

ZONING BOARD OF APPEALS AGENDA

Tuesday, November 22, 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 October 25, 2016

PUBLIC COMMENT:

UNFINISHED BUSINESS:

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.

Staff (Approval); ZBA ()

OTHER BUSINESS:

DISCUSSION:

COMMUNICATIONS/PLANNING REPORTS:

Previous Case Update

Staff Report

ADJORNMENT

ZONING BOARD OF APPEALS

MINUTES

Tuesday, October 25, 2016

County Board Room

1212 Logan Avenue

7:00 P.M.

ROLL CALL:

Members:

Staff Present:

Brian Van Laar, Chairman
Arther, Planning Consultant

Hilary

Tony Savino, Vice-Chair

Other:

Joan Krumm
Deb Clarkson, Transcriptionist

Mark Rhode

Steve Schabacker1

With a quorum present Chairman Brian Van Laar called the meeting to order at 7:02 P.M.

MINUTES:

It was moved and seconded (Savino/Rhode) to approve the minutes of September 27, 2016.

PUBLIC COMMENT: None.

UNFINISHED BUSINESS: None.

NEW BUSINESS:

21-2016; Peter: The application of Sarah Peter, 14106 Tallgrass Trail, Poplar Grove, Illinois 61065, requesting a variance to reduce the required front-yard setback from 75 feet to 35 feet to rebuild the home destroyed by fire in the A-1, Agricultural Preservation Area District pursuant to the Boone County Zoning Ordinance (Section 3.2.4.B Residential Uses, Less than 5 acres, Section 2.8 Variances) on 4.98 acres at 14266 Capron Road (PIN: 04-22-400-007) in unincorporated Boone Township, Boone County, Illinois.

The public hearing opened at 7:06: P.M.

Hilary Arther having been sworn in summarized the staff report. She stated that this property is approximately 4.98 acres and meets all the setback requirements for property under two acres because it's not yet five acres except for the front yard setback of the home. The applicant is looking to rebuild the home in the same location with a 35-foot setback from the right-of-way line, which is 68-feet from the center of the road. The variance request is because a septic system is located in the back of the home and that would interfere with rebuilding to use the existing infrastructure located on the property.

The Boone County Soil and Water Conservation District has no objections. The Boone County Building Department has no additional comments except that if there would be a home rebuilt, that a permit would be needed. The Boone County Health Department has stated that the capacity of the septic tank, structural integrity, and the Code compliance of the septic system was unknown at this time and that the Health Department had no record of the system being installed. Therefore, a series of on-site septic field investigations and a soil analysis would need to be completed to verify Code compliance. The plan consideration of the trend of the development in that area is predominately agricultural production. There has been little change in the past ten to fifteen years.

Under findings of fact Ms. Arther stated: No. 1, the particular physical surroundings, shape, or topographical condition of the subject property involved would not result in any particular hardship upon the owner as distinguished from the mere conveniences, if the strict letter of the regulations were carried out. It meets the minimum requirement of the Zoning Ordinance. This is an area within the 4.98 acre parcel for the residence to be rebuilt in compliance with the Ordinance but it would involve extensive costs and reconfiguring of existing infrastructure.

No. 2, the conditions upon which the petition for a variation is based is sometimes applicable to other properties within the same zoning districts. Many residences in the A-1 Agricultural Preservation Area District were constructed prior to the current Zoning Ordinance. Agricultural buildings are generally laid out in a way where the buildings and improvements are clustered together to allow for optimal agricultural use. When the residence was destroyed, there is not always an adequate area for positioning to meet current Codes.

No. 3, the purpose of the variance is not based exclusively upon a desire to make more money. The applicant wishes to utilize the existing infrastructure while rebuilding a single family residence.

No. 4, the owner of the property has not created the alleged difficulty or hardship. Planning staff has the opinion that the requested variance is due to convenience rather than hardship as no hardship was created by the applicant.

No. 5, the granting of the variance will not be detrimental to the public welfare or injurious to other property or improvements in the area. The residence will be using the existing driveway so no traffic patterns are anticipated to change and no negative impact.

No. 6, we do not see any congestion in the public streets or increase the danger of fire or endanger the public safety or substantially diminish or impair property values. The new residence is not anticipated to increase any other problems for the area and there will be a more positive effect on the property and the general welfare of the community. The benefit of the variance outweighs the request due to the fact that the rebuilt residence is not anticipated to have any negative impact.

The recommendation based on the findings is to approve Case 21-2016.

There were no additional questions from the Board or the public. Ms. Sarah Peter of 14106 Tallgrass Trail, Poplar Grove, IL, was sworn in and added four additional points to her testimony. One was she gave additional information regarding the existing septic system and updated the Board on information she received from Country Well and Septic. This company had gone over the three septic lines and found them to still be operational but that a fourth line may be necessary as well as a new septic tank might be needed to replace the old one. The applicant also brought up three pine trees in the back of her property, which would need to be removed if the house were set back on the property. In addition, there were several concrete pads, which she anticipated utilizing in future outbuildings, which would need to be removed if the house was built further back on the property. She also stated that there would be some grading issues due to the way the water runs off on this property.

Mr. Schabacker spoke of his desire for drawings regarding the septic system and where this fourth line for the system would be. He also said it would be helpful to have something in writing from the contractor with a set of the drawings as the septic system is crucial as to the current location and future location if the current system failed. Ms. Peter stated she had no drawings at this time but showed the Board members the location of the current septic lines on a Google Map.

Mr. Savino posed questions to the applicant regarding her position should the Health Department state she could not use the existing septic system and that a lift station would probably need to be incorporated. Ms. Peter responded that if necessary they would rebuild the septic system.

Chairman Van Laar made the comment that if the Health Department said she had to replace the septic, since it would be moved anyway, she could then build the house to be in compliance. More discussion was held by the Board regarding the septic system and the Health Department. Chairman Van Laar also asked about contact with neighbors and if there were any issues of concern for them. She stated she had been in contact with many of her neighbors and no one expressed any concerns. Ms. Arther also reported she had received no correspondence or contact with neighbors surrounding the property.

There were no further questions for the applicant.

It was moved and seconded (Krumm/Savino) to close the public hearing. Motion carried 5-0 by voice vote.

Further discussion was then held from Mr. Schabacker regarding correspondence from the Health Department and the Highway Department. The Highway Department had a concern about setbacks should future widening occur on Capron Road. The Health Department communicated that in order

for the existing system to be utilized, it would have to be verified as being Code compliant through a series of on-site septic field investigations and soil analysis. Mr. Schabacker felt the Health Department needed to be involved as he saw no soil analysis reports. Ms. Krumm agreed with Mr. Schabacker that more information was needed before they could vote on the application. Mr. Savino asked if they couldn't make this special use dependent on whether they can use the existing septic system because if the septic system failed, the applicant would have to find a new location for the system as it could not be placed in the same location. If the applicant was moving the septic anyway, that frees up that area for the house. Chairman Van Laar asked for clarification as to the issue being the septic lines rather than the septic tank and Mr. Savino verified that. Ms. Krumm spoke of her investigation and learned from a neighbor about the soil possibly being more porous and thought it was possible to add the stipulation that it pass the Health Code on the septic field. Mr. Schabacker also noted that if the Board doesn't grant the variance, then the applicant would have to comply with the current setbacks unless the septic system is able to be used; and if it is, then he could understand the applicant wanting to keep the home where it is; but if that septic system is not functional and doesn't meet the Code, it has to be replaced, then there is no strong reason why the structure couldn't be put back to what the regulations require.

Ms. Krumm inquired the necessity of a reapplication and the numbering. Ms. Arther stated she believed a new number could be given but to reuse all of the previous findings and just to add whatever was needed to make that decision. Ms. Krumm asked about a new refiling fee and the possibility of tabling the matter in order to get additional information. Discussion was held regarding rescinding the motion to close the public hearing and waiving a new fee for the reapplication. Chairman Van Laar expressed his desire to move on without tabling and without reopening but agreed to waive the fee. Mr. Savino said he would rather put the stipulation in that as long as the old septic system works, that is fine.

Motion was made and seconded (Savino/Krumm) to accept the findings of fact. Motion carried 5-0 voice vote. After further discussion and clarification a motion was made and seconded (Savino/Krumm) for approval of Case 21-2016, depending upon the feasibility of utilizing the existing infrastructure of the septic field passing Health Department inspection and if a variance is necessary after the Health Department results, fees would be waived and the case could be revisited within one year. Mr. Schabacker then stated that if it didn't receive approval, the rebuilt house would need to meet the county setbacks. The motion was approved with a 5-0 roll call vote on Petition 21-2016.

The Board then addressed the applicant's request to waive the fee for the variance. It was decided that the Board did not have the authority to waive the fee.

OTHER BUSINESS: None.

DISCUSSION: None.

COMMUNICATIONS/PLANNING REPORTS:

Ms. Arther then updated the Board that the Goad case had passed as well as the Thomas case. She

also advised the Board members that she had put together claims for their meeting attendance and mile reimbursement from February to September and a check should be forthcoming before the end of the year. The next meeting is scheduled for November 22nd and the Peaker Plant matter is scheduled to be heard. The other matter that was to be heard this evening, the applicant had pulled out so that may also be on the agenda. That is the matter of William Charles as the applicant and the desire to utilize property on Route 20 as a parking lot. It was also reiterated that the hearing would not extend past 10:00 P.M. on November 22nd. The December meeting is scheduled for the 27th.

A motion was made and seconded (Rhode/Schabacker) to adjourn. Motion carried 5-0 by voice vote.

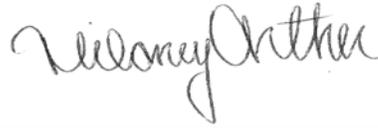
The meeting was adjourned at 8:01 P.M.

Recorded by:



Deborah Clarkson
Transcriptionist

Reviewed by:



Hilary Arther
Land Use Planner

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 to 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.
 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.
 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
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

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.

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 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).
17. 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. 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. 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



**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.

BELVIDERE – BOONE COUNTY PLANNING DEPARTMENT

COUNTY FEES

*Per Ordinance Number 12-22

Zoning Change:

A-1 & A-2:	\$500 + \$75/acre (or portion thereof)
RE, RC, RC2, RTN:	\$600 + \$75/acre “
B-1, B-2, I-1 & I-2:	\$700 + \$75/acre “

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

Subdivision Plat:

	<u>Preliminary</u>	<u>Final</u>
Residential:	\$500 + \$75/lot	\$500 + \$75/lot
Commercial & Industrial:	\$600 + \$75/lot	\$600 + \$75/lot
Candlewick Lake Replat: (or similar plat)	-----	\$300 + \$75/lot

	<u>Preliminary</u>	<u>Final</u>
Health Department Fees: (Per Ordinance Number 03-40)	\$35 + \$15/lot	\$35 + \$15/lot
	<u>Adjusted plat review (Replat):</u>	
	\$35 + \$15/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.

Lot of Record 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.

