Appendix F Programmatic Agreement Between the United States Department Of Energy, the Illinois Department Of Commerce and Economic Opportunity and the Illinois Historic Preservation Agency Regarding EECBG, SEP and WAP Undertakings

PROGRAMMATIC AGREEMENT
BETWEEN
THE UNITED STATES DEPARTMENT OF ENERGY, THE ILLINOIS DEPARTMENT OF COMMERCE AND ECONOMIC OPPORTUNITY (ILLINOIS ENERGY OFFICE AND ILLINOIS HOME WEATHERIZATION ASSISTANCE PROGRAM OFFICE)
AND
THE ILLINOIS HISTORIC PRESERVATION AGENCY
REGARDING EECBG, SEP AND WAP UNDERTAKINGS

April 6, 2010

WHEREAS, the United States Department of Energy (DOE) administers the following financial assistance programs: ***the Energy Efficiency and Conservation Block Grant Program*** under the Energy Independence and Securities Act of 2007 (EECBG); ***the State Energy Plan*** under the Energy Policy and Conservation Act of 1975 and the State Energy Efficiency Programs Improvement Act of 1990 (SEP); and ***the Weatherization Assistance Program*** (WAP) for Low-Income Persons under Title IV of the Energy Conservation and Production Act, the Energy Policy Act of 2005, the Energy Independence and Security Act of 2007, and the American Recovery and Reinvestment Act of 2009 (ARRA); collectively referred to as the "Programs";

WHEREAS, the unprecedented levels of funding available to the Programs, due in large measure to ARRA, has created a large volume of projects requiring expedited historic preservation reviews to ensure the timely obligation of funds, that create new jobs, and improve local and state economies;

WHEREAS, the Illinois Historic Preservation Agency (SHPO) is experiencing unprecedented numbers of requests for historic preservation review of undertakings funded by all Federal Agencies, including undertakings funded by the Programs;

WHEREAS, the Illinois Department of Commerce and Economic Opportunity (Recipient) is receiving financial assistance from DOE to carry out the Programs;

WHEREAS, the projects funded by the Programs are undertakings subject to review under Section 106 of the National Historic Preservation Act, 16 U.S.C 470f (NHPA) and its implementing regulations at 36 CFR part 800 and include rehabilitation, energy efficiency retrofits, renewables, and weatherization (undertakings);

WHEREAS, DOE has determined that these undertakings may adversely affect properties that are listed in or eligible for listing in the National Register of Historic Places (National Register) and subject to the requirements of the National Historic Preservation Act (NHPA);

WHEREAS, in accordance with 36 CFR 800.14(b)(4), the Advisory Council on Historic Preservation (the ACHP) has designated this Agreement as a Prototype Programmatic Agreement (PA), which does not require the participation or signature of the ACHP;

WHEREAS, DOE, the ACHP, and the National Conference of State Historic Preservation Officers (NCSHPO) have determined that the requirements of Section 106 can be more effectively and efficiently fulfilled if a programmatic approach is used to stipulate roles and responsibilities, exempt undertakings from Section 106 review, establish tribal protocols, facilitate identification and evaluation of historic properties, establish treatment and mitigation measures, and streamline the resolution of adverse effects;

WHEREAS, by memorandum dated August 28, 2009 (attached as Appendix C), DOE delegated certain tasks necessary for compliance with Section 106 of the NHPA to grantees and sub-grantees of funding from the Programs (Recipients);

WHEREAS, according to the August 28, 2009 memorandum, the Recipients are authorized, to initiate Section 106 compliance in accordance with 36 CFR 800.2 (c)(4);

WHEREAS, the undertakings covered under this PA are not located on Tribal lands and are primarily smaller scale activities and routine projects, without the potential for adversely affecting historic properties, rather than complex undertakings with a greater potential to adversely affect historic properties, which would require completion of the typical Section 106 review process;

WHEREAS, DOE and the ACHP were guided by the principles set forth in the ACHP's Affordable Housing Policy statement, adopted on November 9, 2006, in negotiating this Programmatic Agreement upon which this PA is based;

NOW, THEREFORE, DOE, the Illinois Department of Commerce and Economic Opportunity (cognizant State Energy Office and Weatherization Assistance Program Office) and the Illinois Historic Preservation Agency agree that the Programs shall be administered in accordance with the following stipulations to satisfy DOE's Section 106 responsibilities for all individual undertakings of the Programs:

STIPULATIONS

DOE, the Recipient, and the SHPO shall ensure that the following stipulations are carried out:

I. Roles and Responsibilities
   A. DOE shall be responsible for providing oversight of the PA, executing PAs with SHPOs, participating in the resolution of disputes between the SHPO and the Recipient, and providing technical assistance and guidance as needed. DOE shall be responsible for government-to-government consultation with Indian tribes, unless the Indian tribe agrees to the delegation of this responsibility to a Recipient.
   B. The Recipient shall be responsible for consulting with consulting parties and conducting Section 106 reviews in a timely manner, preparing documentation for the SHPO and DOE, and maintaining records on undertakings. Undertakings that involve properties greater than fifty (50) years old and are not listed on either Appendices A or B shall be submitted to the SHPO for review in accordance with this agreement.

C. Recipient shall ensure that the provisions of this PA apply to its sub-awards.
D. The Recipient is encouraged to use qualified professionals in conducting their Section 106 requirements.
E. The SHPO shall be responsible for reviewing project documentation and participation in consultation as set forth in this PA.
F. The ACHP shall be responsible for providing technical guidance, participating in dispute resolutions if appropriate, and monitoring the effectiveness of this PA.

II. Tribal Review

A. Execution of this PA presumes that DOE will conduct its government-to-government responsibilities with federal recognized Indian tribes or its Section 106 consultation requirements with Native Hawaiian Organizations (NHO) consistent with Federal laws and regulations. The Recipient shall not substitute for DOE in matters related to potential effects on historic properties of cultural and religious significance to Indian tribes, except with the concurrence of the Indian tribe or NHO.
B. DOE acknowledges that Indian tribes possess special expertise in assessing the National Register eligibility of properties with tribal religious and cultural significance, and requires the Recipient to consult with them, as appropriate, in identifying historic properties listed in or eligible for listing in the Area of Potential Effect (APE) of program areas.
C. If the Recipient notifies DOE that an undertaking may result in an adverse effect on cultural resources with tribal religious and cultural significance, DOE shall notify Indian tribes of individual undertakings that may result in an adverse effect on cultural resources with tribal religious and cultural significance and invite them to participate in consultations. Indian tribes and the Recipient may develop a bi-party agreement that outlines their review procedures for undertakings covered in a PA. Such agreements will be submitted to DOE for review and approval, and a copy sent to the ACHP for its records.

III. State Interagency Agreements

The Recipient may review an undertaking in accordance with the terms of an interagency agreement, in lieu of the other terms of this PA, if:

1) The interagency agreement was in negotiations by the Recipient and SHPO on or before February 5, 2010, and will be executed no later than February 19, 2010;
2) The Recipient and SHPO both agree through execution of this PA that the interagency agreement applies to the undertaking and provides a historic preservation review process that is similar to that provided by the other terms of this PA; and
3) DOE does not object to the use of the interagency agreement to fulfill the requirements of Section 106 of the NHPA for the undertakings.

IV. Exemptions from Section 106 review

A. The Recipient shall not submit to the SHPO undertakings in accordance with Appendices A or B as they do not have the potential to cause effects on historic properties even when historic properties may be present. The Recipient and the SHPO **may agree to modify Appendix A and/or Appendix B,** with advance notification of such modifications to the ACHP and DOE. Recipient will maintain file records with verification that undertakings were determined to be exemptions for a period of three (3) years from project completion and make them available for review if requested by DOE or the ACHP.

B. If a property has been determined to be ineligible for inclusion in the National Register within the last five (5) years from the date the Recipient made its application for DOE financial assistance, then no further review is required under this P A.

C. Recipients of any of the Programs may utilize either Appendix A or Appendix B in identifying exempt undertakings, regardless of whether the Exhibit on which the undertaking relates to another federally funded program.

V. Review Procedures for Non-exempt Undertakings

A. ***For undertakings not exempted under Stipulation III or IV, if the Recipient has an executed Section 106 Agreement per 36 CFR part 800 for Community Development Block Grants (CDBG) with the SHPO*** that 1) is still in effect; 2) covers the same undertakings as the DOE grant programs; and 3) is up to date with reporting to the SHPO, **no separate Section 106 review is needed.**

B. Otherwise, the Recipient shall review the undertaking in accordance with Stipulations VI through X below, or consistent with SHPO approved historic preservation protocols.

VI. Identification and Evaluation

A. The Recipient shall establish the Area of Potential Effect (APE) for all program undertakings defined in the DOE grant agreement for the State.

B. The Recipient shall complete the identification and evaluation of historic properties utilizing existing information including the National Register, state surveys, and county and local surveys. In addition, the Recipient and SHPO may use or develop protocols that are consistent with 36 CFR Section 800.4 for the review of consensus determinations of eligibility.

C. The Recipient shall consult with Indian tribes or NHOs to determine if there are historic properties of religious or cultural significance that were not previously identified or considered in surveys or related Section 106 reviews, as appropriate.

D. Archaeology surveys are required only for new ground disturbing project undertakings and shall be limited in scope subject to the concurrence of Indian tribes or NHOs that may attach religious or cultural significance to historic properties in the project area. Project undertakings requiring more than

minimal ground disturbance shall be forwarded to the SHPO and THPOs or Indian tribes or NHOs concurrently for review.

E. In order to avoid potential delays, prior to initiating undertakings the SHPO may review the Recipient's scopes of work for above ground surveys and archaeology surveys that are deemed necessary to administer the Recipient's Programs and to implement the terms of this PA.

F. The Recipient shall refer disputes regarding determinations of eligibility to DOE for review and referral to the Keeper of the National Register in accordance with 800.4(c)(2).

VII. Treatment of Historic Properties

A. When the Recipient and the SHPO concur that an undertaking is designed and planned in accordance with the Secretary of the Interior's *Standards for the Treatment of Historic Properties* (36 CFR Part 68, July 12, 1995 *Federal Register)* (Standards), that undertaking will not be subject to further Section 106 review.

B. The Recipient and SHPO will make best efforts to expedite reviews through a finding of "No Adverse Effect with conditions" when the Recipient and the SHPO concur that plans and specifications or scopes of work can be modified to ensure adherence to the Standards. If the undertaking cannot meet the Standards or would otherwise result in an adverse effect to historic properties, the Recipient will proceed in accordance with Stipulation VIII.

VIII. Resolution of Adverse Effects

A. The Recipient shall consult with the SHPO, and Indian tribes or NHOs as appropriate, to resolve adverse effects. The Recipient will notify DOE of the pending consultation, and DOE will participate through its designated representative.

B. The Recipient may use standard stipulations included in Attachment A of this PA, or as negotiated as part of this PA between the SHPO and the Recipient, or if the project warrants, use of an alternate PA due to the complexity of the project activity.

C. Consultation shall be coordinated to be concluded in 45-days or less to avoid the loss of funding. In the event the consultation extends beyond this period, DOE shall formally invite the ACHP to participate in consultation. The ACHP will consult with DOE regarding the issues and the opportunity to negotiate a Memorandum of Agreement (MOA). Within seven (7) days after notification, the ACHP will enter consultation and provide its recommendation for either concluding the Section 106 review through an MOA or Chairman's comment from the ACHP to the Secretary of DOE within 21 days.

D. In the case of an ACHP Chairman comment, DOE may proceed once DOE provides its response to the ACHP.

IX. Emergency Situation Undertakings

A. When an emergency undertaking is required for historic properties associated with the undertakings, the Recipient shall allow SHPO five (5) business days

to respond, if feasible. Emergencies exist when there is a need to eliminate an imminent threat to health and safety of residents as identified by local or County building inspectors, fire department officials, or other local or County officials.

1. The Recipient shall forward documentation to the SHPO for review immediately upon notification that an emergency exists. Documentation should include a) nature of the emergency; b) the address of the historic property involved; c) photographs showing the current condition of the building; and d) the time-frame allowed by local officials to respond to, or correct, the emergency situation.
2. The Recipient shall consider mitigation measures recommended by the SHPO and implement them, if feasible.

X. Public and Consulting Party Involvement

A. The Recipient shall maintain a list of undertakings and shall make the documentation available to the public. The Recipient shall notify the SHPO if its notified of other consulting parties or public interest in any undertakings covered under the terms of the PA.

B. The Recipient, independently or at the recommendation of the SHPO, may invite interested persons to participate as consulting parties in the consultation process for adverse effects in accordance with Stipulations VI, VII, and VIII.

