United States Department of Agriculture
Rural Development

August 29, 2011

SUBJECT: Finding of No Significant Impact (FONSI)
Western Plains Energy, LLC
Biogas Anaerobic Digester Facility
In Oakley, Kansas

DESCRIPTION OF ACTION

The U.S. Department of Agriculture, Rural Business-Cooperative Service (RBS) has received an application from Western Plains Energy, LLC for funding under the RBS 9004 Repowering Assistance Program. The proposed funding request is for construction and operation of a new Biogas Anaerobic Digester for an existing Ethanol Facility to be located on 26 acres located at 3022 County Road 18, Grinnell Township (Oakley), Gove County, Kansas. The environmental analysis of this proposed action is contained in an Environmental Assessment (EA) prepared by RBS.

The proposal would include the construction and operation of a biogas facility including a receiving building, digester, and related infrastructure and will convert cattle feedlot manure, as well as food waste, thin stillage, grain dust and livestock slaughter waste, to biogas (methane) to be utilized as a replacement for natural gas. The estimated amount of feedstock utilized in the biogas facility is 555-tons of feedstock per day.

The intent of this proposal is to produce enough biogas to replace the normal average natural gas consumption of 105 MMBtu/hour for the ethanol plant operation. If successful, natural gas usage will be reduced approximately 91.83 percent based on recent fossil fuel usage rates, thereby contributing to the overall reduction of CO_2 emissions in the U.S. Construction of the biogas anaerobic digestion facility is proposed to be initiated in the Fall of 2011, and is proposed to be in operation up to full energy production by June 2012.

This proposal, construction and operation of the biogas facility, would have minor temporary adverse effects during construction to air quality, water quality, and local flora and fauna; however, it does not pose significant adverse effects to the natural or human environment.

BASIS FOR FINDINGS

As required by the National Environmental Policy Act and agency regulations, RBS has assessed the potential environmental effects of the proposal. After consideration of the applicant's proposal, comments from Federal and State environmental regulatory and natural resource agencies, the agency has determined that the proposal will not have a significant adverse effect on the natural or human environment. Therefore, RBS will not prepare an Environmental Impact Statement for this proposal.

The Applicant must obtain and comply with all appropriate Federal, State, and local permits and approvals required for construction and operation of the biorefinery, and this requirement shall be incorporated and enforceable through the Agency's Conditional Commitment for Guarantee.

FINDINGS

The attached environmental assessment for the subject proposal has been prepared and reviewed by the appropriate Rural Business-Cooperative Service officials. After reviewing the assessment and the supporting materials attached to it, I find that the subject proposal will not significantly affect the quality of the human environment. Therefore, the preparation of an environmental impact statement is not necessary.

I also find that the assessment properly documents the proposal's status of compliance with the environmental laws and requirements listed therein.

Prepared by: Juliet C. Bochicchio 08/29/2011
JULIET C. BOCHICCHIO Date
Environmental Protection Specialist, Program Support Staff

Recommended: 8/29/2011
LINDA J. RODGERS Date
Director, Program Support Staff

Recommended: William C Smith 8/29/2011
WILLIAM C. SMITH Date
Director, Energy Division, Rural Business-Cooperative Service

Approved: Judith A. Canales 8/30/11
JUDITH A. CANALES Date
Administrator, Rural Business-Cooperative Service

ENVIRONMENTAL ASSESSMENT

Construction and Operation of a Proposed Biogas Anaerobic Digestion Facility at an Ethanol Plant
Western Plains Energy, LLC
Grinnell Township (Oakley), Gove County, Kansas

U. S. Department of Agriculture
Rural Business Cooperative Service
1400 Independence Avenue, SW
Washington, DC 20250-3225

August 29, 2011

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I. PROPOSAL DESCRIPTION AND NEED

The U.S. Department of Agriculture, Rural Business-Cooperative Service (RBS) is considering granting partial funding for the proposed construction and operation of an anaerobic digestion facility at the existing Western Plains Energy, LLC (WPE) ethanol facility located at 3022 County Road 18, Grinnell Township (Oakley), Gove County, Kansas. This funding is part of an effort by Section 9004 of the 2008 Farm Bill's Repowering Assistance Program to support and encourage eligible biorefineries to use renewable biomass as a replacement fuel source for fossil fuels used to provide process heat and/or power in the operation of these eligible biorefineries. This program is authorized under Title IX, Section 9001, of the Food, Conservation, and Energy Act of 2008 (Pub. L. 110-246). The purpose of the USDA-RBS's Repowering Assistance Program is to encourage the "greening" of eligible refinery plants with funding for existing facilities to convert their on-site power plants from fossil fuel to renewable biomass.

The National Environmental Policy Act (NEPA) of 1969 requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of Proposed Actions. As a result, this proposed project has been classified as requiring an Environmental Assessment (EA) in accordance with RBS's regulations of 7CFR 1940-Subpart G and NEPA 42 U.S.C. §4321. This EA evaluates the potential environmental impacts that could result from the proposed biogas generation plant.

The U.S. Department of Energy is participating as a cooperating agency in the preparation of this Environmental Assessment (EA). WPE estimates that the total project cost will be $28,203,500. WPE was selected by the Kansas Corporation Commission (KCC) to receive $12 million in federal funds for purchase of associated equipment for WPE's proposed project. This money would come from funds the State of Kansas received from the DOE's State Energy Program (SEP), which was funded by the *American Recovery and Reinvestment Act of 2009* (Pub. L. 111-5, 123 Stat. 115; ARRA or Recovery Act). The purpose of the DOE SEP is to promote the conservation of energy and reduce dependence on foreign oil by helping states develop comprehensive energy programs and by providing them with technical and financial assistance. States can use SEP funds for a wide variety of activities related to energy efficiency and renewable energy (42 U.S.C. 6321 *et seq*. and 10 CFR Part 420). In the Recovery Act, Congress appropriated $3.1 billion to DOE's SEP, and Kansas received $38.3 million pursuant to a statutory formula for distributing these funds.

The KCC informed DOE that it proposes to use $12 million of its SEP funds for a loan to WPE. The potential use of Federal SEP funds to assist in the financing of this project constitutes a Federal action subject to review under NEPA.

WPE's Ethanol Facility is currently permitted to produce up to 52 million gallons of denatured ethanol per year. The intent of this proposal, the construction and operation of a new biogas anaerobic digestion facility, is to produce enough biogas to replace the normal average natural gas consumption of 105 MMBtu/hour for plant operation. If successful, natural gas usage will be reduced approximately 91.83 percent based on recent fossil fuel usage rates. The feedstock proposed for use in the digester facility includes up to 80 percent beef cattle manure from local feedlots (Pioneer Inc.), up to 5 percent food waste from local food industrial production, and the

remainder will utilize thin stillage and grain dust from WPE's ethanol process, and livestock slaughter waste from local producers.

Construction of the biogas anaerobic digestion facility is proposed to be initiated in the Fall of 2011, and is proposed to be in operation up to full energy production by June 2012.

No new federal permits will be needed for the implementation and operation of the Proposed Action. The existing ethanol production facility has received air emission and stormwater discharge permits through the State of Kansas.

II. PRIMARY BENEFICIARIES AND RELATED ACTIVITIES

WPE is seeking to secure funding for the construction of a biogas generation facility and would be the primary beneficiary. The ultimate goal of the project is to generate enough biogas utilizing anaerobic digestion (AD) processes to fuel the existing ethanol facility in lieu of natural gas. The AD process uses specific biological cultures to consume the content of available resource material such as manure and waste products, grain dust, and thin stillage to produce biogas and bio-based fertilizers. Biogas is a combustible gas that contains methane, carbon dioxide, and traces of other gases. This gas can be burned at low temperatures as fuel in engines, boilers, and combined heat and power cogeneration units.

The goal of the AD process will be to allow WPE to replace an estimated 91 to 100 percent of the base fossil fuel load (predominately natural gas) utilized by the facility for the purpose of generating sufficient heat to operate. This would allow WPE to reduce costs, lower the existing ethanol plants carbon intensity, with the goals of becoming an advanced bio-fuel producer and adding an increased value to the ethanol produced at the facility. Since manure is the primary food source for biogas producing microorganisms, land applied waste from regional beef cattle feedlots (the primary generator of the manure) will be substantially reduced. The estimated volume of manure from the proposed supplier, Pioneer, Inc., is 555- metric tons/day.

III. DESCRIPTION OF THE PROPOSAL AREA

The Site is located in the northern half of Section 2, Township 11 South, Range 31 and West, Grinnell Township (Oakley), Gove County, Kansas. The address for the subject site is 3022 County Road 18 (also known as Campus Road), which is located at the northeast corner of the County Road 18 and Old Highway 40 intersection, adjacent and contiguous to the south of the existing WPE ethanol facility. In addition to the property being located adjacent to the south of the existing WPE plant, it is also bordered to the east by agricultural land, to the south by Old Highway 40 with a residential farmstead beyond and to the west by County Road 18 with agricultural land beyond. A Site Location Map is included in the List of Exhibits. A copy of select site photographs taken on May 12, 2011 are included in **Appendix I**.

WPE began operation of their existing ethanol facility in 2004. The existing production facility has the capability to produce up to 52,000,000 gallons of denatured ethanol per year. The plant generates fuel grade ethanol primarily for blending with gasoline and motor oils. WPE's ethanol facility currently operates 365 days a year, 24 hours a day, and WPE proposes to construct and then operate the biogas AD facility 365 days a year, 24 hours a day. Grain corn and milo is transported to WPE by truck for processing. The plant produces ethanol by utilizing natural fermentation from corn and milo. The facility denatures 200 proof ethanol with approximately 2

percent natural gasoline. Final product is loaded out into tanker trucks and dedicated rail cars and shipped to various markets. The plant produces and sells two by-products resulting from the alcohol (ethanol) manufacturing process: wet distiller's grains and soluble (WDGS) and dried distillers grains and soluble (DDGS). Both of these by-products are used as animal feed. The facility is classified by the Kansas Department of Health & Environment – Division of Environment (KDHE) as *Standard Industrial Classification (SIC) of 2869 Industrial Organic Chemicals, Not Elsewhere Classified* (WPE – SWPPP, 2009). A Property Features Map is included in the List of Exhibits (**Exhibit 2**).

PROPOSED ANAEROBIC DIGESTION PROCESS

The proposed project is a biogas generation facility that will utilize anaerobic digestion technology. The project will be co-located with the existing WPE facility. This project will utilize a patented and proprietary anaerobic digestion (AD) process known as the Integrated bioMass Utilization System (IMUS™). This process was developed by Highmark Renewables Research LP (HRR) of Alberta, Canada.

In general, the AD process uses microorganisms to facilitate biochemical reactions. The primary food source for microorganisms in the AD digesters is livestock manure, but the system can breakdown several other types of waste products including municipal sewage sludge, scraps from the livestock slaughter industry, food waste scraps and grease, and wood products.

The AD process will utilize approximately 555-tons of feedstock per day. The primary feedstock supply proposed for use will be manure from Pioneer Feedyard (Pioneer Inc.). The proposed project will utilize primary, secondary, and tertiary digesters in order to produce large quantities of methane, small amounts of carbon dioxide, and trace amounts of other gases which comprise the biogas produced by the microbial reactions inside the digesters. The produced biogas will be piped directly into the boilers for the ethanol facility.

Biogas is combustible in most equipment that uses natural gas, such as the Superior Boilers and the Thermal Oxidizer at the existing WPE ethanol plant. The existing burner rings at the ethanol facility will be replaced with ones specifically designed to utilize biogas.

Bi-products of the AD process include nutrient rich process water that will either be recycled back into the AD system or used as irrigation water and land applied or packaged into fertilizer. The flow chart below outlines the basic steps in the biogas generation process. Proposed Improvement Plans for the Ethanol Plant-General and Detailed for the project are included as **Exhibit 3 and 4**.

Figure 1. *Basic Co-located Anaerobic Digester & Ethanol Production Facility Process*

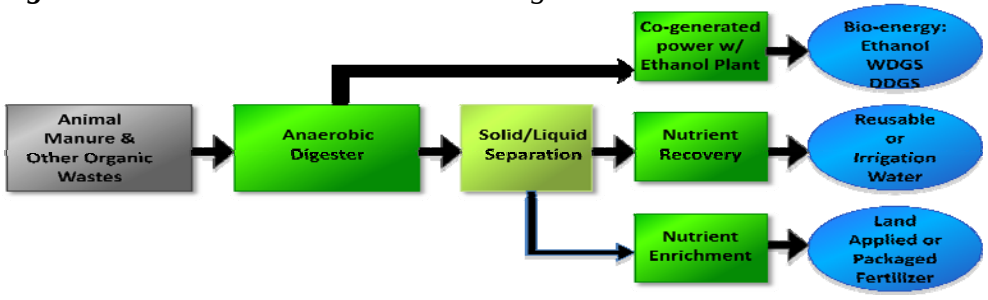

Figure adapted from: IMUS Technology Overview Diagram & Integrated bioRefinery Technology – IMUS with Ethanol Facility Diagram (HRR LP, 2010)

In addition to the use of manure as a feedstock, there will be another stream of thin stillage that is piped into the AD facility from the Ethanol Facility. Thin stillage is the waste water that is spun out of the centrifuging of the mash from an ethanol plant. Currently WPE sends approximately 175 to 180 gallons per minute of thin stillage back to the first stage of the ethanol plant. The proposed project will utilize the thin stillage in the digesters instead of recycling it back into the first stage of ethanol. The thin stillage will also be utilized to provide heat to warm the system as well as help slurry the mixture. The uniqueness of this AD system is that it can utilize additional feed stocks to manure and thin stillage. However, the use of manure from Pioneer and the thin stillage from WPE are the main feedstocks. Any other feed stocks would be very minor and would be less than one truck per day.

IV. ENVIRONMENTAL IMPACTS

1. Air Quality

Air quality in Kansas is monitored and regulated by the Kansas Department of Health and Environment– Bureau of Air and Radiation (KBAR). The KBAR operates the air monitoring network providing air quality data from 25 sites around the state. This data is analyzed to determine compliance with the National Ambient Air Quality Standards (NAAQS), as established in the Clean Air Act (CAA) as revised in 1990. The NAAQS are standards set for each air pollutant that could potentially endanger public health or welfare. These pollutants include particulate matter, lead, sulfur dioxide, carbon monoxide, ozone, and nitrogen dioxide. KBAR no longer monitors lead due to the significant drop in measured values stemming from the elimination of lead compound additives in gasoline. Kansas divides sources of air pollution into four categories: point sources, area sources, on-road mobile sources, and non-road mobile sources. Industrial sources, including the current and proposed WPE facility, are considered point sources. In Kansas, only about 12 percent of total pollutants emitted is from an industrial source.

The existing WPE ethanol manufacturing facility received an Air Emission Source Class II Operating Permit in August 2005, with subsequent modifications in 2007, 2008, 2009, and 2010. The Class II designation is given to emitters that are considered to be minor sources. The facility is permitted to emit below the major source thresholds established in K.A.R. 28-19-540. To meet these criteria, emissions of carbon monoxide, oxides of nitrogen, sulfur dioxide, volatile organic compounds, particulate matter, and hazardous air pollutants (HAPs) are evaluated. WPE consistently tests below the thresholds of these pollutants. In order to meet the criteria, WPE employs the following air pollution control equipment: a thermal oxidizer which collects emissions from various processing tanks and equipment; two fabric filter baghouses for controlling particulate emissions from grain unloading and processing; two fabric baghouse for controlling particulate emissions from hammermills; one flare for controlling natural gas vapors; a packed bed scrubber for removing Volatile Organic Compounds (VOCs) from carbon dioxide produced during processing; and a cyclone collector for cooling and separating dried distillers grains and solubles (WPE-Air Permit, 2010). The addition of the proposed project, a biogas AD facility, would require significant changes to the current air permit. An amendment to the existing permit would be prepared.

