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September 24, 2009

Dear Sir/Madam:

Re: Comments of Green Delaware and other organizations listed below on "*Draft Programmatic Environmental Impact Statement for Biomass Crop Assistance Program*" dated July 2009.

Submitted via email to: BCAPEIS@geo-marine.com and Matthew.Ponish@wdc.usda.gov

1. We regard "biomass" burning for electricity generation as a fundamentally undesirable activity likely to lead to forest destruction, soil depletion, deterioration in air quality with resulting health impacts, and increases in greenhouse gas emissions. Therefore, the USDA should seek to minimize rather than promote this activity.
2. The use of "biomass" for production of liquid fuels and as chemical synthesis feedstocks should be strictly limited to situations that have been fully evaluated as to short-term climate impacts and long-term sustainability, and objectively determined to be climate-beneficial and sustainable. The Biomass Crop Assistance Program (BCAP) as described in the Programmatic Environmental Impact Statement (PEIS) lacks such provisions and therefore should not be implemented. Or, if a statutory requirement, it should be implemented to the minimum legally possible extent.
3. Therefore, in terms of the alternatives discussed in the (very inadequate) PEIS, we prefer the "no action" alternative.
4. *" ... the primary purpose of an environmental impact statement (EIS) is to "provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment."* (page 1.1). Table ES-1 is described as a summary of the "environmental consequences." Yet this Table, and in fact the entire PEIS, makes no mention of, for example, the air emissions associated with the proposed program in increased biomass burning. The present draft PEIS is neither "full" nor "fair" and needs major revisions prior to another cycle of public review.
5. The size and potential scope of BCAP mean that very serious impacts and unintended consequences are possible, including negative impacts on air quality, water quality, soil quality, wildlife, commodity prices, environmental justice, forests, & etc. Thus, compliance with the letter and intent of the National Environmental Policy Act is essential. The corn ethanol industry

provides an illustrative example of what may happen when environmental review of adequate scope is not carried out.

6. However, the UDSA has already published a list of "*Qualified Biomass Conversion Facilities*" (http://www.fsa.usda.gov/Internet/FSA_File/bcapfacilitieslist.pdf) with the listed facilities qualified in August and September, 2009. Similarly, the USDA has already published a " BCAP Eligible Materials List " (http://www.fsa.usda.gov/Internet/FSA_File/bcap_elig_mats_090714.pdf).
7. Many other program details have been published and some of these are posted at http://www.fsa.usda.gov/FSA/webapp?area=home&subject=ener&topic=bcap . This strongly suggests that the program has already been established and the USDA is only carrying out *pro forma* environmental review after the fact. This does not meet the requirements of NEPA and is very likely to lead to litigation. Therefore, the Dept. of Agriculture should immediately cease implementing the BCAP, withdraw issued program documents, and carry out environmental review of required scope.
8. To some extent it seems to be claimed that the present PEIS is only applicable to the "*Project Areas Program component*." (Abstract). However, this appears to be a fiction in the sense that no other environmental review is in the record, and the title of the document is "*Biomass Crop Assistance Program*," not "*Project Areas Program*" component of same. This is not acceptable and an EIS of adequate scope is required.
9. The US Environmental Protection Agency, in comments dated date-stamped September 21, 2009, (posted at http://yosemite.epa.gov/oeca/webeis.nsf/(PDFView)/20090273/$file/20090273.PDF?OpenElement) rates the PEIS as *"Environmental Concerns—Insufficient Information (EC-2)* in terms of *"EPA's Criteria for Sec. 309 Review of Environmental Impact Statements."* On this scale, we would rate it as "Unsatisfactory—Inadequate (EU-3)." This means *"Seriously lacking in information or analysis to address potentially significant environmental impacts. The draft EIS does not meet NEPA and/or section 309 requirements. If not revised or supplemented and provided again as a draft EIS for public comment, EPA may refer the EIS to CEQ."*
10. We request that the PEIS be revised and provided again as a draft for public comment.
11. The PEIS contains repeated references to " ... *convert the crop into energy*." (this one at 5.3.8), "*conversion to bio-energy*," etc. However, no chemical processes convert matter into energy. Aside from suggesting a certain level of technical illiteracy, the point is important because "convert" may imply to people that there are no "products of combustion." In fact, what goes in, comes out. Every atom of "biomass" fed to the burner comes out, mostly as ash or stack gases. Nothing disappears, or is "converted into electricity." In fact, the main combustible elements in most "biomass" are carbon and hydrogen which burn to carbon dioxide and water. For example, combustion of carbon:

C + O2 → CO2
12 + (2x16) = 44
44 / 12 = 3.67

For every pound of carbon completely burnt, 3.67 pounds of carbon dioxide are emitted.