XI. Administrative Coordination

A. The Recipient, in consultation with the SHPO, may develop procedures allowing for the use of local reviews conducted by Certified Local Governments (CLG) when such procedures avoid the duplication of efforts.

B. The Recipient, in consultation with the SHPO, may determine that an undertaking has already been reviewed under an existing Section 106 effect determination or agreement document, then no further Section 106 review under this PAis required.

C. The SHPO shall provide comments to the Recipient within thirty (30) days, unless otherwise agreed upon by the SHPO and the Recipient, for reviews required under the terms of this PA with the exception of emergency undertakings. In the event that the SHPO fails to comment within the established period, the Recipient can assume the SHPO has concurred, and proceed.

D. The Recipient shall advise sub-grantees in writing of the provisions in Section 110 (k) of the Act and will advise the sub-grantees that Section 106 reviews may be compromised when project undertakings are initiated prematurely.

E. The SHPO and the Recipient shall make every effort to expedite Section 106 reviews for a period of less than the 30-day review when consistent with the terms of the DOE grant agreements and the Recipient intends to utilize the services of qualified professionals.

F. For projects that will require either an Environmental Assessment or an Environmental Impact Statement under the National Environmental Policy

Act (NEPA), nothing contained in this PA shall prevent or limit the Recipient and DOE from utilizing the procedures set forth in 36 CFR 800.8 to coordinate and conduct the historic preservation review in conjunction with the NEPA review.

XII. Discoveries

If historic properties are discovered or unanticipated effects on historic properties located within a project's APE after the undertaking has been initiated, the Recipient will implement the following procedures:

A. The Recipient shall immediately cease all operations for the portion of the undertaking with the potential to affect an historic property;
B. The subgrantee shall advise the Recipient of the National Register eligibility of the historic property and the potential of the undertaking to impact its qualifying characteristics and an explanation of the whether the SHPO or Indian tribes and NHOs concur with proposed avoidance, treatment plan or mitigation plan;
C. The Recipient or DOE shall notify Indian tribes or NHOs of any discoveries that have the potential to adversely affect sites or buildings of religious or cultural significance to them. After reviewing such discoveries, the Indian tribes or NHOs can request further consultation on the project by notifying DOE, ACHP, and the SHPO in writing.
D. The Recipient or subgrantee shall implement the avoidance, treatment or mitigation plan and advise the Recipient and DOE, if appropriate, of the satisfactory completion of the approved work. Once the approved work is complete may resume the activities that were halted to address the discovery situation.

XIII. Dispute Resolution

A. Should the SHPO object within the time frames outlined in this PA to any project undertakings, the Recipient shall **consult further with the** SHPO to attempt to remove the basis for the SHPO's objection. In the event that the SHPO's objection is not withdrawn, then the Recipient shall refer the matter to DOE. The Recipient shall forward all documentation relevant to DOE, who will notify and consult with the ACHP.
B. The ACHP will provide its recommendations, if any, within 21 days following receipt of relevant documentation. DOE will take into account the ACHP's recommendations or formal comments in reaching a final decision regarding the dispute.

XIV. Reporting and Monitoring

A. DOE, the ACHP, and the SHPO may monitor any undertakings carried out pursuant to this PA. The ACHP may review undertakings, if requested by DOE. DOE shall be entitled to address and make determinations on overall policy or administrative issues related to the implementation of these Programs.

B. The Recipient shall adhere to DOE's established protocols for ARRA reporting program undertakings.

C. DOE will submit annual reports to ACHP and NCSHPO commencing October 15,2010 summarizing the Programs' undertakings, to include data on number of undertakings, the number of exempt undertakings, and reviews conducted under this PA.

XV. Amendments

DOE, the SHPO, or the Recipient may request that this PA be amended, whereupon DOE and the SHPO, and the ACHP, if involved, will consult to consider such an amendment. Any such amendments shall be developed and executed among DOE, the Recipient, and the SHPO in the same manner as the original P A, and pertain only to this State PA.

XVI. Duration of Agreement

This PA will be valid for three (3) years from the date of execution, as verified with DOE filing the PA with the ACHP.

XVII. Termination of Agreement

DOE, the SHPO, or the Recipient may terminate the PA, provided that the party proposing termination notifies the other signatories and the ACHP in writing explaining the reasons for termination and affording the other signatories at least thirty (30) days to consult and seek alternatives to termination.

Signatories:

Warren Ribley by [illegible] 30 April 2010

Warren Ribley, Director — Date

Illinois Department of Commerce and Economic Opportunity

[illegible] May 5, 2010

Ian Grimes, State Historic Preservation Officer — Date

Claire Broido Johnson 5/6/10

UNITED STATES DEPARTMENT OF ENERGY — Date

OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

OFFICE OF WEATHERIZATION AND INTERGOVERNMENTAL PROGRAMS

APPENDIX A – WAP UNDERTAKINGS EXEMPT FROM SECTION 106 REVIEW

All undertakings will be done in accordance with applicable local building codes or the International Building Code, where applicable. In accordance with 36 CFR 800.3(a)(l), the following undertakings have been determined to have no potential to cause effects on historic properties:

A. Exterior Work

1) Air sealing of the building shell, including caulking, weather-stripping, and other air infiltration control measures on windows and doors, and installing thresholds in a manner that does not harm or obscure historic windows or trim.
2) Thermal insulation, such as non-toxic fiberglass and foil wrapped, in walls, floors, ceilings, attics, and foundations in a manner that does not harm or damage historic fabric.
3) Blown in wall insulation where no holes are drilled through exterior siding, or where holes have no permanent visible alteration to the structure
4) Removable film on windows (if the film is transparent), solar screens, or window louvers, in a manner that does not harm or obscure historic windows or trim.
5) Reflective roof coating in a manner that closely resembles the historic materials and form, or with materials that restore the original feature based on historic evidence, and in a manner that does not alter the roofline, or where not on a primary roof elevation or visible from the public right-of-way.
6) Storm windows or doors, and wood screen doors in a manner that does not harm or obscure historic windows or trim.
7) In-kind replacement or repair of primary windows, doors and door frames that closely resemble existing substrate and framing
8) Repair of minor roof and wall leaks prior to insulating attics or walls, provided repairs closely resemble existing surface composite

B. Interior Work

Special Note: Undertakings to interior spaces where the work will not be visible from the public right of way; no structural alterations are made; no demolition of walls, ceilings or floors occurs; no drop ceilings are added; or no walls are leveled with furring or moved, should be automatically excluded from **SHPO** review. This work includes:

1. **Energy efficiency work within the building shell:**

   a. Thermal insulation in walls, floors, ceilings, attics, crawl spaces, ducts and foundations
   b. Blown in wall insulation where no decorative plaster is damaged.
   c. Plumbing work, including installation of water heaters
   d. Electrical work, including improving lamp efficiency
   e. Sealing air leaks using weather stripping, door sweeps, and caulk and sealing major air leaks associated with bypasses, ducts, air conditioning units, etc.

f. Repair or replace water heaters
g. Adding adjustable speed drives such as fans on air handling units, cooling tower fans, and pumps
h. Install insulation on water heater tanks and water heating pipes
i. Install solar water heating systems, provided the structure is not visible from the public right of way
j. Install waste heat recovery devices, including desuperheater water heaters, condensing heat exchangers, heat pump and water heating heat recovery systems, and other energy recovery equipment
k. Repair or replace electric motors and motor controls like variable speed drives
l. Incorporate other lighting technologies such as dimmable ballasts, day lighting controls, and occupant controlled dimming

2. Work on heating and cooling systems:

a. Clean, tune, repair or replace heating systems, including furnaces, oilers, heat pumps, vented space heaters, and wood stoves
b. Clean, tune repair or replace cooling systems, including central air conditioners, window air conditioners, heat pumps, and evaporative coolers
c. Install insulation on ducts and heating pipes
d. Conduct other efficiency improvements on heating and cooling systems, including replacing standing pilot lights with electronic ignition devices and installing vent dampers
e. Modify duct and pipe systems so heating and cooling systems operate efficiently and effectively, including adding return ducts, replace diffusers and registers, replace air filters, install thermostatic radiator controls on steam and hot water heating systems
f. Install programmable thermostats, outdoor reset controls, UL listed energy management systems or building automation systems and other HVAC control systems

3. Energy efficiency work affecting the electric base load of the property:

a. Convert incandescent lighting to fluorescent
b. Add reflectors, LED exist signs, efficient HID fixtures, and occupancy (motion) sensors
c. Replace refrigerators and other appliances

4. Health and safety measures

a. Installing fire, smoke or carbon dioxide detectors / alarms
b. Repair or replace vent systems on fossil-fuel-fired heating systems and water heaters to ensure that combustion gasses draft safely to outside
c. Install mechanical ventilation, in a manner not visible from the public right of way, to ensure adequate indoor air quality if house is air-sealed to building tightness limit

APPENDIX B - SEP AND EECBG UNDERTAKINGS EXEMPT FROM SECTION 106 REVIEW

A. Category 1 – No Consultation required

In addition to the undertakings provided in *Exhibit A (WAP Undertakings exempt from Section 106 Review),* DOE and the SHPO have concluded that the following undertakings do not have the potential to cause effects on historic properties per 36 CFR § 800.3(a)(1):

1. ***General efficiency measures not affecting the exterior of the building*:**

    a. Energy audits and feasibility studies
    b. Weatherization of mobile homes and trailers
    c. Caulking and weather-stripping around doors and windows in a manner that does not harm or obscure historic windows or trim.
    d. Water conservation measures -like low flow faucets, toilets, shower heads, urinals - and distribution device controls
    e. Repairing or replacing in kind existing driveways, parking areas, and walkways with materials of similar appearance
    f. Excavating to gain access to existing underground utilities to repair or replace them, provided that the work is performed consistent with previous conditions
    g. Ventilating crawl spaces
    h. Replacement of existing HVAC equipment including pumps, motors, boilers, chillers, cooling towers, air handling units, package units, condensers, compressors, heat exchangers that do not require a change to existing ducting, plumbing, electrical, controls or a new location, or if ducting, plumbing, electrical and controls are on the rear of the structure or not visible from any public right of way.
    i. Adding or replacing existing building controls systems including HVAC control systems and the replacement of building-wide pneumatic controls with digital controls, thermostats, dampers, and other individual sensors like smoke detectors and carbon monoxide detectors (wired or non-wired)
    j. New installation of non-hard wired devices including photo-controls, occupancy sensors, carbon dioxide, thermostats, humidity, light meters and other building control sensors, provided the work conforms with applicable state and local permitting requirements
    k. Adding variable speed drive motors
    l. Insulation of water heater tanks and pipes
    m. Furnace or hot water tank replacement that does not require a visible new supply or venting

2. ***Insulation measures not affecting the exterior of the building*:**

a. Thermal insulation installation in walls, floors and ceilings (excluding spray foam insulation)
b. Duct sealing, insulation, repair or replacement in unoccupied areas
c. Attic insulation with proper ventilation; if under an effective R8 - add additional R-19 up to R-38 (fiberglass bat only)
d. Band joist insulation - R-II to R19 as applicable
e. Water heater tank and pipe insulation

3. ***Electric base load measures not affecting the exterior the building:***

a. Appliance replacement (upgrade to EnergyStar appliances)
b. Compact fluorescent light bulbs
c. Energy efficient light fixtures, including ballasts (Replacement)
d. LED light fixtures and exit signs (Replacement)
e. Upgrade exterior lighting (replacement with metal halide bulbs, LEDs, or others) along with ballasts, sensors and energy storage devices not visible from any public right of way

B. Category 2 - No Consultation Required if SOI Standards are Adhered to and Verified by Qualified Staff, if Applicable

1. Efficiency and repair measures:

a. Painting over previously painted exterior surfaces, provided destructive surface preparation treatments are not used (such as water-blasting, sandblasting and chemical removal)
b. Installation or replacement of downspout extensions, provided that the color of the extensions is historically appropriate for the period and style of the property
c. Repairing or upgrading electrical or plumbing systems and installing mechanical equipment, in a manner that does not permanently change the appearance of the interior or exterior of the building
d. Installation of new HVAC equipment (such as pumps, motors, boilers, chillers, cooling towers, air handling units, package units, condensers, compressors, or heat exchangers) in a manner that does not permanently change the appearance of the building.
e. Integrated shingle-style or thin film solar systems on the rear roof of the structure, behind the parapet or not visible from the public right of way.
f. Solar systems (including photovoltaic and solar thermal) not visible from the public right of way and if ground-mounted can be installed without ground disturbance and if roof-mounted will not require new building reinforcement.
g. Wind system additions to existing wind power facilities that will not require ground disturbance and if building mounted will not require building reinforcement.
h. Lead-based paint abatement in accordance with the Standards and Preservation Brief #37

i. Building cleaning in accordance with the Standards and Preservation Briefs #1, #6, and #10
j. Repairing masonry, including re-pointing and rebuilding chimneys in accordance with the Standards and Preservation Brief # 2
k. New lighting controls including photo-sensors and shading elements if not visible from the public right of way
l. New metering devices in a manner that does not permanently change the appearance of the interior or exterior of the building, or if the addition is on the exterior of the structure and is not visible from the public right of way
m. New water efficient fixtures and fittings in a manner that does not permanently change the appearance of the interior or exterior of the building

2. Installation or repair of roofing, siding and ventilation:

a. White Roofs, Cool Roofs, Green Roofs, Sod or Grass Roofs not visible from the public right-of-way
b. Rainwater catches and/or gray water systems not viewable from the public right of way
c. Repair or replacement of existing exterior siding provided that new siding closely resembles the existing siding in dimension, profile and texture
d. Flat or shallow pitch roof replacement (shallow pitch is defined as a pitch with a rise-to-run ratio equal to or less than 3" to 12") with no part of the surface of the roof visible from the ground
e. Roof repair or replacement with materials that closely resemble the historic materials and form, or with replacement materials that are close to the original in color, texture, composition and form to restore the original feature based on historic evidence, and in a manner that does not alter the roofline
f. Installing vents (such as continuous ridge vents covered with ridge shingles or boards, roof vents, bath and kitchen vents, soffit and frieze board vents or combustion appliance flues) if not located on a primary roof elevation or not visible from the public right-of-way
g. Installing foundation vents, if painted or finished to match the existing foundation material.

