 2002, Mauzerall, et al., 2005, and Muller and Mendelsohn, 2007) tend to find that concentration patterns for these pollutants are centered over the source of emissions, but with substantial health impacts over a large geographic range. For example, Levy and Spengler (2002) find that exposure to health risks from sulfur dioxide and nitrogen oxides decrease approximately linearly between 0 and 500 kilometers from the source of emissions at two power plants in Massachusetts. They find that because of population concentrations, more than half of the social costs from emissions are borne 100 kilometers or more from the source.⁴

Power plants also emit low levels of uranium, thorium, and other radioactive elements as well as mercury, and other heavy metals. These toxic pollutants have been associated with serious health problems including cognitive impairment, mental retardation, autism and blindness.⁵ Although emitted in far smaller quantities than the criteria pollutants described above, these emissions have potentially a larger impact on local communities because large airborne particles typically settle out from the air relatively close to their emission source.⁶ For example, U.S. EPA (1997) reviews the evidence on mercury transport, reporting evidence from environmental monitoring studies that suggest that measured mercury levels are higher around stationary industrial and combustion sources known to emit mercury.

In addition to local air quality there are additional local externalities from power plants. First, sulfur dioxide and nitrogen dioxide from power plants are two of the principal components of low-hanging haze or smog. Second, power plants and transmission infrastructure may be local eyesores. Third, power plants can be noisy. This is particularly the case for natural gas plants. Fourth,

³U.S. Department of Energy (2007), Table 5.1.

⁴In a related paper, Kahn (2007) examines the proximity between power plants and population centers. Kahn finds that census tracts within 2.5 miles of the 100 dirtiest power plants in the U.S. have slower population growth than other tracts, consistent with a national migration pattern toward the South and West where electricity tends to be produced using newer, cleaner plants.

⁵U.S. Department of Health and Human Services (2007).

⁶U.S. Environmental Protection Agency (2004), p. 6.

Spring
Township

To: Boone County Planning Department

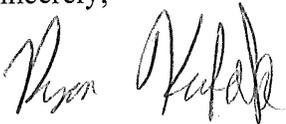
From: Spring Township Board of Trustees

Re: Power Ventures Group, LLC Special Use Permit

Case No: 15-2016

The Spring Township Board of Trustees voted against the issuance of a Special Use Permit for Power Ventures Group, LLC at the Regular Board Meeting on December 12th, 2016 on a roll call vote. The Board of Trustees discussed many issues relating to the project, but specifically cited the excessive water use of the proposed peak power plant as well as the location being in the agricultural area of the Boone County Comprehensive Plan as reasons to deny the special use permit.

Sincerely,



Ryan Kufalk

Spring Township Supervisor



Boone County Fire District # 2

1777 Henry Luckow Lane. Belvidere, IL 61008

bdfd2390@yahoo.com (815)544-3336

ZBA

12/13/2016

RE: Questions regarding the proposed Peaker Plant.

To give a general answer to your questions regarding Fire Protection at the Peaker plant, including fuel storage, water supply, hydrant location Ect. The Fire Department has a process in place that works with the Building Department before any permits are given. We are able to review the plans for code compliance and specific needs to each individual business. If the Fire Department finds that the applicant meets Federal, State and Local codes we will give written notification to the Building Department that the plans as drawn are approved. If they do not meet code we give written notification that the Fire Department does not recommend a Building Permit be issued and work with the Architect/Project Manager to make the needed Fire Protection changes. All of your concerns on the first question appear to be covered by Fire Codes. Without going into detail and or having plans in front of me to review it appears that this building would be covered under NFPA 850 (Electric generating power plant). This code also references 74 other NFPA codes that they would also have to abide by. So I can assure you that there is a process in place that covers your concerns pertaining to Fire Protection.

As for your second question about mutual aid agreements, the answer is yes we do have a very diverse mutual aid plan in place through the MABAS system (**M**utual **A**id **B**ox **A**larm **S**ystem). These plans are trained on and updated regularly and give an almost unlimited source of assistance from local, State and Federal agencies. They include resources for Fire suppression, Hazardous Materials, Mass Casualty/Disaster incidents and Technical Rescues.

Please feel free to contact me with any further questions.

A handwritten signature in black ink, appearing to read "Brad Bartell". The signature is written in a cursive, flowing style.

Chief Brad Bartell

603 Appleton Road, Belvidere, Illinois 61008
Phone 815-547-7935
Fax 815-547-7939



BOONE COUNTY
CONSERVATION
DISTRICT

December 14, 2016
Ms. Hilary Arther
Land Use Planner, Boone County, Illinois
1212 Logan Avenue, Suite 102
Belvidere, Illinois

Re: Power Ventures Group, LLC Peaker Plant – ZBA Packet 11-22-16.pdf

Ms. Arther:

The Boone County Soil and Water Conservation District normally addresses the issues you inquired about. However, Ms. Becker did refer you to me for additional input, so I will provide this response in the capacity of my position as the Executive Director with the Boone County Conservation District as your questions pertain to the natural resource base of Boone County and the BCCD is always concerned about issues that might affect those resources.

I reviewed the notes you sent me and the ZBA board meeting packet as requested. The packet contained information prepared to evaluate the applicant's request to site and construct a peaker plant that uses natural gas to power engines that turn electrical generators. Diesel fuel is identified as the back-up fuel when the flow of natural gas is temporarily interrupted. Hydrocarbons, along with other fluids associated with the operation and maintenance of the proposed equipment, are potential contaminants of surface and groundwater resources. The risks posed by these products are commonly mitigated by implementing proper storage, transfer/conveyance protocols and techniques, and secondary containment systems in both the design and operational aspects of a project like this. Regulations and construction standards likely address these risks. It is entirely reasonable to request the applicant to specifically demonstrate their methods to address these concerns.