The air quality of the Site's neighboring areas could potentially be impacted temporarily by fugitive dust emissions and/or VOCs from fuel sources (e.g., diesel fuel, gasoline) or building

materials (e.g., paints, solvents) during the construction phase of the Proposed Action. Implementation of dust management BMPs, adherence to industry standards regarding VOC levels, and adherence to federal, state, and local regulations during construction activities would mitigate these temporary, non-significant impacts. Increase in workforce commuting and shipping and receiving of manure and post-production fertilizer is estimated at less than 30 truck loads per day and therefore would be minor. Consequently, impacts of vehicular and construction activity resulting from the Proposed Action on local air quality are anticipated to be negligible.

The project will require approximately 555-tons of manure from Pioneer Feedyard/per day and entails 25 trucks loads inbound of the facility (per day) for manure delivery and 5 truck loads outbound from the facility (per day) for bi-product delivery.

Air emissions associated with the proposed AD facility are not expected to increase in significance and are expected to remain within the WPE current permit limits. This is based on an analysis of emissions measured from a pilot project conducted in February of 2011. Unlike most digestion facilities, WPE is not going to be utilizing the biogas for electricity production. The biogas will be sent to the ethanol facility to be used in steam production. Although there may be the need to flare biogas from time to time, it will fit under the WPE's existing permit. As such, the emissions will be analyzed and incorporated into the WPE air permit as needed. Ultimately, the proposed biogas goal for the ethanol facility and AD facility is to be at zero emissions, therefore it can be assumed that this proposal would not produce a significant amount of additional emissions, and will be covered under the existing air permit.

The addition of a biogas AD facility would ultimately be equal to and/or possibly reduce the ethanol facility's emissions. It is anticipated that the existing industrial air quality permit would be amended without a change in pollutant emitter status, which is currently minor.

2. Water Quality and Hydrology

Surface Water

The WPE facility is located on a nearly level to gently sloping terrain with topography generally sloping from the northeast to southwest. Big Creek is located approximately 0.50-miles south of the facility and the South Fork Saline River is located approximately 1.25-miles north of the facility. Both bodies of water flow east/west. Drainage from the facility generally flows to the southwest.

Surface water resources were not identified on or adjacent to the site. Based on the location of the site within a rural agricultural area and its distance to the nearest bodies of water, implementation of the Proposed Action is not expected to directly impact surface water resources.

WPE was granted a Kansas Water Pollution Control Permit (I-SA24-PO01) and Authorization to Discharge under the National Pollutant Discharge Elimination System (NPDES) from the KDHE in July 2004, with the NPDES permit being renewed in March of 2009. These permits cover stormwater management and discharge and include a Stormwater Pollution Prevention Plan (SWPPP) for the existing ethanol facility. The current facility diverts all stormwater via one outfall to a stormwater pond located at the southeastern portion of the ethanol production facility.

This pond is sized in accordance with Kansas Regulations and the size of the existing ethanol facility. The pond has been designed so that water entering the pond will be evaporated or infiltrate into the ground. Several drainage controls have been constructed including swales, ditches, and catchments to direct overland flow to the stormwater pond. In the unlikely event the pond fills to capacity, WPE can manually pump the water out where it will travel via overland flow south to Big Creek.

Consultation with the Kansas Department of Agriculture-Department of Water Resources (KDA DWR) and the Kansas Department of Health and Environment (KDHE) was initiated on the Proposed Action. KDA DWR responded in a letter dated May 31, 2011, that the agency does not anticipate that the construction of the AD facility will create any adverse impact upon the environment or natural resources if good industry standards are practiced during construction and operation (**Appendix III)**.

Adherence to federal, state, and local regulations and implementation of stormwater Best Management Practices (BMPs) during the construction phase (sand bag barriers, organic filter barriers and dust control measures) of the Proposed Action would mitigate minimal potential effects to surface water from stormwater runoff originating at the construction site.

Stormwater runoff associated with impervious surfaces (e.g., roofs, process equipment, staging areas, etc.) related to the Proposed Action during operation would minimally increase the volume of stormwater runoff. It is anticipated that the current stormwater pond will be more than adequate to receive the additional input. Stormwater associated with impervious surfaces will be managed and handled in accordance with federal, state, and local regulations.

WPE will be applying for coverage under the KDHE General Permit for Construction Activities (Permit No. S-MCST-0701-1) for the AD facility. Per the General Permit, WPE will prepare and implement a Construction SWPPP; industrial operation of the AD facility will be added to WPE's existing Industrial SWPPP.

The AD facility proposed is being designed as a zero discharge facility when combined with WPE's existing ethanol facility. A portion of the AD facility effluent will be redirected back into the beginning of the AD system to be the primary source of water needed to slurry the digestion feedstock. The remaining volume will replace the 175 to 180 gallons per minute of thin stillage that will no longer be sent to the front of the ethanol plant, but will be piped back to the ethanol facility. This water will have the nutrient load of N and P conditioned to the appropriate levels by an algae system located within the AD facility. The introduction of this water will benefit the production of ethanol as it will reduce the required amount of urea and anhydrous ammonia that are currently being utilized in the ethanol facility. The organic nature of the N in the effluent is greatly beneficial to the ethanol facility. As a result, the current design does not anticipate the need to discharge water into the environment.

Ground Water

The ethanol facility and the proposed project are located within the Northwest Kansas Groundwater Management District No. 4. The District is approximately 3,100,000-acres and is located in the High Plains section of the Great Plains Physiographic Province. The project site is situated in the portion of the District overlaying the Ogallala Aquifer, which is a tertiary aged,

fluvially deposited silt, sand, and gravel formation. The aquifer ranges in thickness from 300-feet to less than 50-feet.

WPE has been granted permits and water allotments for four water wells; one located on the property by the ethanol facility, two other wells located off-site but on property owned by WPE, and one located three-miles north of the facility with the water rights to approximately 47-million gallons (144-acre feet) per year. The permits were granted through the KDA Division of Water Resources (DWR), which is the agency responsible for controlling water rights. Implementation of the Proposed Action would not impact groundwater resources. The existing ethanol facility has been allotted approximately 47-million gallons of water per year that can be delivered via four existing wells. The facility currently uses less than the allotted amount. The IMUS™ AD process is designed to use minimal water and can utilize process water from the ethanol facility and municipal grey water. Therefore, increased groundwater usage is not anticipated.

Negative impacts to groundwater are not anticipated during the construction or operational phase of the Proposed Action.

Wastewater

A septic system is currently in service at the WPE Ethanol Facility for use for ethanol facility waste and onsite bathrooms. Other than this septic system there is no other wastewater treatment. All of the wastes to be developed at the AD Facility are either to be recycled or utilized as fertilizer or land applied effluent as explained in the "Surface Water" Section above and the "Proposed Anaerobic Digestion Process Section" above.

Summary

Quantitatively, water consumption and contributions to wastewater expected from the implementation of the Proposed Action are likely to be negligible when compared to the current total water demand and wastewater generation from the existing ethanol facility.

Potential stormwater impacts due to implementation of the Proposed Action are not anticipated to be significant if proposed mitigation measures are implemented during construction and operation of the Proposed Action. Stormwater BMPs will be developed and included in the SWPPP incorporated within construction plans in accordance with the Kansas Stormwater Program. Stormwater diverted into the existing ethanol facility drainage system would mitigate stormwater runoff associated with impervious surface from the Proposed Action. Management of stormwater quantity and quality generated on the site will be in accordance with federal, state, and local regulations, mitigating the effects on stormwater runoff associated with the operational phase of the Proposed Action.

Waste and stormwater management associated with the Proposed Action, will be performed in accordance with federal, state, and local regulations, to protect groundwater resources from potential contamination. According to the USEPA Designated Sole Source Aquifers website, there are no designated Sole Source Aquifers in Region VII. (http://www.epa.gov/safewater/sourcewater/pubs/qrg_ssamap_reg7.pdf).

3. Solid Waste Management and Hazardous Materials

Minimal solid waste is generated at the existing ethanol facility and it is assumed that minimal solid waste will be generated at the proposed biogas facility. A discussion of the digestate resulting from the AD facility is contained in the "Water Quality" Section above, and concludes that all digestate waste generated from the AD facility will be recycled into the ethanol facility or land applied as fertilizer. Waste generated at the plant will continue to consist of office waste, typically comprised of paper, as well as some wastes created from general plant maintenance activities (i.e., used oil, spent mechanical parts, etc.). In addition, some organic waste, including corn cobs/chaff, is produced as a result of manufacturing activities. All waste generated at the existing plant and proposed plant are transported and disposed of properly in accordance with federal, state and local regulations, as necessary (WPE 2. , 2009).

With regard to hazardous waste generation, WPE works in compliance with Kansas KAR 28-31-261 under 40 CFR 261.3, which addresses hazardous waste management, permitting, compliance and enforcement under the KDHE-Bureau of Waste Management. Hazardous substances and waste generated and stored at the existing ethanol plant consists of diesel, fuel grade ethanol, gasoline, motor oils, ethylene glycol, anhydrous ammonia, sulfuric acid and solvents (WPE 2. , 2009). WPE is classified as a Resource Conservation Recovery Act (RCRA)-Conditionally Exempt Small-Quantity Generator (CESQG), which means that they generate less than 55-lbs per calendar month. All persons who generate, transport, treat, store, or dispose of hazardous waste and all persons who store recyclable materials prior to recycling them are required under the RCRA to notify EPA of their hazardous waste activities. WPE has an EPA ID Number of # KSR000509570. The proposed biogas facility will be addressed under the existing EPA and RCRA number and includes no additional hazardous waste materials than listed as produced and stored at the existing ethanol facility (A. Betz, 2011).

Reclaimed oil, spent parts and similar materials are and will be temporarily stored within a covered structure, referred to as the Maintenance Shop which is located at the existing plant. The reclaimed oil is collected in a 300-gallon aboveground storage tank and routinely removed by a licensed transporter. Any non-reusable parts and/or other materials are placed in a covered solid waste container and removed by a qualified hauler. The corn cob/chaff waste is also collected in a solid waste container and disposed of in accordance with applicable requirements (WPE 2. , 2009). Existing WPE operations are regularly conducted by properly trained employees permitted to engage in tasks involving hazardous substances/waste.

Since manure is the primary food source for the biogas producing microorganisms with the new AD facility, land applied waste from regional beef cattle feedlots (the primary generator of the manure) will be substantially reduced. The estimated volume of manure from Pioneer, Inc. (predominant source of the feedlots) is 555-metric tons/day. The current practice of land application of manure would be replaced by land applying the digestate produced by the digestion facility, which will be in much lower volumes. Although this will be a very useful fertilizer, a portion of the nitrogen and phosphorus will be dissolved in the effluent and utilized by the ethanol facility in the production of ethanol.

All feedstock materials will be delivered to the AD facility via end dumps. The material is slurried as it is introduced into the digesters. The high-solids feed system will expel any "large" objects. The unique feature of this system is that there is no need to screen the material. The

patented internal components are the only known components that can deal with the sand/grit that are currently present in open pen feedlots.

Under the Proposed Action, no significant adverse impacts to solid waste management services and/or practices are anticipated. The waste management system at WPE would likely be negligibly impacted from construction of the Proposed Action. The construction contractor is expected to assume responsibility for adhering to federal, state and local regulatory requirements for the disposal of waste water, solid waste, hazardous waste, and construction debris. In addition, the contractor will make efforts to divert construction debris away from a landfill. Waste items will be separated for their recycled content. In situations where wastes requiring disposal are generated, waste manifests would be maintained indicating the quantity and type of wastes generated, the work required, the transportation service used, and the disposal location. The amount of waste generated would not cause a significant impact to local or regional solid waste management resources.

4. Land Use - Geomorphology, Geology, Soils

Existing Conditions

The proposed AD facility area, or subject site, is part of a larger, approximately 60-acres in size parcel of land that includes the existing ethanol plant. However, the subject site itself, approximately 26-acres in size, is comprised mainly of vacant, idle, agricultural land (only 18-acres of this portion is anticipated to be improved with the new AD facility infrastructure). The subject property is made up of relatively flat relief and essentially void of any improvements with the exception of a small, approximately 150-square foot utility building on the southern portion. An existing stormwater retention pond is located on the eastern portion of the proposed project area.

Historically, the property has generally been utilized for agricultural purposes in which, according to site representatives, the primary crop was historically alfalfa. According to the 2001 National Landcover Database–Land Use-Land Cover GIS dataset, the subject site is classified as predominantly “grassland/herbaceous” land.

According to Ms. Julie Hawkey, Gove County Clerk, Gove County does not have any zoning ordinances for the County and therefore, there are currently no specific zoning designations for the property. She also indicated that Grinnell Township does not have any zoning ordinances and/or designation in place either. Therefore, Ms. Hawkey indicated that the proposed use of expanding the subject site for a biogas generation plant would be a compatible use. As previously indicated, the subject site is part of a larger parent parcel, parcel number # 33-96830 (a.k.a., Tax appraisal Number #061-02-0-00-000-001.01) (Hawkley, 2011).

The subject site is located in northwestern Kansas and Grinnell Township (population 329) (U.S. Census Bureau, 2010) is located in the northwestern portion of Gove County. Gove County has a population of approximately 2,480. Gove County is located in the High Plains section of the Great Plains physiographic province of the United States and varies in elevation from 2,300-feet above mean sea level (msl) in the eastern portion to 3,000-feet above msl in the northwestern portion of the County. This region is characterized by shortgrass prairies and scrub vegetation, with occasional buttes or other rocky outcrops. Agriculture, in the forms of cattle ranching and

the growing of wheat, cotton and sunflowers, is the primary economic activity in the region (Kansas Geological Survey, 2008).

Geomorphology/Geology

The subject site lies on nearly level to gently sloping relief (less than 20-feet elevation at variations), with topography generally sloping in a northeast to southwest direction. As previously indicated, the subject site is located within the High Plains section of the Great Plains physiographic province. This physiographic region extends southward from the northern border of Nebraska and down through the panhandle of Texas, and forms what is considered the central part of the Great Plains. The west rim, which includes the subject site, is described as comprised of high-cliffed, erosional escarpments. This region resulted from the uplift of the Rocky Mountains during the Tertiary period resulting in erosion and the deposition of vast quantities of non-marine sediments eastward across the High Plains. The Ogallala geological formation that comprises this region consists of a large wedge of unconsolidated sands and silts that is a significant aquifer under the High Plains. Loess deposits, which are silt or material which is usually yellowish or brown in color and consisting of tiny mineral particles brought by wind to the places where they now lie from glacial activity cover much of this region as well (Trimble, 1980). Significant geologic features were not identified on the subject site.

Soils

The USDA-Natural Resources Conservation Service (NRCS) soil data for Gove County documents that soils at the subject site consist of the "Kuma silt loam, 0 to 1 percent slopes" soil series (or Ku series). This Kuma soil series consists of very deep, well-drained soils that formed in medium to moderately fine textured calcareous eolian deposits with an age discontinuity marked by a paleosol. Kuma soils are on tableland plains and upland hillslopes. Slopes range from 0 to 8-percent. Mean annual precipitation is about 16-inches and the mean annual temperature is about 50 degrees Fahrenheit where these are found (USDA, 2011).

Land Use

The subject site is privately owned property and is currently part of a larger, approximately 60-acre parent parcel containing an ethanol facility that was constructed in 2003/2004. The proposed project would be constructed on the southern portion of this parent parcel and is considered to be "industrial" in land use. This parcel hasn't been utilized for agricultural cultivation since at least the development of the existing WPE ethanol facility. With the Proposed Action, there would be no significant change to the existing land use of the parcel, as it is already an existing ethanol plant and the action would essentially be an extension of this plant. The Proposed Action is located within an area that is already impacted by the existing ethanol plant development and land use impacts are anticipated to be similar to this type of Proposed Action.