3. Windows and doors:

a. Installing storm windows, storm doors or wood screen doors in a manner that does not harm or obscure historic windows, doors or trim
b. Installing insulated exterior replacement doors where the door openings are not altered and are not visible from the public right-of-way
c. Window or glazing treatments that do not change the appearance of the interior or exterior of the building, or if the addition is on the exterior of the structure

APPENDIX C - AUGUST 28, 2009 DELEGATION MEMORANDUM

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Department of Energy
Washington, DC 20585

August 28, 2009

MEMORANDUM

TO: State Historic Preservation Officers
Tribal Historic Preservation Officers

FROM: Catherine R. Zoi
Assistant Secretary
Energy Efficiency and Renewable Energy

SUBJECT: Memorandum from EERE Regarding Delegation of Authority for Section 106 Review of Undertakings, Assisted by the U. S. Department of Energy, Office of Energy Efficiency and Renewable Energy

The Department of Energy (DOE), through the Office of Energy Efficiency and Renewable Energy (EERE), provides financial assistance to states, U.S. territories, units of local government, and Indian Tribes through the Energy Efficiency and Conservation Block Grant (EECBG) Program, Weatherization Assistance Program (Weatherization), and State Energy Program (SEP). Attached hereto is a one-page summary of the three programs. Additional program information is available at the following links: http://www.eecbg.energy.gov/; http://apps1.eere.energy.gov/wip/weatherization.cfm; http://apps1.eere.energy.gov/state_energy_program/.

Through this memorandum, DOE intends to formalize the role of the States and DOE's award recipients (Applicants) to assist DOE in carrying out its Section 106 compliance responsibilities. In order to streamline DOE's compliance with Section 106 and its implementing regulations, "Protection of Historic Properties" (36 CFR Part 800), EERE is authorizing its Applicants under the EECBG, Weatherization, and SEP programs to initiate consultation pursuant to 36 CFR § 800.2(c) (4). Effective immediately, EERE Applicants and their authorized representatives may consult with the State Historic Preservation Officers (SHPOs) and Tribal Historic Preservation Officers (THPOs) to initiate the review process established under 36 CFR Part 800 and to carry out some of its steps. Specifically, EERE Applicants are authorized to gather information to identify and evaluate historic properties, and to work with consulting parties to assess effects. EERE retains responsibility to document its findings and determinations in order to appropriately conclude Section 106 review.

EERE also remains responsible for initiating government-to-government consultation with federally recognized Indian Tribes. EERE's responsibility to consult on a government-to-government basis with Indian Tribes as sovereign nations is established through specific authorities and is explicitly recognized in 36 CFR Part 800. Accordingly, EERE may not delegate this responsibility to a non-federal party without

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the agreement of the Tribe to do so. Where no such agreement exists, EERE will initiate tribal consultation.

Authorized Applicants must notify EERE whenever:

- Either the EERE Applicant or the SHPO/THPO believes that the Criteria of Adverse Effect pursuant to 36 CFR § 800.5, apply to the proposal under consideration by EERE;

- There is a disagreement between an Applicant, or its authorized representative, and the SHPO/THPO about the scope of the area of potential effects, identification and evaluation of historic properties and/or the assessment of effects;

- There is an objection from a consulting party or the public regarding their involvement in the review process established by 36 CFR Part 800, Section 106 findings and determinations, or implementation of agreed upon measures; or

- There is the potential for a foreclosure situation or anticipatory demolition as defined under 36 CFR § 800.9(b) and 36 CFR § 800.9(c), respectively.

EERE will participate in the consultation when such circumstances arise.

EERE expects its Applicants that are so authorized, to involve consulting parties in Section 106 findings and determinations and to carry out the exchange of documentation and information in a respectful, consistent and predictable manner. Technical assistance is available to Applicants from EERE regarding the coordination of Section 106 reviews, if needed.

If you have any questions, please contact Dr. F. G. (Skip) Gosling, DOE Federal Preservation Officer/Chief Historian, Office of History and Heritage Resources, (202) 586-5241or skip.gosling@hq.doe.gov or Steven P. Blazek, NEPA Compliance Officer, (303) 275-4723 or steve.blazek@go.doe.gov.

ATTACHMENT A: STANDARD MITIGATION MEASURES FOR ADVERSE EFFECTS

The Recipient and the SHPO may develop and execute an Agreement that includes one or more of the following Standard Mitigation Measures, as may be modified to a particular activity, with the concurrence of both parties, for undertakings determined to have an adverse effect on listed or eligible historic resources. The ACHP will not be a party to these Agreements. However, the Recipient must submit a copy of each signed Agreement to the SHPO, and the ACHP within 30 days after it is signed by the Recipient and the SHPO.

1. Recordation

The Recipient shall ensure that the historic property is recorded prior to its alteration in accordance with methods or standards established in consultation with the SHPO. The SHPO shall identify appropriate archive locations for the deposit of recordation materials and the Recipient shall be responsible for submitting required documentation to identified archive locations. The Recipient and the SHPO may mutually agree to waive the recordation requirement in situations where the integrity of the building has been compromised or other representative samples of a similar historic resources has been previously recorded.

2. Architectural Salvage

The Recipient, in consultation with the SHPO, shall identify significant architectural features for salvage, and appropriate parties to receive the salvaged features. The Recipient shall ensure that any architectural features identified for salvage are salvaged prior to initiation of undertakings and properly stored and curated. When feasible, and determined appropriate in consultation with SHPO, salvaged architectural features shall be reused in other preservation projects.

3. Rehabilitation

The Recipient shall ensure that the treatment of historic properties which the SHPO has determined does not meet the *Standard,* or SHPO approved design guidelines, is carried out in accordance with treatments agreed upon by the Recipient and the SHPO and are incorporated in the final plans and specifications. The final plans and specifications shall be approved by the SHPO prior to initiating the undertaking.

4. New Construction

The Recipient shall ensure that the design of new buildings, or additions, which the SHPO has determined does not meet the *Standards,* or SHPO approved design guidelines, is carried out in accordance with the final plans and specifications reviewed and approved by the SHPO prior to initiating the undertaking.

5. Archaeology

In cases where the undertaking will cause unavoidable adverse effects to National Register eligible archaeological properties, the Recipient shall consult with the SHPO to determine whether data recovery or some other treatment measure is in the public interest. If data recovery is the agreed upon treatment measure, the Recipient shall consult further with the SHPO to develop and implement a data recovery plan for those portions of the historic property that will be adversely affected. The data recovery plan shall:

- be based on firm background data, sound planning, and accepted archaeological methods;
- be consistent with applicable State laws and regulations;
- be accomplished in a thorough, efficient manner, using the most cost effective techniques practicable;
- provide for appropriate curation of archeological materials and records, and
- provide for reporting and interpretation of what has been learned in a format understandable and accessible to the public;
- be consistent with the National Park Service's *Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (at: http://www.nps.gov/history/local-law/arch_stnds_7.htm). and shall take into account the ACHP's publications, *Recommended Approach for Consultation on Recovery of Significant Information from Archeological Sites* (1999), ACHP Section 106 *Archaeology Guidance* (at: http://www.achp.gov/archguide/), and any archaeological guidance issued by the SHPO.

Appendix G Zoning and Special Use Permit Meeting Minutes

COUNTY OF LEE PETITION NO: 10-P-1469

APPLICATION FOR: x SPECIAL USE PETITION ____ VARIATION

NAME OF PETITIONER: Sauk Valley Community College

LEGAL DESCRIPTION OF PROPERTY AND PIN: Part of Seq of section 8 Township 21 range 8. 16-07-08-400-003

STREET ADDRESS (OR LANDMARK LOCATION): 173 IL Route #2

WHETHER PETITIONER IS ACTING AS AGENT FOR PRINCIPAL ___YES x NO
If yes, name and address of principal:
NAME OF PRINCIPAL
ADDRESS OF PRINCIPAL

WHETHER PETITIONER IS A CORPORATION ____YES x NO
If yes, the names and addresses of all officers and directors of the corporation and of all stockholders or shareholders owning any interest in excess of 20% of all of the outstanding stock or shares of the corporation must be attached hereto.

WHETHER THE PETITIONER OR THE PRINCIPAL IS AN ENTITY DOING BUSINESS UNDER AN ASSUMED NAME ____YES x NO
If yes, the name and address of all actual owners of the entity must be attached hereto.

WHETHER THE PETITIONER OR PRINCIPAL IS A PARTNERSHIP, JOINT VENTURE, SYNDICATE, OR AN UNINCORPORATED VOLUNTARY ASSOCIATION. ____YES x NO SPECIFY TYPE
If yes, the names and addresses of all partners or members of the partnership, joint venture, syndicate, or unincorporated voluntary association must be attached hereto.

A BRIEF STATEMENT OF THE PROPOSED SPECIAL USE: Requesting Ag - 1 Special Use for the purpose of a wind turbine.

PRESENT ZONING: AG-1

Petitioner acknowledges by his signature hereon that in the event a special use is granted and said special use has not been established (substantially underway) within one year from date of granting thereof, then, without further action by the County Board, the special use or authorization thereof shall be null and void.

6-30-10
Date

Petitioner

Petitioner

Lag zoning application for special use petition

PALMYRA TOWNSHIP
PLANNING COMMISSION

SPECIAL MEETING
FOR PETITION #10-P-1469
JULY 31, 2010
TOWN HALL
9:00 A.M.

AGENDA

CHAIR calls Meeting to Order
SECRETARY takes Roll Call
CHAIR introduces PETITION and
HEARING PROCEDURE

HEARING

COMMISSION – addresses COMPREHENSIVE PLAN
COMPATIBILITY with PETITION

- **Identifies FINDINGS OF FACT**
- **APPROVES or DENIES**
  PETITION

ADJOURNMENT of Meeting

Palmyra Township
Planning Commission

July 31, 2010
9:00 a.m.
Special Meeting
Minutes

The Special Meeting of the Palmyra Township Planning Commission was held on Saturday, July 31, 2010 at 9:00 p.m. in the Town Hall. Those present were Chairman Eugene Hardiek, Members: Karl Kilberg, Eugene Book, Mike Leslie, Mark Fassler and Secretary Deb Dillow. Guests present: Supervisor Vern Gottel and Ron Cooper Absent: Jim Bushman

Chairman Hardiek indicated that the reason for this special meeting was for purpose of Special Use Petition #10-P-1469 for the purpose of a wind turbine.

Chairman Hardiek asked the petitioners to be sworn in for testimony. The petitioners presented to the Board the proposed plan to place a wind turbine on the campus of Sauk Valley Community College.

Chairman Hardiek indicated that the Commission will proceed with the Findings of Fact to determine the recommendation and approval or disapproval.

After review of the attached Findings of Fact, the Palmyra Township Planning Commission did the following:

After review we the Commission, find the request for "Special Use" for a wind turbine to be within the realm of consideration for Ag-1 Institutional Use so designated in the comprehensive land use plans.

A motion was made by Mike Leslie and seconded by Karl Kilberg that after full discourse by the petitioner and the Planning Commission that petition #10-P-11469, "Special Use" for the use of a wind turbine be approved. In a roll call vote, all voted aye. Motion carried.

A motion was made by Mike Leslie and seconded by Eugene Book to adjourn the meeting. Meeting adjourned at 10:29 a.m.