Your notes indicated that the ZBA desires the results from the water-well testing prior to forwarding the case in the review process. This statement does not indicate whether there is concern about the quantity of water to be withdrawn or the quality of the water pulled from the well. Both issues are important. Obtaining test results would require the applicant to install the well prior to obtaining approval for the special use request. With respect to water quality, and community concerns about potential impacts, it would not be unreasonable to request the applicant to offer water testing to any neighbor within a prescribed distance that would like to establish a pre-peaker plant evaluation (baseline data) of their water source(s).

My review of the ZBA packet observed that a Natural Resources Information Report was prepared by the Boone County Soil and Water Conservation District. This report details the known information about soils, local geology, and other natural resource data for the area. The report provides some local analysis of this information in the overview section. This analysis provides the level of detail that is currently available and does not preclude site specific data that can be collected and evaluated for the specific uses under consideration. The well tests discussed by the ZBA would be an example of this. The well could be logged by a professional geologist and the data provided to the Boone County Health Department and the Boone County Soil and Water Conservation District for their records. Such a professional assessment may alleviate concerns regarding

impacts to local groundwater as the NRI report data indicates that there is dense glacial till overlying the first bedrock unit – the Maquoketa Shale – which is identified as “a hydrologic barrier between the shallower and deeper permeable formations.” Verifying these conditions, via a professionally evaluated, site specific, well-log would substantially augment the decision-making process for all parties involved. Of course, there is expense involved in obtaining this information, and the cost needs to be weighed against the value of having that site-specific data. Most developers are unwilling to invest such costs without some assurance of project approval. If the data collected indicates materials that have greater vulnerability, that data can be used to determine if additional measures would be justified to protect groundwater resources.

You have solid input from the other review agencies, county departments and the applicant detailed in the ZBA packet. I believe they have all addressed the areas of their expertise as they apply to this case. I hope the information I offer here is helpful.

Sincerely,



Dan Kane, Executive Director
Boone County Conservation District
603 North Appleton Road
Belvidere, Illinois 61008

**BOONE COUNTY
PLANNING DEPARTMENT**

1212 Logan Avenue, Suite 102, Belvidere, Illinois, 61008 (815) 547-4770 Fax (815) 547-3579

December 19, 2016

ADVISORY REPORT

CASE NO: 23-2016

APPLICANT: Binski, 14321 KB Road

REQUEST AND LOCATION:

The applicant, Kari Binski, 14321 K-B Road, Capron, IL 61012, is requesting a variance to reduce the side yard setback from 40 feet to 20 feet to construct a Pole Barn in the A-1 Agricultural Preservation Area District pursuant to the Boone County Zoning Ordinance (Section 3.2.4.C Lot Development Standards and Section 2.8 Variances) on 5 acres at 14321 KB Road in unincorporated Boone Township, Boone County Illinois (PIN: 04-22-200-014).

EXISTING LAND USE ON SUBJECT PROPERTY AND ON ADJACENT PROPERTY:

Subject property: Single-Family Residence

North and South Adjacent Properties: Single-Family Residence

East and West Adjacent Properties: Row Crops

CURRENT ZONING ON SUBJECT PROPERTY AND ADJACENT PROPERTY:

Subject property: A-1, Agricultural Preservation Area

All Adjacent Properties: A-1, Agricultural Preservation Area

COMPREHENSIVE PLAN FOR SUBJECT AND ADJACENT PROPERTIES:

Subject property: Agricultural/Rural

All Adjacent Properties: Agricultural/Rural

BACKGROUND:

The property is approximately 1,327 feet by 164 feet and is a narrow rectangular shape. Due to the long narrow shape of the property the applicant wishes to construct a 36-foot by 50-foot Pole Barn 20 feet from the south property line. The applicant states that the variance from setbacks allows for better use of the land. The location of the Pole Barn was chosen so that the horses could utilize more free range space north of the barn.

OTHER PLANNING CONSIDERATIONS:

The Boone County Soil and Water Conservation District has determined that their review does not apply in this instance. See the attached November 15, 2016 letter from Jennifer Becker.

The Boone County Building Department has no objections but notes that a zoning certificate will be needed. See the attached December 7, 2016 letter from Drew Bliss.

The Boone County Health Department has no objections to the request but applicant must have a site plan review with the Health Department. See the attached December 12, 2016 letter from Bill Hatfield.

The Boone County Engineer has no objections to the request. See the attached December 8, 2016 letter from Justin Krohn.

TREND OF DEVELOPMENT:

The property is located between Russellville Road and Edson Road. This area of the county is predominately agricultural production with some single-family residences. There is no development.

COMPREHENSIVE PLAN:

The subject property is designated as "Agriculture/Rural" by the Boone County Comprehensive Plan, adopted November 10, 1999. The Agriculture/Rural map category calls for agricultural uses, farmsteads, other open lands and single-family residential at or below one dwelling per 40 acres.

FINDINGS OF FACT:

According to Section 2.8.5 of the Boone County Zoning Ordinance, a variation shall not be granted unless the following findings are made:

1. **Findings: The particular physical surroundings shape or topographical conditions of the subject property involved would not result in a particular hardship upon the owner as distinguished from the mere conveniences, if the strict letter of regulations were carried out.**

This lot was created in the early 1970's when there were less specific lot requirements of A-1 Agricultural Preservation Area District zoning. The lot width is sub-standard to our current zoning ordinance; the lot width is approximately 164 feet wide. Our current code requires A-1, Agricultural Preservation Area District zoned lots used for residential that are 5 acres or more to have a minimum lot width of 250 feet. Although the property is long and narrow, there is an area within the 5 acre parcel to locate the pole barn without a variance but the barn would be placed in the middle of the property creating an unfavorable layout.

2. **Findings: The conditions upon which the petition for a variation is based would not be applicable, generally to other property within the same zoning districts.**

Many property owners in the A-1, Agricultural Preservation Area District are able to construct agricultural barns and outbuildings on their property without a variance, because this property is so narrow it creates challenges for configuring desirable layouts for accessory buildings.