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)

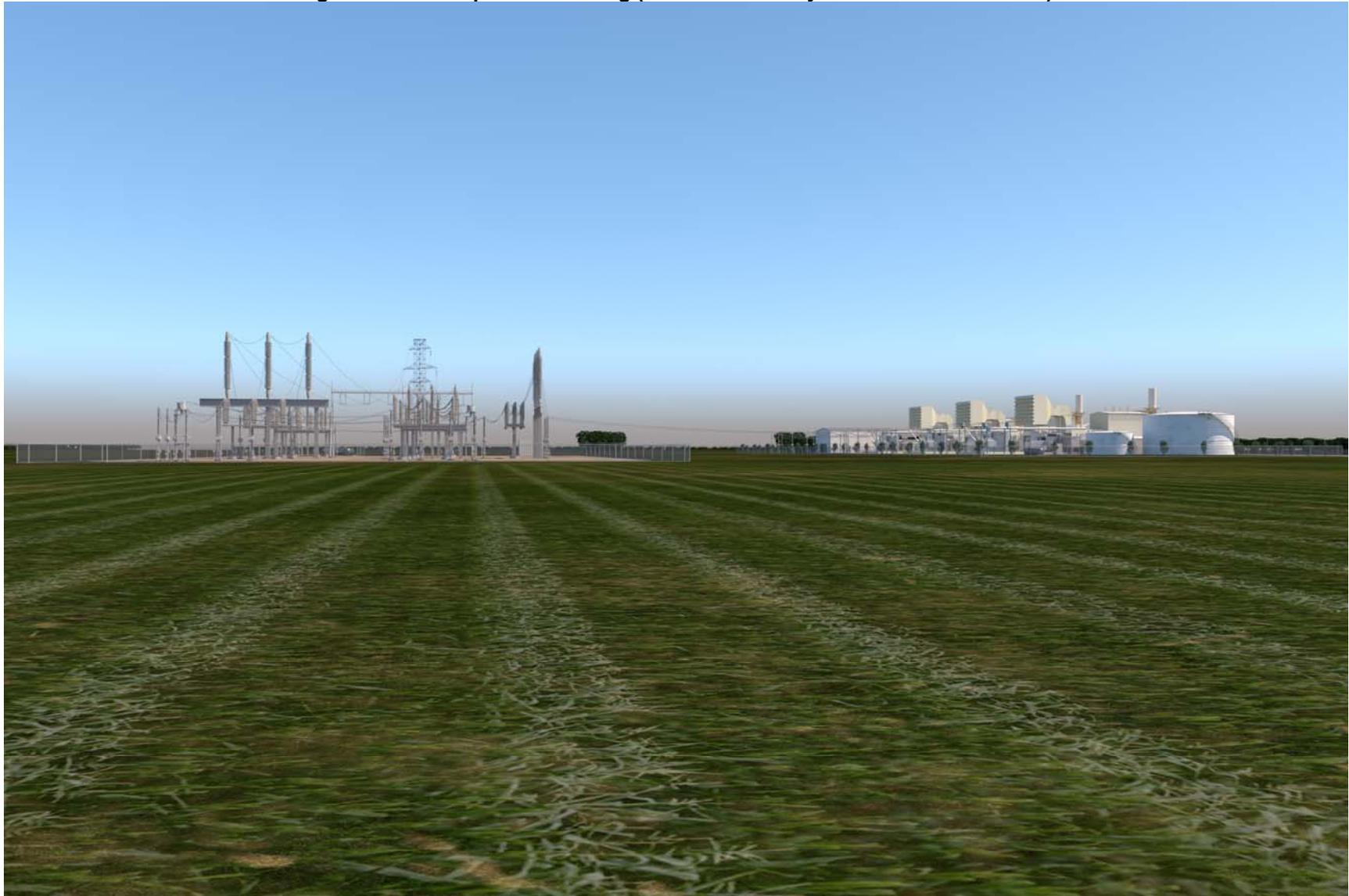


Figure 1-4: Conceptual Rendering (View from Nearby Residence South of Site)



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

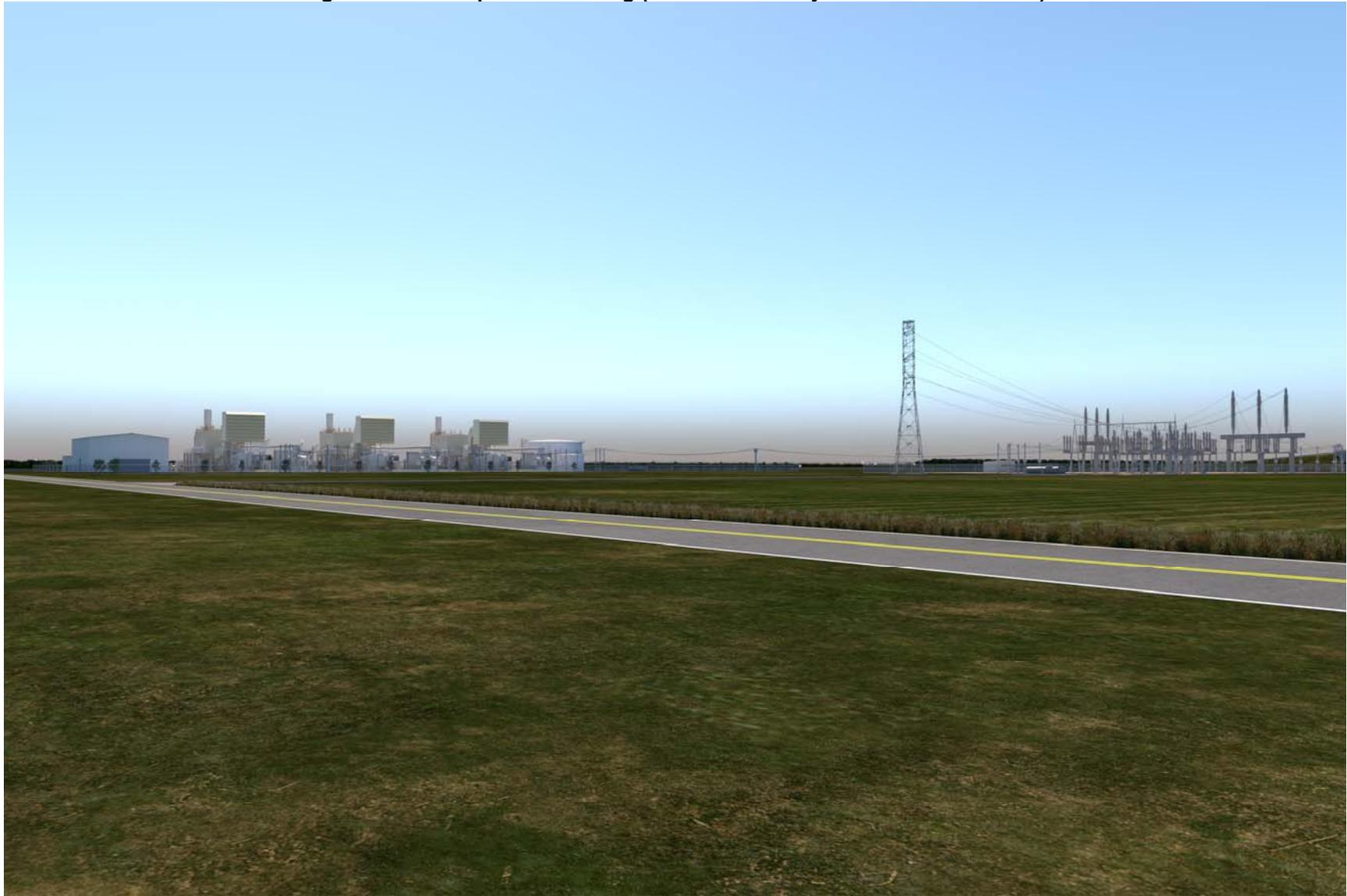
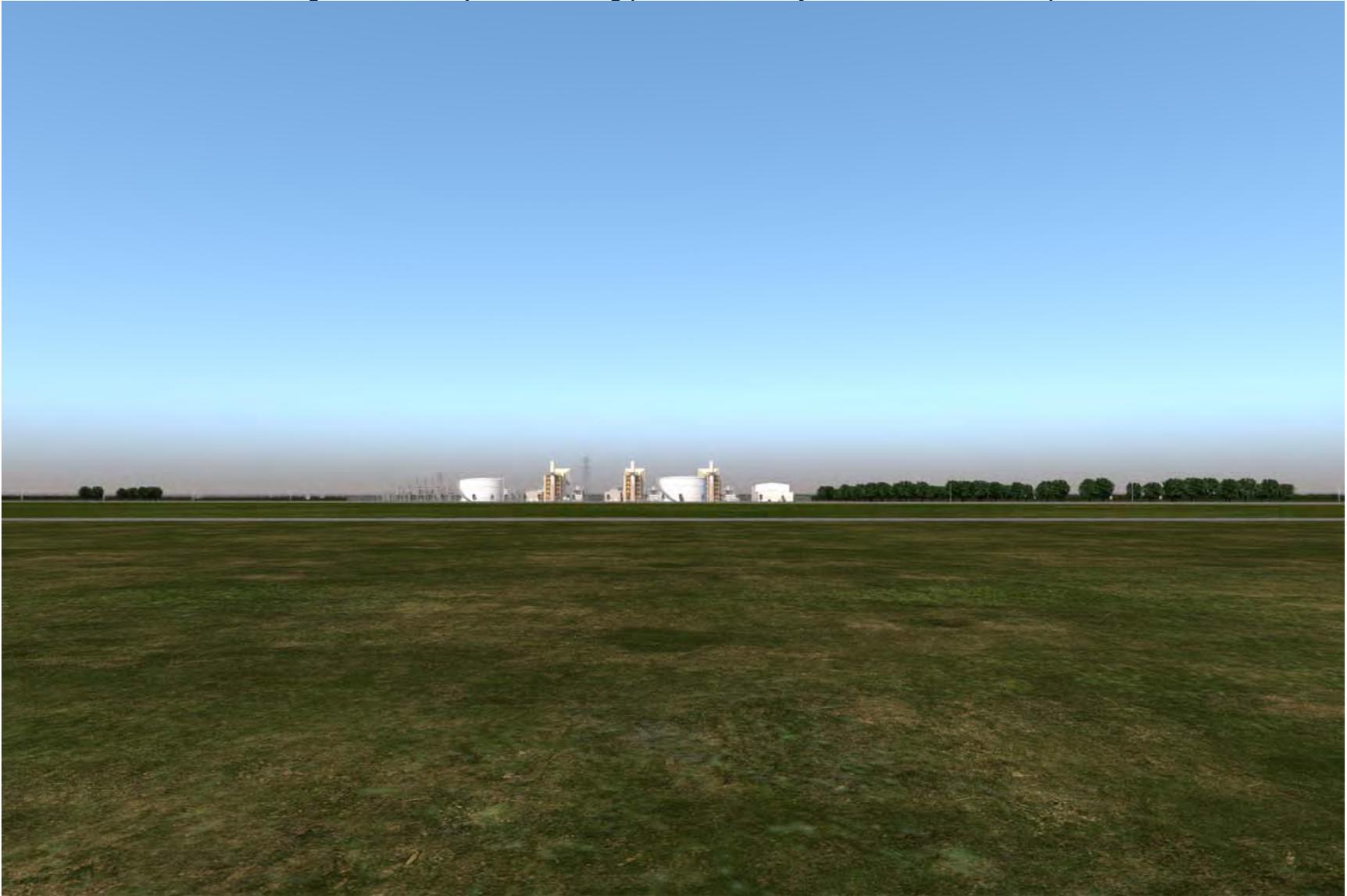


Figure 1-6: Conceptual Rendering (View from Nearby Residence North of Site)



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.