5. Transportation

The project site is located at the northeast corner of Old Highway 40 and County Road 18 (also known as Campus Road). The subject site will be accessible by both roadways. Old Highway 40 is approximately one-mile north of U.S. Highway 70 (also known as Interstate-70). U.S. Highway 70 is the one of the largest interstates in the nation and provides active east-west highway access through the entire state of Kansas. County Road 18, which is part of a network

of county roads that serve Gove County, is located adjacent to the proposed project site and is considered a township road.

Gove County is also served by the Union Pacific Railroad, which traverses the County in an east-west orientation near the northern edge of the County and abuts the parent parcel of the subject site (a railroad spur also runs onto the parent parcel extending southward).

Typical traffic flow in the proximity of the proposed site on weekdays (i.e., 8AM to 5PM) consists of rural residential travel across this section of Gove County, as well as, occasional agricultural trucks. Traffic flow associated with the existing WPE ethanol facility consists of employee traffic, corn/milo/grain receiving and shipping, wet and dried distillers, gasoline/diesel fuel delivery, ethanol shipment via tanker truck and dedicated rail. Typically, between 31 and 36 employees are present at the existing WPE facility during regular office business hours, with at least three personnel present at the facility at all other times. Transportation activity is also required for receiving and storing of grains; gasoline and diesel fuel by common carrier tanker trucks, and the production and distribution of denatured ethanol via tanker truck and dedicated rail. The rail loadout area is located east of the existing facility and the truck loadout area is located on the south side of the facility. Operations also include the delivery of corn and milo, as well as, the shipment of all grains, wet and dried distillers, by truck. Areas suitable for construction staging or temporary placement of construction material are available on the subject site. These temporary staging areas will be clearly marked and/or blocked off from the general public in accordance with federal, state, and local regulations to maintain public safety.

New private on-site roads, public roads and/or roadway improvements are not anticipated to be required in order to accommodate the proposed AD facility activities. The existing plant and proposed facility would be in operation 24-hours a day, with regular office business hours from 8AM to 5PM., five days a week. The AD facility will require approximately 555-tons of manure from Pioneer Feedyard/per with approximately 25 truckloads of manure per day into the new WPE facility, and 5 truckloads of dry fertilizer being transported out per day and returned back to the Pioneer facility.

The Pioneer Feedyard is located within 5 miles of the WPE facility, and all additional feedstocks will be sourced within a 100-mile radius. With the exception of a few additional employees (i.e., 8 to 15 more personnel) the proposed digester operations and the trucking associated with the feedstock and fertilizer produced in the AD facility, fuel delivery trucks and incidental deliveries would remain primarily the same. Therefore, the AD facility would cause a cumulative increase in traffic to included 30 truck loads (inbound and outbound) per day and up to 15 additional cars for personnel. This anticipated increase in traffic is expected to have minimal to no adverse impacts to transportation routes or traffic patterns due to the proposed action.

6. Natural Environment/Biological Resources

Vegetation

Plant communities within the proposed site have been subjected to anthropogenic disturbances. The subject site is essentially an idle, vacant lot previously utilized for agriculture (i.e., alfalfa cultivation). The subject site's vegetation is now dominated by primary successional weedy species. Farmlands suitable for row crops are present on the surrounding adjacent properties and active wheat and milo fields were observed during the site reconnaissance.

Fish and Wildlife Species

The subject site and surrounding adjacent properties are rural in nature. Clearing and conversion of the native vegetation of the subject site and surrounding land for agricultural use, as well as, industrial use on the northern portion of the parent parcel where the existing ethanol facility is, has likely eliminated an abundance of cover and protection for some species of wildlife. As the site is a vacant lot now dominated by primary successional weedy species and was previously utilized as agricultural cropland, the site does not appear to provide significant suitable habitat for wildlife species. No species were directly observed on the project area during the May 12, 2011 site reconnaissance biological evaluation.

Species that are tolerant to disturbances and may be commonly found utilizing the proposed AD facility site could be assumed to be comprised of mostly small mammals such as rodents, voles, shrews and upland songbirds. The surface water features present on the proposed site consists of an arid stormwater retention basin on the southern portion of the site. During the May 12, 2011 site reconnaissance this feature, and the proximity of this feature, were assessed and observed to be lacking of any onsite aquatic habitats that could support fish species. Furthermore, based on the site characteristics of the remainder of the proposed site consisting of idle, fallow agricultural land, and the surrounding adjacent properties consisting primarily of agricultural land, the development of the subject site should not significantly impact wildlife. Adverse impacts to animal ecology resulting from construction and operation of the Proposed Action are not anticipated.

Microorganisms Proposed for Use

The microorganisms intended for use in the AD facility are naturally occurring organisms and would not pose a threat to the natural environment or biological resources should they be released into the natural environment.

Recreation/Public Lands

Based on a review of the Kansas Natural Resource Planner's (KNRP) protected lands GIS data, Ducks Unlimited data, the National Park Service (NPS) and KDWP data, significant parks and/or recreational areas (i.e., state parks, national parks, nature preserves, wild and scenic rivers, protected fish and wildlife areas) are not identified as being located in the nearby vicinity of the proposed site. Review of the Nationwide Rivers Inventory (NRI), a list of 3,400 free-flowing river segments in the U.S. believed to possess one or more "outstandingly remarkable" natural and/or cultural values judged, did not identify any rivers or streams as being located within Gove County. There are no federally-protected "Class I" visibility protection areas that are located within the state of Kansas (EPA, 2011). Information obtained from the KDWP GIS data, revealed the presence of several Walk-In Hunting Access (WIHA) areas located in the surrounding area (approximately seven in a five-mile radius). However, the proximity of the proposed site does not appear to impact these WIHA-designated parcels of land.

7. Human Population: Socioeconomic Factors

According to the U.S. Census Bureau's 2010 data, Kansas's population 2009 was 2,818,747 people, with the population in Gove County estimated at 2,480 people (U.S. Census Bureau, 2011). As of the 2000 U.S. Census Bureau data, the estimated population was 480 people for Grinnell Township. Estimates indicate that during the last 10 years, Gove County has had a

population decline of 19.2 percent. As of 2009, 98.2 percent of the Gove County populated was Caucasian, 0.1 percent was Black or African American, 0.1 percent was Asian, 0.3 percent was American Indian/Alaska native, 1.9 percent Hispanic or Latino of any race and 0.0 percent were native Hawaiian/other Pacific Islander (U.S. Census Bureau, 2010).

According to the Kansas County Profile Report for Gove County, published by the Institute for Policy and Research, the labor force in Gove County in 2009 was 1,558. The major industries include agricultural, trade, manufacturing, retail, construction and mining (The Kansas County Profile Report: Gove County , 2010).

Executive Order 12898 of February 11, 1994, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires federal agencies to consider whether their projects would result in disproportionate adverse impacts on minority or low-income populations in the United States, its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands (U.S. Department of Housing and Urban Development, 1994).

In 2008, the average annual salary for Gove County was $31,919. The U.S. Census Bureau defines poverty areas as census tracts or block numbering areas where at least 20 percent of the residents are below the poverty level, which is determined using a set of monetary income thresholds that vary by family size and composition that do not vary geographically but are updated for inflation (U.S. Census Bureau, 2010d).

The percent of persons in Gove County living below the poverty level in 2004 was 9.9 percent (KS, 2010). According to census data, the largest minority group in Gove County consists of Hispanic or Latino heritage (1.9 percent).

Implementation of the Proposed Action will likely have a positive impact on the local economy, both during the construction phase and during the operational phase of the digester facility. Local vendors and construction contractors would likely benefit from potential work opportunities associated with the construction of the AD facility. Vendors and contractors involved in the construction phase of the Proposed Action would be required to adhere to Equal Opportunity Employment (EOE) and Affirmative Action considerations as indentified in 29 CFR 1608.1. The peak number of construction jobs anticipated to be created would be in the range of 90 to 100 workers. However, construction of the proposed plant would likely not result in an increase in the number of permanent residents/population increase, if said workers were hired from the local market and commute to the proposed site.

During the operational phase of the Proposed Action, the plant could also stimulate some local long-term employment with the addition of 15 additional needed personnel. Several indirect jobs would also likely result from the Proposed Action, in the form of transportation and hauling personnel. However, permanent staff required for the digester plant operations would be minimal and would likely not provide significantly to the local employment market and thus, not a significant increase to the permanent number of residents/population.

The overall potential impact on the socioeconomic environment during operation of the Proposed Action would likely be beneficial and directly contribute to the creation and maintenance of employment.

Environmental Justice

Executive Order 12898 of February 11, 1994, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires federal agencies to consider whether their projects would result in disproportionate adverse impacts on minority or low-income populations.

The percent of the population living below the poverty level in Gove County (in 2004, most recent data) was 9.9 percent; below the U.S. Census Bureau threshold (KS, 2010). The percentage of Hispanic/Latino population for Gove County in 2004 was 1.9 percent.

During the construction and operation phase of the Proposed Action, minority and/or low income communities could be economically impacted if they are excluded from the economic benefits arising from construction and operation activities. Vendor and contractors participating in the construction and operational phases of the Proposed Action adhering to EOE and Affirmative Action considerations as identified in 29 CFR 1608 would eliminate exclusion of these communities from the economic benefits of the Proposed Action.

The Proposed Action is not expected to create disproportional impacts on minority or low-income populations.

8. Construction

Construction, operation and maintenance of the AD facility will result in the short and long-term loss of mostly non-native vegetation. The Biogas AD facility will be constructed on the area of the site that has already been cleared formally for agricultural purposes, as well as, previously impacted for use as a laydown area of the construction and spoil staging associated with the existing ethanol plant. Following the completion of construction, temporary workspace and areas with the plant location not covered by facilities will be revegetated with native grasses and shrubs to minimize wind and water erosion, to provide competition with noxious weeds and enhance aesthetics.

Potential impacts could include temporary soil erosion and the loss of soil productivity. Construction and operation activities, such as vegetation clearing, trenching, grading, topsoil segregation and backfilling, may increase erosion potential by temporarily destabilizing the soil surface associated with the Proposed Action, which could adversely affect the subject site soils temporarily. Soil disturbances and compaction may also occur as the result of construction vehicular traffic. These impacts would be temporary and minimized to the extent possible.

Impact on vegetation and soil resources from the construction phase of the Proposed Action would be confined to the construction footprint of the Site. Construction contract terms will include the SWPPP plan that includes BMPs for erosion control and sediment control during construction to minimize soils exiting the construction site, and disturbed areas would be stabilized and revegetated as soon as practical (Betz, 2011). Implementation of BMPs by the

construction contractor would control soil erosion and dust creation during construction and minimize stormwater runoff associated with construction activities in the subject site.

As discussed in Section 6.1.1, USDA-NRCS identified prime or otherwise important farm soils comprise the subject site. These soils have previously been disturbed during the construction of the existing ethanol plant to the north of the proposed AD facility.

9. Energy Impacts

Energy for the existing WPE ethanol facility, which the proposed project will tie into, is serviced via electricity and natural gas. Currently, there are two on-site, pad-mounted substations located on the east side of the existing plant and owned by Midwest Energy, Inc. Overhead distribution lines also traverse both Old Highway 40 and County Road 18. Natural gas for the existing facility, and the proposed site, are also serviced by Midwest Energy via underground pipelines and an approximate 10-foot by 15-foot utility shed located on the southern portion of the proposed plant area, which houses mechanical compressors that pressurize the natural gas that fuels the existing ethanol plant. These utilities will remain in place and will be maintained to service the proposed AD facility (Betz, 2011).

The Proposed Action would require expenditures of energy, including natural and depletable resources, during the construction phase. For example, an increase in energy resource consumption during the construction phase of the Proposed Action is expected due to diesel and gasoline demands for power machines. However, the energy use would be short-term and have negligible impacts to energy resources, with no appreciable effect on energy availability or costs. Furthermore, the proposed project's ultimate goal will be to allow WPE to replace an estimated 91 to 100 percent of the base fossil fuel load (predominately natural gas) utilized by the existing ethanol facility for the purpose of generating sufficient heat to operate. This would allow WPE to lower the existing ethanol plants carbon intensity, and adding an increased value to the ethanol produced at the facility. Adverse impacts on energy resources associated with the operation of the Proposed Action are expected to be negligible relative to the consumption of energy at the existing ethanol facility.

10. Noise, Vibrations, Seismic Conditions, Fire-prone Locations, Radiation, Aesthetic Considerations

Noise

According to Gove County officials, there are no noise ordinances and/or regulations in place for the County. However, WPE will adhere to OSHA occupational safety and health standards (29 CFR 1910), which address occupational noise exposure by controlling noise hazards within the workplace to prevent hearing loss of its employees (29 CFR 1910.95). Also, it is noted that the surrounding area consists primarily of agricultural fields.

Mechanical systems utilized in the design of the AD facility will be in accordance with the OSHA guidelines. Sound attenuation for equipment in indoor areas will be provided based on standard design practice and similar to what is already in place at the existing WPE ethanol plant (Betz, 2011). The facility optimization activities would not generate a significant increase in decibel level. Adherence to OSHA occupational and design standards would mitigate noise impacts from normal operation of the Proposed Action.

During the construction phase of the Proposed Action, operation of power equipment and other construction machinery will likely result in a temporary increase in the noise levels in the immediate vicinity of the subject site. Noise impacts during the construction phase of the Proposed Action would be temporary and mitigated for (i.e., operation of construction equipment during designated hours and adherence to OSHA standards). Occupational exposure of construction workers to noise impacts would be mitigated by vendors and contractors adhering to OSHA noise standards (29 CFR 1910.12) associated with construction work. Adherence to OSHA noise standards regarding noise levels during construction activities within the AD facility would mitigate noise impacts to workforce, and visitors within the subject site and its vicinity.

Existing sources of noise at the WPE plant and surrounding rural area include daily operational traffic and local traffic. No other significant noise sources were observed on the site and/or in association with the adjacent properties. The closest sensitive receptor (residence, church, or school) is approximately 200-feet from the subject property.

Vibrations
A review of GIS data from the Federal Communications Commission (FCC) was assessed to determine the location of various types of communication towers in proximity of the proposed site. Information revealed that one "land mobile private" communication tower is identified as being located on the existing WPE ethanol facility site (refer to the **Environmental Features Map** included in the List of Exhibits). No other FCC-registered infrastructure was identified in nearby proximity to the proposed project site. The Proposed Action will interconnect to the existing infrastructure and therefore, should not impact any radio and/or television interferences (Betz, 2011).

Seismic Conditions
The site is not located over any major or minor fault lines and is in a low probability area for Seismic Conditions according to the 2008 U.S. Geological Survey (USGS) National Seismic Hazard Map which display earthquake ground motions for various probability levels across the United States (http://earthquake.usgs.gov/earthquakes/states/kansas/hazards.php).

Fire-prone Locations
The proposed project is not located in an area prone to brush or forest fires.

Radiation
WPE does not and will not procure, produce, or utilize any radioactive elements in the operations of its facility, so no radiation risk will be present.

Aesthetics
The proposed site is located approximately six-miles east of the City of Oakley, in a more predominantly rural, agricultural area of Gove County, with the exception of the existing ethanol plant adjacent north. The general area is sparsely populated and the nearby vicinity does not afford for scenic vistas such as recreation areas, parks and/or monuments. The project site was selected to complement the existing ethanol plant located to the north of the proposed site. The residential farmstead located adjacent to the south of the proposed site, across Old Highway 40, will have the subject site within its viewshed, as well as, another residential farmstead located

nearby to the northwest. However, schools, churches and/or public cemeteries will not have view of the subject site.