3. **Findings: The purpose of the variation is not based exclusively upon a desire to make more money out of the property.**

The applicant wishes to construct the pole barn to house animals for a family farmette. The variation will not provide a financial gain.

4. **Findings: The owner of the property has not created the alleged difficulty or hardship.**

Planning staff is of the opinion that the requested variance is due to a matter of convenience versus hardship, as such, no hardship exists to be created by the applicant.

5. **Findings: The granting of the variation will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the property is located.**

The planning staff is not aware of any detrimental or injurious impacts that an agricultural building will have on the surrounding properties.

6. **Findings: The proposed variation will not impair an adequate supply of light and air to adjacent property, or substantially increase the congestion in the public streets, or increase the danger of fire, or endanger the public safety, or substantially diminish or impair property values within the neighborhood or adversely affect the health, morals, or general welfare of the public.**

The new building is not anticipated to increase traffic, endanger others, impair property values, or diminish light and air from adjacent properties.

7. **Findings: That the potential public benefits of the Variation outweigh any potential adverse impacts of the Variation after taking into consideration the Applicant's proposal and any requirement recommended by the Applicant to ameliorate such impacts.**

The benefits of the variation outweigh the request due to the fact that the proposed pole barn is not anticipated to have any negative impacts on the neighboring properties.

SUMMARY OF FINDINGS:

Although there is an area within the 5 acre parcel to locate the pole barn without a variance the barn would be placed in the middle of the property creating an unfavorable layout. Many property owners in the A-1, Agricultural Preservation Area District are able to construct agricultural barns and outbuildings on their property without a variance, because this property is so narrow it creates challenges in configuring desirable layouts for accessory buildings. Planning staff is of the opinion that the requested variance is due to a matter of convenience versus hardship, as such, no hardship exists to be created by the applicant. The benefits of the variation outweigh the request due to the fact that the proposed accessory building is not anticipated to have negative impacts on the neighboring properties

RECOMMENDATION:

The planning staff recommends the **approval** of case number **23-2016**.

ZONING BOARD OF APPEALS

The Zoning Board of Appeals shall not vary the regulations of the Zoning Ordinance unless the findings indicate there are practical difficulties or hardships present. The concurring vote of three (3) members of the Zoning Board of Appeals shall be necessary to approve a variance. All decisions shall be subject to judicial review.

Submitted by:



Hilary Arther, Land Use Planner _____

APPLICATION FOR VARIANCE

BELVIDERE - BOONE COUNTY PLANNING DEPARTMENT

Belvidere City Hall
401 Whitney Blvd. Suite 400
Belvidere, Illinois 61008

FOR OFFICE USE ONLY

Case Number 23-2016
Filing Date 11/15/16
Zone District A-1

Belvidere
PZC Date _____

Boone County
ZBA Date 12/07/16

PLEASE PRINT IN BLACK INK OR TYPE

1) The address or general location of the property for which this application is filed is:

14321 K B ROAD, CAPRON ILLINOIS

and its Parcel Identification Number is: _____

and the legal description for the subject property is: Lot _____, Block _____,

Tract _____, Subdivision Name _____

(NOTE - If there is no lot, block, or tract, then attach a legal boundary description hereto.)

2) Applicant Name: Steven + Kari Binski

Mailing Address: 14321 KB ROAD

Capron IL Zip: 61012

Daytime Phone: (815) 739-2805 Fax: _____ Email: Kari.Binski@gmail.com

3) Property Owner Name: Steven + Kari Binski

Mailing Address: 14321 KB ROAD

CAPRON IL Zip: 61012

Daytime Phone: (815) 739-2805 Fax: _____

4) Attorney Name: _____

Mailing Address: _____

Daytime Phone: _____ Fax: _____ Zip: _____

5) Project Manager: In order to reduce confusion, planning staff requests one contact person be designated to discuss issues concerning this petition.

Name: _____

Mailing Address: _____

Daytime Phone: _____ Fax: _____ Zip: _____

Daytime Phone: _____ Fax: _____ Email: _____

NOTICE TO APPLICANT

A Variation is a zoning adjustment, which permits minor changes of district requirements where individual properties have proven hardships. Variances are restrictive and the degree of Variation is limited to the minimum change necessary to overcome the practical difficulty inherent on the property. "Variation" means the modification of the requirements of a zoning district and does not include the substitution of uses assigned to other districts. Use Variations are specifically prohibited.

A Variation recognizes that the same district requirements do not affect all properties equally; it is intended to permit minor changes to allow hardship properties to enjoy equal opportunities with similarly zoned properties. **You must prove that your land is affected by special circumstances or unusual conditions.** These must result in uncommon hardship and unequal treatment under the strict application of the Zoning Ordinance. Where hardship conditions extend to other properties, a Variation cannot be granted. The remedy for a general hardship is a change to the Zoning Map or to the text of the Zoning Ordinance.

You must prove that the combination of the Zoning Ordinance and the uncommon conditions of your property prevent you from making any reasonable use of your land as permitted by your present zoning district. Since zoning regulates land and not people, the following conditions cannot be considered pertinent to the application for a Variation: 1) Proof that a Variation would increase the financial return from the land, 2) Personal hardship, and 3) Self-imposed hardship. In the last case, the recognition of conditions created after the enactment of the Zoning Ordinance would encourage and condone violation of the law.

A proposed Variation which will adversely affect surrounding property or the general neighborhood cannot be granted. All Variations must comply with the intent and purpose of the Zoning Ordinance.