Attested

Deb Dillow
Secretary

PALMYRA TOWNSHIP
PLANNING COMMISSION

Petition Number: 10-P-1469

Current Zoning: AG 1

Township: Palmyra

Requested Zoning: "Special Use"

Date: July 31, 2010

Proposed Use: Wind Turbine

LESA:

Finding of Fact

1). *Effect of the proposed use upon the character of the neighborhood.*

a. Visual
b. Noise
c. Flicker

A motion was made by Karl Kilberg and seconded by Mark Fassler to adopt these effects as they relate to the character of the neighborhood. All voted aye. Motion carried.

Voting Yes: **Karl Kilberg, Mark Fassler, Mike Leslie and Eugene Book**
Voting No: **None**

2). *Effect of the proposed use upon traffic conditions.*

a. Increase during construction along with heavier load
b. Distraction of traffic
c. Flicker

A motion was made by Karl Kilberg and seconded by Mike Leslie to adopt these effects as they relate to traffic conditions. All voted aye. Motion carried.

Voting Yes: **Karl Kilberg, Mark Fassler, Mike Leslie and Eugene Book**
Voting No: **None**

3) *Effect of proposed use on public utility facilities.*

a. Sewer
b. Water
c. Gas
d. Electricity – reduced consumption

A motion was made by Mike Leslie and seconded by Karl Kilberg to adopt these effects as they relate to use on public utility facilities. All voted aye. Motion carried.

Voting Yes: Karl Kilberg, Mark Fassler, Mike Leslie and Eugene Book
Voting No: None

4) *Effect of the proposed use upon public health, public safety, and/or general welfare.*

a. Public Health – noise, flicker
b. General Welfare – reduced electricity, educational use and job creation
c. Public Safety – driver distraction during construction period

A motion was made by Eugene Book and seconded by Mark Fassler to adopt these effects as they relate public health, public safety and/or general welfare. All voted aye. Motion carried.

Voting Yes: Karl Kilberg, Mark Fassler, Mike Leslie and Eugene Book
Voting No: None

***Recommendation to Lee County** **Approve** **Deny**

A motion was made by Mike Leslie and seconded by Karl Kilberg that after full discourse by the petitioner and the planning commission that petition #10-P-1469, "Special Use" for the use of a wind turbine be approved. In a roll call vote, all voted aye. Motion carried.

Additional Reasons/Statements:

A recommendation was made that the special use includes any and all property owned by Sauk Valley Community College south of IL Route #2 (Route 30) and west of Sauk Road. It is recommended that the legal description be updated. All voted aye.

After review we the commission, find the request for "Special Use" for wind turbine to be within the realm of consideration for Ag-1 Institutional Use so designated in the comprehensive land use plans.

No. 6354

Certificate of Publication

State of Illinois SS.

Lee County

SPECIAL USE REQUEST NOTICE
Petition No: 10-P-1469
By Sauk Valley Community College
For:
PIN# 16-07-08-400-009
Property located on part of Sec of section 8 Township 21 range 8
Current Zoning: Ag 1
Special Use Request: Petition is requesting an Ag-1 Special Use for the purpose of a Wind Turbine.
The petition is on file at the Town Hall, 214 Palmyra Road, Dixon, Illinois.
A public hearing on said petition will be held the 31st day of July, 2010 at 9:00a.m. in the Palmyra Township Town Hall, 214 Palmyra Road, Dixon, Illinois.

This is to Certify that a notice, a true copy of which is hereto attached, was published in the Dixon Telegraph, a secular newspaper of general circulation published daily in the City of Dixon, in the County of Lee and State of Illinois, by B.F. Shaw Printing Company, a corporation existing under the laws of said State, once each week for 1 sucessive weeks; that the date of the first paper containing said notice was the 20th day of July , 2010 , and that the date of the last paper containing said notice was the 20th day of July , 2010

And this is to further certify that said newspaper have been regularly published for one year prior to the first publication of said notice therein, and that the person who signs the name of said company to this certificate is as appears by the records of said company, it is duly authorized agent for such purpose

Dated at Dixon, in said county, This 20th day ofJuly , 2010

Dixon Telegraph

Publication Fee $40.95

by: Jennifer Dail
Authorized Agent

Received payment
Dixon Telegraph

by:_____

LEE COUNTY ZONING BOARD OF APPEALS

Ron Conderman, Chairman
Craig Buhrow, Vice Chairman
Mike Pratt, Member
Gene Bothe, Member
Tom Fassler, Member
Bruce Forester, Alternate Member

Chris Henkel, Zoning Officer
Alice Henkel, Clerk

The Lee County Zoning Board of Appeals met on Thursday, August 5, 2010, at 7:00 p.m. in the Old Lee County Courthouse, Dixon, Illinois. Vice Chairman Craig Buhrow called the meeting to order and Clerk Alice Henkel called the roll. The following members were present: Craig Buhrow, Mike Pratt, Gene Bothe, and Alternate Member Bruce Forester. Chairman Ron Conderman and Member Tom Fassler were not present.

Vice Chairman Buhrow asked if there were any changes or corrections to the minutes from the July 2010 meeting. Gene Bothe made a motion to approve the minutes, and Mike Pratt seconded it. All were in favor resulting in a 4-0 vote.

The first order of business was petition no. 10-P-1470, by Matthew Svela, PPN #06-09-02-252-007, located in Franklin Grove Township, requesting to rezone the parcel to R-1, Rural Residential for the purpose of raising horses. The parcel is currently zoned R-2, Rural Residential.

Matthew Svela and Andrea Svela were sworn in on behalf of the petition.

Mr. Svela explained to the Board that he wishes to rezone his parcel of land from R-2, Rural Residential, to R-1, Rural Residential, for the purpose of quartering his horses on the property.

Given the parcel's proximity to the Village of Franklin Grove, Mr. Svela had to present his proposed zoning change to the Franklin Grove Village Board. On June 14, 2010, at the regular meeting of the Franklin Grove Village Board, the board unanimously voted to recommend the approved zoning change. Mr. Henkel presented a letter to the Board, from the Village of Franklin Grove, stating the same.

Mr. Henkel stated that the notification requirements have been satisfied by the petitioner and all receipts have been submitted.

Mr. Henkel explained that the only restriction under R-1, Rural Residential, is that the barn housing the horses can be no less than 300 feet from a neighbor's dwelling. This is not a problem, as the horse barn will be more than 300 feet from their neighbors' dwellings.

Mr. Henkel stated that the Village of Franklin Grove was not in favor of rezoning the parcel to Ag-1, Agriculture, because it does not want any livestock, other than horses, being raised on the property since the parcel is located near the Village's city limits.

Mike Pratt made a motion to approve the petition, and Gene Bothe seconded. All were in favor, resulting in a 4-0 Yes vote.

Vice Chairman Buhrow stated that this matter will go before the Lee County Board on August 17, 2010, at 9:00 a.m. with a recommendation for approval of the petition.

The second order of business was petition no. 10-P-1469, by Sauk Valley Community College, PPN #16-07-08-400-003, located in Palmyra Township, requesting an Ag-1, Special Use in an Ag-1 zone for the purpose of a wind turbine. The parcel is currently zoned Ag-1, Agriculture.

The following were sworn in on behalf of the petition: Thomas Dishno, John Ditto, Steven P. McPherson, Alan Pfeifer, Keith R. Bolin, Scott Stoller, George Mihel, and Andrew Bollman.

Mr. Henkel stated that the notification requirements have been satisfied by the petitioner and all receipts have been submitted.

George Mihel, President of Sauk Valley Community College, stated that the college has plans to install a wind turbine on the college property. He explained that the college is here to serve the public and to create educational opportunities which in turn create jobs.

Mr. Mihel stated that the proposed wind turbine will be an aid to the existing training program and will help offset the school's energy costs.

Mr. Mihel explained that the college first decided to explore using wind energy to power the school in 2007. That same year, the school decided to explore the possibility of creating a wind energy technician program.

In 2008, Mr. Mihel stated that Sauk joined the Illinois Community College Sustainability Network (n/k/a IGEN – Illinois Green Energy Network). The focus of this group is to increase energy efficiency on Illinois Community Campuses and to create and share educational programs for the green economy.

The college offered its first classes in wind energy technology in 2009; and also applied for a grant to partially fund a turbine on the SVCC campus.

Now, in 2010, the college will begin its second class of wind energy students and will be graduating its first class of wind energy students.

Sauk's Wind Energy Program offers a basic certificate and an advanced certificate.

Sauk is a member of the American Wind Energy Association (AWEA) which allows the aligning of course content with the skills defined by AWEA.

With regards to Sauk's Wind Turbine and Energy Program, Mr. Mihel explained that in 2009, the Sauk Foundation provided equipment funding for the technician program; Clipper Windpower made an equipment donation to the program; and the program received a significant turbine grant (contingent upon NEPA approval).

He went on to explain that so far this year, the program has applied for additional funding through Illinois Clean Energy; and was awarded a $226,000 grant for training and certification.

Andrew Bollman, SVCC Board of Trustees, stated that during the construction of the proposed wind turbine, there will be a temporary change in amount of traffic; however, he does not feel the turbine will change the character of the school. Also, he feels that a wind turbine on campus could draw students from around the nation. It will also bring and leave jobs in the community.

Scott Stoller, SVCC Board of Trustees, concurred with Mr. Bollman. He believes it provides an excellent education opportunity for obtaining a certificate in wind energy technology or for preparation for a four-year degree in wind energy technology.

Alan Pfeifer, a member of Sauk's faculty, presented Sauk's reasons for constructing a wind turbine.

Mr. Pfeifer stated that constructing a wind turbine on Sauk's campus would allow the college to lead the district in sustainable energy; to control expenses; and to support college wind programs and college classes.

Mr. Pfeifer explained that the wind energy program at Sauk will provide real-world experience for the energy students. As part of the program, students will be able to climb the turbine several times; inspect turbine parts; monitor turbine function; and provide maintenance for the turbine.

Mr. Pfeifer stated that Sauk intends to integrate the wind turbine into areas of study that are available at Sauk; such as, life sciences, statistical methods, and business practices. It will make students more aware of the energy issues this country is facing.

Sauk has partnered with Clipper Windpower with regards to its wind energy program. Currently, Clipper has donated $300,000 of equipment to the college. The college anticipates the donation of more equipment this fall.

Sauk Valley Community College was the first school to partner with Clipper Windpower. Including Sauk, Clipper currently has 4 U.S. partners (one in Minnesota, one in Texas, and one in Colorado).

Also, Bruce and Joyce Papiech, of FPC, have allowed the college use of some of their equipment.

According to a study done by the Illinois State University economics department reports that there are currently over 1,400 constructions jobs and over 440 permanent jobs for wind technicians in Illinois alone.

Mr. Pfeifer explained that wind energy is the first program in Sauk's renewable energy programming. The school plans to expand its curriculum to include other forms of renewable energy such as geothermal and solar. Sauk is developing and will be approving a multi-craft program to start in the fall of 2011 that will have a basic program for entry into one specific energy program.

Mr. Pfeifer presented the impacts that the wind turbine may have. The character of the neighborhood is currently agricultural. The parcel houses the college, student housing, and a vacant building. The nearest subdivision is just over a half-a-mile away.

Impacts to traffic conditions include an increase of traffic during the time of construction and the possible distraction to drivers during construction and after construction.

The impact to public utility facilities is non-existent. The power generated by the turbine will be carried by existing electric line. Also, there will be no changes to township, county, and/or State roadways.

With regards to public health, public safety, and general welfare, there are been no significant findings.

Other impacts mentioned by Mr. Pfeifer include visual aesthetics, shadow flicker, noise, and future development of Palmyra Township.

Tom Dishno, of Superior Environmental, approached the Board to address the concerns regarding visual aesthetics, shadow flicker and noise. Superior Environmental is a company that provides an independent, 3rd party analysis of the NEPA process.

Mr. Dishno stated that an investigation was done with regards to the turbines' impact on the neighbors. The company also investigated potential problems that may arise concerning the neighbors.

Superior Environmental area of study included everything located within a 1,000 meter radius (a little over 3,000 feet) of the proposed turbine. From this, areas of concern were determined.

To study the issue of sensory impact, or the impact to the visual aesthetics, Superior Environmental took photographs at each area of concern. An image of a wind turbine, depicted to-scale, is superimposed in each photograph to illustrate how the landscape will be changes after a wind turbine is constructed.

Superior Environmental came to the conclusion that there would be no significant concerns with regards to sensory impact.

When studying noise and shadow flicker affects, Superior Environmental used the tallest and noisiest turbine being considered for use by the college. A 420-foot turbine, from bottom to the tip of the blade in the vertical position, was used by the company to arrive at the worst-case scenario.