The AD facility will be similar in design to the existing WPE ethanol plant, in that, buildings and/or structures will be painted in non-abrasive tones to the maximum extent practicable. The grounds of the project site will be well-maintained with portions paved and/or graveled for parking, as well as, for traffic control. According to the Gove County Clerk, there are no design specifications to adhere to with regard to the municipality's design input; however, the Applicant will work in close coordination with the public's opinion on addressing aesthetic impacts (if any). The overall result will be a facility that is similar to the existing plant.

Impacts to aesthetics include those associated with changes in the existing landscape resulting from the Proposed Action. The subject site is located approximately six-miles from the City of Oakley and thus, is situated in a rural, sparsely populated agricultural region where residences are few, there are no schools, churches, cemeteries, local/state/federal parks or lands and/or recognized scenic viewing areas that would be affected by the Proposed Action.

The construction phase of the Proposed Action may have short-term, non-significant visual impacts to the aesthetics of the subject site's viewshed, which would be limited to construction staging areas and immediate surroundings.

Operation of the Proposed Action is compatible with the northern adjacent facility. Landscape, streetscape, and building entrance design within the proposed AD facility area will be designed to fully address the buildings needs, create a more inviting environment, provide shaded outdoor space, and integrate the AD facility into the existing WPE facility. This will introduce visual elements that would benefit current aesthetics (e.g., landscape and architectural design appropriate for the region). Negative aesthetic or public land impacts from operation of the Proposed Action are not anticipated.

The analysis of aesthetic quality considers the region that includes those lands from which the proposed site is visible (viewshed). An on-site visual inspection includes photographs, with examples of the viewshed from the subject site. (Refer to **Appendix I**).

In summary, the proposed facility will not result in adverse impacts to the environment due to noise, vibrations, Seismic conditions, Fire-Prone locations, radiation, or aesthetic considerations because the facility will not induce or produce these conditions in excess.

11. Safety and Occupational Health

WPE has a Safety and Health Program Guide in place for the existing facility and it will also apply to the proposed AD facility operations. All policies are in place and must be adhered to by all employees, as well as, standard manufacturing operating procedures which help manage and continually improve the facility's safety, health, and environmental performance to prevent injury or occupational illness to people, damage to property, and damage to the environment. Following these standard operating procedures (SOPs) would protect human health and safety. All employees are also required to be familiar with Material Safety Data Sheets (MSDS) and the Hazard Communication Plan (WPE, Western Plains Energy-Standards and Procedures for Safety

and Health (SHS 001), 2009). All emergency services (fire, police, health facilities) for the subject site would be provided by the City of Oakley and Gove County.

The proposed biogas facility will also operate under an Air Quality Permit, a Water Quality Permit, Spill Prevention, Control and Coutnermeasure Plan and a Storm Water Pollution Prevention Plan, limiting emissions and exposures which could possibly affect human health and/or the natural environment (KDHE-DOE, 2005), (WPE, Western Plains Energy, LLC-Spill Pollution Prevention and Countermeasure Plan, 2008), (KDHEP, 2009), (WPE, Storm Water Pollution Prevention Plan-Industural Activities, 2009).

Facility Security

WPE has an existing closed-circuit-television monitoring system around the perimeter of the property and strategic locations inside the building. The proposed biogas facility will incorporate the installation of additional cameras for additional coverage of the digester operations. All mechanical systems of the proposed development will be designed in accordance with the National Fire Protection Association (NFPA) guidelines (NFPA 72 – National Fire Alarm Code). All visitors are required to sign in at the main office and employee walk-throughs are routinely conducted during and after business hours (Betz, 2011).

In summary, no adverse impacts from the construction and/or operation phases of the Proposed Action are anticipated.

12. Utility Infrastructure

Infrastructure at the proposed AD facility will be comprised of primary digesters, secondary digesters, tertiary digesters, biogas conditioning equipment, a process water area, a high-solids infeed system and an office control room. In addition, the AD Facility will be provided with the following utilities which it would share with the existing WPE Ethanol Facility.

- Electric: The AD facility will utilize the current electrical loop at Western Plains Energy. A new Mechanical Control Center will be constructed and tied into this loop. The current electrical supply to WPE could handle 200 percent of the expected load of the new facility. This is a dedicated electrical supply and would be contained on the existing WPE electrical meter.
- Water: WPE utilizes well water and it is that water that would be tied into the facility. The WPE water tower is located directly adjacent to the proposed site. This supply would also be utilized to slurry the material when needed. At the initial startup fresh water will be utilized but will be greatly reduced once the operation is fully operating.
- Wastewater: Wastewater generated at the site will be recycled or disposed of in the fertilizer or land applied effluent, therefore no wastewater treatment is needed for the AD Facility. The current WPE bathroom facilities utilized an on-site septic system. If the new control room requires one, it will utilize this current septic system.
- Natural Gas: Natural gas for the existing facility, and the proposed site, are also serviced by Midwest Energy via underground pipelines and an approximate 10-foot by 15-foot utility shed located on the southern portion of the proposed plant area, which houses mechanical compressors that pressurize the natural gas that fuels the existing ethanol plant. These utilities will remain in place and will be maintained to service the proposed biogas facility (Betz, 2011).

- Feedstock: A pipe containing thin stillage will be piped from the WPE Ethanol Facility to the AD Facility.
- BioGas: The produced biogas will be piped from the AD Facility to the WPE Ethanol Facility for use in the boilers.
- Process Water Recycling: Bi-products of the AD process include nutrient rich process water that will either be recycled back into the AD system or used as irrigation water and land applied or packaged onsite into fertilizer.
- Road Access: There will be a drive created, most likely concrete, for entrance into the delivery building. There will be no need for a parking lot as the current parking lot at WPE is more than adequate to handle the additional needs for parking created by this proposal.

13. Feedstock Availability

The AD process will utilize approximately 555-tons of feedstock per day. The primary feedstock supply is manure from Pioneer Feedyard located approximately 5 miles away. All feed stocks will be delivered to an on-site building via end dumps, which also contain the feeding system for the facility. It is not anticipated that feed stocks will be stored outside. Once inside the onsite building the material is slurried as it is introduced into the digesters. The high-solids feed system will expel any "large" objects. The unique feature of this system is that there is no need to screen the material. The patented internal components are the only known components that can deal with the sand/grit that are currently present in open pen feedlots.

The primary food source for microorganisms in the AD digesters is livestock manure, but the system can breakdown several other types of waste products including municipal sewage sludge, scraps from the livestock slaughter industry, food waste scraps and grease, grain dust, thin stillage and wood products. WPE will primarily utilize manure from regional beef cattle feed lots, particularly Pioneer, Inc. All feedstocks will be sourced within a 100-mile radius.

In addition to the use of manure as a feedstock, there will be another stream of thin stillage that is piped into the AD facility from the Ethanol Facility. Thin stillage is the waste water that is spun out of the centrifuging of the mash from an ethanol plant. Currently WPE sends approximately 175 to 180 gallons per minute of thin stillage back to the first stage of the ethanol plant. The proposed project will utilize the thin stillage in the digesters instead of recycling back into the first stage of ethanol. The thin stillage will also be utilized to provide heat to warm the system as well as help slurry the mixture. The uniqueness of this AD system is that it can utilize additional feed stocks to manure and thin stillage. However, the use of manure from Pioneer and the thin stillage from WPE are the main feedstocks. Any other feed stocks would be very minor and would be less than one truck per day.

If the manure proposed for use at the AD Facility was not used at the proposed facility, it would remain at Pioneer and be land applied to agricultural crops in the area as fertilizer. The other feedstock sources would similarly be utilized on the land or recycled into agricultural products.

Use of the proposed feedstocks is not anticipated to have an overall adverse effects on the human environment, but is expected to have a beneficial effect on the human environment based on the reduction in nutrient loads to both water quality and air quality, recycling of this material into usable energy, and reduction in carbon use by offset of natural gas usage at the Ethanol Facility.

V. COASTAL ZONE MANAGEMENT

The proposed project is not located within areas protected by the Coastal Barrier Resources Act of 1972 (16 U.S. C part 3501 et. seq.) or defined as coastal zone by the Coastal Zone Management Act (16 U.S.C. part 1451 et seq.). Currently, there are no designated Coastal Zone Management areas in Kansas (NOAA, 2011) therefore impacts to coastal areas protected by the Coastal Barrier Resources Act will not occur as a result of this proposal.

VI. COMPLIANCE WITH ADVISORY COUNCIL ON HISTORIC PRESERVATIONS REGULATIONS

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, requires federal agencies to take into account the effect of undertakings on historic properties (archaeological sites and historic buildings, sites, landmarks and districts) that are eligible for and/or listed on the National Register of Historic Places (NRHP). This consideration must be made in consultation with the Kansas State Historical Preservation Officer (KS SHPO), administered by the Kansas Historical Society (KHS). According to the NHPA, Indian tribes must also be consulted with regarding any potential impact the Proposed Action may have on tribal cultural and/or historical resources.

The proposed biogas facility will be on a 26 acre site which was formerly used as agricultural land, portions of the site contain improvements such as a utility shed and stormwater retention pond and have been graded in the past. This 26 acre parcel is part of a larger, 60-acre parent parcel that contains an existing ethanol plant.

A review of the Kansas Historical Society's GIS data listing of NRHP sites, which is administered by the U.S. Department of Interior's-USDOI-NPS, as well as, the Kansas State Register for historical sites, historical markers and archeological sites in Gove County, revealed that sites do not appear to be located within the project area and/or within nearby proximity of the subject site. Furthermore, during the site assessment on May 12, 2011, no indication of historical and/or culturally significant resources were observed (i.e., signs, trails, markers, etc.).

In a letter dated August 2, 2011, the KS SHPO concurred with RBS's determination of no effect for the proposal. Various regional tribes were also consulted regarding any potential impact the Proposed Action may have on tribal cultural and/or historical resources. Either no comment was received or each of the tribes contacted indicated the proposal would have no effect on tribal cultural and/or historic resources. A copy of the agency and tribal request letters and associated correspondences received is included in **Appendix II**. Therefore no adverse affect to historic resources is anticipated for this proposal.

VII. COMPLIANCE WITH THE WILD AND SCENIC RIVERS ACT

No Wild and Scenic Rivers are present in the state of Kansas, therefore the proposal will not have any impact any wild or scenic rivers.

VIII. COMPLIANCE WITH ENDANGERED SPECIES ACT

Federally listed species are protected under federal law by the Endangered Species Act of 1973 (16 U.S.C §1531-1544) and by state law under the Kansas Nongame and Endangered Species Conservation Act of 1975.

The United States Fish and Wildlife Service (USFWS)-Mountain Prairie Region lists five species with federal protection (i.e., threatened and/or endangered) that have a range considered to extend into Gove County. These species include the bald eagle (*Haliaeetus leucocephalus),* black-footed ferret *(Mustela nigripes),* least tern *(Sterna antillarum),* piping plover *(Charadrius alexandrines)* and the whooping crane *(Grus americana).* The Kansas Department of Wildlife and Parks (KDWP) also lists these above-mentioned species as state protected species, as well as, two additional species with threatened or endangered protection: the eastern spotted skunk (*Spilogale putorius*) and the snowy plover (*Charadrius alexandrinus*). Nine "species in need of conservation (or SINC species)" designated by the KDWP are also listed within the Gove County range, which include the black tern (*Chlidonias niger*), curve-billed thrasher (*Toxostoma curvirostre*), eastern hognose snake (*Heterodon platirhinos*), ferruginous hawk (*Buteo regalis*), glossy snake (*Arizona elegans*), golden eagle (*Aquila chrysaetos*), plains minnow (*Hybognathus placitus*), short-eared owl (*Asio flammeus*) and the western hognose snake (*Heterodon nasicus*).

During the site reconnaissance conducted on May 12, 2011, no suspect protected species were observed and impacts to special status species and/or their habitat are not anticipated. Furthermore, a review of the Kansas Natural Heritage Inventory (KNHI) database of locations of protected or rare species in Kansas, which includes Threatened, Endangered, and SINC species, as well as, others listed as rare by the KNHI indicated that the proposed biogas facility site and/or the nearby vicinity are not within range of known or suspect critical habitats for these species. Concurrence from the USFWS that the Proposed Action would not impact threatened, endangered and/or SINC species was received. According to a letter received from the USFWS, dated May 27, 2011, the proposed action is unlikely to impact federally threatened and/or endangered species. A response has not yet been received however, from the KDWP as of the date of this report. A copy of agency correspondence received is included in **Appendix II**.

IX. COMPLIANCE WITH FARMLAND PROTECTION POLICY ACT (FPPA), NRCS'S IMPLEMENTATION RULE AND DEPARTMENTAL REGULATION 9500-3 LAND USE POLICY

The USDA-Natural Resources Conservation Service (NRCS) soil data for Gove County documents that soils at the subject site consist of the "Kuma silt loam, 0 to 1 percent slopes" soil series (or Ku series). The NRCS Web Soil Survey was assessed to identify "prime" and/or "other important farmland" soils for the proposed site. The NRCS defines prime farmland soils in the Farmland Protection Act (7 CFR 658.2) as soils with an adequate and dependable source of water, favorable temperatures and growing season, acceptable acidity/alkalinity levels, few or no rocks, sufficient permeability for water and air, and slopes averaging zero to six percent. Review of the Survey denotes that the subject site is classified as "prime farmland if irrigated" (USDA-NRCS, 2011).

Pursuant to the Farmland Protection Policy Act (FPPA), the subject site was evaluated to document the presence or absence of important farmland (including prime farmland, farmland of statewide importance, unique farmland, or farmland of local importance). The soils on the site are classified as "prime land if irrigated". Most of the soils classified as "prime land if irrigated", are mainly of local importance because of their suitability as grassland pasture due to their poor moisture retention.

RBS, in conjunction with NRCS, completed NRCS's AD-1006 Farmland Conversion Impact Rating Form in order to assess the proposed conversion of the 26 acres. The total points obtained for this site was 154 out of 260 total points, which indicated that according to the FPPA rule, it may be concluded that the area is already committed to urban development. The subject site already contains infrastructure improvements that are in place (i.e., natural gas, electrical transmission lines), in order to easily expand this southern portion of the parent parcel into a biogas generation facility. Therefore the proposal is not anticipated to have a significant adverse effect to Farmland protected under the FPPA.

X. COMPLIANCE WITH EXECUTIVE ORDER 11988, FLOODPLAIN MANAGEMENT, AND EXECUTIVE ORDER 11990, PROTECTION OF WETLANDS

Wetlands are defined by the U.S. Army Corps of Engineers (USACE) as "areas inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" ((USACE, 1987). This definition of a wetland is for regulatory purposes, of which, the USACE has jurisdiction through Section 404 of the Clean Water Act. In order for a wetland to be classified as jurisdictional, a wetland must meet three criteria: contain hydrophytic vegetation, hydric soils and wetland hydrology. Hydrophytic vegetation has the ability to grow and efficiently compete under anaerobic conditions. Hydric soils are created under long-term inundation or saturation of a site, which causes the removal of oxygen from the soil profile and the eventual production of reducing conditions. Wetland hydrology is present if an area is inundated permanently or temporarily for a sufficient period of time during the growing season.