6) Variance for Special Exception
(what type of Variance)
From 40 ft. to 20 ft.
To Permit: Barn
(what type of construction)

Reasons for Variance Request

7) Which of the following types of modifications will allow you a reasonable use of your land:

- Change in setback requirement
- Change in lot-coverage requirement
- Change in side yard restriction
- Change in off street parking requirement
- Change in area requirement
- Other (describe) _____

8) Describe how this variation is the minimum variation that will make possible the reasonable use of the land, structure, or buildings in question.

Having the barn 20ft. vs. 40ft. gives us more use for our land. Area is needed for animals to free range. Access to backyard is also along South side, keeps a nice view and safety view of predators from house.

9) What characteristics of your property prevent it from being used in a reasonable manner?

Too narrow	<u>X</u>	Elevation	_____	Soil	_____
Too small	_____	Slope	_____	Subsurface	_____
Too shallow	_____	Shape	<u>X</u>	Other	_____

10) Describe the items checked, giving dimensions where appropriate and how the characteristics are different than other properties in the district.

Our property is long and narrow on this strip of road.

11) In what way do the above site conditions prevent any reasonable use, commonly enjoyed by owners of other properties in the same zoning district?

Will not prevent others from any use. Area of barn does not effect other properties. Color is going to be earth tones to keep a natural setting.

12) To the best of your knowledge, can you affirm that the hardship described above was not created by an action of anyone having an interest in the property after the Zoning Ordinance or applicable part thereof became law? Yes ___ No ___ If "No", explain why the hardship should not be regarded as self-imposed (self-imposed hardships are not entitled to variations).

no, it gives us more use of our property

13) Are the conditions on your property the result of other manmade changes, such as the relocation of a road or highway? If so, describe.

No

14) Will granting the variation requested give the applicant any special privilege that is denied by the Zoning Ordinance to owners of other lands, structures, or buildings in the same district? Explain your answer.

no, others in this area do the same.

15) Specify how the granting of the variation requested will not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the property is located.

Located in the country, does not effect neighbors. There is a 6-ft. picket fence along property line.

16) **LIST THE OWNERS OF RECORD:** *Boone County applicants* shall list the owner of record for all properties located adjacent to and across the street or alley from the perimeter of the subject property. *City of Belvidere applicants* shall list the owner of record for all properties located within 250 feet of the subject property (exclusive of public right-of-ways). This information is found at the Supervisor of Assessments Office, 1208 Logan Ave. or the Planning Office. Verifying the accuracy of information is the responsibility of the applicant (use additional pages if necessary).

PIN#	Name/Trust No.	Street	City	Zip
	Jeremy & Kristie Kenworthy	KB Road	Capron	61012
	Julie Anderson	Edson Rd	Capron	61012
	Stephen + Brenda Rowley	KB Road	Capron	61012

17) SUPPORTING INFORMATION: Attach a site plan drawn to scale showing lot dimensions, the size and locations of existing buildings, the locations and dimensions of proposed buildings or alterations, and any natural or topographic peculiarities of the property in question.

Also include a detailed written statement relative to the above listed requirements, fully explaining your proposal and any measures to mitigate negative affects of your proposal on neighboring properties.

Incomplete applications will be returned to the applicant after sixty (60) days.

Natural Resources Information: Pursuant to state law, a copy of this completed application must be provided to the Boone County Soil and Water Conservation District (SWCD). They are located at 211 N. Appleton Road, P.O. Box 218, Belvidere, and may be contacted at (815) 544-2677. Their business hours are Monday through Friday 8:00 a.m. to 4:30 p.m. An application fee is required. The SWCD has thirty (30) days to respond and provide their Natural Resource Information (NRI) Report to the Planning Office. **The SWCD must send a report to the Planning Department for your application to proceed.**

DECLARATION

I, the applicant, of the above legally described property on which the variance is proposed, have provided answers to the questions herein that are true to the best of my knowledge. I have been granted permission by the property owner(s) of the above legally described property to apply for a variance on said property.

By virtue of my application for a variance, I do hereby declare that the appropriate appointed and elected officials who are responsible for the review of my application are given permission to visit and inspect the property proposed for variance in order to determine the suitability of the request.