Shadow flicker is most evident just after sunrise and just before sunset. Superior Environmental determined which areas would experience the most shadow flicker. It then applied extremes, such as the first day of summer and the first day of winter, to arrive at the worst-case scenario projections.

Based off the projection, the areas affected by shadow flicker include farmland and campus. A portion of Illinois Route 2 will also experience a shadow flicker affect.

Ultimately, the findings by Superior Environmental, regarding shadow flicker, yielded no significant concerns.

With regards to noise impact, Superior Environmental performed noise studies at 10 different locations on campus. It was determined that the loudest noise can be found within a 1,000-foot radius of the turbine.

Using the noisiest turbine, the noise projection within the 1,000-foot radius of the turbine yields 35-45 decibels of sound. The standard for an indoor room is 45 decibels. The standard for outside is 55 decibels. The worst-case scenario projection yielded sound within the range set forth by noise pollution board. At times, the noise created by the wind is greater than the noise that would be created by a turbine.

Again, the finding by Superior Environmental, regarding noise, yielded no significant concerns.

The noise study that was performed is available online.

Mr. Pfeifer provided the Board with college's proposed timeline of events. Pending the approval by this Board and the Lee County Board, the college would like to the zoning for the turbine secured by the end of August, 2010.

By October, 2010, the college would like to have the NEPA document approval and final grant approval. Thereafter, the school would like to secure additional funding opportunities; as well as, retain a project manager to help the orderly process and confirm turbine selection.

The installation and commission of the proposed turbine is scheduled to take place by March 31, 2012. As part of its petition, Sauk is requesting to extend the time frame to March 31, 2012, to coincide with its proposed plan for completion.

Vice Chairman Buhrow asked if there were any more questions from the Board members.

Vice Chairman Buhrow wanted to know how far from the highway would the turbine be located. Mr. Pfeifer stated that it would be approximately 800-900 feet from the property line running along the highway.

Vice Chairman Buhrow asked if the school had any other planned used for the area where the turbine would be place. Mr. Pfeifer stated that there were no other plans that would preclude the college from using the land for something other than a wind turbine.

Vice Chairman Buhrow asked what size the turbine would be. Mr. Pfeifer stated that the school is looking into a 1.5 to a 2.5 MW turbine that uses the most American made parts.

The turbine is likely to create slightly more power than the school will use. Sauk is working with Commonwealth Edison to finalize the details.

There were no further questions from the Board. Vice Chairman Buhrow asked if there was anyone present from the visitors with a question and/or comment.

Keith Bolin, of Mainstream Renewable Power and the Bureau County School Board, stated his support of the school's project. As he is a member of the Bureau County School Board, a school district that utilizes wind energy to offset energy expenses, he feels this is a great move for the school financially, as well as for expanding curriculum available.

Vice Chairman Buhrow asked Mr. Bolin what size turbine is used by the Bureau Valley school. Mr. Bolin stated that a 660 Vestis is in use.

Andrew Bollman again addressed the Board, asking that it keep things in perspective, as far as impacts. He feels that the traffic generated by the school creates noise (i.e., a student vehicle with no muffler). Also, he feels that the traffic is mainly going to be affected during the construction phase.

Vice Chairman Buhrow asked if there were anymore questions and/or comments.

Neil Miller, of Bradford Township, was sworn in.

Mr. Miller asked how far from the student parking lot would the turbine be located. Mr. Pfeifer estimated 700-800 feet distance from the turbine to the nearest parking lot. Mr. Miller is concerned about student safety should anything happen to the turbine, such as lightning striking a blade.

Vern Gottel, Palmyra Township Supervisor, was sworn in. Sauk's petition has been presented to the Palmyra Township planning commission, and township board. The petition received unanimous approval from the boards. Mr. Gottel and Palmyra Township feel this is a great location for a wind turbine, as well as a great opportunity for the school to expand its curriculum.

Vice Chairman Buhrow asked Mr. Gottel if the township received any statements of concern from the residents of the subdivision nearest to the proposed turbine. Mr. Gottel stated that one concerned telephone call was received; however, no one appeared at any of the meetings regarding the petition.

Vice Chairman Buhrow asked if Palmyra Township has any concerns about how this turbine may impact future growth of the township. Mr. Gottel stated that there are no concerns, that any concerns are offset by the abundant benefits to the school and community.

Vice Chairman Buhrow closed the hearing. No further testimony was taken.

Vice Chairman Buhrow proceeded with the Findings of Fact:

The first finding of fact is the effect of the proposed use upon the character of the neighborhood.

It was agreed that there would be visual change, change in the noise, and evidence of shadow flicker.

Gene Bothe made a motion to accept these findings of fact, and Bruce Forester seconded this motion. The Board voted Yes, 4 – 0.

Vice Chairman Buhrow proceeded with the second finding of fact by asking the Board to state if there is an effect of the proposed use upon traffic conditions.

It was agreed that there would be distraction to drivers during the construction phase, there would be shadow flicker, and there would be no changes to the roadway after the construction phase.

Mike Pratt made a motion to accept these findings of fact, and Gene Bothe seconded it. The Board voted Yes, 4 – 0.

Vice Chairman Buhrow proceeded with the third finding of fact by asking the Board to state if there is an effect of the proposed use upon public utility facilities.

It was agreed that the amount of public, electric utility used will change.

Mike Pratt made a motion to accept these findings of fact, and Gene Bothe seconded it. The Board voted Yes, 4 – 0.

Vice Chairman Buhrow proceeded with the final finding of fact by asking the Board to state if there is an effect of proposed use upon public health, public safety, and/or general welfare.

It was agreed that the effects would include noise; shadow flicker; change in visual aesthetics; distraction to drivers during the construction phase; distraction to drivers during operation of the turbine; educational benefit; and creation of jobs.

Mike Pratt made a motion to accept these findings of fact, and Gene Bothe seconded it. The Board voted Yes, 4 – 0.

Bruce Forester made a motion to approve the petition, with the time extension to March 31, 2012, and Mike Pratt seconded it. All were in favor, resulting in a 4-0 Yes vote.

There were no additional questions and/or comments by the Board.

On the motion of Mike Pratt, and seconded by Gene Bothe, the meeting was adjourned.

Respectfully submitted,

Alice Henkel

By: _____

SECTION H-15: WIND ENERGY SYSTEMS STANDARDS

Ag-1 Special Use Conditions for Wind Energy Systems:

This special use is intended to provide conditions to allow wind turbines, towers, and related communications, and electrical facilities. All wind power facility equipment shall be in compliance with all applicable state and federal regulatory standards including the Uniform Building Code as adopted by the State of Illinois, the National Electrical Code as adopted by the State of Illinois, FAA requirements, EPA regulations (hazardous waste, construction, storm water; etc), and any other statutory or regulatory requirements.

Facility equipment shall conform to applicable industry standards including the American Wind Energy Association standards for wind turbine design and related standards adopted by the American Standards Institute (ANSI). Applicants shall submit certificates from equipment manufacturers that the equipment is manufactured in compliance with industry standards.

Topographic Map:

1. Petitioner shall provide the Zoning Administrator a topographical map including the project site and the surrounding area.

Setback Requirements:

1. New structures adjacent to wind power facilities shall maintain the same setbacks from those facilities, as those facilities themselves are required to observe hereunder.

2. The setback for the turbines from all existing public roads will be 500 feet or greater, and public utilities will be 1.1 times the height of the turbine with the blade tip at its highest point. Distance shall be measured from the foundation at the base of the turbine. The setback will be followed except in specific instances allowed in the special use permit. New structures built adjacent to wind power facilities shall maintain these same minimum setback requirements.

3. Except as provided herein, the setback distance for turbines shall be set back 1,400 feet or more from any existing or occupied residence, or from the boundary of any lot, which, as of the date of the approval of the special use, is in a platted and recorded subdivision, and shall be setback from a property line 1.1 times the height of the turbine, with the blade tip at its highest point. Distance shall be measured at the time of application for building permit from the foundation at the base of the turbine. A turbine may be placed as near as 600 feet from an occupied residence with the prior written approval of the owner. The setback distance will be followed except in specific instances allowed in the special use permit by the Zoning Board of Appeals.

4. The setback distance for the turbines will be one-half mile from any platted community, which enforces its own government. Distance shall be measured from the foundation at the base of the turbine to the closest Corporate Limit boundary line. (Lee County will reference the most current Official Year Book on file with the Zoning Office).

5. Petitioner shall obtain all required permits from other governmental agencies (such as the Federal Aviation Administration) prior to commencing construction or as otherwise required by the applicable laws and regulations. Copies or evidence of such permits shall be submitted to

the Zoning Office on or before issuance of the first building permit for an individual wind tower. Building Permits shall be obtained from the Lee County Zoning Office for the wind towers.

6. Petitioner will provide a graphic Site Plan Exhibit including the easement boundaries final site location including legal descriptions for each site to the Zoning Administrator for approval before construction begins. The company will furnish the Zoning Administrator with certified "as built" site plans and easement descriptions drawings showing the location of wind turbines, roads, transmission lines and all other improvements.

7. Construction of the wind turbines within Lee County shall commence within 12 months of the date of this Special Use Ordinance. Upon delivery of the "as built" drawings, the surrounding land on each parcel for which construction is complete shall be reverted back to Ag-1 by the Zoning Board of Appeals.

8. All turbines shall be new equipment commercially available; no used, experimental or prototype equipment still in testing shall be approved by the Zoning Officer or the Zoning Board of Appeals.

Noise Standards:

1. Noise levels shall be regulated by the Illinois Pollution Control Agency rules and regulations and applicant shall certify that applicant's facility is in compliance with the IPCA.

Waste Management:

1. Solid Waste. All solid waste, whether generated from supplies, equipment, parts, packaging, or operation or maintenance of the facility, including old parts and equipment, shall be removed from the site in a timely manner consistent with industry standards.

2. Hazardous Waste. All hazardous waste generated by the operation and maintenance of the facility, including but not limited to lubricating materials, shall be handled in a manner consistent with all local, state and federal rules and regulations.

Signage:

1. Signage regulations are to be consistent with ANSI and AWEA standards. Signs warning of high voltage shall be posted at least at the entrances of the facility.

Aesthetics:

The following items are recommended standards to mitigate visual impact:

1. Coatings and Coloring: Non-reflective, unobtrusive color. Black blades are acceptable for mitigation of icing.

2. Turbine Consistency: To the extent feasible, the project shall consist of turbines of similar design and size, including tower height. Further, all turbines shall rotate in the same direction.

3. Lighting: Projects shall utilize minimal lighting. No tower lighting other than normal security lighting shall be permitted except as may be required by the FAA.

4. Intra-project Power and Communication Lines: All power lines used to collect power from individual turbines and all communication lines that are buried should be at a depth consistent with local utility and telecommunication underground lines standards until the same reach the property line or a substation adjacent to the property line. If any overhead transmission line is installed, it shall follow local utility standards for pole height and design.

Public Services:

1. Roads. Any proposed access roads that will be used for construction purposes shall be identified and approved by the Township Road Commissioner and the County Engineer prior to issuance of a building permit.

   Any road damage repairs caused by the transport of the facility's equipment, the installation of same, or the removal of same, must be completed to the satisfaction of the Township Road Commissioner and the County Engineer. The Township Road Commissioner and County Engineer may choose to require either remediation of road repair upon completion of the project or are authorized to collect fees for oversized load permits. Further, a corporate surety bond in an amount to be fixed by the Township Road Commissioner or the County Engineer may be required by the Township Road Commissioner or the County Engineer to insure the township or the county that future repairs are completed to the satisfaction of the unit of local government.

Fire:

1. The following permit standards shall be followed to reduce risk of fire:

   a. Adherence to applicable electrical codes and standards will be followed. Removal of fuel sources, like vegetation from immediately vicinity of electrical gear and connections.

   b. Utilization of twistable cables on turbines will be incorporated.

Dust Control

1. Petitioner will use dust control measures as reasonably required by the county during construction.

Sewer and Water

1. Any facility shall comply with existing septic and well regulations as required by the Lee County Health Department and the State of Illinois Department of Public Health.

Drainage Repair

1. Petitioner will repair waterways, drainage ditches, field tiles, or any other infrastructures damaged during construction and maintenance phases.

Engineer's Certificate

1. The engineer's certificate shall be completed by a structural engineer registered in the state of Illinois and shall certify that the tower and foundation are compatible with and appropriate for the turbine to be installed and that the specific soils at the site can support the apparatus. All commercially installed wind turbines must utilize self-supporting, tubular towers.

Certificate of Contracts

1. Certificate shall verify that power purchase contracts, power transmission contracts, and other legal rights are in place.