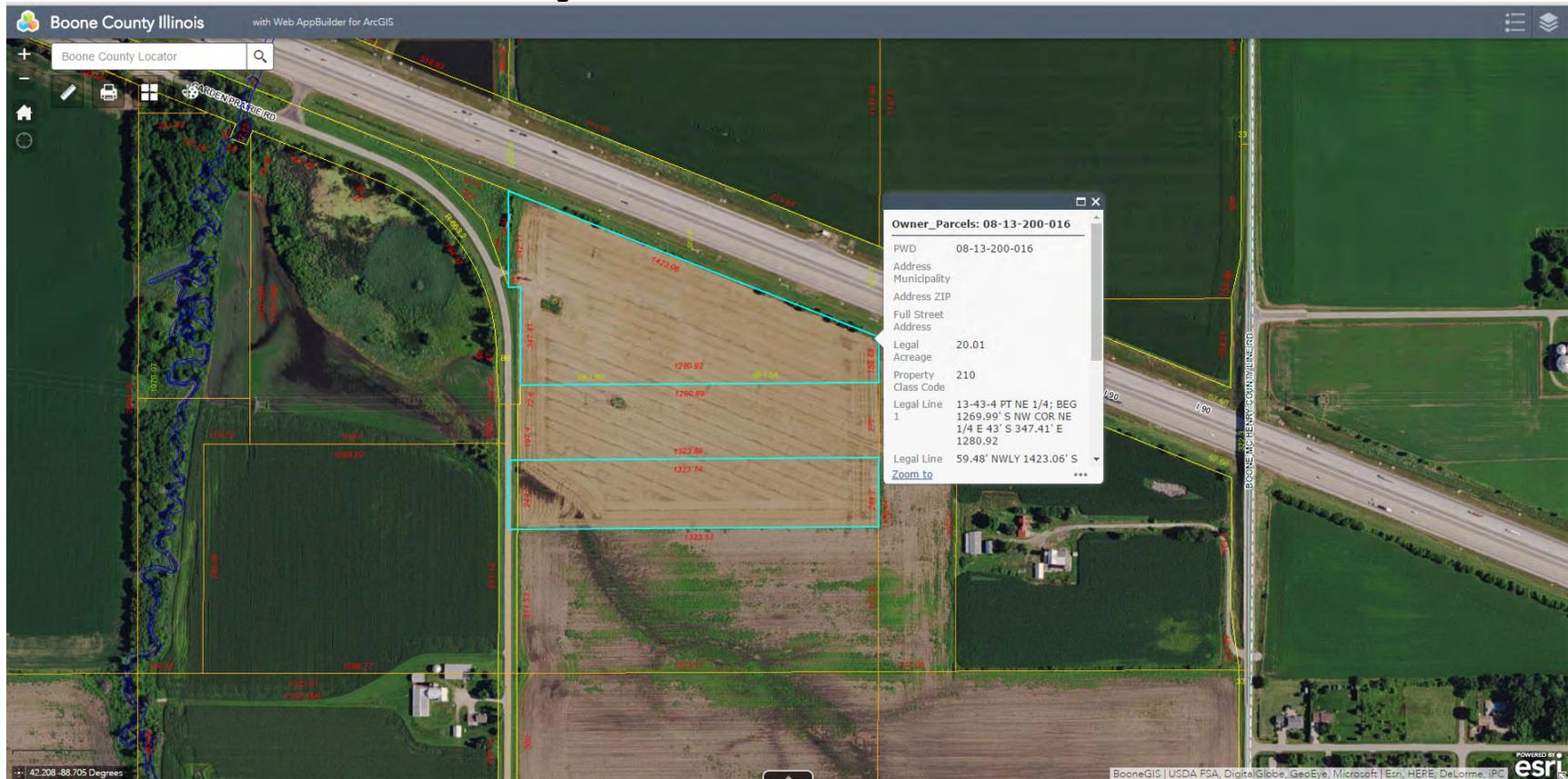
* * * * *

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.

* * * * *

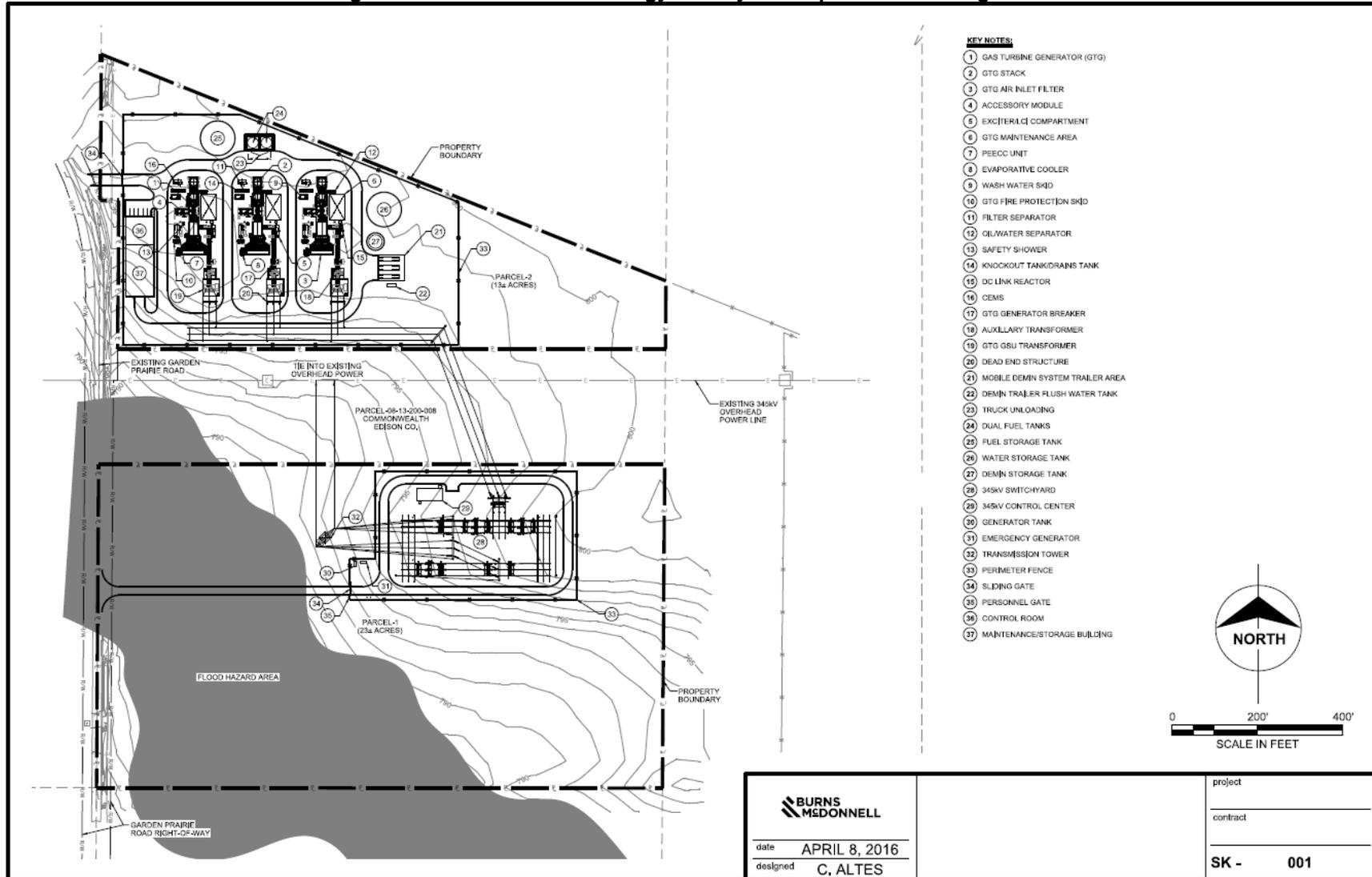
PLANT DESCRIPTION

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.

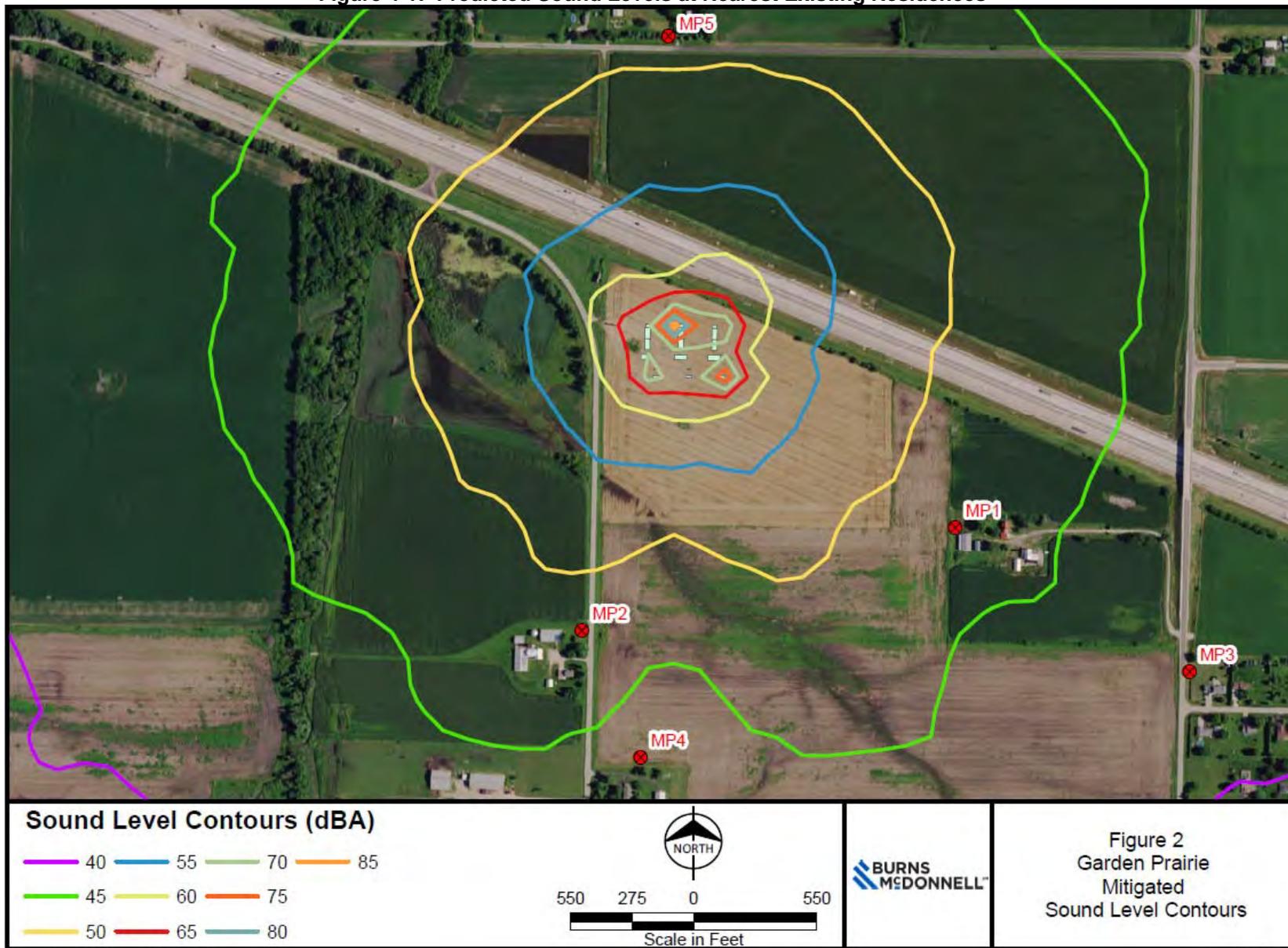
A noise model was developed to predict the impact to nearby residences during periodic intervals throughout the day. The model takes into account the current sound levels observed at the site prior to construction of the Project, and determines the level of insulation and mitigation required to ensure 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

