PMC-EF2a
(2.04.02)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION

RECIPIENT: University of Minnesota **STATE:** MN

PROJECT TITLE : Production and economics of perennial-based woody and herbaceous biomass crops under alley-cropping systems

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
CDP	GO88073	GFO-GO88073-033	0

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:
Description:

B3.6 Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

B3.8 Outdoor ecological and other environmental research (including siting, construction, and operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis) in a small area (generally less than five acres) that would not result in any permanent change to the ecosystem.

A9 Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.

Rational for determination:

DOE has an existing financial assistance award with South Dakota State University to conduct the Sun Grant Initiative which aims to establish a sustainable supply of lignocellulosic feedstocks for the production of bioenergy and bioproducts from agricultural-based sources. Through a competitive selection process, South Dakota State University has selected the University of Minnesota to receive DOE funds. The University of Minnesota is proposing to conduct an investigation of the biomass productivity and economics of perennial woody/herbaceous species alley-cropping. This project would be conducted over four growing seasons and include field work and data collection.

Field work would include cultivation of one new and three existing crop stands, conducting field measurements of growth parameters, and harvesting.

Experimental stands would be located at the University of Minnesota's Rosemount Research and Outreach Center in Dakota County, MN, and three privately-owned parcels proximate to the research center. Three experimental sites established in 2010 would be used and a fourth would be planted in 2012. Total area of the four treatment areas is 2.4 acres.All land that would be used in this research are currently in use for grain production; no undisturbed or non-agricultural land would be utilized.

Pesticide and fertilizer applications would be included in the study treatments. Oxyflourfen and simizine would be mechanically applied in willow stands to minimize weed emergence; herbaceous test stands would be manually weeded. No irrigation is planned.

Analytical tests of harvested crop nutrient and energy content would be conducted at the Crop Services and Crop Research facilities on the U of M St. Paul campus. Laboratory activities would be conducted in accordance with federal, state, and university safety, chemical, and waste handling requirements.
Enterprise budgets will be created for each of the cropping systems in order to develop decision support tools for biomass cropping systems for producers in southern MN. Data analysis and reporting would be conducted at the Department of Applied Economics on the St. Paul campus.

This project comprises field studies, data collection and analytical testing in a laboratory. All field trials would be conducted on farmlands that are currently in production. No adverse impacts to water or wetland resources, threatened or endangered species, or cultural resources are expected. CX B3.6, B3.8 and A9 apply.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

John A.DuWaldt 10/11/2011

DOE Funding: $558,963
Cost Share Amount: $170,707
Total Project Funding:$729,670

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 10/12/2011
NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

☐ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

☐ Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
☐ Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____ Date: _____
Field Office Manager