Decommissioning Plan

1. Petitioner shall ensure that the facilities are properly decommissioned upon the end of the project life or facility abandonment. Petitioner's obligations with respect to decommissioning shall include removal of all physical material pertaining to the project improvements to a depth of 48" beneath the soil surface, and restoration of the area occupied by the project improvements to as near as practicable to the same condition that existed immediately before construction of such improvements. Prior to issuance of a building permit, Petitioner will provide a bond letter of credit or other security acceptable to the County, for the cost of removing each tower to be constructed under that building permit. When such tower is operational, such security shall be modified to cover the cost of removing all improvements above the foundation and shall not be released during the entire term of the special use until those improvements are removed. Petitioner will provide an affidavit to the Lee County Zoning Board representing that all easements for wind turbines shall contain terms that provide financial assurance, including access to the salvage value of the equipment, for the property owners to ensure that facilities are properly decommissioned within twelve (12) months of expiration or earlier termination of the project.

Additional conditions for Special Use permitting shall include:

1. Petitioners shall obtain necessary recorded access easements and necessary recorded utility easements, copies of which shall be submitted to the Zoning Enforcement Officer.

2. No appurtenances other than those associated with the wind turbine operations shall be connected to any wind tower except in accordance with the Lee County Zoning Ordinance.

3. At the Petitioner's expense, the company will work with local rescue authorities to provide training on assisting with a rescue from a wind turbine or tower.

4. If someone who is not participating in the project experiences "shadow flicker," petitioner will remedy the problem on a case-by-case basis by planting trees or installing awnings or by using some other remedy. If Petitioner receives a verified complaint about shadow flicker visible from within any home owned by someone who is not participating in the project, then Petitioner will program the turbine or turbines causing such shadow flicker to shut down during the brief period of time that such shadow flicker is anticipated to occur.

5. If television or broadcast interference is created by the wind farm, the petitioner will use reasonable efforts to mitigate problems on a case-by-case basis.

6. The special use shall also comply with the Wind Energy System Standards.

7. Petitioner has provided evidence from assessors in areas with existing wind farm projects, as well as other independent economic analysis, showing no adverse impact on property values. Nevertheless, Petitioner agrees to maintain, for the 5 year period after issuance of the first building permit for the wind farm, a home seller protection program, in a form acceptable to the Lee County Administrator, covering loss in value directly attributable, upon the sale of such home, to the wind farm for those houses which (a) are not located within the original area identified in the Petition for Special Use and (b) have an outside wall of the primary residential structure which is located within ¾ mile of a wind tower erected by the Petitioner.

8. If approved by the FAA, the Petitioner shall install aviation light deflectors, currently in use in Canada, on the medium to high intensity FAA strobing red and white large red flashing lights to be used on the wind farm.

9. The Petitioner shall provide information on underground utilities it constructs as part of the Wind Farm to the "One Call System" operated by the Joint Utility Locating Information for Excavators Company, commonly known as JULIE.

10. The Petitioner shall install ice detectors for all wind towers located 750 feet or closer to a public roadway.

11. The Petitioner shall catalogue and annually report to the Lee County Zoning Office all birds discovered injured or killed by the wind towers. The annual report of avian injuries and deaths shall include species, number, and dates when the injured or killed bird was discovered.

12. In the event a dispute arises as to satisfaction of the foregoing conditions to this Special Use Ordinance, such dispute may, at the request of Petitioner, County or the aggrieved party, be resolved pursuant to binding arbitration in accordance with the procedures of the American Arbitration Association by an independent arbitrator acceptable to Petitioner and the County or aggrieved party, as applicable. If Petitioner and the County or the aggrieved party, as applicable, are unable to agree on an arbitrator, then each such party shall choose an independent arbitrator and their respective choices shall then choose an arbitrator. This Condition shall not bind an aggrieved party, other than the County or Petitioner, to submit to arbitration.

STATE OF ILLINOIS
COUNTY OF LEE
TO THE LEE COUNTY BOARD

IN THE MATTER OF THE PETITION OF
Sauk Valley Community College
1173 E. Rt. 2, Dixon, IL

PETITION NO. 10-P-1488
PETITION for Special Use

Your Petitioner **Sauk Valley Community College** states as follows:

1. The Petitioner owns the real estate legally described as permanent real estate index number: 16-07-08-400-003.
2. The location of the property is legally described as 173 E. Route 2, Dixon, Illinois 61021. Property is located on the south side of Ill. Route 2, one mile east of Mt. Hull Road. Approximately 137.28 acres.
3. The property is currently zoned: Ag-1, Agriculture.
4. The petitioner seeks that an Ag-1, Special Use for the purpose of a wind turbine.

NULLIFY SPECIAL USES: In any case where a special use has not been established (substantially under way) within one year from date of granting thereof, then without further action by the County Board, the special use or authorization thereof shall be null and void, unless in the opinion of the Zoning Enforcement Officer, circumstances beyond the control of the permittee indicate that establishment of the use has been impossible.

ZONING BOARD OF APPEALS PUBLIC HEARING TO BE HELD: Thursday, August 5, 2010 - 7:00 pm, 3rd floor, Boardroom, 112 East Second Street, Old Lee County Courthouse, Dixon, Illinois 61021

July 16, 2010

No. 6351

Certificate of Publication

State of Illinois SS.

Lee County

This is to Certify that a notice, a true copy of which is hereto attached, was published in the Dixon Telegraph, a secular newspaper of general circulation published daily in the City of Dixon, in the County of Lee and State of Illinois, by B.F. Shaw Printing Company, a corporation existing under the laws of said State, once each week for 1 sucessive weeks; that the date of the first paper containing said notice was the 16th day of July , 2010 , and that the date of the last paper containing said notice was the 16th day of July , 2010

And this is to further certify that said newspaper have been regularly published for one year prior to the first publication of said notice therein, and that the person who signs the name of said company to this certificate is as appears by the records of said company, it is duly authorized agent for such purpose

Dated at Dixon, in said county, This 16th day ofJuly , 2010

Dixon Telegraph

Publication Fee $81.90

by: [signature]
Authorized Agent

Received payment
Dixon Telegraph

by:_____

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MINUTES of the LEE COUNTY BOARD MEETING

AUGUST 17, 2010

BOOK 33 PAGE 115

A MOTION TO APPROVE WAS MADE BY MR. TOFTE, SECONDED BY MR. WILLIAMS. THE ROLL WAS CALLED: THOSE VOTING AYE: HARRISON, KETCHUM, KITZMAN, LEFFELMAN, MERCER, MORONEY, NICHOLSON, PALEN, PATZER, SHIPPERT, STEVENS, TOFTE, TRUCKENBROD, WENTLING, WILLIAMS, WITZLEB, BINDER, BUCKLEY, BUHROW, CHANDLER, DEMMER, EISENBERG, FARSTER AND FERRONE. THOSE VOTING NAY: NONE. MOTION CARRIED.

THERE WERE NO PETITIONS TO GO TO THE ZONING BOARD OR TO THE PLANNING COMMISSION.

TWO PETITIONS CAME FROM THE ZONING BOARD:

ORDINANCE NO 08-10-003

WHEREAS the Lee County Board desires to act upon Petition No 10-P-1469, by Sauk Valley Community College PIN #16-07-08-400-003, located in Palmyra Township, requesting an Ag-1 Special Use in an Ag-1 zone for the purpose of a wind turbine The parcel is currently zoned Ag-1 Agriculture

WHEREAS, the necessary public hearing was held before the Zoning Board of Appeals on the petition described which resulted in recommendation for approval from the Zoning Board of Appeals for said Petition

NOW THEREFORE, BE IT ORDAINED by the Lee County Board that Petition No 10-P-1469 (Sauk Valley Community College) be (approved) denied) by the Lee County Board

PASSED BY THE LEE COUNTY BOARD

THIS 17th DAY OF August, 2010

BY [signature] Vice Chairman

Lee County Board Chairman

ATTEST

Nancy Nelson

Lee County Clerk

By Cathy Myers, Deputy

A MOTION WAS MADE BY MR. WITZLEB, SECONDED BY MR. EISENBERG, TO CONCUR WITH ZONING TO APPROVE THIS PETITION. MOTION CARRIED.

Appendix H Shadow Flicker, Noise and Visual Report

Shadow Flicker Investigation
Sauk Valley Community College Wind Project
173 Illinois Route 2
Dixon, Lee County, Illinois 61021

August 24, 2010

Introduction

Shadow flicker is defined as alternating changes in light intensity caused by a moving object (such as a rotating rotor blade) casting shadows on another object. Shadow flicker from wind turbines can occur when moving turbine blades pass in front of the sun, creating alternating changes in light intensity or shadows. These flickering shadows cause an annoyance when cast on nearby residences ("receptors"). The spatial relationship between a wind turbine and a receptor, the location of trees, buildings, and other obstacles, and weather characteristics such as wind speed/direction, and sunshine probability, are key factors related to shadow flicker impacts. Shadow flicker becomes much less noticeable at distances beyond 305 meters (1,000 feet), except at sunrise and sunset when shadows are long.

Methods and Procedures

A shadow flicker study was completed to determine if any nearby occupied dwelling would be adversely affected by shadow flicker from the project. The nearest residence to the proposed location is approximately 850 meters (2,789 feet) northeast of proposed location. The nearest residential area with a zoning "R-1" is located approximately 1,190 meters (3,904 feet) northeast of the proposed location. An apartment complex is located approximately 550 meters (1,805 feet) from the proposed wind turbine location but is outside of the shadow zone.

To identify potential shadow flicker impacts from the proposed SVCC turbine, a program available from the Danish Wind Industry Association was utilized to predict the potential receptors from the proposed wind turbine location (http://www.talentfactory.dk/en/tour/env/shadow/shadowc.htm). Several government sources (USDOI 205; BERR 209) suggest that shadow flicker effects become relatively insignificant beyond 10 rotor diameters (approximately 1,000 meters or 3,281 feet; Figure 2).

The shadow plot for the analysis was not based on any limitations but rather based on the relative shadow influences based on the height of the hub of the wind turbine, diameter of the rotor blades, and the latitude of the proposed location. The maximum height of the hub diameter utilized was 100 meters (325 feet). The maximum rotor diameter utilized was 99 meters (322 feet). The proposed location of the SVCC wind turbine is 41º 49' northern latitude. The declination of the solar shadow is based on seasonal maximums. At this latitude on December 21, the solar declination produces a shadow at 67.17º; on March 20, the solar declination produces a shadow at 90º; on June 21 the solar declination produces a shadow of 112.81º; and on September 20 the solar declination produces a shadow of 90º. These angles were utilized to find the northern and southern axis boundaries of flicker shadow influences.

The calculations produced flicker shadow zone with a maximum east-west dimension of 1,500 meters (4,921 feet) (750 meters [2,461 feet] east or west of the proposed location) and a maximum north-south dimension of 990 meters (3,248 feet) (690 meters [2,264 feet] north and 300 meters [984 feet] south of the proposed location). The shape of the flicker shadow zone was superimposed on a map of the proposed location based on the data produced with these dimensions (Figure 1).

Calculations were performed only if 20% of the sun is covered by rotor blade. Typically, periods when the solar disc is covered less than 20% will not cause significant shadowing. The model does not factor in decreasing shadow intensity with distance from the turbine, but rather assumes that all shadow intensities are equal at varying distances. In reality, shadow intensity

will decrease with increasing distance between turbine and potential receptor. Actual sunshine hours were not utilized but rather an average of the region was applied to the calculations. Wind data was based on the average of the wind turbine feasibility study completed at the proposed SVCC location.

Results

The results of the shadow flicker study indicate that due to the isolated location for the proposed wind turbine, the presence of trees and tree lines, and the rolling terrain of the area, a relatively small number of receptors would be affected by shadow flicker. The nearest residence to the proposed location is approximately 850 meters (2,789 feet) northeast of proposed location. The nearest residential area with a zoning "R-1" is located approximately 1,190 meters (3,904 feet) northeast of the proposed location. Both locations are outside of the shadow zone. A student housing complex is located approximately 550 meters (1,805 feet) from the proposed wind turbine location but is outside of the shadow zone. The North Illinois Surgery Center is located 460 meters (1,509 feet) from the proposed project location and is located on the edge of the shadow zone.

Conclusions

If shadow impacts were to become an annoyance for any receptor(s), as stated in the Special Use Permit Conditions, SVCC would on a case-by-case basis plant trees or install awnings or use another remedy to resolve any shadow flicker effects. Also if SVCC were to receive a verified complaint about shadow flicker visible from within any home owned by someone who is not participating in the project, then the turbine would be shut down during the brief period of time that such shadow flicker is anticipated.