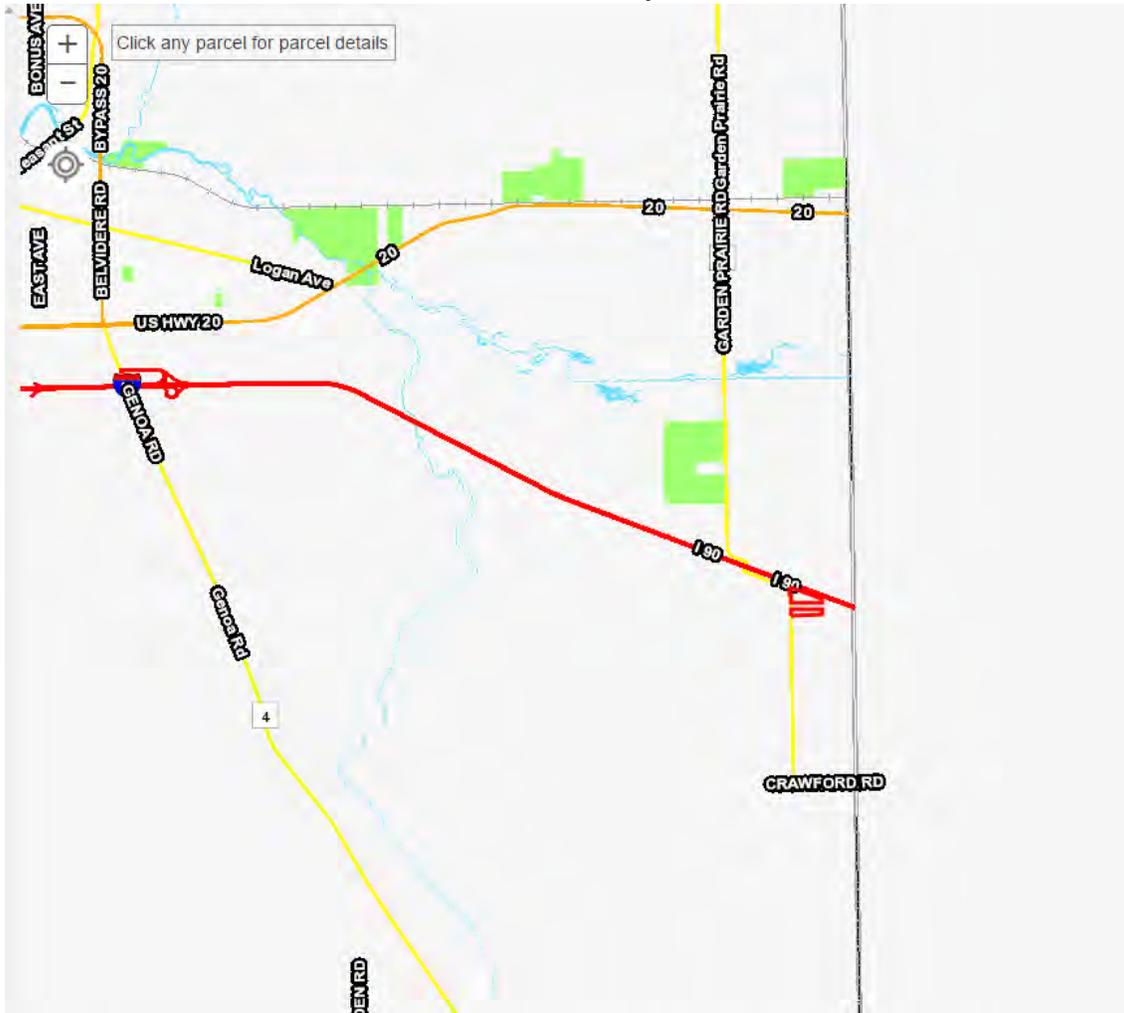
PVG expects the Project will be designed and constructed by Burns & McDonnell Engineering Company, Inc. once all required permits have been secured.

* * * * *

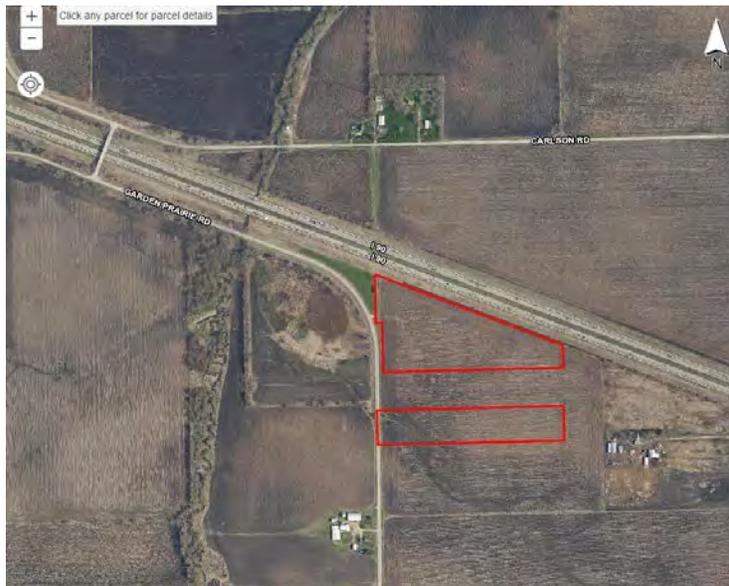
ATTACHMENTS

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 18, 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.

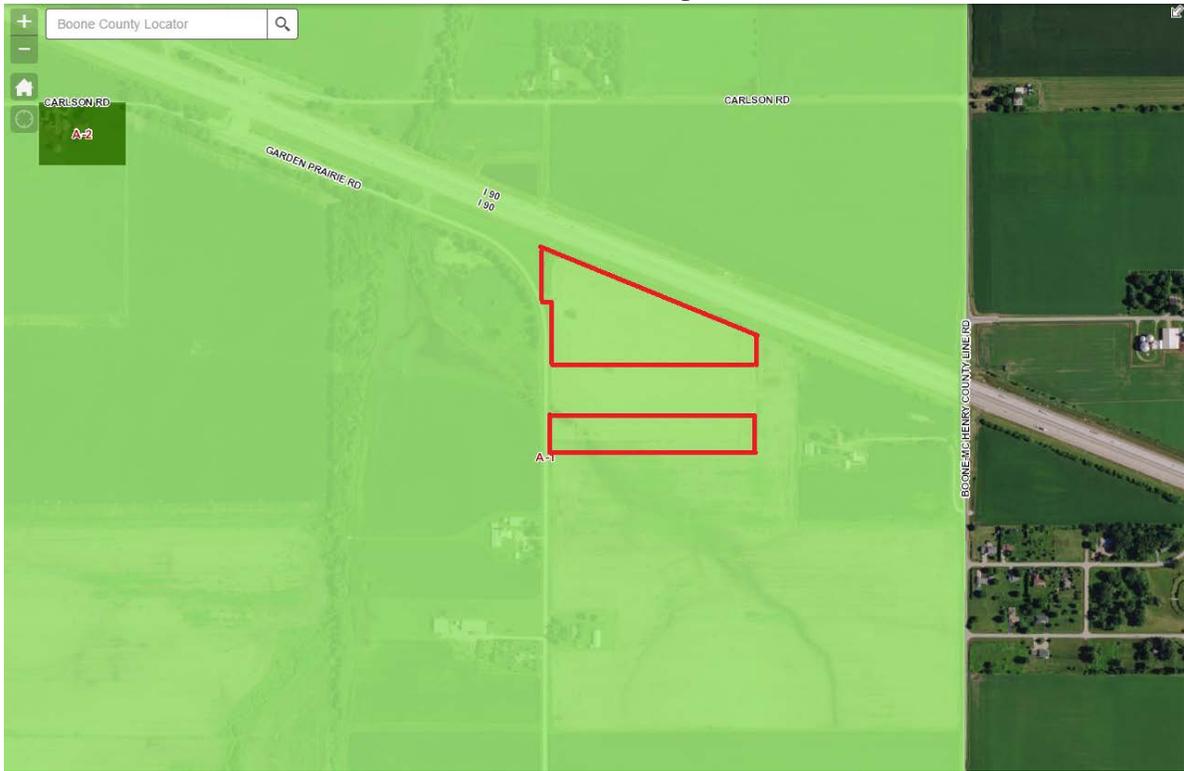
Location Map



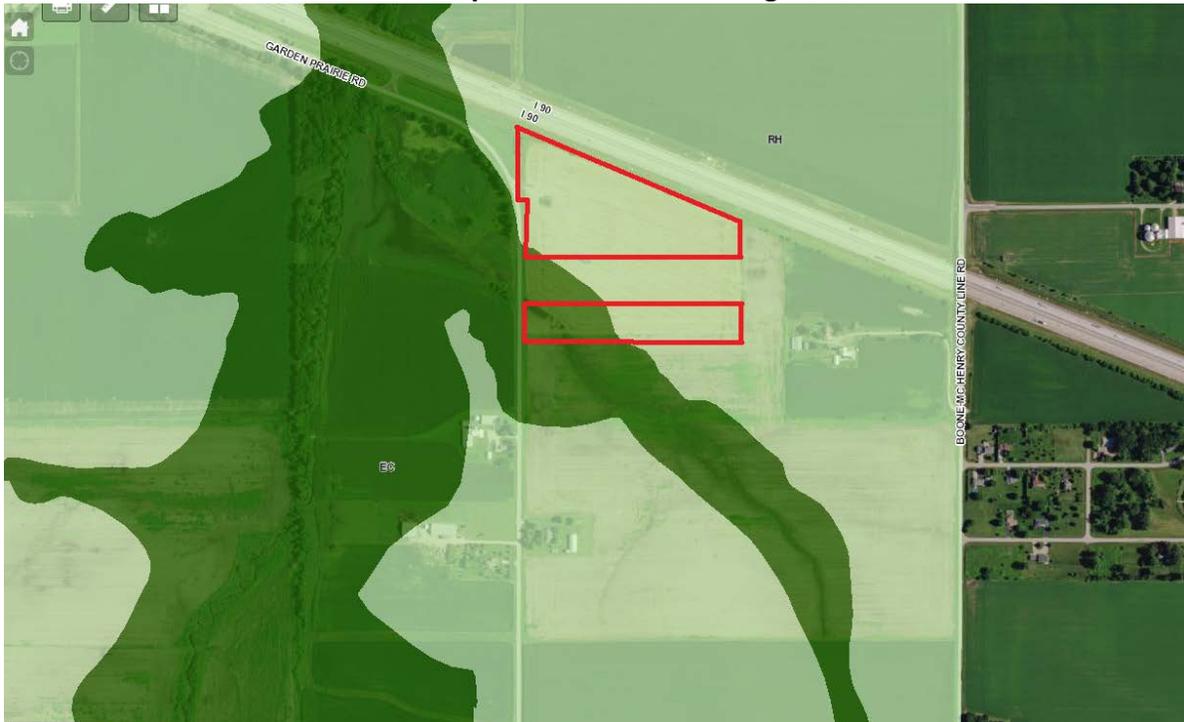
Ariel View of Location



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:

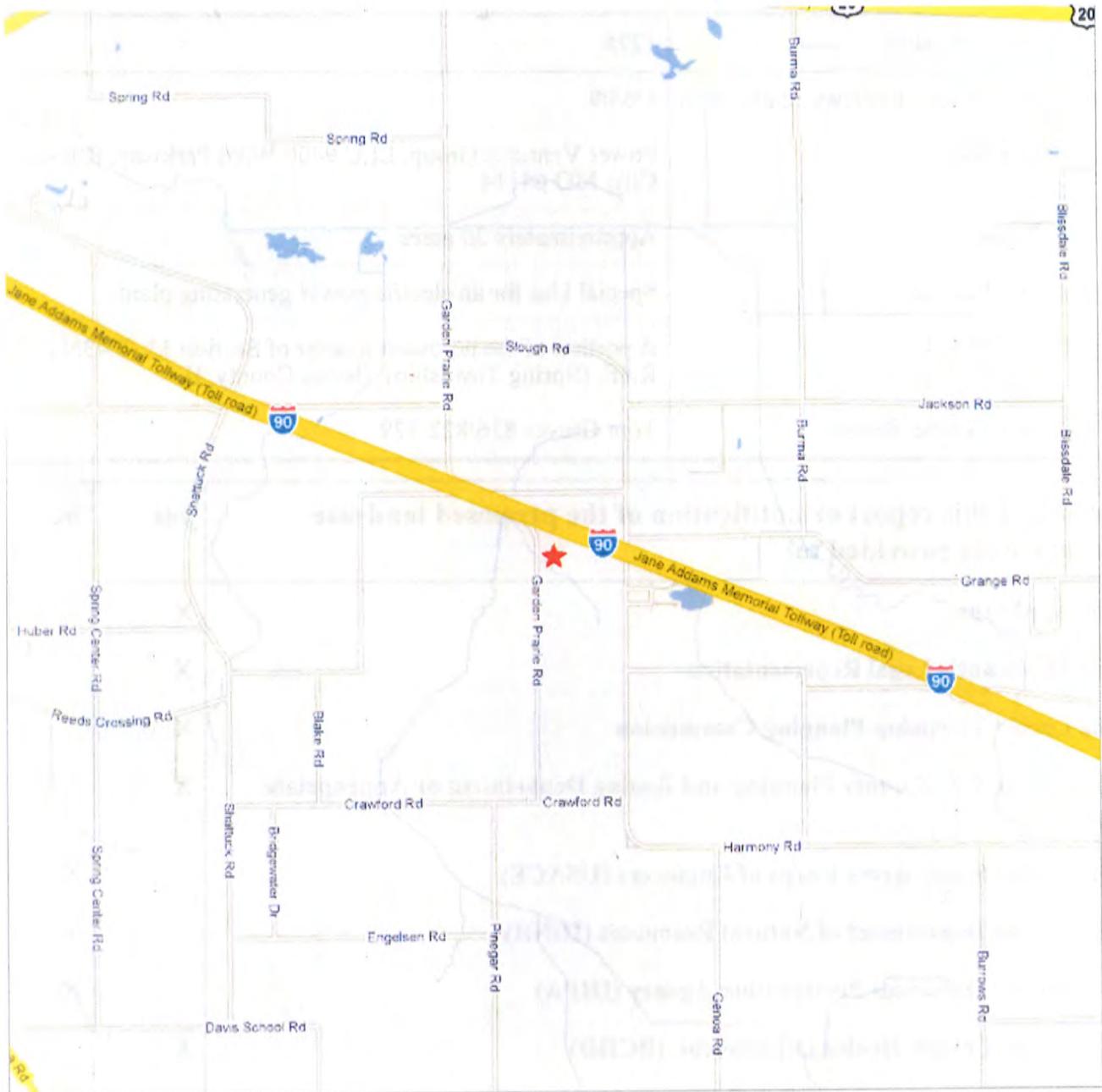
The Boone County Soil and Water Conservation District
Reviewed by the NRI Committee: January 6, 2009

**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.

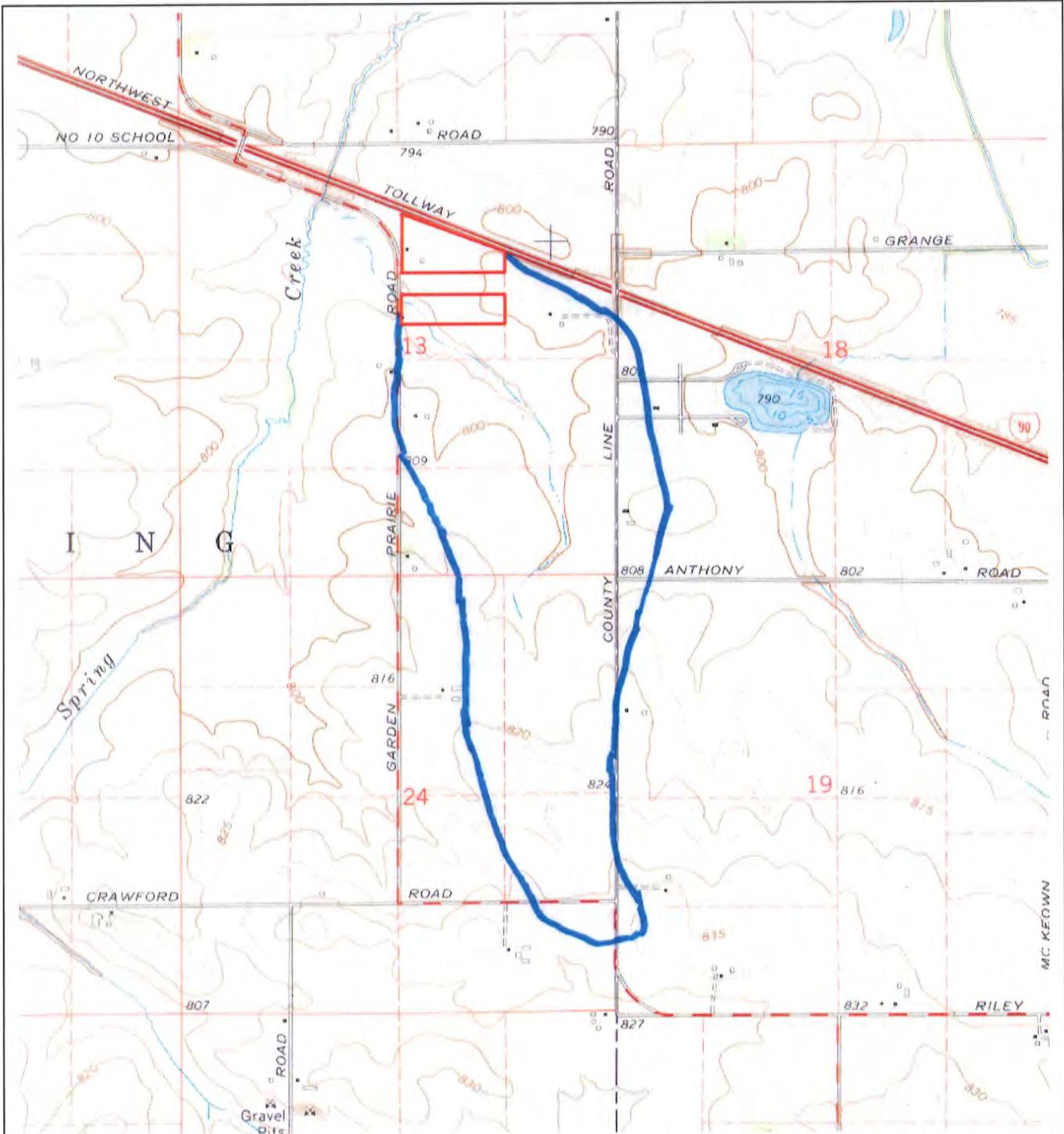


Figure 1. United States Geological Survey map showing the site area outlined in red and the watershed boundaries outlined in blue. Approximately 400 acres of off-site drainage flows through the site.

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

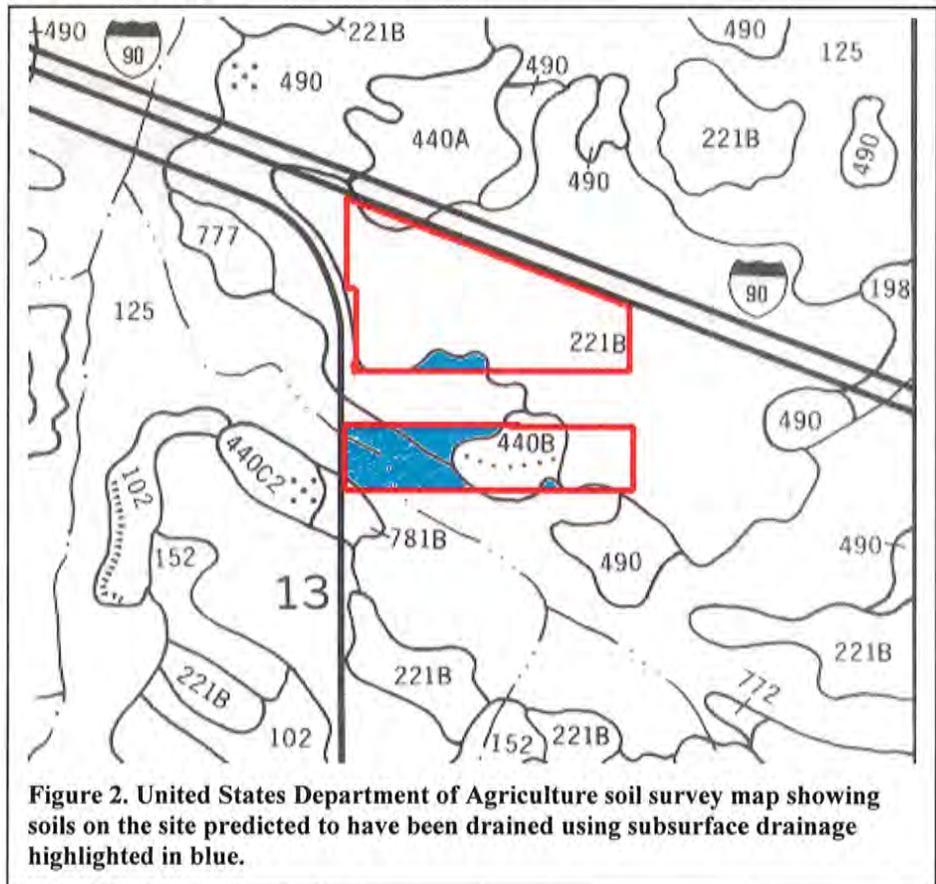


Figure 2. United States Department of Agriculture soil survey map showing soils on the site predicted to have been drained using subsurface drainage highlighted in blue.