A site inspection conducted on May 12, 2011, and a review of the USGS National Hydrography Dataset (NHD) revealed that surface water features, including streams, playa lakes and/or wetlands, are not identified as being located within and/or adjacent to the subject site. Furthermore, review of USFWS National Wetland Inventory (NWI) data indicated that wetland systems are not located on and/or near (adjacent) the proposed site. One man-made stormwater retention area is located on the southeastern portion of the proposed project area; however, it was observed to be dry of contents and is reportedly dry throughout the year according to site representatives. Stormwater drainage ditches are also present on the western and southern property boundaries; however, no hydrology and/or hydrophyic features were observed within any of the aforementioned features. This retention area is for the facility's water outfall; however, it is not anticipated to have any discharge of water, as any water that is anticipated to enter the retention area will evaporate and/or infiltrate into the subsurface. One decorative pond was also observed to the north of the subject site, or west of the existing ethanol plant facility; however, it was determined that it was not hydrologically connected to any USACE regulated channel, nor is it proposed for impact. Nearby significant surface water features include Big Creek, which is located approximately one-half mile south of the proposed site and the South Fork Saline River, which is located approximately 1.25-miles north of the proposed project area.

In furtherance of the National Flood Insurance Act of 1968, as amended, and the Flood Disaster Protection Act of 1973, Executive Order 11988 directs Federal agencies to avoid the long and short-term adverse impacts associated with the occupancy and modification of floodplains. The location of floodplains and special flood hazard areas is identified using maps produced by the

U. S. Department of Housing and Urban Development (USHUD) or the Federal Emergency Management Agency (FEMA). According to the FEMA Flood Insurance Rate Map (FIRM) information for the proposed site, the subject site and surrounding areas are "unmapped" (FEMA, 2011). According to Mr. Edward Byrd, with the Kansas Department of Agriculture-Division of Water Resources/Water Structures Program, Gove County is not currently a participant in the National Flood Insurance Program (Byrd, 2011). Therefore, no FIRM and/or Flood Hazard Boundary Maps are available for the project area. However, review of a U.S. Geological Survey topographic map revealed that the proposed project area is located at an elevation approximately 30-feet higher than the elevation of the nearest surface water feature/creek and therefore, is unlikely to be located within a flood prone area.

Furthermore, in a formal letter issued from the KDA-DWR dated May 31, 2011, Mr. Bob Lytle, Environmental Scientist, indicated that based on his review the proposed biogas plant is not located in floodplain, nor are there any jurisdictional stream courses in the project area. The project therefore would not require any permitting for stream modification and/or floodplain fill, according to Mr. Lytle. (please refer to the attachments included in the WPE Addendum Letter No. 1 dated July 20, 2011 that was uploaded to the FTP website).

XI. COMPLIANCE WITH COASTAL BARRIER RESOURCES ACT

The proposed project is not located within areas protected by the Coastal Barrier Resources Act of 1972 (16 U.S. C part 3501 et. seq.). Therefore, the proposal will not have impacts to coastal areas protected by the Coastal Barrier Resources Act.

XII. STATE ENVIRONMENTAL POLICY ACT

The proposed project is not subject to a State Environmental Policy Act, as Kansas does not have such a program or state regulatory requirement.

XIII. CONSULTATION REQUIREMENTS OF EXECUTIVE ORDER 12372, INTERGOVERNMENTAL REVIEW OF FEDERAL PROGRAMS

The 9004 Program is not subject to Executive Order 12372 because the Program is not listed as a covered program on the Intergovernmental Consultation list.

XIV. ENVIRONMENTAL ANALYSIS OF PARTICIPATING FEDERAL AGENCY

The Department of Energy is a participating Federal Agency for this EA.

XV. REACTION TO THE PROPOSAL

In accordance with RBS's regulations public involvement and public opinion must be considered to the maximum extent practicable. A public notice regarding this project in pursuit of RBS grant funding was published in the Gove County Advocate on May 18, 2011 and May 25, 2011 in which public comments were encouraged. As of the date of this document, no public comments have been received. A copy of the published public notice in included in **Appendix III.** To our knowledge there have been no negative comments or public views expressed about this proposal.

XVI. CUMULATIVE IMPACTS

The CEQ regulations for NEPA implementation defines "Cumulative Impact" as the impact on the environment which results from the incremental impacts of an action when added to the other

past, present, and reasonably foreseeable future actions (40 CFR 1508.7). Cumulative impacts are therefore, the sum of all impacts including direct, indirect, adverse, or beneficial that result from the environmental impacts resulting from the implementation of the Proposed Action or alternatives considered but rejected regardless of source (Council on Environmental Quality, 2007).

The potential cumulative adverse impacts resulting from implementation of the Proposed Action would likely be negligible and could likely be mitigated throughout the implementation process through the utilization of mitigation measures indentified in this EA; including adhering to federal, state and local regulations.

The proposed project would entail a net cumulative beneficial effect due to the offset of carbon footprint by the use of manure and other organic wastes as replacement fuels for natural gas. The proposal entails the construction of a biogas generation facility that will be located adjacent to the existing WPE ethanol facility and, to ultimately replace an estimated 91 to 100 percent of the base fossil fuel load currently utilized by the Thermal Oxidizer and Superior Boiler at the facility for the purpose of generating sufficient heat to operate. The final goal of the project would be to generate enough biogas to fuel the facility in lieu of natural gas, lowering the facility's carbon footprint. The biogas will be generated through an advanced, state-of-the-art, anaerobic digestion process [i.e., Integrated bioMass Utilization System (IMUS™)], which utilizes specific biological cultures to consume the content of available resource materials (i.e., grain dust, thin stillage, manure and waste products), producing biogas and bio-based fertilizers.

XVII. ADVERSE IMPACTS

As summarized in Tables 1 and 2, significant adverse environmental impacts are not anticipated from implementation of the Proposed Action. Potential temporary and/or negligible adverse impacts associated with the construction phase of the Proposed Action include: land use, air quality, waste streams, soils, noise, aesthetics, transportation and parking, and energy resources. Positive impacts to surrounding communities and the socioeconomic environment and the ecological environment are anticipated from construction of the Proposed Action (Table 1).

Potential negligible adverse impacts associated with the operational phase of the Proposed Action include: stormwater runoff, air quality, noise, transportation and parking, soils (prime farmland if irrigated), human health and safety, and waste streams. Positive impacts to aesthetics, surrounding communities, the ecological environment and the socioeconomic environment are anticipated from operation of the Proposed Action (Table 2).

Table 1. Summary of Potential Environmental Impacts Related to Construction of the Proposed Action

Environmental Attribute	Potential Environmental Impacts Related to Construction
Land Use	Temporary, site-specific, and minor land use impacts due to erosion and stormwater runoff mitigated with BMPs in compliance with erosion and sedimentation control and stormwater management requirements of federal, state and local regulations.
Geology	Impacts to geology are not likely.
Soils and Prime Farmland	Temporary and negligible impacts to soil resources due to erosion resulting from disturbance during construction and installation of utility lines mitigated by the use of BMPs in compliance with erosion and sedimentation control and stormwater management requirements of federal, state and local regulations.

Environmental Attribute	Potential Environmental Impacts Related to Construction
Vegetation/Plant and Animal Ecology	Impacts to vegetation/plant ecology will result from construction of proposed project; however, considered non-native and comprised of successional weedy vegetation. Adverse impacts to animal ecology are not likely.
Wetlands and Floodplains	Impacts to wetlands or floodplains are not likely.
Water Resources	Negligible impacts to surface water due to stormwater runoff from the construction site will be mitigated by the use of BMPs and stormwater management. Impacts to groundwater are not likely.
Air Quality	Temporary, site-specific, and minor impacts to air quality due to fugitive dust and/or VOCs can be addressed with BMPs and adhering to industry standards. Negligible impacts from vehicular emissions.
Waste Streams	Minor and temporary impacts to waste streams (waste water, solid waste, hazardous waste, construction debris) from construction activities. Mitigated by following federal, state and local regulations.
Energy Resources	Temporary negligible impacts to energy resources due to increase in use of diesel and/or gasoline, as well as, other energy resources (e.g., electricity) associated with construction activities/power equipment.
Historical and Cultural Resources	Impacts to historical, cultural, and archeological resources are not likely.
Noise, Radio and Television Interference	Temporary increased noise at the construction site mitigated by adherence to OSHA construction noise standards and occupational health and safety standards. Impacts to radio and television sources not likely.
Aesthetics/Recreation	Non-significant impacts to aesthetics due to temporary visual effects associated with construction activities. Recreation and/or public lands and features are not likely.
Transportation	Temporary, non-significant impacts on traffic and parking congestion localized at the construction site and mitigated to proper staging and clearly marked designated parking, public entrances and exits and construction entrances and exits, and public safety measures implemented adhering to federal, state and local regulations.
Human Health and Safety	Impacts to health and safety of construction workers, WPE staff, and the general public are not anticipated with adherence to OSHA and other federal, state and local regulations.
Socioeconomic Environment/ Environmental Justice	Positive impacts to local economy including job creation. Disproportionate impact to minority or low-income populations is not anticipated.
Cumulative Impacts	Significant, adverse cumulative impacts, that cannot be mitigated, associated with the Proposed Action are not anticipated.

Table 2. Summary of Potential Environmental Impacts Related to Operation of the Proposed Action

Environmental Attribute	Potential Environmental Impacts Related to Operation
Land Use	Positive impacts to land use due to biogas facility for green energy efforts.
Geology	Impacts to geology are not likely.
Soils and Prime Farmland	Minor adverse impact to soils classified as “prime farmland if irrigated”.
Vegetation/Plant and Animal Ecology	Impacts on vegetation/plant and/or animal ecology are not likely.
Wetlands and Floodplains	Impacts on wetlands or floodplains are not likely.
Water Resources	Impacts to the area water supply sources are not likely. Impacts to groundwater are not likely. Negligible impacts to stormwater runoff due to minimal increase in

Environmental Attribute	Potential Environmental Impacts Related to Operation
	impervious surfaces will be mitigated by the use of BMPs and stormwater management.
Air Quality	Negligible impacts to air quality will be equal to existing plant emissions and/or mitigated by adherence to federal, state, and local regulations.
Waste Streams	Positive impacts to waste streams including use of biomass for digestion process/green energy efforts.
Energy Resources	Positive impacts to energy resources including elimination of fossil fuel consumption associated with existing ethanol facility operations.
Historical and Cultural Resources	Impacts to historical, cultural, or archeological resources are not likely.
Noise, Radio and Television Interference	Noise levels will be in compliance with OSHA occupational health and safety standards and impacts not likely. Impacts to radio and television sources not likely.
Aesthetics/Recreation	Impacts to aesthetics, recreation and/or public lands and features not likely.
Socioeconomic Environment	Positive impacts to local economy including job creation.
Transportation	Negligible impacts on transportation and parking congestion.
Human Health and Safety	Impacts to human health and safety avoided due to strict adherence to safety protocols and training.
Environmental Justice	Disproportionate impact to minority or low-income populations is not anticipated.
Cumulative Impacts	Significant adverse cumulative impacts are not anticipated.

XVIII. ALTERNATIVES

Under NEPA, federal agencies shall "study, develop, and describe alternatives to recommend a course of action in any proposal which involves unresolved conflicts concerning alternative uses or available resources." This EA has indentified a total of two alternatives, including the Proposed Action and the No Action Alternative. A discussion of these alternatives follows.

Evaluation of Alternative Locations

Alternative locations are not feasible for co-located biogas and ethanol production facilities. The biogas system is designed to produce and deliver energy to the ethanol facility without the need for transport other than an industrial piping connection between the two facilities. The biogas process is intended to be fully integrated with the ethanol plant by providing much, if not all of the power needs currently provided by natural gas. Other than manure, corn waste and grain dust (waste products at WPE) can be utilized by microorganisms for a source of food. The facilities are well situated in Gove County to receive process inputs and ship products via a county road and highway system as well as a dedicated rail line. Both facilities will share the same stormwater management system and best management practices (BMPs), air permit standards and pollution abatement BMPs, utilities and infrastructure, site health and safety plan, and highly trained staff. System integration is a means to reduce short and long-term environmental affects and reduce costs associated with ethanol manufacturing and sale, and creates benefits that are shared by the entire region.

Evaluation of Alternative Processes

Alternative processes were not given great consideration due to the specific nature of WPE's project needs. The manufacture and sale of ethanol (market driven forces outside of WPE's control), ethanol inputs (corn and milo), AD inputs (manure, agri-waste), and a market for the biogas bi-products (fertilizer) limit current feasible large-scale projects. The IMUS™ process is designed specifically to integrate with biofuel manufacturing such as ethanol production. More

specifically, the need to power key ethanol production equipment with a biogas that produces comparable low-BTU's to natural gas is central to the selection of IMUS™.

No Action Alternative

The No Action Alternative would not provide the existing WPE ethanol production facility with capability of utilizing the AD process. A substantial amount of regional agricultural waste including manure and grain dust would not be recycled in the AD digesters, therefore not reducing the amount of waste required for disposal. In addition, the facility would not have the ability to produce biogas and bio-based fertilizers. Ultimately, the No Action Alternative would mean that WPE could not achieve its goal of replacing all base fossil fuels with biogas to generate sufficient heat to operate the ethanol production facility. Therefore, the current facilities carbon intensity would not decrease and they could not become a bio-fuel producer adding increased value to ethanol production.

The Proposed Action, and the subject of this EA, is the proposed construction and integration of a biogas generation facility for the purpose of replacing natural gas currently used to power equipment at the existing WPE ethanol production plant. The implementation of the Proposed Action would not result in significant adverse environmental or socioeconomic impacts. In addition, the Proposed Action would likely benefit the local community and economy and ecological environment.

In accordance with CEQ regulations and NEPA requirements, this EA has identified and evaluated the No Action Alternative. The No Action Alternative would not satisfy the purpose and need for the project. Implementation of the No Action Alternative would not (1) allow WPE to obtain partial funding for the construction and operation of a biogas AD at their existing ethanol manufacturing plant in Gove County, Kansas; (2) would not provide the existing WPE ethanol production facility with a facility capable of utilizing the AD process; or (3) WPE could not achieve its goal of replacing all base fossil fuels with biogas to generate sufficient heat to operate the existing ethanol production facility.

As discussed, some environmental issues associated with the Proposed Action were identified during the preparation of this EA. The impacts were assessed as being temporary and/or non-significant and to have characteristics that can be addressed through adherence to federal, state and local regulations. Minor (non-significant) impacts associated with construction and operation of the Proposed Action include temporary land use impacts due to soil erosion, stormwater runoff and the use of "prime farmland if irrigated"; air quality impacts from fugitive dust and increased vehicular emissions; noise and transportation impacts from operation of machinery; and impacts to aesthetics due to visual effects of a construction work-site.

Under the No Action Alternative, the potential impacts, both adverse and beneficial, of the Proposed Action would not occur.

The principal conclusions of this EA are listed below:

(1) Implementation of the Proposed Action would result in no and/or non-significant adverse environmental, human health and safety, or socioeconomic impacts.

(2) The Proposed Action would allow WPE to replace an estimated 91 to 100 percent of the base fossil fuel load (predominately natural gas) utilized by the facility for the purpose of generating sufficient heat to operate with the use of biogas.

(3) The No Action Alternative would not provide the existing WPE ethanol production facility with the capability of utilizing the AD process.

(4) The No Action Alternative would mean that WPE could not achieve its goal of replacing all base fossil fuels with biogas to generate sufficient heat to operate the ethanol production facility.

XIX. MITIGATION MEASURES

No negative direct or indirect impacts are anticipated to result from the implementation of the Proposed Action. The Proposed Action will most likely have positive effects on the environment, particularly from an energy use and waste perspective. WPEs dependence on natural gas to power certain process equipment will be reduced or completely replaced by biogas. Thousands of tons of livestock manure and other agricultural waste products can be used annually to power the new AD facility. As a result, no specific mitigation or monitoring techniques are proposed.

XX. CONSISTENCY WITH RURAL DEVELOPMENT ENVIRONMENTAL POLICIES

There are no inconsistencies between the Federal and State policies.