Applicant Signature: Kari H. Beniski Date Signed: 11-15-16

Owner(s) Signature: [Signature] Date Signed: 11-15-16

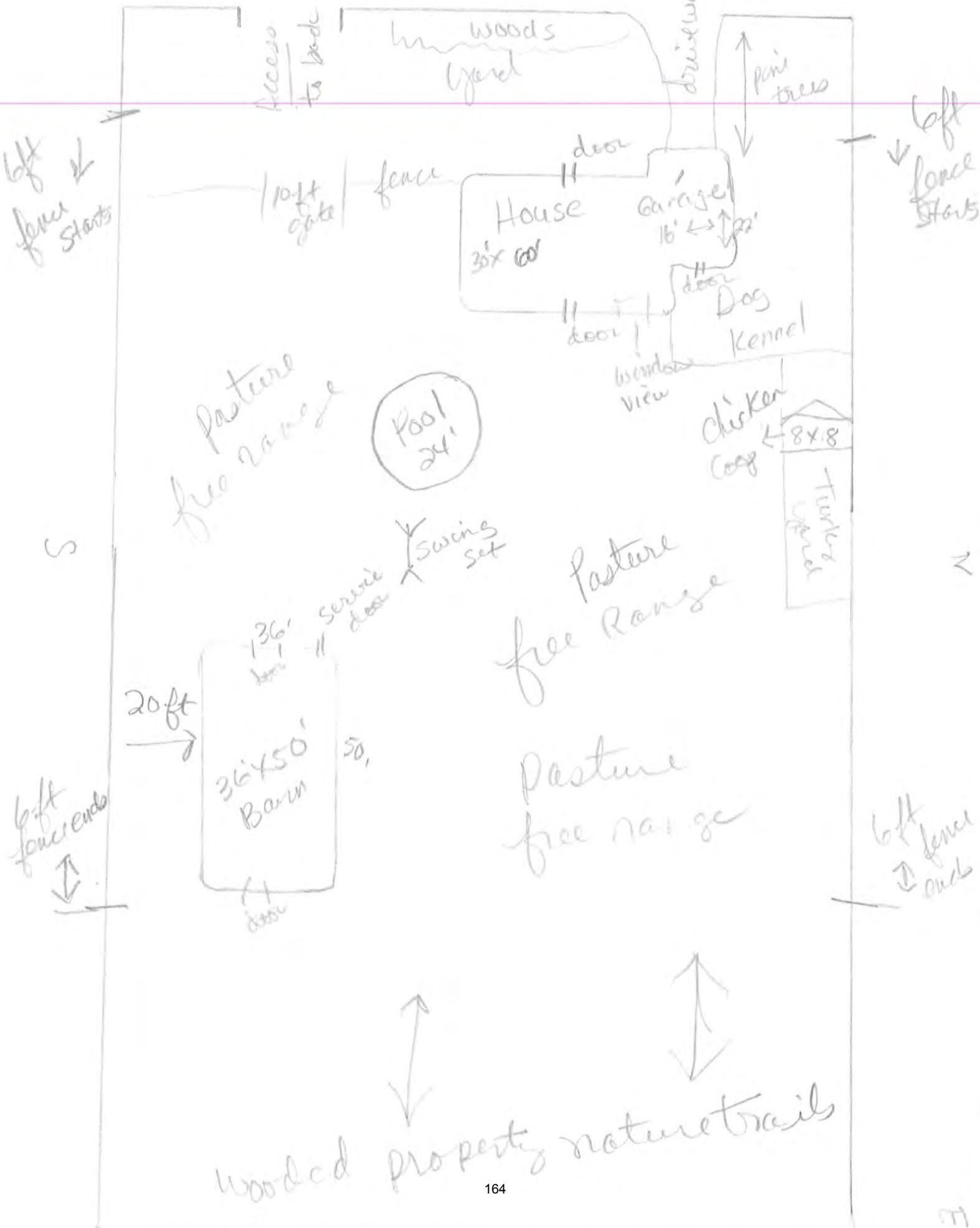
Kari H. Beniski Date Signed: 11-15-16

STAFF SIGNATURE: [Signature] Date Signed: 11/15/2016

Filing Fee - Amount Paid: \$ 3550.00 Check Number: 765

KB Road

N



01 R07594

FILED FOR RECORD
BOONE COUNTY, IL.

2001 JUL 26 PM 12:09

Agenia K. Schroeder
BOONE COUNTY RECORDER

WARRANTY DEED TENANCY BY THE ENTIRETY

RTC 31404T2

THE GRANTOR, **PATRICIA T. KONING**, a single person, in consideration of One Dollar and other consideration CONVEY and WARRANT to **STEVEN BINSKI and KARI BINSKI**, husband and wife, NOT AS JOINT TENANTS OR TENANTS IN COMMON BUT AS TENANTS BY THE ENTIRETY, GRANTEEES

THE PROPERTY COMMONLY KNOWN AS: **14321 K-B Road Capron, IL 61012**

PROPERTY CODE NO. **04-22-200-014** AND LEGALLY DESCRIBED AS:

The South 163.95 feet of the North 1,584.0 feet of the West Half (1/2) of the Northeast Quarter (1/4) of Section Twenty-two (22), Township Forty-five (45) North, Range Four (4) East of the Third Principal Meridian, in Boone County, Illinois; situated in the County of Boone and the State of Illinois.

hereby releasing and waiving all rights under and by virtue of the Homestead Exemption Laws of the State of Illinois. This conveyance is SUBJECT TO: Real estate taxes for 2001, conditions, restrictions, covenants, easements and ordinances of record.

Dated this 18 day of July, 2001.

AFFIX TRANSFER TAX STAMP OR "Exempt pursuant to Section 31-45 of the Real Estate Transfer Tax Law.	
Date	Buyer, Seller or Representative