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

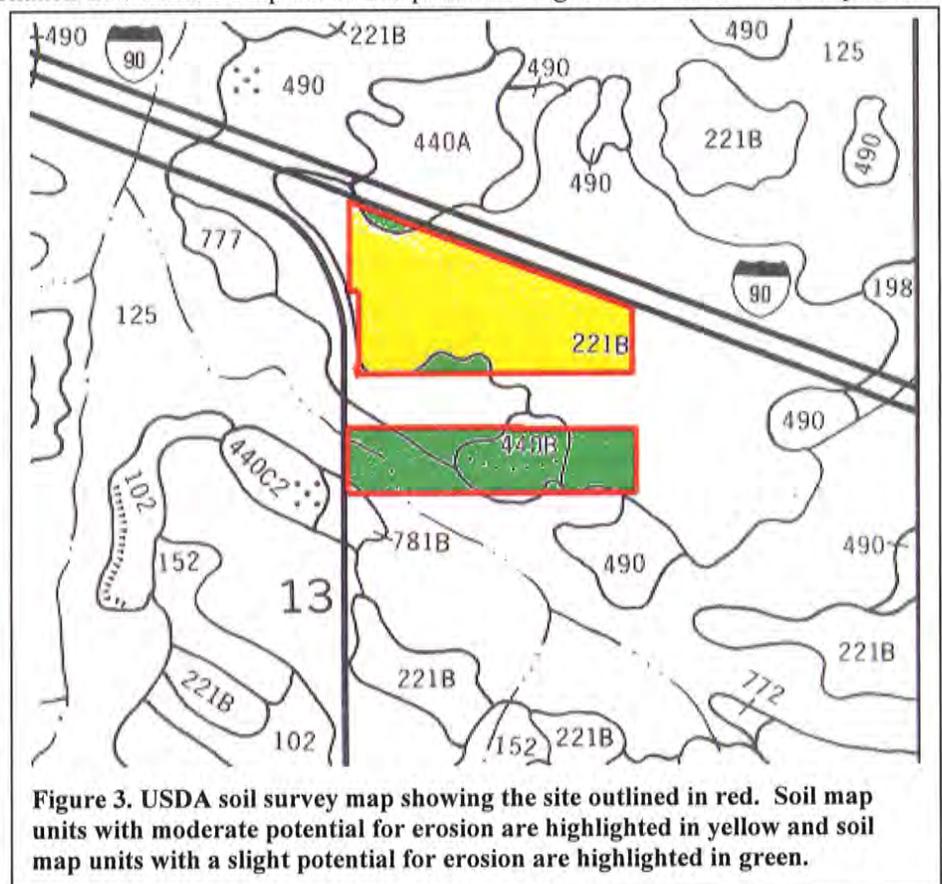
Erosion and sediment control is an element of planning that is commonly overlooked. When given consideration, erosion and sediment control practices are frequently poorly planned and implemented improperly.

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.

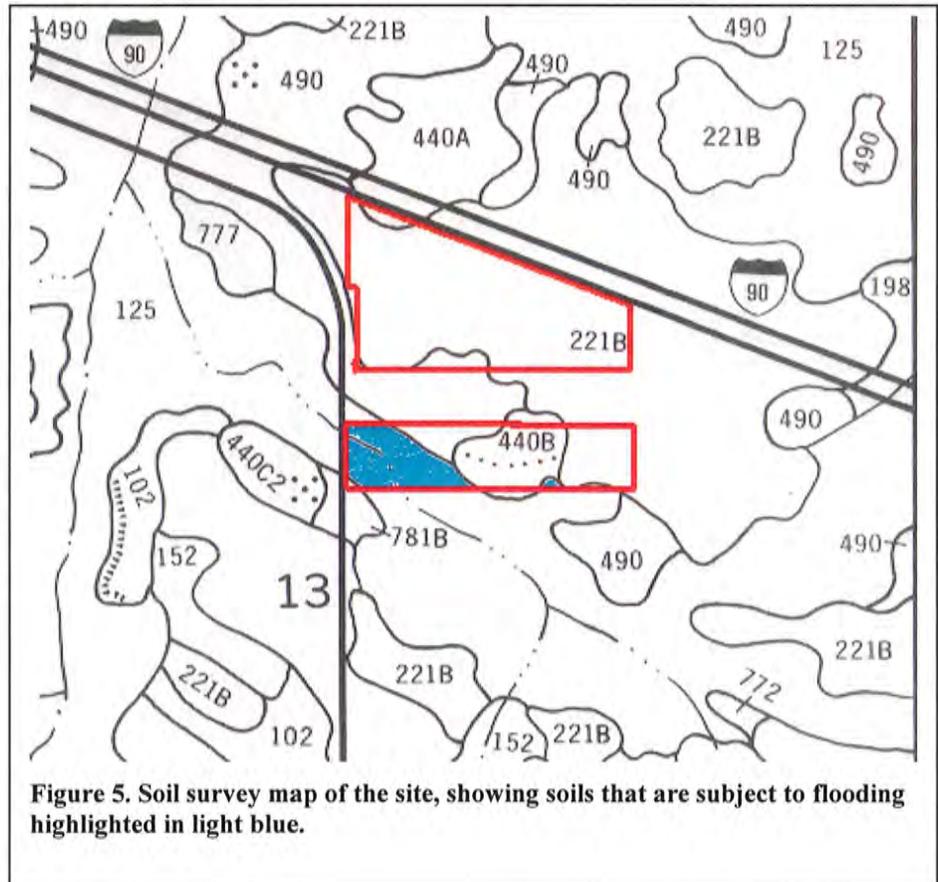
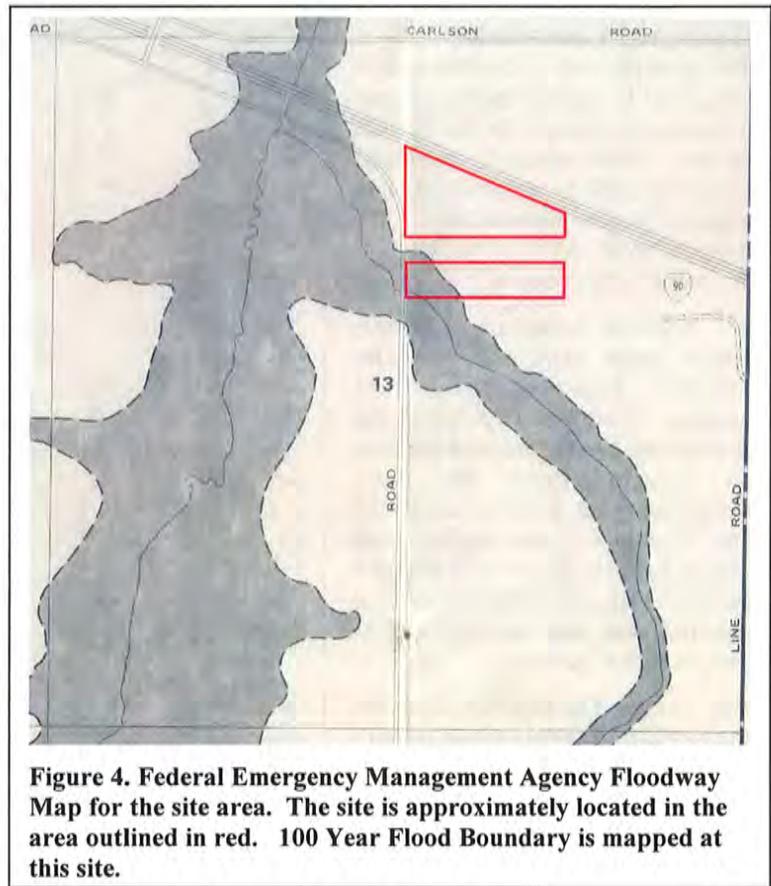
This section should be reviewed in coordination with the wetland section of this report. Alteration of any portion of a floodplain may require a permit from one or more of the regulatory agencies listed in the wetland section of this report.

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 Piscasaw 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.

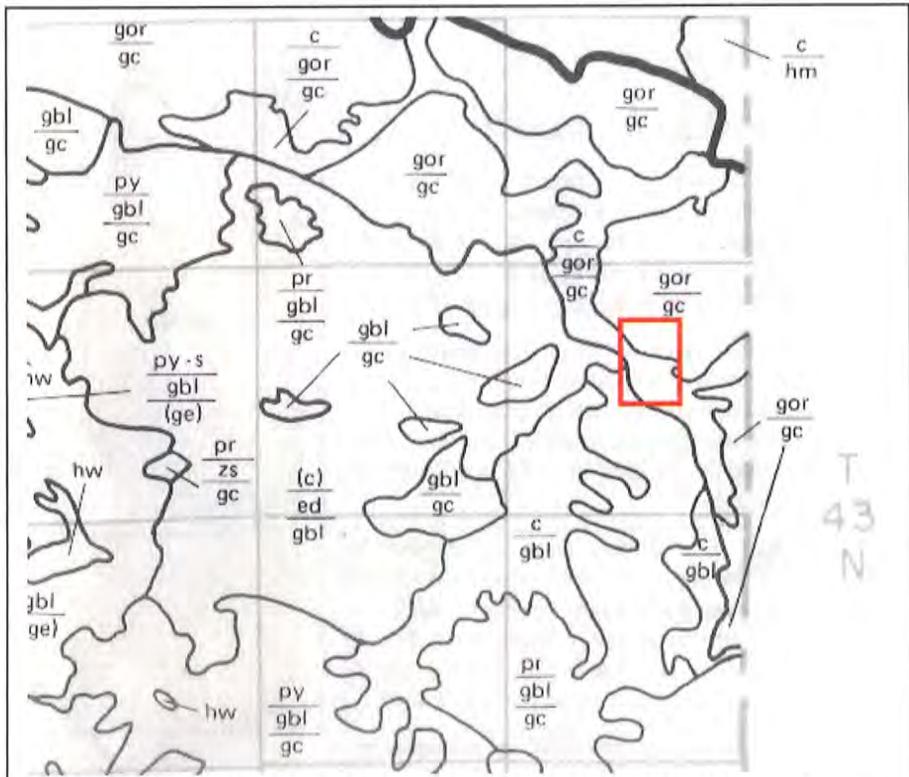


Figure 6. Surficial geology of the site to a depth of 20 feet. This map is a portion of plate 1, Illinois State Geologic Survey circular 531. The site is located in the area outlined in red.

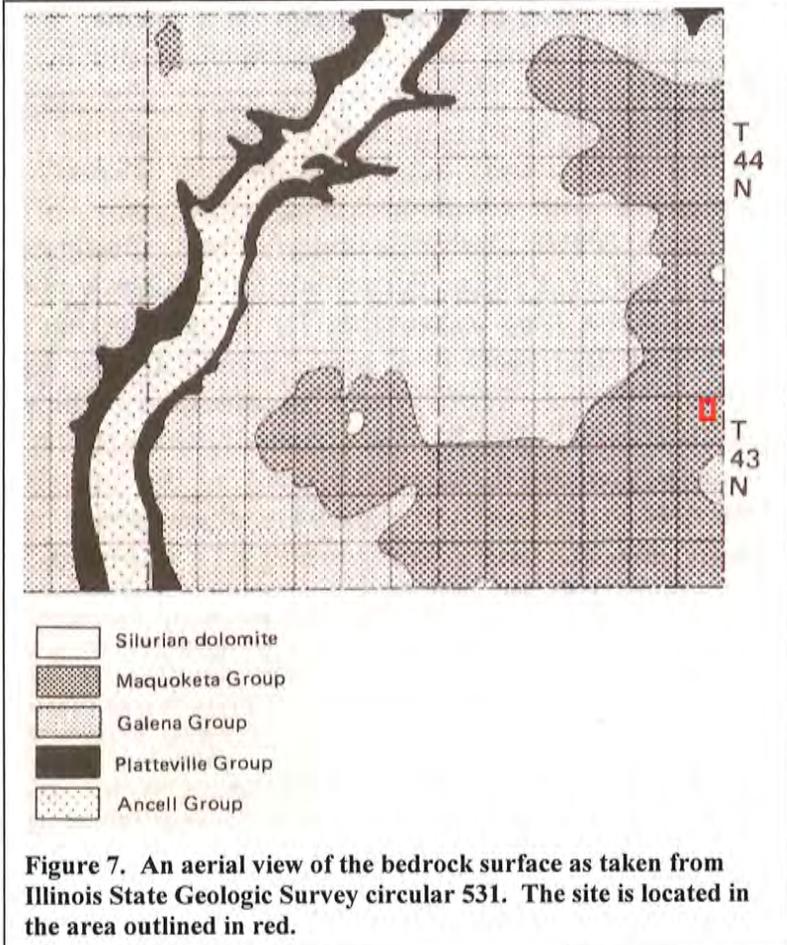


Figure 7. An aerial view of the bedrock surface as taken from Illinois State Geologic Survey circular 531. The site is located in the area outlined in red.