XXI. ENVIRONMENTAL DETERMINATIONS

The following recommendations shall be completed:

A. Based on an examination and review of the foregoing information and such supplemental information attached hereto, I recommend that the approving official determine that this proposal will have ( ) a significant effect on the quality of the human environment and an Environmental Impact Statement must be prepared; will not have (X) a significant effect on the quality of the human environment.

B. I recommend that the approving official make the following compliance determinations for the below-listed environmental requirements.

Not in compliance		In compliance		
			X	Clean Air Act.
			X	Federal Water Pollution Control Act.
			X	Safe Drinking Water Act—Section 1424(e).
			X	Endangered Species Act.
			X	Coastal Barrier Resources Act.
			X	Coastal Zone Management Act—Section 307(c) (1) and (2).
			X	Wild and Scenic Rivers Act.
			X	National Historic Preservation Act.

			X	Archeological and Historic Preservation Act.
			X	Subpart B, Highly Erodible Land Conservation
			X	Subpart C, Wetland Conservation, of the Food Security Act.
			X	Executive Order 11988, Floodplain Management.
			X	Executive Order 11990, Protection of Wetlands.
			X	Farmland Protection Policy Act.
			X	Departmental Regulation 9500–3, Land Use Policy.
			X	State Office Natural Resource Management Guide.

C. I have reviewed and considered the types and degrees of adverse environmental impacts identified by this assessment. I have also analyzed the proposal for its consistency with USDA RBS under Public Law 103–354 environmental policies, particularly those related to important farmland protection, and have considered the potential benefits of the proposal. Based upon a consideration and balancing of these factors, I recommend from an environmental standpoint that the proposal

_X_ be approved.

____ not be approved because of the attached reasons.

Prepared by: Juliet C. Bochicchio 08/29/2011

JULIET C. BOCHICCHIO Date
Environmental Protection Specialist, Program Support Staff

Recommended: 8/29/2011

LINDA J. RODGERS Date
Director, Program Support Staff

Recommended: 8/29/2011

WILLIAM C. SMITH Date
Director, Energy Division, Rural Business-Cooperative Service

Approved: 8/29/11

JUDITH A. CANALES Date
Administrator, Rural Business-Cooperative Service

[49 FR 3727, Jan. 30, 1984, as amended at 53 FR 36266, Sept. 19, 1988]

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XXIII. PERSONS AND AGENCIES CONTACTED

Individual	Affiliation	Contact Information
Mr. Tim Weston	Kansas State Historic Preservation Officer	Kansas State Historical Society, Cultural Resources Division 6425 SW Sixth Avenue Topeka, KS 66615-1099
Mr. Jerome Younger, P.E.	Kansas Department of Transportation	KDOT Bureau of Design-Environmental Section 700 SW Harrison, 13th Floor Topeka, KS 66603-3754
Mr. Chris Beightel	Kansas Department of Agriculture	KDA Division of Water Resources 109 SW 9th Street Topeka, KS 66612-1283
Mr. Kerry Wedel	Kansas Water Office	Kansas Water Office 901 S. Kansas Avenue Topeka, KS 66612-1249
Mr. Eric Johnson	Kansas Department of Wildlife and Parks	KDWP Environmental Services Section 512 SE 25th Avenue Pratt, KS 67124-8174
Mr. Doug Schneweis	Kansas Department of Health and Environment	KDHE Bureau of Water 1000 SW Jackson, S. 420 Topeka, KS 66612-1367
Ms. Tanya Gerstberger	U.S. Department of Agriculture	USDA Natural Resources Conservation Service Oakley Field Office 1015 West 2nd Oakley, KS 67748
Mr. Mike LeValley	U.S. Department of Interior-Fish and Wildlife Service	USDOI-USFWS Kansas State Office 2609 Anderson Avenue Manhattan, KS 66502-2801
Mr. Jeffery Robichaud	Environmental Protection Agency	EPA Region VII Environmental Review Branch 901 N. 5th Kansas City, KS 66101-2798
Mr. Michael Reynolds	U.S. Department of Interior-National Park Service	USDOI-NPS Midwest Region 601 River Front Drive Omaha, NE 68102-6226
Environmental Review Coordinator	U.S. Department of Interior-Bureau of Indian Affairs	Bureau of Indian Affairs-Horton Agency 908 1st Avenue East Horton, KS 66439

Mr. James Trosper	Arapaho Tribe of the Wind River Reservation	Arapaho Tribe of the Wind River Reservation, Wyoming Northern Arapaho Business Council P.O. Box 396 Fort Washakie, WY 82514
Ms. Lynette Gray	Cheyenne-Arapaho Tribes of Oklahoma	Cheyenne-Arapaho Tribes of Oklahoma Acting Tribal Historic Preservation Officer P.O. Box 38 Concho, OK 73022-0038
Dr. Dejene Alemayehu	Kaw Nation of Oklahoma	Kaw Nation of Oklahoma Drawer 50 Kaw City, OK 74641
Mr. Leroy Spang	Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana	Northern Cheyenne Tribe of the Northern Cheyenne Indian Reservation, Montana Northern Cheyenne Tribe Council P.O. Box 128 Lame Deer, MT 59043

XXIV. PREPARERS

The following preparers provided instrumental technical assistance in preparation of this EA for Western Plains Energy, LLC. They have no financial or other interest in the outcome of the proposed project.

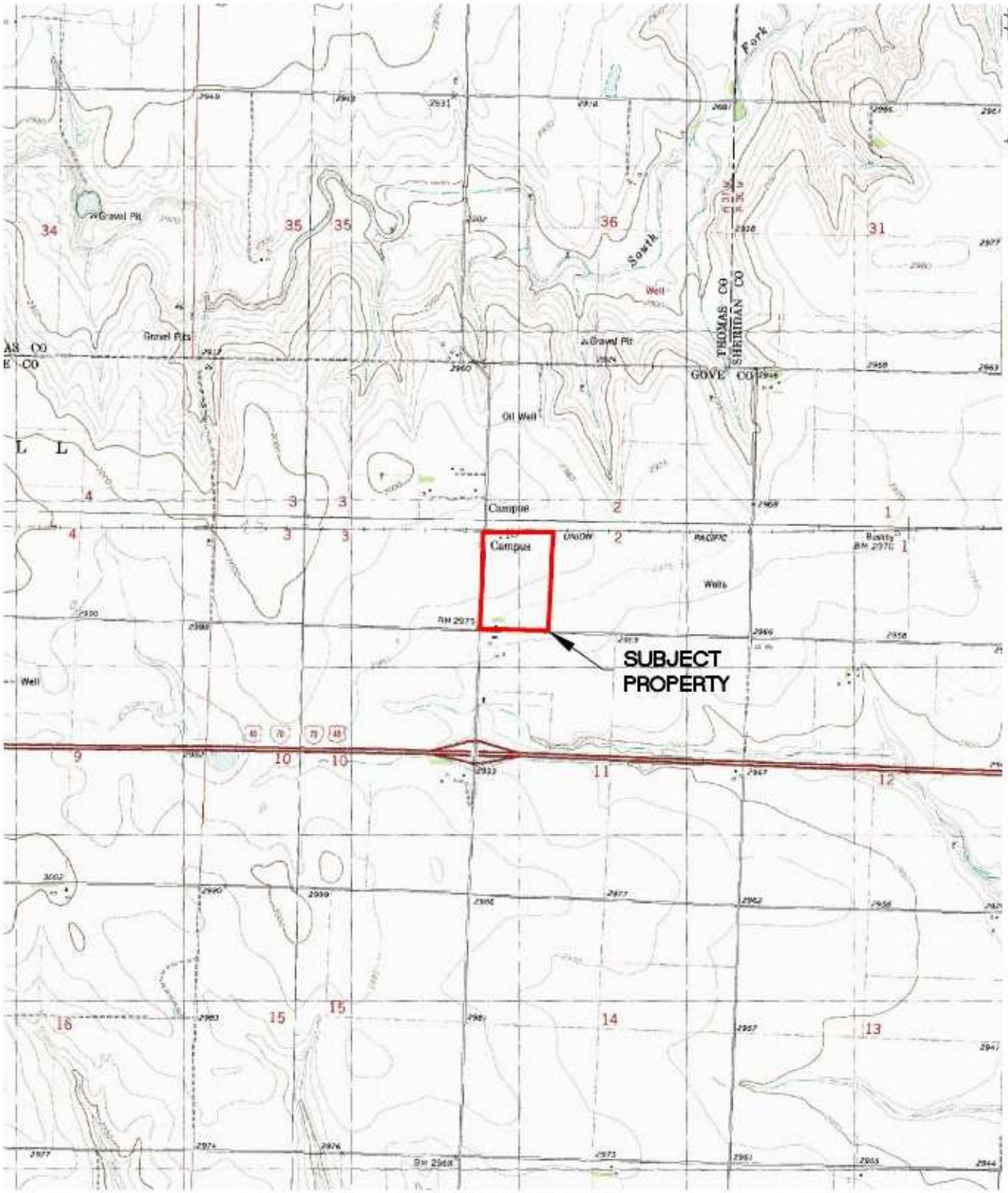
Kim Austin	Team Leader/ Technical Reviewer – Atwell, LLC
Sean Peffer	Project Manager – Atwell, LLC
Laura Campbell	Environmental Specialist – Atwell, LLC
Bourke Thomas	Ecological Specialist – Atwell, LLC
Matt Comben	GIS Project Coordinator – Atwell, LLC
Jason Vitick	GIS Technician – Atwell, LLC
Dan Jicha	Engineer Technician – Atwell, LLC

XXV. ACRONYMS AND ABBREVIATIONS

AGL	Above Ground Level
AMSL	Above Mean Sea Level
ANSI	American National Standards Institute
ADA-ABA	Americans with Disabilities Act
ARRA	American Recovery and Reinvestment Act
ASCE	American Society of Civil Engineers
ASTM	American Society For Testing and Materials
BMPs	Best Management Practices
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Recovery Act
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
CFR	Code of Federal Regulations
CR	County Road
CWA	Clean Water Act
dBA	A-weighted decibels
EA	Environmental Assessment
EIS	Environmental Impact Statement
EOE	Equal Opportunity Employment
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FAA	U.S. Federal Aviation Administration
FDA	U.S. Food and Drug Administration
FERC	U.S. Federal Energy Regulatory Commission
USFWS	U.S. Fish and Wildlife Service
FOA	Funding Opportunity Announcement
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
GPC	Greater Prairie Chicken
HUC	Hydrologic Unit Code
IP	Individual Permit
K.A.R.	Kansas Administrative Regulations
KBS	Kansas Biological Survey
KDA	Kansas Department of Agriculture
KDHE	Kansas Department of Health and Environment
KDOT	Kansas Department of Transportation
KDWP	Kansas Department of Wildlife and Parks
KEC	Kansas Energy Council
KGS	Kansas Geological Survey

kV	Kilovolt
MSDS	Material Safety Data Sheet
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWP	Nationwide Permit
NWI	National Wetland Inventory
OSHA	Occupational Safety and Health Administration
O & M	Operation and Maintenance
RCRA	Resources Conservation and Recovery Act
RD	Rural Development
ROW	Right-Of-Way
RB-CS	Rural Business-Cooperative Service
SARA	Superfund Amendments and Reauthorizations Act
SHPA	State Historic Preservation Act
SHPO	State Historic Preservation Office
SOP	Standard Operating Procedures
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan
SWWPPP	Stormwater Pollution Prevention Plan
T&E	Threatened and Endangered
U.S.	United States
USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WQC	Section 401 Water Quality Certification

Exhibits



SITE LOCATION MAP
GRINNELL TOWNSHIP
GOVE COUNTY, KANSAS

SCALE 0 1000 2000
1" = 2000 FEET

REFERENCE
USGS 7.5 MIN. TOPOGRAPHIC QUADRANGLE
GRINNELL SOUTH, KANSAS QUADRANGLE
T11S, R31W, SEC. 2

PROJECT: 11000846
DATE: APRIL 22, 2011
DRAWN: BWT
CHECKED: KA
CAD FILE: 11000846EC-01

ATWELL
866.850.4200 | www.atwell-group.com
OFFICES IN NORTH AMERICA AND ASIA

PROPERTY FEATURES MAP
GRINNELL TOWNSHIP
GOVE COUNTY, KANSAS

SCALE 0 1000 2000

1" = 2000 FEET

REFERENCE
USDA – NATIONAL AGRICULTURE IMAGERY PROGRAM
2010 AERIAL IMAGE
GOVE COUNTY, KANSAS

PROJECT: 11000846
DATE: APRIL 22, 2011
DRAWN: BWT
CHECKED: KA
CAD FILE: 11000846EC-02

ATWELL
866.850.4200 | www.atwell-group.com
OFFICES IN NORTH AMERICA AND ASIA

K:\11000846\dwg\Ecologics\11000846EC-02 PFM.dwg, 4/22/2011 5:32:40 PM, bthomas

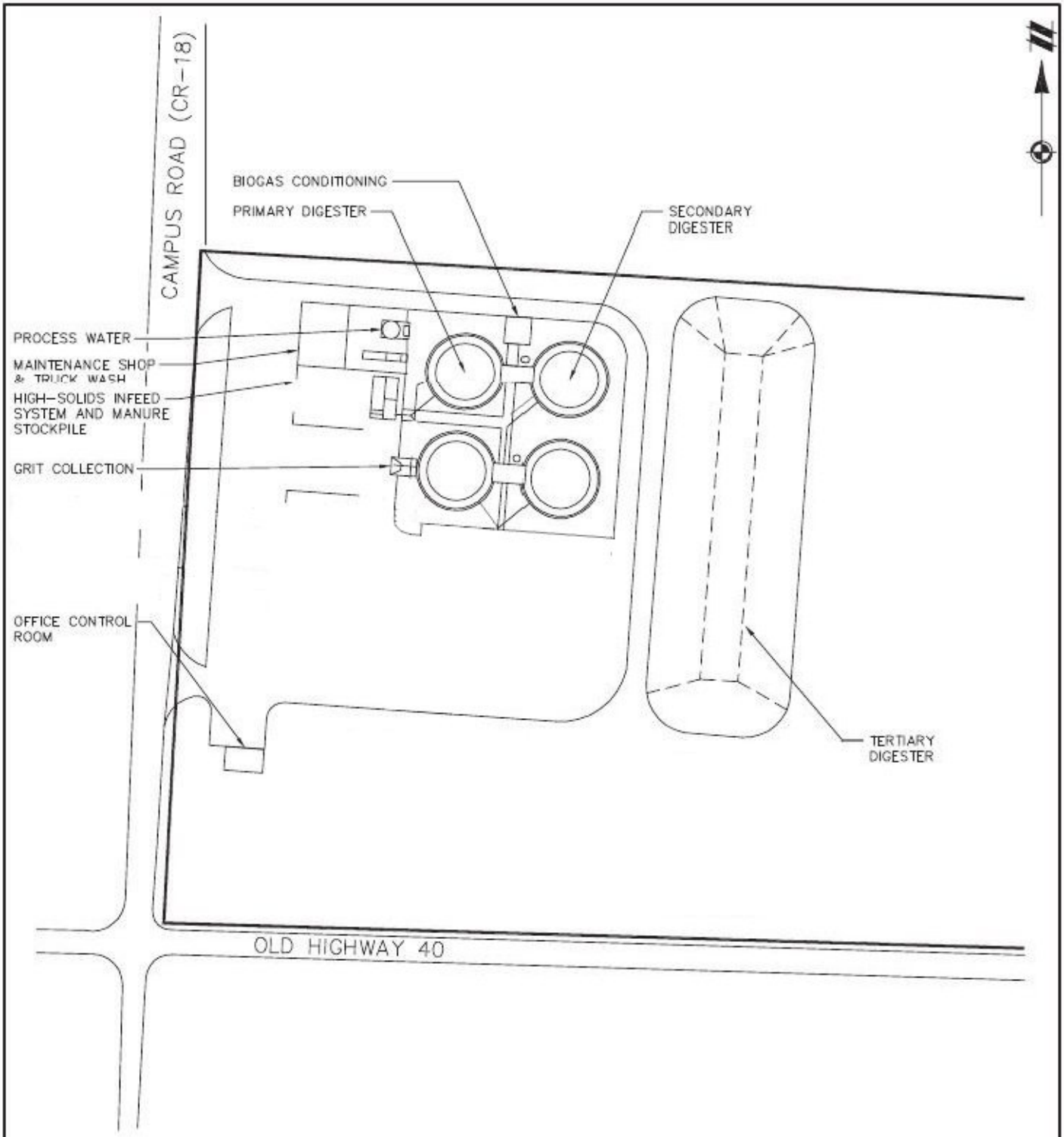
PROPOSED IMPROVEMENT PLAN FOR ETHANOL PLANT
GRINNELL TOWNSHIP
GOVE COUNTY, KANSAS