Patricia T. Koning

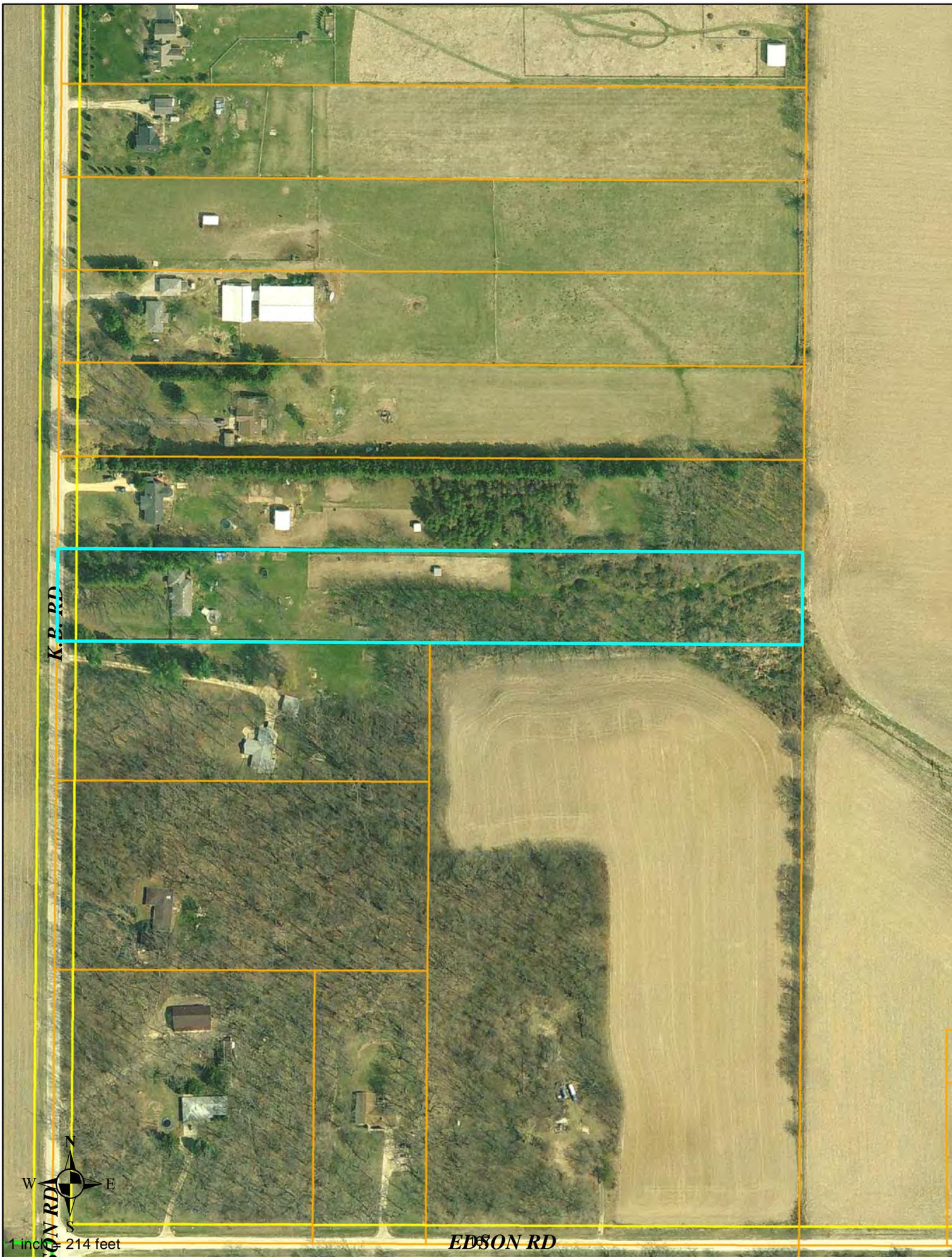
PATRICIA T. KONING
(1)

710-000-00-710-710

ATTACHMENTS

1. Aerial Map
2. Location of Barn
3. Current Zoning
4. Comprehensive Plan Zoning

5. Letter from the Boone County Soil & Water Conservation District, Jennifer Becker, November 15, 2016.
6. Letter from the Boone County Building Department, Drew Bliss, December 7, 2016.
7. Letter from Boone County Health Department, Bill Hatfield, December 12, 2016.
8. Letter from the Boone County Engineer, Justin Krohn December 8, 2016.