There is some concern that shadow flicker from wind turbines can cause epileptic seizures. Shadow flicker from wind turbines occurs much more slowly than the light "strobing" associated with seizures. The strobe rates necessary to cause seizures in people with photosensitive epilepsy are 3 to 5 flashes per second. Large wind turbine blades are not engineered to rotate at such a high rate (American Wind Energy Association [AWEA] 2009). The rate at which modern three-bladed wind turbines rotate generates blade-passing frequencies of less than 1.75 Hz, below the threshold frequency of 2.5 Hz, indicating that seizures should not be an issue (Burton et al. 2001 in DOI 2005).

The proposed project area does not have any nearby occupied dwelling that would be adversely affected by shadow flicker from the project. If shadow impacts were to become a legitimate annoyance for any receptor, SVCC would assist those receptors to purchase awnings and screening trees. In addition on a case by case basis SVCC would shut down the proposed wind turbine during the brief period of time that such shadow flicker is anticipated. The main receptors potentially affected by shadow flicker would be the traffic on IL Rt. 2, Sauk Road, campus buildings, and the entrance road to the campus. The proposed project would not result in any adverse impacts from shadow flicker.

References

American Wind Energy Association (AWEA). 2009. Wind Turbines and Health. http://www.awea.org/pubs/factsheets/Wind_Turbines_and_Health.pdf.

Business Enterprise and Regulatory Reform (BERR), United Kingdom Department. 2009. *Onshore Wind: Shadow Flicker.* http://www.berr.gov.uk/energy/sources/renewables/planning/onshore-wind/shadow-flicker/page18736.html.

National Research Council (NRC) of the national Academies. 2007. *Environmental Impacts of Wind Energy Projects.* Committee on Environmental Impacts of Wind Energy Projects, Board on Environmental Studies and Toxicology. Division of Earth and Life Sciences. The National Academies Press, Washington, DC.

US Department of Interior (DOI). 2005. *Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM – Administered Lands in the Western United States.* Bureau of Land Management.

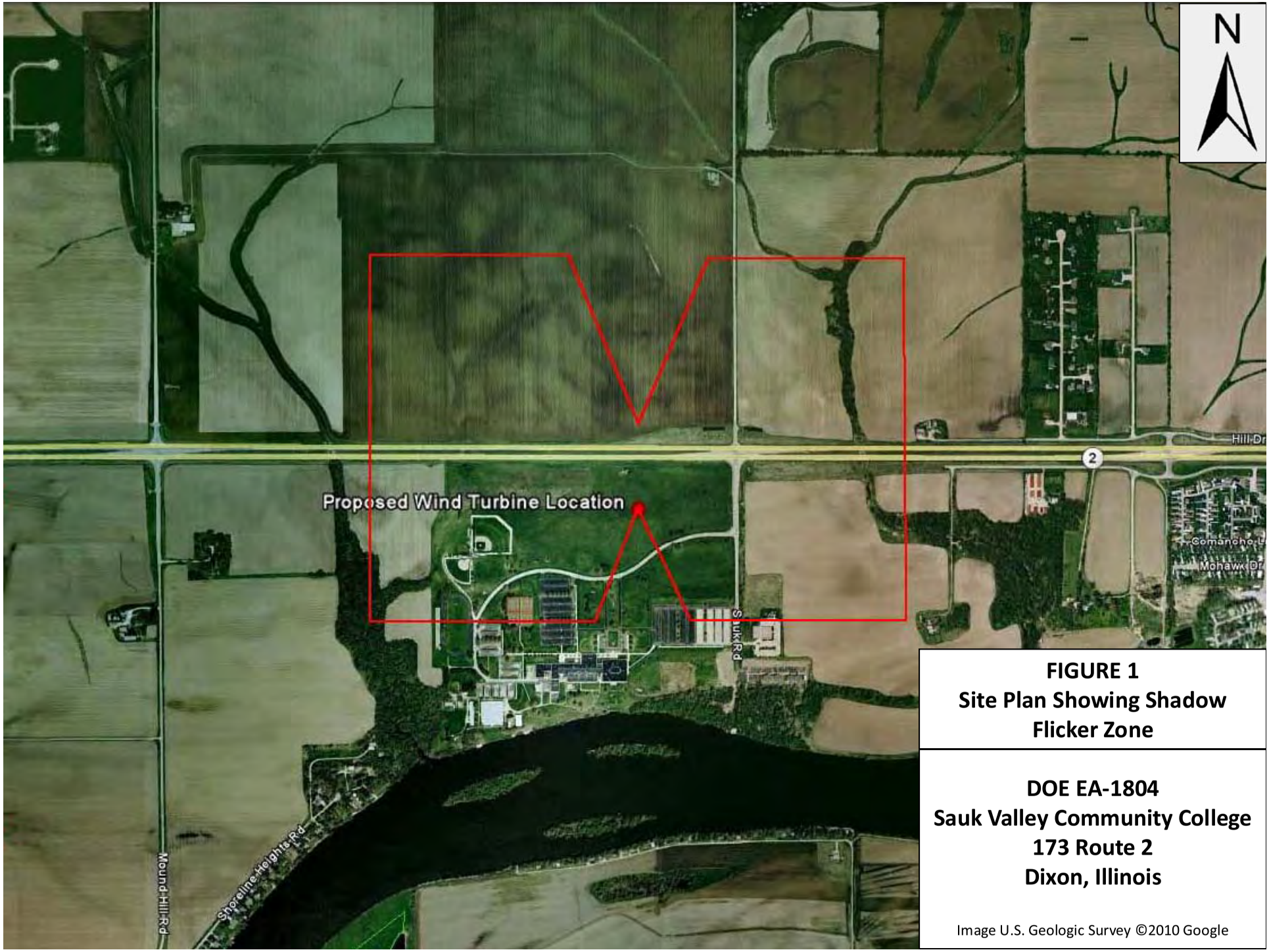

FIGURE 1
Site Plan Showing Shadow Flicker Zone

DOE EA-1804
Sauk Valley Community College
173 Route 2
Dixon, Illinois

Image U.S. Geologic Survey ©2010 Google

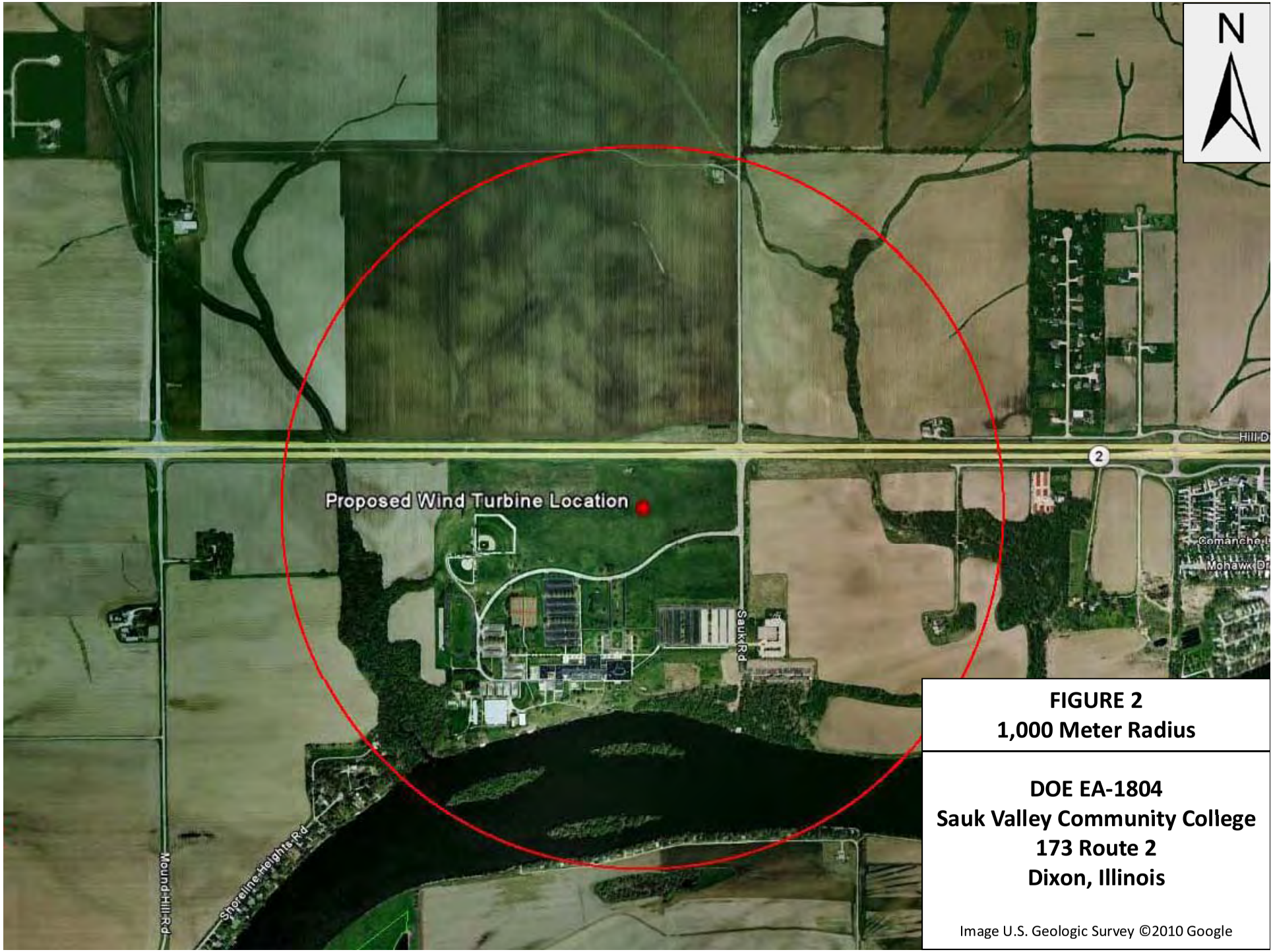

FIGURE 2
1,000 Meter Radius

DOE EA-1804
Sauk Valley Community College
173 Route 2
Dixon, Illinois

Image U.S. Geologic Survey ©2010 Google

Visual Impact Investigation
Sauk Valley Community College Wind Project
173 Illinois Route 2
Dixon, Lee County, Illinois 61021

August 24, 2010

APPENDIX: C

The existing view of the project area is primarily agricultural with the SVCC facilities to the southwest. The north boundary of the campus is bounded by IL Rt. 2, a four lane highway and beyond by agricultural property. Sauk Road forms the east boundary of the campus and beyond by agricultural property, a commercial property, and a student housing complex located approximately 550 meters (1,805 feet) from the proposed wind turbine location. The Rock River forms the southern boundary of the campus. The campus is bounded on the west by agricultural land and a river front residential subdivision on the southwest corner of the campus, approximately 965 meters (3,166 feet) from the proposed wind turbine location. The nearest residence to the proposed location is approximately 850 meters (2,789 feet) northeast of the proposed location. The nearest residential area with a zoning "R-1" is located approximately 1,190 meters (3,904 feet) northeast of the proposed location. Figure 1 is a Site Plan showing adjacent and nearby properties that were considered in this EA to be potential receptors.

The Proposed Action would affect the viewshed in the project area. The turbine would be a dominant vertical component in the landscape due to its height, but it would not obstruct views in the way that a large building might. Since it is placed in a landscape with other vertical elements (e.g., mature trees, light poles and traffic poles), the visual impact of the turbine is minimized. Installation of the turbine on a landscape that already has vertical features has less of an impact than placing it on a flat landscape with no other vertical development.

The visibility of the proposed wind turbine would vary by location due to existing tree cover. The nearest day-to-day viewers of the proposed turbine will be employees at SVCC, Rock River Hospice, radio station WLLT, Rock Ridge Animal Hospital, future residents of the former Northern Illinois Surgery Center, and the residents of the surrounding area. Users of IL Rt. 2, Sauk Road and SVCC access roads will also have clear views of the proposed turbine. Photographic renderings of the proposed viewshed are also attached.The scale of the turbine relative to distance has been estimated, and is not intended to be an exact rendering of the proposed viewshed.

1 Sauk Commons- 1608 Sauk Road (apartment complex)
Visible to wind turbine location.

2 Northern Illinois Surgery Center- 1622 Sauk Road (vacant structure for sale)
Visible to wind turbine location.

3 Residence- 239 Frontage Road
A tree line interferes with the visibility to the wind turbine location.

4 Residence- 261 Frontage Road- located in the woods
Trees interferes with the view of the wind turbine location.

5 Residence and Storage Bin Rentals- 251 & 253 Frontage Road
Trees and woods interferes with the view of the wind turbine location.

6 Residence- 265 Frontage Road
Trees and woods interferes with the view of the wind turbine location.

7 River Ridge Animal Hospital- Frontage Road
Trees and lower elevation interfere with the view of the wind turbine location.