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.

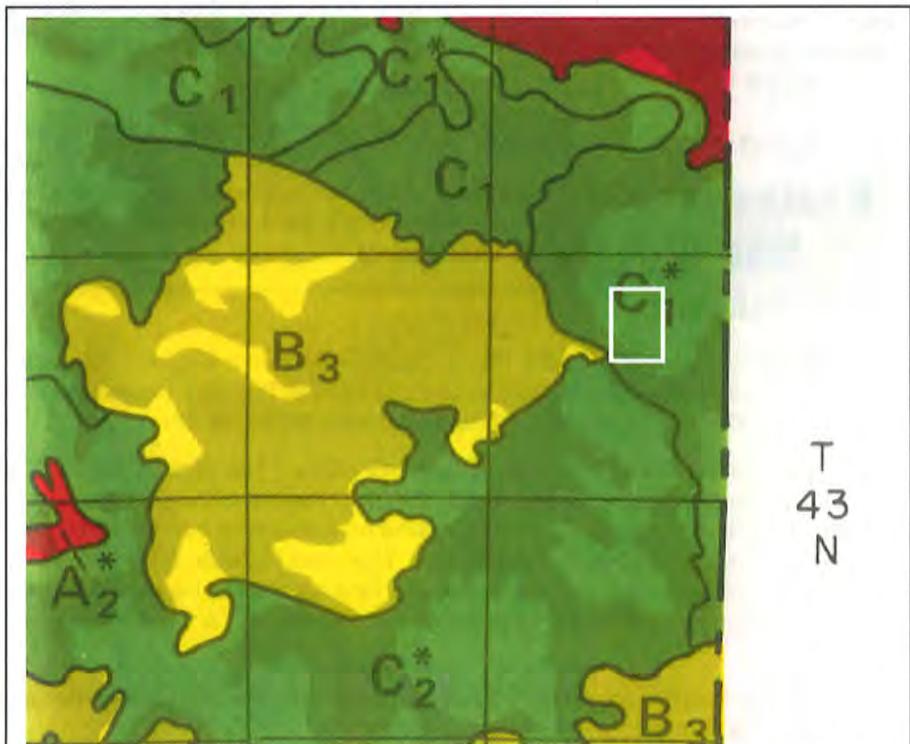


Figure 9. Geologic sensitivity to groundwater contamination on plate 3 of ISGS circular 531. The site is generally located in the area outlined in white.

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

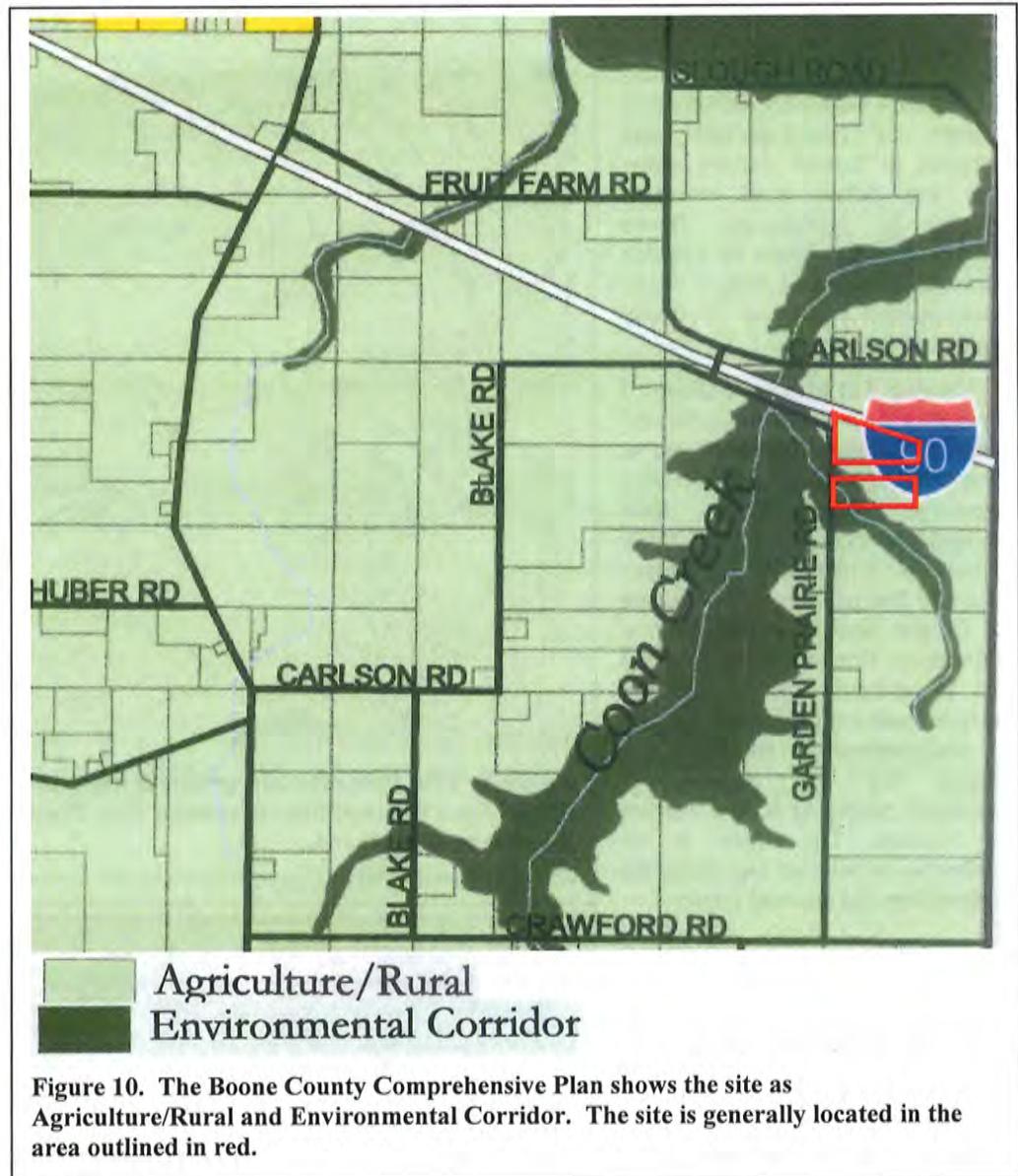


Figure 10. The Boone County Comprehensive Plan shows the site as Agriculture/Rural and Environmental Corridor. The site is generally located in the area outlined in red.

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.

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.

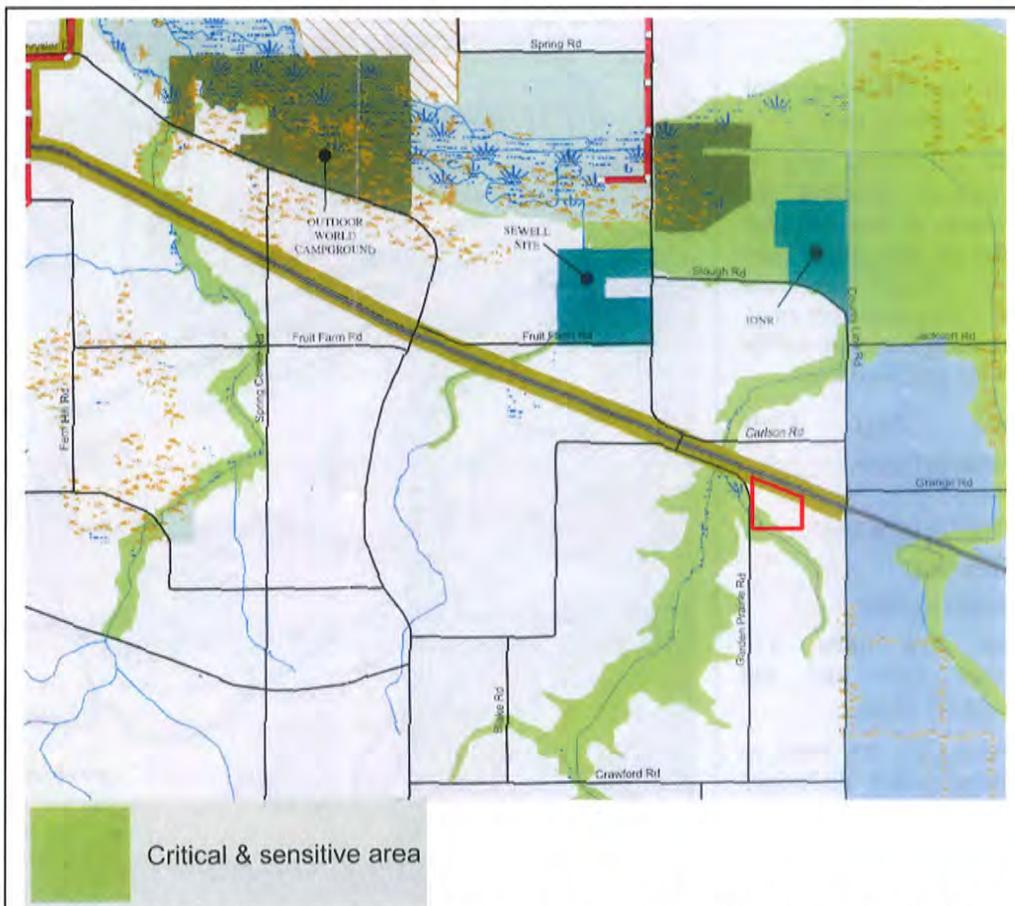


Figure 11. The Boone and Winnebago Regional Greenways Plan showing portions of this site as Critical and Sensitive Area. The site is generally located in the area outlined in red.