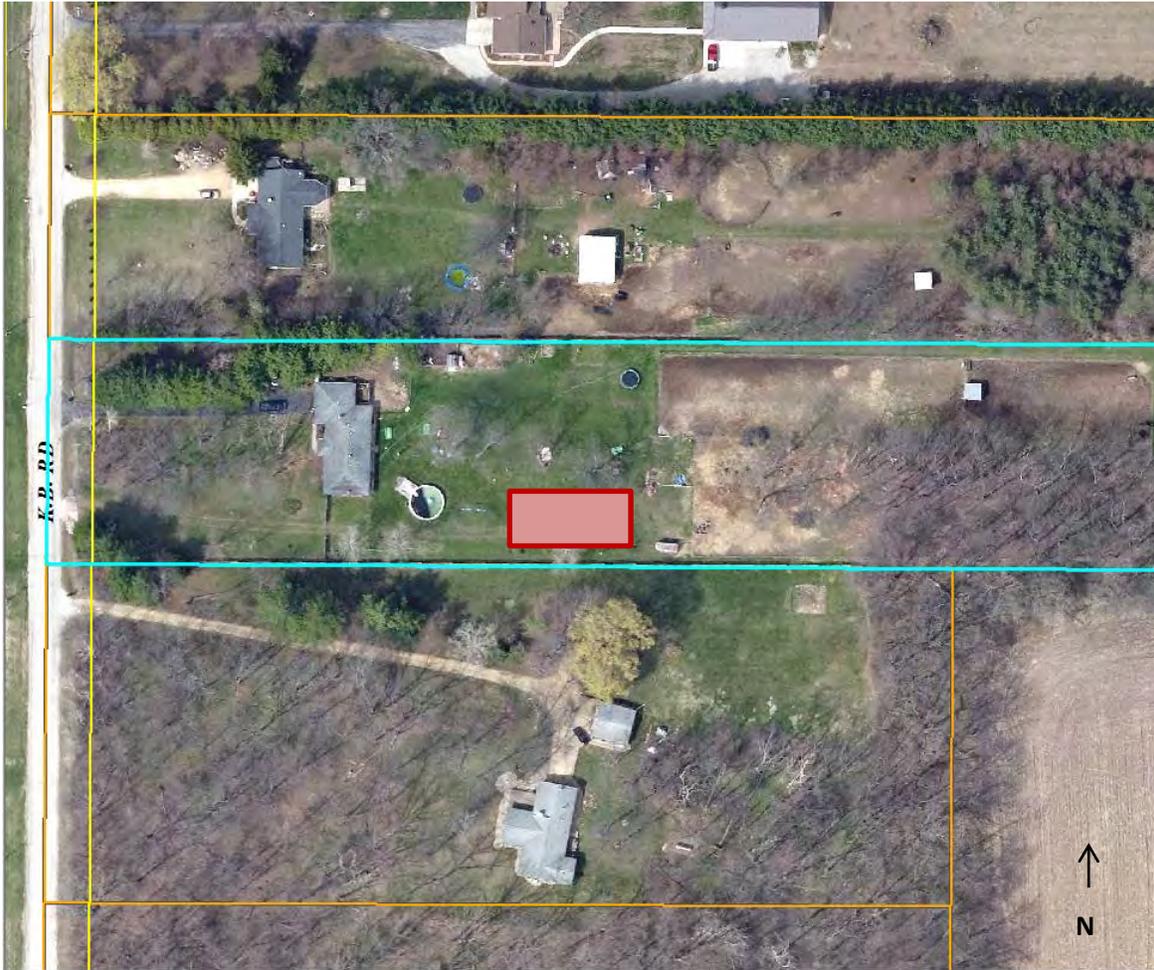
K.P. RD

EDSON RD

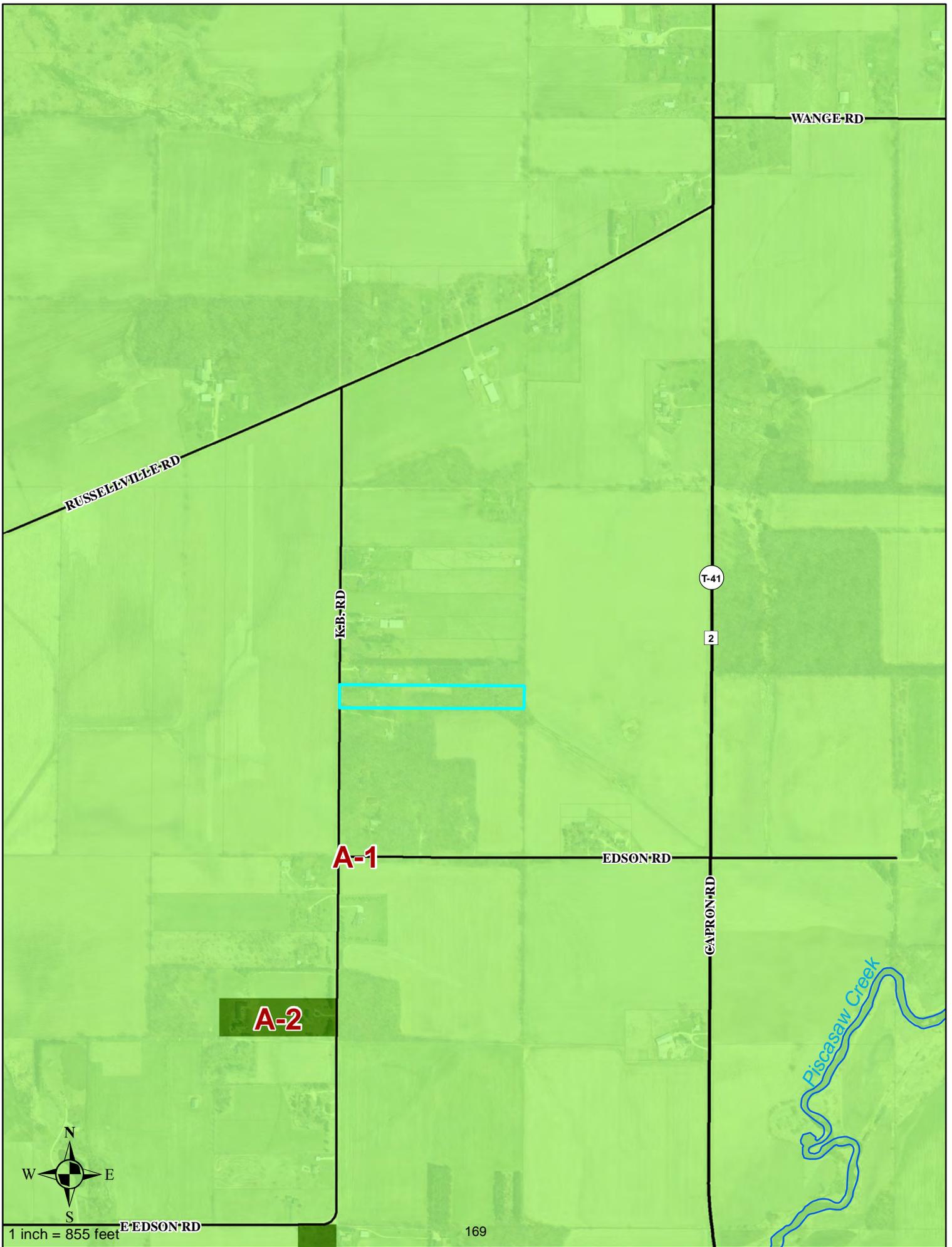


1 inch = 214 feet

Location of Purposed Barn



36' X 50' Barn
20 feet from South Side Set Back



WANGE RD

RUSSELVILLE RD

K&B RD

T-41

2

A-1

EDSON RD

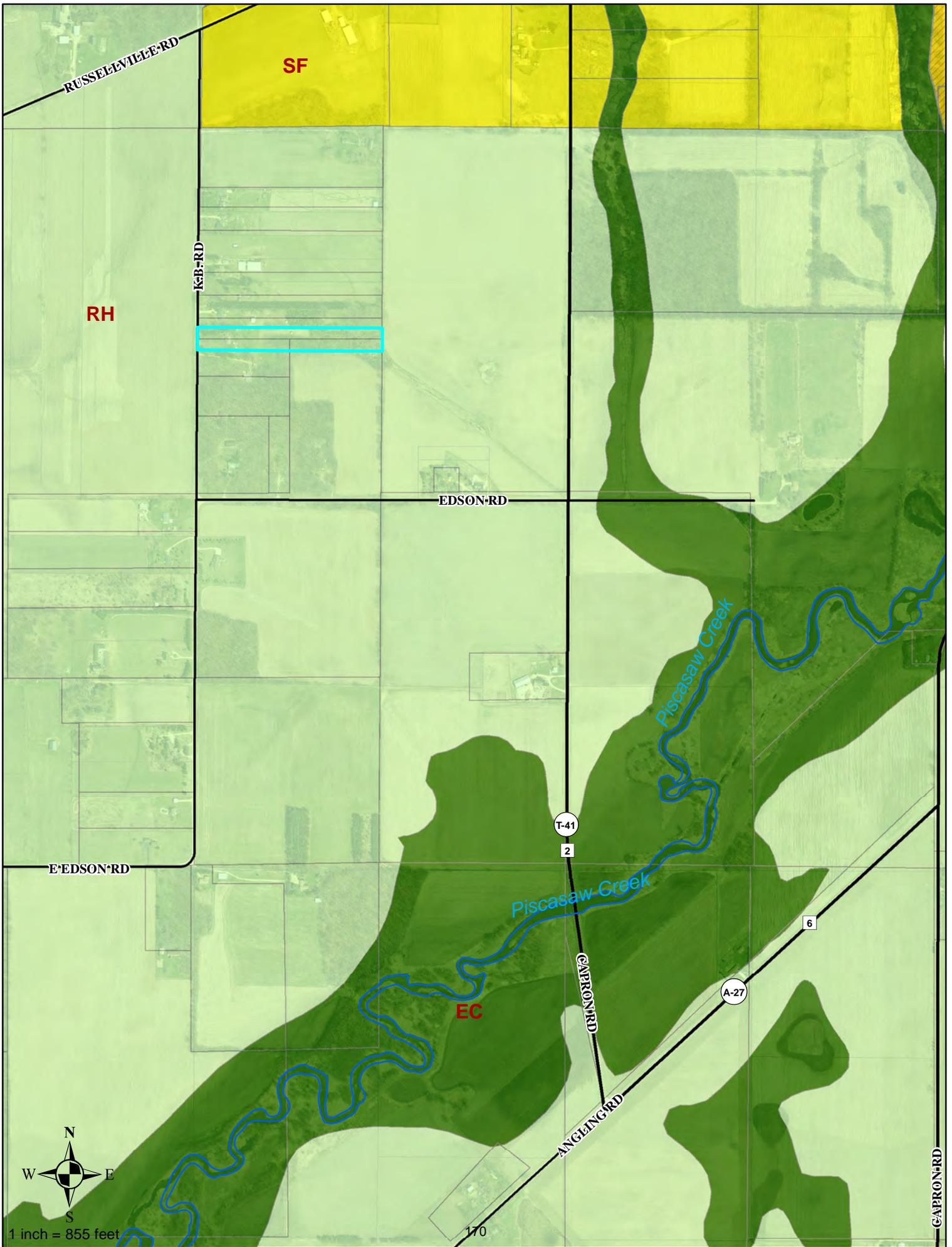
CAPRON RD

A-2

Piscasaw Creek



1 inch = 855 feet





Boone County
Soil & Water
Conservation District

211 N. Appleton Road
Belvidere, IL 61008
815-544-2677 ext. 3

November 15, 2016

Boone County Planning Department
1212 Logan Ave.
Belvidere, IL 61008

SWCD NRI #1520

Dear Sir/Madam,

Kari Binski has submitted a request for a Natural Resource Information Report. The request was for a Variance at 14321 KB Road, in Capron, Illinois. We will submit a written reply to your office as indicated below:

- Our review does not apply in this instance.
 Other (see attached).

Sincerely,

Jennifer Becker
Boone County Soil & Water
Conservation District

RE: Kari Binski

**BOONE COUNTY
BUILDING DEPARTMENT**

**1212 Logan Ave. Suite 101 Belvidere, Illinois 61008
(815)544-6176
(815)-547-0906(fax)**

December 7, 2016

To: Hilary Arther
Land Use Planner

From: Drew Bliss
Senior Building Inspector

RE: Case: 23-2016; 14321 K-B Road, Capron, Illinois 61012

Dear Ms. Arther,

Our office has no objections to the variance request. Please notify the applicant that a zoning certificate will be required if the case is approved.

If you have any further questions, please feel free to contact our department at (815) 544-6176.

Thank you,



Drew Bliss
Senior Building Inspector
Boone County Building Department



Boone County
DEPARTMENT OF
PUBLIC HEALTH

1204 Logan Avenue • Belvidere, Illinois 61008

Main Office: 815-544-2951 • Clinic: 815-544-9780
Fax: 815-544-2050 www.boonehealth.org