SCALE 0 1000 2000
1" = 2000 FEET

REFERENCE
USDA – NATIONAL AGRICULTURE IMAGERY PROGRAM
2010 AERIAL IMAGE
GOVE COUNTY, KANSAS

PROJECT: 11000846
DATE: APRIL 22, 2011
DRAWN: BWT
CHECKED: KA
CAD FILE: 11000846EC-02

ATWELL
866.850.4200 | www.atwell-group.com
OFFICES IN NORTH AMERICA AND ASIA



PROPOSED IMPROVEMENT PLAN FOR ETHANOL PLANT DETAILED

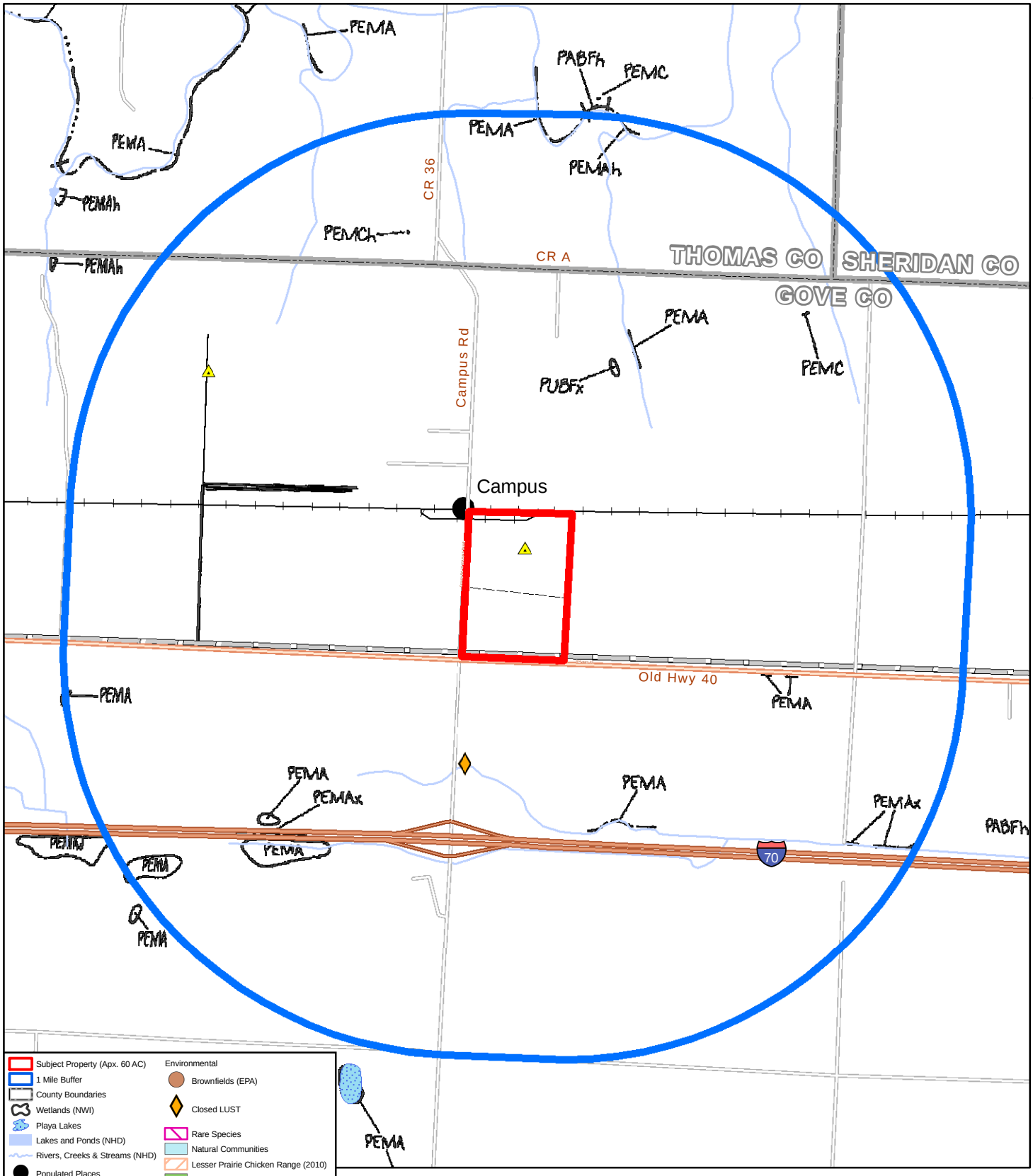
GRINNELL TOWNSHIP
GOVE COUNTY, KANSAS

SCALE 0 200 400

1" = 200 FEET

PROJECT: 11000846
DATE: APRIL 22, 2011
DRAWN: BWT
CHECKED: KA
CAD FILE: 11000846EC-02

ATWELL
866.850.4200 | www.atwell-group.com
OFFICES IN NORTH AMERICA AND ASIA



Subject Property (Apx. 60 AC)
1 Mile Buffer
County Boundaries
Wetlands (NWI)
Playa Lakes
Lakes and Ponds (NHD)
Rivers, Creeks & Streams (NHD)
Populated Places
Airport
Cemetery
Nat'l Registry of Historic Places

Utilities
35 kV
Substation
Pipeline

FCC Communication Towers
Antenna Structure Registration
Cellular
Land Mobile Commercial
Land Mobile Private
Microwave

Environmental
Brownfields (EPA)
Closed LUST
Rare Species
Natural Communities
Lesser Prairie Chicken Range (2010)
WIHA Lands

Oil & Gas Wells
Dry & abandoned
Gas
Gas - Plugged and abandoned
Intent to Drill
Location Unknown
Oil and gas
Oil and gas - Plugged and abandoned
Oil
Oil - Plugged and abandoned
Prospect Core Hole

Site Soil Classification (SSURGO) is Kuma silt loam, 0 to 1 percent slopes

ENVIRONMENTAL FEATURES MAP
GRINNELL TOWNSHIP
GOVE COUNTY, KANSAS

0 1,000 2,000
Feet

1 " = 1,800 FEET

PROJECT NO.:	11000846
DATE:	MAY 18, 2011
DRAWN:	JRV
CHECKED:	LC
FILE:	11000846BASE

ATWELL
866.850.4200 | www.atwell-group.com
OFFICES IN NORTH AMERICA AND ASIA

G:\Jobs\11000846_GoveCoKansas_WesternPlainsEnergy\Project\WesternPlainsEnergy_GoveCoKS_EcoReviewBaseMap_20110512

Appendix I

PHOTOGRAPHIC LOG

1) Looking north across the site with the existing facility in the background.

2) Looking north-northwest across the site showing dirt pile on the site, and the existing facility in the background.

3) Looking west across the site from the eastern portion of the site.

4) View of typical adjacent property to site consisting of agricultural cropland.

Appendix II

Division of Environment
Curtis State Office Building
1000 SW Jackson St., Suite 400
Topeka, KS 66612-1367

Kansas
Department of Health & Environment

Phone: 785.296.1535
Fax: 785.296.8464
www.kdheks.gov

Robert Moser, MD, Secretary

Sam Brownback, Governor

June 7, 2011

Kim Austin
Team Leader, Natural Resources Group
Atwell, LLC
12979 SW 7th Street
Andover, KS 67002

RE: Proposal to expansion Existing Western Plains Energy, LLC ethanol facility in Oakley, KS

Dear Ms. Austin:

Please see the enclosed comments submitted by Don Carlson, Bureau of Water.

I have no objection to the proposal but offer the following comments for review and consideration:
The Kansas Department of Health and Environment has received some preliminary information from Western Plains Energy regarding the proposal to run a pilot project at the project to determine the feasibility of the digester to generate biogas for plant operations, an algae growth system, and the possible recovery of nutrients. The Bureau of Water has provided our approval for the short term pilot plant project (from a wastewater perspective only). The pilot plant project proposal proposed to generate 30 gallons per day of wastewater that would be hauled to a local municipal wastewater treatment plant for treatment and disposal. There has been no full scale project information provided for KDHE review regarding the ultimate wastewater generation, treatment, or disposal, nor has there been any information proposed for the treatment, handling and disposal of sludge from the digester operation. There have been no details regarding the algae growth proposal or the nutrient recovery proposal. We have indicated that with a full scale operation we would have to specifically define a control what is considered acceptable "waste products" that can be digested.
Conceptually we have no problem with the proposed concept. Approval of a full scale proposal will be dependant upon information generated by the pilot project and the proposal to handle, treat, and dispose of any wastewater generated if it is not 100% recycled within the operation, stormwater runoff issues associated with any source materials stored/stockpiled at the site, handling and utilization/disposal of the digester sludge, etc. There will also need to be issued an NPDES Construction Stormwater Permit issued if the full scale proposal will involve construction activities that will disturb 1 acre or more. As proposed, we do not foresee the proposed project adversely affecting or impacting any environmentally significant resources.

Sincerely,

Donna Fisher
Division of Environment

DC/df

Comments by:
Bureau of Indian Affairs
Attn: Horton Agency
PO Box 31, 908 1st Avenue East
Horton, KS 66439

TRANSMITTAL DATE:

PROJECT TITLE:
Western Plains Energy Ethanol Facility

CONTACT PERSON:
Kim Austin

_____Notification of Intent
____ Preapplication
____ Final Application
_____Direct Development

This form provides notification and the opportunity for your agency to review and comment on this proposed project required by Executive Order 12372. Please complete Parts II & III as appropriate. Your prompt response will be appreciated.

RETURN TO:
AHwell
attn Kim Austin
12979 SW 97th St
Andover KS 67002

PART I (Check appropriate agency)
REVIEW AGENCIES/COMMISSIONS

___ Aging
___ Agriculture-DWR
___ Biological Survey, KS
___ Conservation Commission
___ Corporation Commission
___ Commerce
___ Education
___ Geological Survey, KS
___ Health & Environment
___ Historical Society
___ Human Resources
___ Social & Rehab Services
___ State Forester
___ Transportation
___ Water Office, KS
___ Wildlife & Parks
X Indian Affairs

PART II (To be completed by review agency and returned to contact person)
AGENCY REVIEW COMMENTS:
NONE

PART III (To be completed by review agency and returned to contact person)
RECOMMENDED ACTION COMMENTS

X Clearance of the project should be granted.

___ Clearance of the project should not be granted.

___ Clearance of the project should be delayed until the issues or questions have been clarified.

___ Request a State Process Recommendation in concurrence with above comments.

___ Clearance of the project should not be delayed but the Applicant should be (in the final application)address and clarify the questions or concerns indicated above.

___ Request the opportunity to review final application prior to submission to the federal funding agency.

DIVISION/AGENCY/COMMISSION

Reviewer's Name Robert R Butler Date 9/13/11

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
760 South Broadway
Salina, Kansas 67401-4604

Phone: 785-823-4500
FAX: 785-823-4540
www.ks.nrcs.usda.gov

May 16, 2011

ATWELL, LLC
ATTN: Kim Austin
12979 Southwest 97th Street
Andover, Kansas 67002

Dear Sir or Madame:

Based on the information provided in your cover letter dated May 2, 2011, the Natural Resources Conservation Service (NRCS) submits the following request indicated below:

☐ The project is not subject to the Farmland Protection Policy Act as no farmland is being converted to nonagricultural use.

☒ Your request needs to be accompanied with Form AD-1006, Farmland Conversion Impact Rating (or Form NRCS-CPA-106, Farmland Conversion Impact Rating for Corridor Projects) with parts I and III filled out. (Form AD-1006 is available at www.nrcs.usda.gov/programs/fppa/pdf_files/AD1006.PDF and Form NRCS-CPA-106 at www.nrcs.usda.gov/Programs/fppa/pdf_files/CPA106.pdf.) Please submit the completed form(s) to me at the above address or by e-mail to susie.mcbride@ks.usda.gov. Additionally, please provide the section, township and range of the project.

Sincerely,

Susie

SUSIE M. MCBRIDE
Soil Conservationist

75 Years—A Legacy to Conservation
Helping People Help the Land

Dwight D. Eisenhower State Office Building
700 S.W. Harrison Street
Topeka, KS 66603-3745

Kansas
Department of Transportation
Office of the Secretary

Phone: 785-296-3285
Fax: 785-296-1095
Hearing Impaired - 711
publicinfo@ksdot.org
http://www.ksdot.org

Deb Miller, Secretary
Jerome T. Younger, P.E. ,
Deputy Secretary for Engineering /
State Transportation Engineer

Sam Brownback, Governor

May 20, 2011

Kim Austin
12979 SW 97th Street
Andover, KS 67002

Dear Ms. Austin:

Thank you for your letter concerning the proposed expansion of the Western Plains Energy ethanol facility in Oakley, Kansas.

The environmental assessment you requested is outside the remit of the Kansas Department of Transportation (KDOT), and this agency has no opinion on the matter.

Should you have additional questions, please call the Norton District Office and speak with District Engineer Jeff Stewart at (785) 877-3315.

Sincerely,

Jerome T. Younger, P.E.
Deputy Secretary for Engineering and
State Transportation Engineer

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Kansas Ecological Services Field Office
2609 Anderson Avenue
Manhattan, Kansas 66502

May 27, 2011

Kim Austin, Team Leader
Atwell
12979 SW 97th Street
Andover, KS 67002

RE: Anaerobic Digester and Algae Reactors Building Expansion
FWS Tracking # 2011-CPA-0446

Dear Ms. Austin:

This is in response to your letter dated May 2, 2011, requesting comment on the proposed expansion of the existing Western Plains Energy, LLC ethanol facility, to include the construction of a biogas generation facility that will replace 100 percent of the base fossil fuel load currently utilized by the facility for the purpose of generating sufficient heat to operate. The project is located adjacent to the Western Plains Ethanol Plant, Gove County, Kansas.

Based on review of the proposed action and the land uses on site, I conclude that no federally threatened or endangered species are likely to be present in the project area.

Thank you for this opportunity to comment on the proposal. If we can be of any further assistance, please call Ms. Michele McNulty, of this office, at 785-539-3474 ext. 106.

Sincerely,

Daniel W Mulhern / Acting

Michael J. LeValley
Field Supervisor

cc: KDWP, Pratt, KS (Environmental Services)

Division of Water Resources
109 SW 9th Street, 2nd Floor
Topeka, Kansas 66612-1283

Kansas
Kansas Department of Agriculture

phone: (785) 296-3717
fax: (785) 296-1176
www.ksda.gov/dwr

Dale A. Rodman, Secretary
David W. Barfield, Chief Engineer

Sam Brownback, Governor

Kim Austin
Team Leader, Natural Resources Group
Atwell
12979 SW 97th Street
Andover, KS 67002
Facility

May 31, 2011

RE: Western Plains Energy Ethanol

Atwell Project No. 110000846
DWR A95- 2011.54

Dear Ms. Austin:

This correspondence will acknowledge receipt of your letter and attachments concerning the proposal to convert the existing on site power plants from fossil fuel to renewable biomass by the construction of a biogas generation facility located adjacent to the existing Western Plains Energy Facility.