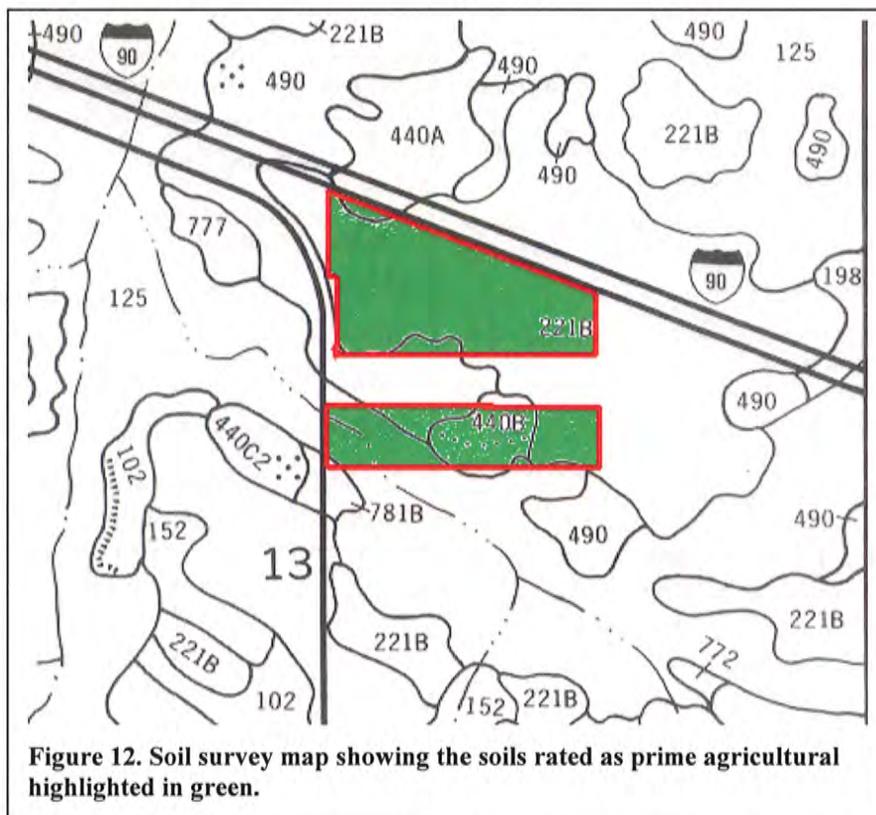


Figure 12. Soil survey map showing the soils rated as prime agricultural highlighted in green.

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.

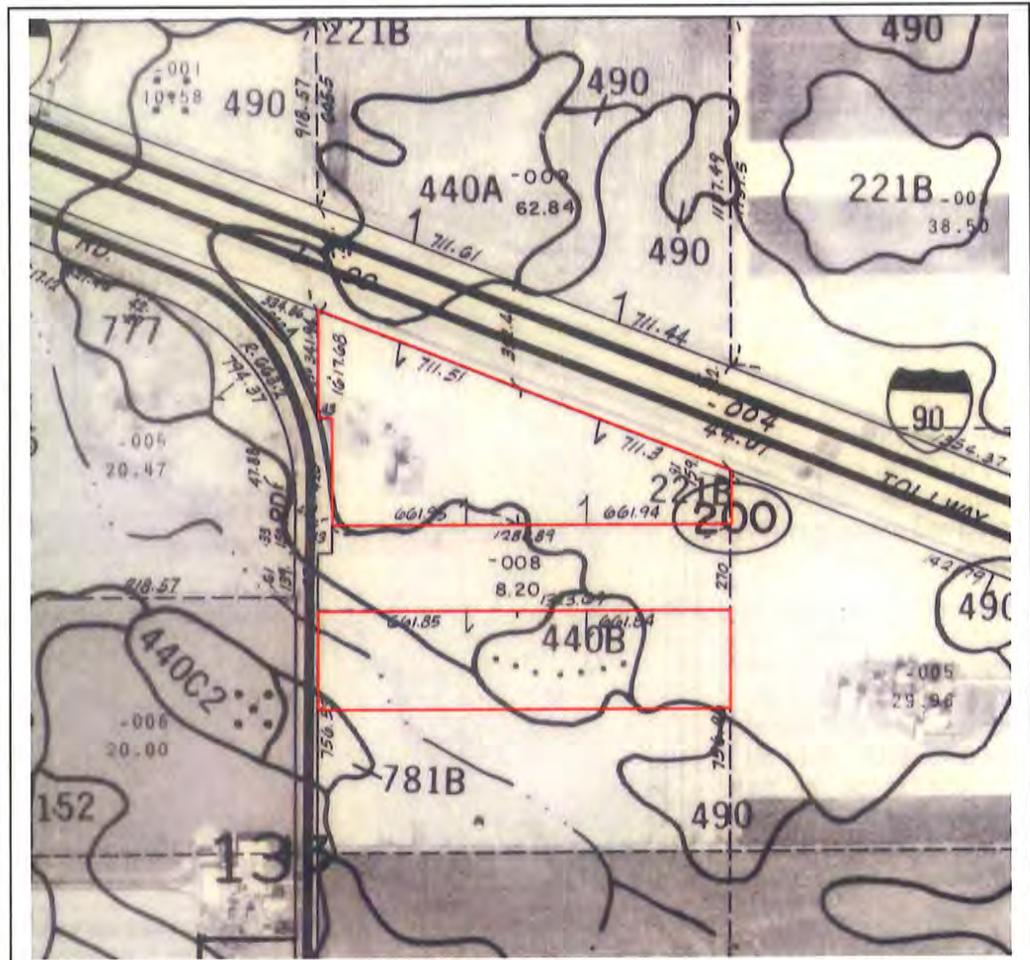


Figure 13. Sidwell aerial photograph with soil survey data imposed on it. The site is outlined in red.

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

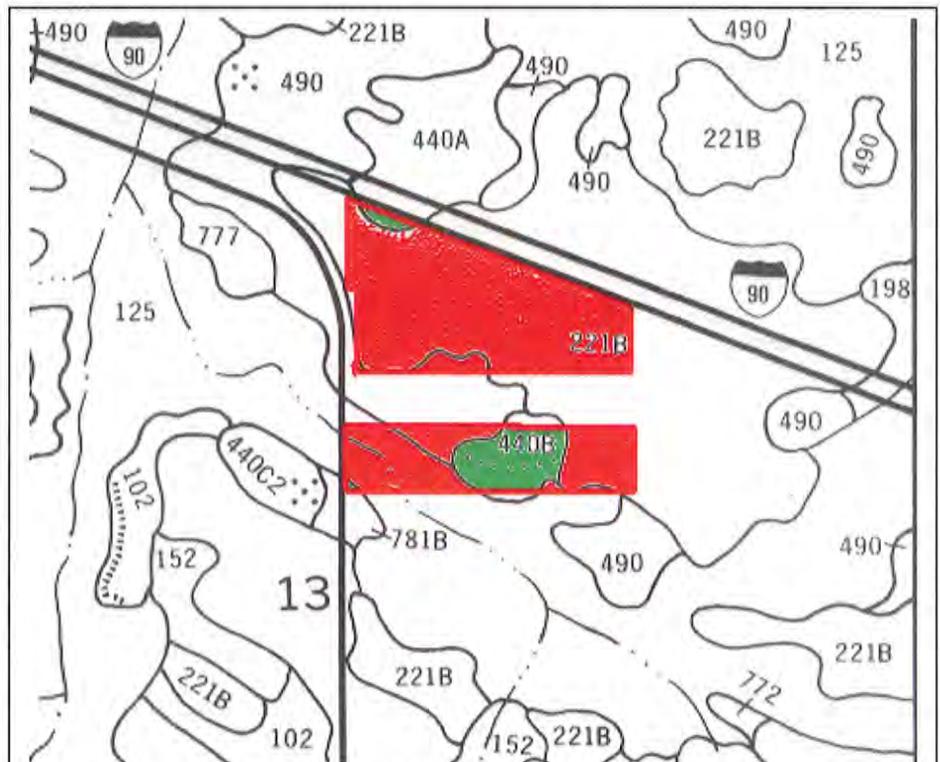


Figure 14. USDA soil survey map showing soils rated as having severe-very severe limitations for the treatment of septic system wastewater are highlighted in red and soils rated as having moderate limitations for the treatment of septic system wastewater highlighted in green.

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

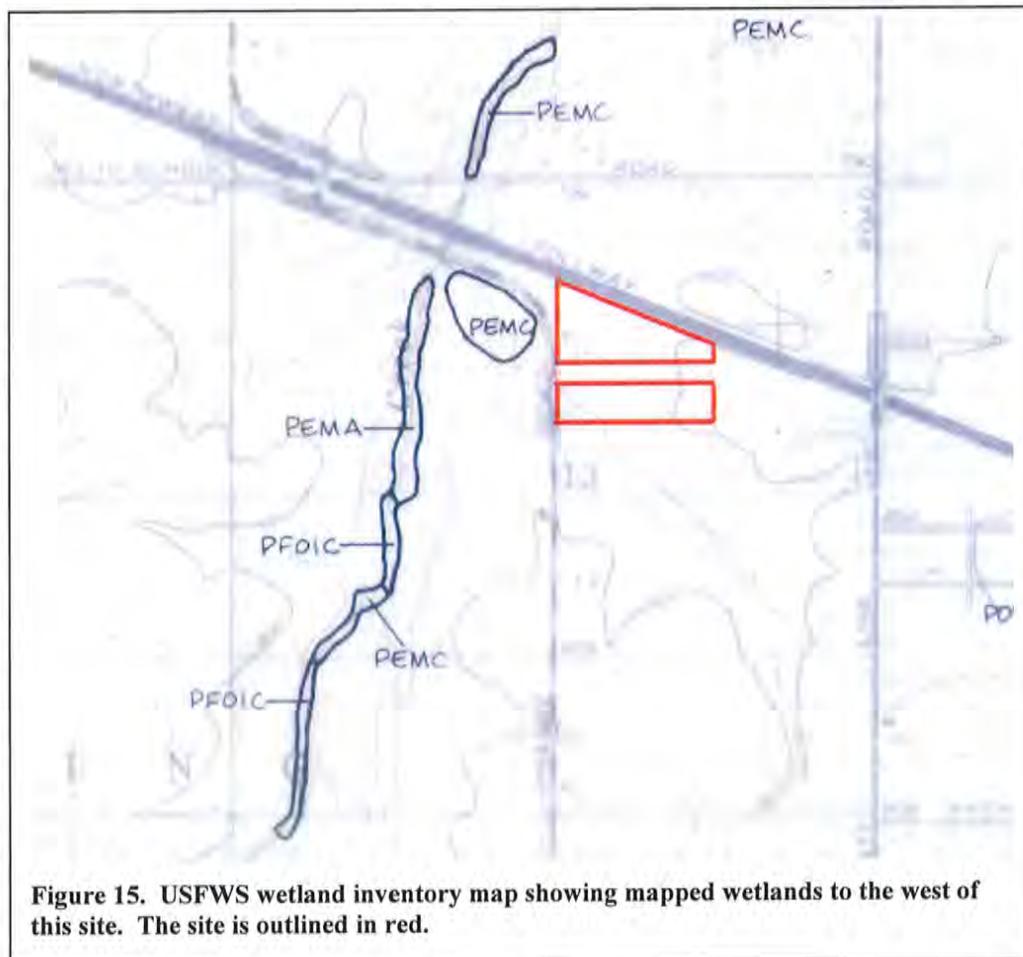


Figure 15. USFWS wetland inventory map showing mapped wetlands to the west of this site. The site is outlined in red.

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

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BELVIDERE, ILLINOIS 61008
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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.

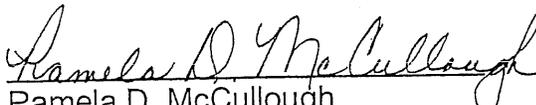
Section 2. That this ordinance shall be in full force and effect from and after its passage as provided by law and pursuant to the Illinois Compiled Statutes. This written and foregoing ordinance is published by authority of the county authorities of Boone County on this date.

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