



United States Department of Agriculture
Rural Development

August 15, 2014

SUBJECT: Finding of No Significant Impact (FONSI)
Borrower Citibank N.A.
Ensyn Georgia Biorefinery I, LLC (Ensyn)
Proposed Wood Biomass Biorefinery
In Vienna, Georgia

DESCRIPTION OF ACTION

The USDA, Rural Business-Cooperative Service is considering an application for loan guarantee pursuant to Section 9003 of the Food, Conservation, and Energy Act of 2008 received from Citibank N.A., for Ensyn Georgia Biorefinery I, LLC (Ensyn) to construct and operate a Wood Biomass Biorefinery (Project) to be located in Vienna, Georgia. The proposal would include the construction of the biorefinery and its related infrastructure to be located on approximately 30 acres of existing disturbed land (former particle board facility) within a 67 acre leased area. The company plans to produce approximately 21 million gallons of cellulosic renewable fuel oil (RFO) to be sold to refineries in the region to allow them to meet Renewable Fuel Standard requirements. The RFO can be corefined with vacuum gas oil in a refinery to produce gasoline and diesel products that are derived partially from renewable biomass. The environmental analysis of this proposed action is contained in an Environmental Assessment (EA) prepared by RBS.

The Project will rely primarily on wood waste or forest residues as well as other potential sources including dedicated energy crops such as *Miscanthus giganteus* sourced within the region. The Project will produce two co-products, a combustible gas and biochar which will both be captured and re-used in the RTP process as fuel. Recycling of the biochar produces two waste products, an ash/sand mix and a cellulosic filter cake. The ash/sand mix can be land applied or landfilled, and the cellulosic filter cake can be used as combustible fuel or may be landfilled. The intent of the Project is to generate renewable fuels while contributing to the overall reduction of CO₂ emissions in the U.S.

The construction and operation of the Project would have minor adverse effects to air quality, water quality, and local fauna. Mitigation measures are proposed for this FONSI in order to ensure that there are no impacts to the natural environment from the spread of the potentially invasive species *Miscanthus giganteus*, or other energy crops, if used as feedstock for the Project. RBS has determined that the Project does not pose significant adverse effects to the natural or human environment if implemented according to the mitigated FONSI conditions.

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BASIS FOR FINDINGS

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

MITIGATION

This EA identified potential adverse effects associated with the use of the potentially invasive species *Miscanthus giganteus* if used as a feedstock. To ensure that there are no impacts to the natural environment from the spread of *Miscanthus giganteus*, or other invasive species if proposed, RBS will condition the loan guarantee to include the following required consultation with NRCS and minimum BMPs when such potentially invasive species are proposed for use in feedstock agreements.

ENVIRONMENTAL CONDITIONS:

Mitigation measures/Conditions which must be employed for this Project include the following:

To reduce the risk of the spread of invasive species as part of the production of feedstocks (using varieties of perennial grasses proposed, namely *Miscanthus giganteus*, or other invasive species) for the Project, the Borrower will draft and provide a template for Lender and Agency review and approval, that will incorporate into all agreements with Feedstock Agricultural Producer (referred to hereafter as Producer), the following action items, unless the Lender acknowledges that the Producer has an approved Conservation Plan with the Natural Resources Conservation Service (NRCS) (evidence of which must be provided to the Lender and Agency):

- a. New Producer orientation to discuss production methods, management activities, potential for spread of *Miscanthus giganteus* (common name giant miscanthus) and/or other invasive species, treatment methods, and responsibilities, pest/disease identification, treatment methods, and responsibilities, eradication methods, if necessary, and reporting requirements.
- b. Site-specific best management practices (BMPs), which could include, but not be limited to, NRCS Conservation Practice Standards (CPS) for soil erosion, pesticide use and application, fertilizer use and application, and other relevant areas for each specific site.
- c. Setbacks/buffers to manage the giant miscanthus stand and to prevent unintentional spread of the giant miscanthus shall follow all local, State, or

Federal regulations for containment of Biomass plantings in existence at the time of the development of the Producer's Conservation Plan or through an amendment of the Conservation Plan initiated by the Producer and approved by the Agency and NRCS, if determined appropriate for the site-specific conditions. If no such guidance exists, minimum procedures to prevent unintentional spread of giant miscanthus shall include:

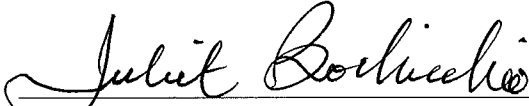
- i. Establish or maintain a minimum 25 feet of setback/border around a giant miscanthus stand, unless the field is adjacent to existing cropland or actively managed pasture of the same Producer.
 - ii. Setback/border areas may be planted to an annual row crop such as corn or soybeans; may be planted to a site-adapted, perennial cool-season or warm season forage or turf grass; may be kept in existing vegetation; or kept clear by disking, rotating, or treating with a non-selective burn down herbicide at least once a year. The method used may be dependent on slope and the potential for erosion.
- d. The use of only those known sterile varieties of giant miscanthus cultivars by Producers within those feedstock production areas to be utilized for this Project. All clone cultivars must be approved for planting under a recognized Quality Assurance program.
 - e. The initiation of a seed sampling program to determine the on-going sterility of seeds produced from the feedstock production areas to be utilized for this Project. The seed sampling program will include recommended actions, including eradication, if a seed sample returns viable seed.
 - f. Exclusion of planting giant miscanthus on certain acreage within approximately 1,300 Feet from any known *Miscanthus sinensis* or *Miscanthus sacchariflorus* to limit the potential for cross-pollination resulting in viable seed.
 - g. Exclusion of planting giant miscanthus on certain acreage within the feedstock production areas utilized for this Project, depending upon certain site-specific conditions, like those lands subject to frequent flooding events.
 - h. Monitoring program developed to identify (1) spread of giant miscanthus outside of planted fields with notification provided to both the Agency and the Producer, producer association or cooperative (if applicable) as soon as possible after identification of the issue, (2) identification of diseases and pests with notification provided to the Producer, producer association or cooperative (if applicable) as soon as possible after identification of the issue; an Agency representative will conduct an annual field visit to monitor the site and to look for potential spread of giant miscanthus beyond the site; the Agency will work with local weed control districts to provide additional monitoring/evaluation of these sites as appropriate.


- i. Annual producer reporting, which will include land use tracking with the average and total size of enrolled fields; prior land use; rationale for land use change; spread of giant miscanthus outside of planted fields; any pests/diseases identification; the use of pesticides/herbicides to control unwanted spread of giant miscanthus or pests/diseases; BMP and CPS incorporated into field management, such as erosion control structures or materials, vegetative barriers, etc.; fertilizer usage and application methods; and cost data.


FINDINGS

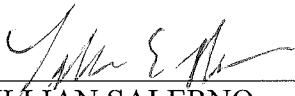
The attached environmental assessment for the subject proposal has been prepared and reviewed by the appropriate Rural Business-Cooperative Service officials. After reviewing the assessment and the supporting materials attached to it, I find that the subject proposal will not significantly affect the 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:  8/15/14
JULIET C. BOCHICCHIO Date
Environmental Protection Specialist, Program Support Staff

Recommended:  8/15/14
ED DUVAL Date
Acting Director, Program Support Staff

Recommended:  09-24-14
MARK BRODSKI Date
Director, Energy Division, Rural Business-Cooperative Service

Approved:  9-24-14
LILLIAN SALERNO Date
Administrator, Rural Business-Cooperative Service