A review of the information and the site location maps indicates that the proposed IMUS Biogas plant is not located in the floodplain, nor are there any jurisdictional stream courses in the project area. The project therefore will not require any permitting for stream modification or floodplain fill.

A review of our water rights database indicated that Western Plains Energy has four water rights in good standing for industrial use at the subject property. Therefore, the proposed project does not require any water right permitting.

In terms of the proposed project having any adverse impact upon the environment or natural resources, this agency does not anticipate that the construction of the biomass generation facility will create any such problems if good industry standards are practiced during construction and operation.

Thank you for the opportunity to review and make comments on the project. My apologies for not responding sooner. If you have any questions, please feel free to contact me.

Sincerely,

Bob Lytle

Bob Lytle
Environmental Scientist

PC: Chris Beightel

Division of Environment
Curtis State Office Building
1000 SW Jackson St., Suite 400
Topeka, KS 66612-1367

Kansas
Department of Health & Environment

Phone: 785.296.1535
Fax: 785.296.8464
www.kdheks.gov

Robert Moser, MD, Secretary

Sam Brownback, Governor

Comments by: KDHE

Transmittal Date: June 7, 2011

This form provides notification and the opportunity for your agency to review and comments on this proposed project as required by Executive Order 12372. Review Agency, please complete Parts II and III as appropriate and return to contact person listed below. Your prompt response will be appreciated.

RETURN TO: Kim Austin
Team Leader, Natural Resources Group
Atwell, LLC
12979 SW 97th Street
Andover, Kansas 67002

PART I **REVIEW AGENCIES/COMMISSION**

___Aging	___Education	___State Forester
___Agriculture	___Geological Survey, KS	___Transportation
___Biological Survey	_X_Health & Environment	___Water Office, KS
___Conservation Commision	___Historical Society	___Wildlife & Parks
___Corporation Commission	___Social & Rehabilitation	___Commerce

PART II **AGENCY REVIEW COMMENTS**

COMMENTS: (Attach additional sheet if necessary) Re: Proposal to expansion Existing Western Plains Energy, LLC ethanol facility located in Oakley, Gove County, Kansas
Please see the enclosed comments submitted by Don Carlson, Bureau of Water.

PART III
RECOMMENDED ACTION COMMENTS:

_X_Clearance of the project should be granted.

___Clearance of the project should not be granted.

___Clearance of the project should be delayed until the issues or questions above have been clarified.

___Request a State Process Recommendation in concurrence with the above comments.

__ Clearance of the project should not be delayed but the Applicant should (in the final application) address and clarify the question or concerns indicated above.

___Request the opportunity to review final application prior to submission to the federal funding agency.

DIVISIONS/ AGENCY/ COMMISSION

John W. Mitchell

John W. Mitchell, Director
Division of Environment

JM/df

901 S. Kansas Avenue
Topeka, KS 66612

Kansas
Water Office

Phone: (785)-296-3185
Fax: (785)-296-0878
www.kwo.org

Tracy Streeter, Director

Sam Brownback, Governor

June 10, 2011

Kim Austin, Team Leader
12979 SW 91th Street
Andover, KS 67002

RE: Proposed funding for the Anaerobic Digester and Algae Reactors Research and Development Building Expansion

Dear Ms. Austin:

The Kansas Water Office has reviewed the information provided on the above referenced Proposed funding for the Anaerobic Digester and Algae Reactors Research and Development Building Expansion. We have no comments based on our review and do not oppose approval of the change order.

Thank you for the opportunity to comment. Feel free to contact me if you have any questions at (785) 296-3185 or margaret.fast@kwo.ks.gov.

Sincerely,

Margaret Fast

Margaret Fast
Environmental Scientist IV

MF:AG

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
3012 Broadway Avenue
Hays, Kansas 67601-1916

Phone: (785) 625-2588
FAX: (785) 628-3746
www.ks.nrcs.usda.gov

June 10, 2011

Kim Austin,
Team Leader, Natural Resources Group
12979 SW 97th Street
Andover, Kansas 67002

Dear Ms Austin:

Thank you for the opportunity to respond to the proposed expansion of the Western Plains Energy, LLC Ethanol facility.

The Farmland Protection Policy Act (FPPA) applies to projects where federal technical or financial assistance is being requested. FPPA provides a process for determining an impact rating when important farmlands are being considered for conversion to non-agricultural uses.

Enclosed is Form AD-1006, Farmland Conversion Impact Rating, (or Form NRCS-CPA-106, Farmland Conversion Impact Rating), with the Natural Resources Conservation Service's (NRCS) parts completed. The originator should complete Parts VI and VII and return a copy to this office at the above address.

If I can be of further assistance, please let me know.

Sincerely,

DANIEL H. MEYERHOFF
Assistant State Conservationist

cc:
Eric Banks, State Conservationist, NRCS, Salina, Kansas
Susie McBride, Soil Conservationist, NRCS, Salina, Kansas

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 6/1/11
Name Of Project Ethanol Plant Biogas Improvements Project	Federal Agency Involved USDA-RD
Proposed Land Use Industrial	County And State Gove County, Kansas
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 6/9/2011

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).* Yes ☑ No ☐

Acres Irrigated	Average Farm Size
None	1478

Major Crop(s)	Farmable Land In Govt. Jurisdiction	Amount Of Farmland As Defined in FPPA
Grain Sorghum	Acres: 352,472 % 51.4%	Acres: 7,500 % 1.09%
Name Of Land Evaluation System Used: LESA	Name Of Local Site Assessment System: N/A	Date Land Evaluation Returned By NRCS: 6/10/2011

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	18.0			
B. Total Acres To Be Converted Indirectly	8.0			
C. Total Acres In Site	26.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	26			
B. Total Acres Statewide And Local Important Farmland	0			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	>.01%			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	55%			
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0 70	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

(See Instructions on reverse side)

Form AD-1006 (10-83)

This form was electronically produced by National Production Services Staff

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 6/1/11
Name Of Project Ethanol Plant Biogas Improvements Project	Federal Agency Involved USDA-RD
Proposed Land Use Industrial	County And State Gove County, Kansas
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 6/9/2011

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).* Yes ☑ No ☐		Acres Irrigated None	Average Farm Size 1478
Major Crop(s) Grain Sorghum	Farmable Land In Govt. Jurisdiction Acres: 352472 % 51.4%	Amount Of Farmland As Defined in FPPA Acres: 7500 % 1.09%	
Name Of Land Evaluation System Used LESA	Name Of Local Site Assessment System N/A	Date Land Evaluation Returned By NRCS 6/10/2011	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	18.0			
B. Total Acres To Be Converted Indirectly	8.0			
C. Total Acres In Site	26.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	26			
B. Total Acres Statewide And Local Important Farmland	0			
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	>.01%			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	55%			
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0 70	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	15			
2. Perimeter In Nonurban Use	10	8			
3. Percent Of Site Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	0			
5. Distance From Urban Builtup Area	15	15			
6. Distance To Urban Support Services	15	0			
7. Size Of Present Farm Unit Compared To Average	10	0			
8. Creation Of Nonfarmable Farmland	10	10			
9. Availability Of Farm Support Services	5	5			
10. On-Farm Investments	20	3			
11. Effects Of Conversion On Farm Support Services	10	0			
12. Compatibility With Existing Agricultural Use	10	0			
TOTAL SITE ASSESSMENT POINTS	160	0 84	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0 70	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0 84	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0 154	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

This rating is less than 160 points, therefore according to the FPPA rule, it may be concluded the area is already committed to urban development.

(See Instructions on reverse side) Form AD-1006 (10-83)

This form was electronically produced by National Production Services Staff

completed by Juliet Bochicchio of USDA Rural Development.

From: conrad.fisher@cheyennenation.com
Sent: Friday, July 29, 2011 2:03 PM
To: Bochicchio, Juliet - Washington, DC
Subject: Re: Consultation on Proposed Biogas Facility in Kansas

The Northern Cheyenne Tribal Historic Preservation Office has reviewed the maps and based on the location and recommendation of the Kansas SHPO, our office has no concerns with the proposed project. However, should your office identify any inadvertent discoveries, please keep us informed.

-----Original Message-----
From: Bochicchio, Juliet - Washington, DC [mailto:Juliet.Bochicchio@wdc.usda.gov]
Sent: Friday, July 29, 2011 01:24 PM
To: conrad.fisher@cheyennenation.com
Subject: Consultation on Proposed Biogas Facility in Kansas
Importance: High

Dear Mr. Fisher,
You have been identified as a possible consulting party under 26 CFR Part 800, Section 800.2. Pursuant to 36 CFR Part 800, Section 800.3(a), the USDA, Rural Development, Rural Business-Cooperative Service (RBS) is considering an application for loan guarantee pursuant to Section 9004 of the Food, Conservation, and Energy Act of 2008. RBS?s undertaking is the issuance of a loan guarantee for the proposed expansion of an existing ethanol plan to construct a new biogas improvement system and related infrastructure to be located on 26 acres of land at 3022 County Road 18, Grinnel Township (Oakley), Gove County, Kansas.

Therefore RBS respectfully requests your comments on the attached information regarding the proposed project. Please find the attached cover letter and attachments for your review. These documents will be forwarded to you via hard copy as well.

If I may provide any additional information please do not hesitate to contact me.

Sincerely,
Juliet Bochicchio

Juliet Cartron Bochicchio | Environmental Protection Specialist
Rural Development
U.S. Department of Agriculture
1400 Independence Ave., S.W. | Washington, D.C. 20250
Phone: 202.205.8242 | Fax 202.690.4335
www.rurdev.usda.gov

"Committed to the future of rural communities"
"Estamos dedicados al futuro de las comunidades rurales"

ADMINISTRATION
&
MANAGEMENT

CHEYENNE AND ARAPAHO TRIBES OF OKLAHOMA

P.O. Box 38
Concho, Oklahoma 73022
(405) 262-0345

Aug 8, 2011

ATWEN
12979 SW 97th Street
Andover, KS
67002

RE: TCNS # /Project No. 11000846

To Whom It May Concern:

On behalf the Cheyenne and Arapaho Tribes, greetings and thank you for notice of the referenced project. I have reviewed your Consultation Request under section 106 of the National Historic Preservation Act regarding the project proposal and commented as followed.

☐ _____ The Cheyenne and Arapaho Tribes have no interest in this area geographically. There is no likelihood of eligible properties of religious and cultural significant to the Cheyenne and Arapaho Tribes in the proposed project site.

☐ _____ The Cheyenne and Arapaho Tribes have an objection or request additional project information. The Cheyenne and Arapaho Tribes require the following addition information in order to provide a finding of effect this proposed undertaking:

_____

_____

☒ lg No objections. However, if human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, please stop immediately and notify the Cheyenne and Arapaho Tribes.

☐ _____ No Adverse effect. The Cheyenne and Arapaho Tribes have identified properties of cultural and religious significance within the area of effect that are believed to be eligible for listing in the National Register, for which there would be no adverse effect as a result of the proposed project.

☐ _____ Adverse effect. The Cheyenne and Arapaho Tribes have identified properties of cultural and religious significance within the area potential effect that are eligible for listing in the National Register. The Cheyenne and Arapaho Tribes believe that the proposed project would cause an adverse effect on these properties.

Best Regards,

Lgray

Lynnette Gray
Tribal Historic Preservation Officer (Acting)
Planning and Development
Cheyenne and Arapaho Tribes of Oklahoma
100 Red Moon Circle, Box 38
Concho, Oklahoma 73022
v. (405) 422-7622
f. (405) 422-1199
e. lgray@c-a-tribes.org

KSR&C No. 11-05-034

6425 SW 6th Avenue
Topeka, KS 66615

Kansas

phone: 785-272-8681
fax: 785-272-8682
email@kshs.org

Kansas Historical Society

Sam Brownback, Governor
Jennie Chinn, Executive Director

August 2, 2011

Juliet Bochicchio
Environmental Protection Specialist
Rural Development
U.S. Department of Agriculture
1400 Independence Avenue, S.W.
Washington, D.C. 20250

RE: Existing Ethanol Plant Expansion
Western Plains Energy, LLC
Gove County

Dear Bochicchio:

In accordance with 36 CFR 800, the Kansas State Historic Preservation Office has reviewed your letter dated July 29, 2011regarding the above-referenced ethanol/biogas expansion project to be funded by the U.S. Department of Agriculture Rural Business Cooperative Service (RBS). As you noted, we have already reviewed this project, in a letter dated May 11, 2011. Our office hereby concurs with the RBS finding of *no historic properties affected* for this undertaking.

This information is provided at your request to assist you in identifying historic properties, as specified in 36 CFR 800 for Section 106 consultation procedures. If you have questions or need additional information regarding these comments, please contact Tim Weston at 785-272-8681 (ext. 214) or Kim Gant at 785-272-8681 ext. 225. Please refer to the Kansas Review & Compliance number (KSR&C#) above on all future correspondence relating to this project.

Sincerely,

Jennie Chinn
Executive Director and
State Historic Preservation Officer

Timothy Weston for

Patrick Zollner
Deputy State Historic Preservation Officer

Appendix III

AFFIDAVIT OF PUBLICATION
State of Kansas,
Gove County, ss:

Roxanne Broeckelman, being first duly sworn, deposes and says: That she is co-publisher of **Gove County Advocate**, a weekly newspaper printed in the State of Kansas, and published in and of general circulation in Gove County, Kansas, with a general paid circulation on a weekly basis in Gove County, Kansas, and that said newspaper is not a trade, religious or fraternal publication.

Said newspaper is a weekly published at least 50 times a year; and has been so published continuously and uninterruptedly in said county and state for a period of more than five years prior to the first publication of said notice; and has been admitted at the post office in Quinter in said county as periodical class mail matter.

That the attached notice is a true copy thereof and was published in the regular and entire issue of said newspaper for two consecutive week(s), the first publication thereof being made as aforesaid on the 18th day of May, 2011, with subsequent publications being made on the following dates:

May 25, 2011

_____, ____

_____, ____

_____, ____

_____, ____

_____, ____

Printer's Fee ..... $ 37.40

Additional Copies .... $ ____

Affidavit Fees ..... $ 2.00

Total Publication Fees $ 39.40

Roxanne Broeckelman

Subscribed and sworn to before me this 25th day of May, 2011

Linda L. Zerr
Notary Public

My commission expires:
January 8, 2013

LEGAL ADVERTISING
(First published in the Gove County Advocate, Quinter, KS, Wed., May 18, 2011 - 2t)

PUBLIC NOTICE

Western Plains Energy, LLC will file a pre-application with the USDA-Rural Development Program for financial assistance to develop a biogas generation facility. The project is located at the northeast corner of Old Highway 40 and Campus Road (CR-18), Oakley, Gove County, Kansas (adjacent and south of the existing Western Plains Energy, LLC ethanol facility). The subject property is currently idle, agricultural land. Through a state-of-the-art anaerobic digestion process of biomass products, the project proposes to generate enough biogas to fuel the existing plant in lieu of natural gas, as well as, produce bio-based fertilizers. The goal of the project is to replace all fossil fuel with bio-fuel, lowering the facility's carbon footprint. Western Plains Energy, LLC anticipates that no negative direct impacts will occur as a result of this project. The USDA-Rural Development Program is considering partial funding under Section 9004 and 9007 of the 2008 Farm Bill, Repowering Assistance Program. Any person interested in commenting on the proposed action may do so by sending such comments within 30 DAYS following the date of this publication to Kim Austin, Atwell, LLC, Team Leader of Natural Resources, 12979 SW 97th St, Andover, KS 67002.

M 16, 25

LINDA L. ZERR
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. 1-8-2013