12. It is impossible to evaluate a process or system without first describing it. Therefore, the draft EIS should evaluate the types and quantities of "eligible materials" considered for inclusion in the BCAP, and the proximate and ultimate analyses of these. The DEIS should also estimate the types of "conversion" and "refinery" processes likely to be used, and the quantities and emission factors associated with these. Process Flow Diagrams should be provided. Permits and emissions inventory reports, and enforcement actions for existing example facilities should be reviewed and summarized. This should lead to credible estimates of the air and water emissions associated with alternatives, including "no action" alternatives and alternatives such as investment in conservation and efficiency programs.
13. The presence of chlorides in some ""biomass" at levels likely to result in boiler corrosion and dioxin formation should be evaluated.
14. The document "*BCAP – CHST Eligible Materials List*" (link provided above) indicates that "*Federal Woody Resources*" including **"***Tree and shrub species without timber, lumber, or wood pulp value*" are included. But what of "*tree and shrub" species*" having other values such as habitat, erosion control, aesthetics, and so on? These other values should not be disregarded. This is only a single example of why materials from public lands should not be "*eligible materials*" under any circumstances.
15. The discussion of "Water Quality and Quantity" at Sec. 3.5 is far less than adequate in breadth and depth. We concur with the EPA recommendation that *"…the final EIS expand the discussion of how bioenergy crops will impact water quality and quantity and the potential direct, indirect, and cumulative impacts bioenergy crops will have on these water resources."* (page 2)
16. The revised PEIS draft should consider the information developed by Costello**,** Griffin, et al in the paper Impact of Biofuel Crop Production on the Formation of Hypoxia in the Gulf of Mexico (*Environ. Sci. Technol.* Publication Date (Web): August 13, 2009) The abstract of this paper states: *"Many studies have compared corn-based ethanol to cellulosic ethanol on a per unit basis and have generally concluded that cellulosic ethanol will result in fewer environmental consequences, including nitrate (NO_3^-) output. This study takes a system-wide approach in considering the NO_3^- output and the relative areal extent of hypoxia in the Northern Gulf of Mexico (NGOM) due to the introduction of additional crops for biofuel production. We stochastically estimate NO_3^- loading to the NGOM and use these results to approximate the areal extent of hypoxia for scenarios that meet the Energy Independence and Security Act of 2007's biofuel goals for 2015 and 2022. Crops for ethanol include corn, corn stover, and switchgrass; all biodiesel is assumed to be from soybeans. Our results indicate that moving from corn to cellulosics for ethanol production may result in a 20-percent decrease (based*

on mean values) in NO_3^- output from the Mississippi and Atchafalaya River Basin (MARB). This decrease will not meet the EPA target for hypoxic zone reduction. An aggressive nutrient management strategy will be needed to reach the 5000 km^2 areal extent of hypoxia in the NGOM goal set forth by the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force even in the absence of biofuels, given current production to meet food, feed, and other industrial needs." The import of this paper is describe in ScienceNOW Daily News, 21 September 2009 in this way: *"The push to ramp up biofuel production may reduce oil imports, but it's likely to come at a high environmental cost: It will boost the size of the Gulf of Mexico's dead zone, a huge swath so depleted of oxygen that almost nothing can live there, according to a new analysis."*

17. The above information should be fully considered, and the BCAP program, including design and selection of Project Areas, should be carried out so as to ensure that negative water quality impacts do not occur.
18. Because of the low thermal efficiency of "biomass" combustion and the design and scale of "conversion" facilities, it is probable that in most cases the direct carbon emissions of such combustion will be higher than that of the fuels they are replacing. Additional carbon-equivalent emissions will result from land disturbance and conversion, increased use of chemical fertilizers and pesticides, etc. Some of these issues are mentioned in the present draft PEIS but they are not properly evaluated.
19. To ensure that the BCAP does not have the perverse effect of increasing carbon-equivalent emissions, the program overall, Project Area design, and individual projects/contracts should each be evaluated to ensure that carbon-equivalent emissions impacts are favorable. This evaluation should include consideration of fuels displaced, if any, alternatives, and increased fuel and chemical usage, if any.
20. It is also likely, based on published emission factors and experience with existing "biomass" burners, that emissions of health-damaging regulated air pollutants would in some cases be higher with biomass fuels than the fuels they are replacing. This should be evaluated on an individual project basis. It is not acceptable to "cherry pick" one pollutant, such as sulfur dioxide, and ignore others. Each regulated air pollutant must be considered and compared individually. If any are higher, the project should not be acceptable for BCAP funding.
21. The evaluations of each proposal should be in the public record and open to public comment and review before approval.

Concluding, the present draft PEIS is inadequate as it stands as a basis for further action. The USDA should prepare another draft EIS and present it for another cycle of public comment.

These comments are limited and do not include all concerns. If they raise any questions please feel free to contact us.

Respectfully submitted,

Alan Muller, Green Delaware