The mission of the BCDPH is to protect and promote health in Boone County.

December 12, 2016

Hilary Arther
Boone County Planning Dept.
1212 Logan Ave.
Belvidere, IL 61008
Fax 815-547-3579

Re: 23-2016; 14321 K-B Road, Capron, Il 61012

Dear Hilary,

We are in receipt of the variance request to allow a twenty foot side yard to construct a barn. If the request is given approval through the zoning, then the applicant will need to come into the Boone County Health Department to do a plan review on the property. This review consists of a print out of the property with the applicant indicating the placement of the barn and where the well and septic system is located. The plan is then reviewed to current code requirements. There is a \$50.00 fee for this review. This approval then would go to the Boone County Building Department for the building permit to be issued.

Thank you,

William L. Hatfield
Director of Environmental Health
skm

From: [Justin Krohn](#)
To: [Hilary Arther](#)
Subject: RE: ZBA Case 23-2016 14321 KB Road Capron IL
Date: Thursday, December 08, 2016 4:08:56 PM

There does not appear to be a direct impact to the Highway Department, therefore the Highway Department has not comments.

Thank you,
Justin

From: Hilary Arther
Sent: Tuesday, December 06, 2016 4:40 PM
To: Drew Bliss; ernest@boonecountysheriff.com; Justin Krohn; info@boonehealth.org; SMcQuinn@boonehealth.org
Subject: ZBA Case 23-2016 14321 KB Road Capron IL

Good Afternoon,

Please see the attached document and if you have comments please submit them by December 16, 2016.

Thank you,

Hilary Arther | Land Use Planner | Boone County, Illinois
1212 Logan Avenue, Suite 102 | Belvidere, IL 61008
Phone: 815-547-6698 | Fax: 815-547-3579 | Email: harther@BooneCountyIL.Org