8 River Ridge Subdivision- North side of Illinois Highway 2
A tree line interferes with the view of the wind turbine location.

9 Rock River Valley Hospice- North side of Illinois Highway 2
Some trees interfere with the view of the wind turbine location.

10 WLLT Radio Station (107.7 FM)- North side of Illinois Highway 2
Some trees interfere with the view of the wind turbine location.

11 Residence- North side of Illinois Highway 2
Visible to proposed wind turbine location.

12 Residence and Farm- 1726 Sauk Road
Trees interfere with the view of the wind turbine location.

13 Residence and Farm- 1680 Mound Hill Road
Trees and hill interfere with the view of the wind turbine location.

14 Residence- Mound Hill Road- appear to be vacant, gated, site located in the woods
Trees interfere with the view of the wind turbine location.

15 Residence and Farm- 1621 Mound Hill Road
Trees interfere with the view of the wind turbine location.

16 Residences- Shoreline Heights Road
River front houses with view of the wind turbine location limited by trees and elevation.

FIGURE 1
Site Plan Showing Potential Receptors

DOE EA-1804
Sauk Valley Community College
173 Route 2
Dixon, Illinois

Image U.S. Geologic Survey ©2010 Google

Photo rendering No. 1: Photo taken from near the Sauk Commons apartment complex looking northwest toward the proposed project area.

Photo rendering No. 2: Photo taken from Sauk Road at the southeast corner of the SVCC campus looking northwest toward the project area.

Photo rendering No. 3: Photo taken from IL Rt. 2 near residence #4 (261 Frontage Road) looking west-southwest toward the proposed project area.

Photo rendering No. 4: Photo taken from IL Rt. 2 near residence #5 (215 and 253 Frontage Road) looking west-southwest toward the proposed project area.

Photo rendering No. 5: Photo taken from IL Rt. 2 near residence groups #8 (River Ridge subdivision) looking west-southwest toward the proposed project area.

Photo rendering No. 6: Photo taken from IL Rt. 2 near residence #11 looking west-southwest toward the proposed project area.

Photo rendering No. 7: Photo taken from Sauk Road near residence #12 (1726 Sauk Road) looking south toward the proposed project area.

Photo rendering No. 8: Photo taken from Mound Hill Road near residence #13 (1680 Mound Hill Road) looking southeast toward the proposed project area (turbine not visible due to distance and topography).

Photo rendering No. 9: Photograph showing proposed project area looking southeast toward the SVCC campus.

Noise Investigation

Sauk Valley Community College Wind Project
173 Illinois Route 2
Dixon, Lee County, Illinois 61021

August 24, 2010

Introduction

The standard unit of measure for sound pressure levels is the decibel (db). A decibel is a unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the measured pressure to the reference pressure, which is 20 micropascals (μPa). Typically, environmental and occupational sound pressure levels are measured in decibels on an A-weighted scale (dBA). The A-weighted scale de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear (i.e., using the A-weighting filter adjusts certain frequency ranges (those that humans detect poorly)) (Colby, et al., 2009).

The following information is provided by the U.S. Environmental Protection Agency (EPA) on their website at http://www.epa.gov/history/topics/noise/0.1.htm:

Note: In the past, the environmental Protection Agency (EPA) coordinated all federal noise control activities through its Office of Noise Abatement and Control. However, in 1981, the Administration at that time concluded that noise issues were best handled at the State or local governmental level. As a result, the EPA phased out the office's funding in 1982 as part of a shift in federal noise control policy to transfer the primary responsibility of regulating noise to state and local governments. However, the Noise Control Act of 1972 and the Quiet Communities Act of 1978 were not rescinded by Congress and remain in effect today, although essentially unfunded.

[EPA press release – April 2, 1974]
Noise levels requisite to protect public health and welfare against hearing loss, annoyance, and activity interference were identified today by the Environmental Protection Agency. These noise levels are contained in a new EPA document, "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety."

One of the purposes of this document is to provide a basis for state and local governments' judgments in setting standards. In doing so the information contained in this document must be utilized along with other relevant factors. These factors include the balance between costs and benefits associated with setting standards at particular noise levels, the nature of the existing or projected noise problems in any particular area, the local aspirations and the means available to control environmental noise.

The document identifies a 24-hour exposure level of 70 decibels as the level of environmental noise which will prevent and measurable hearing loss over a lifetime. Likewise, levels of 55 decibels outdoors and 45 decibels indoors are identified as preventing activity interference and annoyance. These levels of noise are considered those which will permit spoken conversation and other activities such as sleeping, working, and recreation, which are part of the daily human condition.

The levels are not single event, or "peak" levels. Instead, they represent averages of acoustic energy over periods of time such as 8 hours or 24 hours, and over long periods of time such as years. For example, occasional higher noise levels would be consistent with a 24-hour energy average of 70 decibels, so long as a sufficient amount of relative quiet is experienced for the remaining period of time.

Noise levels for various areas are identified according to the use of the area. Levels of 45 decibels are associated with indoor residential areas, hospitals, and schools, whereas 55 decibels is identified for certain outdoor areas where human activity takes place. The level of 70 decibels is identified for all areas in order to prevent hearing loss.

Methods and Procedures

The Sauk Valley Community College project has not yet finalized the decision of the manufacturer or wind turbine to be installed. For the purpose of this EA, the largest model, the Clipper Liberty 2.5 MW specifications with the tallest tower, and the highest sound level was utilized for this analysis. The Clipper Liberty 2.5 MW is a tubular steel monopole, three (3) blade, ground-mounted wind turbine. It has a hub height of 80 meters (262 feet), a rotor diameter of 99 meters (325 feet), with an overall height of 127 meters (417 feet) to the blade tip. According to the specification sheet provided by the manufacturer, it has a Noise Power Level of 106 dBA. SVCC intends to install a single Clipper Liberty 2.5 MW wind turbine in an undeveloped portion of the college campus, between the college buildings and Illinois Highway 2.

The existing noise environment for the proposed wind turbine location is in an undeveloped area near the north boundary of the Sauk Valley Community College campus. The north boundary of the campus is bounded by Illinois Highway 2, a four lane highway. Sauk Road forms the east boundary of the campus and beyond by agricultural property, a commercial property, and an apartment complex located approximately 550 meters (1,805 feet) from the proposed wind turbine location. The Rock River forms the southern boundary of the campus. The campus is bounded on the west by agricultural land and a river front residential subdivision on the southwest corner of the campus (approximately 965 meters [3,166 feet] from the proposed wind turbine location). The nearest residence to the proposed location is approximately 850 meters (2,789 feet) northeast of proposed location. The nearest residential area with zoning "R-1" is located approximately 1,190 meters (3,904 feet) northeast of the proposed location.

On July 14, 2010 a noise investigation was completed on and near the proposed location of the wind turbine. The objective of the noise investigation was to establish the existing background noise levels of the site and surrounding potential receptors prior to operation of a wind turbine. The noise investigation was completed from 10:00am to 2:00pm at 8 locations. The weather was sunny and clear, 88 degrees F. The wind was gusting from the south-southwest from 7 to 15 miles per hour. Five (5) intervals of five (5) minute durations were completed at each lotion. A RS model 33-2055 sound level meter fitted with a windscreen over the microphone was utilized to measure and record the minimum and maximum levels of sound during each interval on an A-weighted scale (dBA).

Figure 1 is a Site Plan showing sound reading locations.

Results

Site						Average
Site #1 Northern Parking Lot						
Minimum	60	67	61	68	62	63.6 dBA
Maximum	84	88	92	80	81	85 dBA
Site #2 Proposed Wind turbine Location						
Minimum	64	62	62	67	64	63.8 dBA
Maximum	90	82	87	89	88	87.2 dBA
Site #3 North of College Sign by IL Rt. 2 (70' from Highway)						
Minimum	68	64	67	68	64	66.2 dBA
Maximum	90	83	89	92	86	88 dBA
Site #4 Adjacent to IL Rt. 2 (10' from Highway)						
Minimum	62	68	64	67	62	64.6 dBA
Maximum	99	91	92	98	94	94.8 dBA
Site #5 Southwest Corner of IL Rt. 2 and Sauk Road						
Minimum	72	64	72	76	78	72.4 dBA
Maximum	98	101	93	103	110	101 dBA
Site #6 North Side of Campus Building						
Minimum	61	68	64	68	68	65.8 dBA
Maximum	75	80	77	78	80	78 dBA
Site #7 Near the Entrance to Sauk Commons (student housing)						
Minimum	50	54	52	56	52	52.8 dBA
Maximum	72	68	70	68	68	69.2 dBA
Site #8 West End of Frontage Road						
Minimum	58	62	56	58	60	58.8 dBA
Maximum	88	84	86	88	82	85.6 dBA

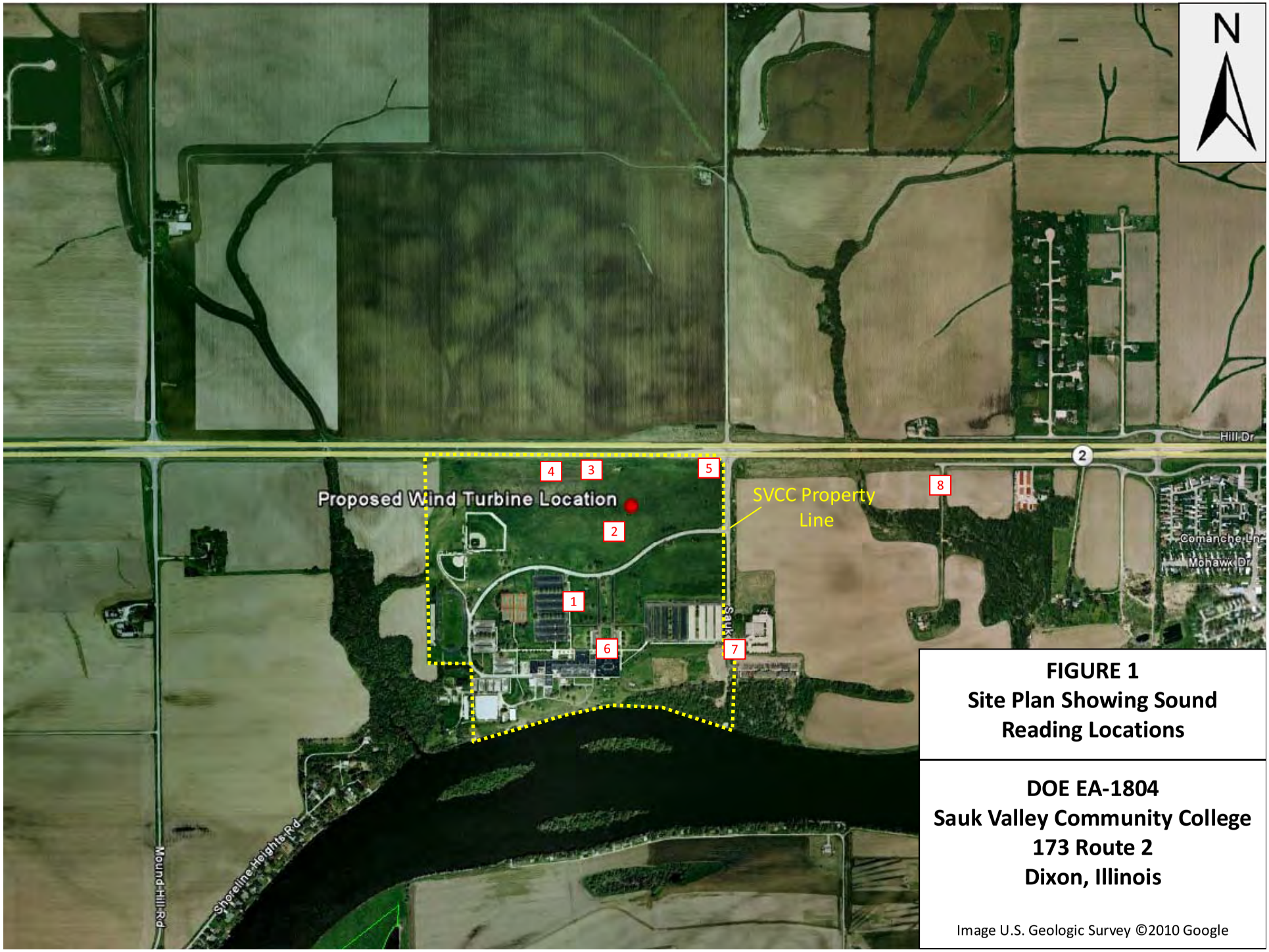

FIGURE 1
Site Plan Showing Sound Reading Locations

DOE EA-1804
Sauk Valley Community College
173 Route 2
Dixon, Illinois

Image U.S. Geologic Survey ©2010 Google