MASON COUNTY
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September 10, 2010

F. Reed Wills, President
ADAGE Mason LLC
225 Wilmington West Chester Pike, Suite 302
Chadds Ford, PA 19317

Re: Biomass Electric Power Plant Proposal - Request for Early Notice under SEPA

Dear Mr. Wills:

I am writing in response to your request for "early notice" under the State Environmental Policy Act [SEPA, WAC 197-11-350(2)] as to whether Mason County is considering a Determination of Significance (DS) for the Biomass Electric Power Plant project proposed for construction and operation at the Johns Prairie Industrial Park. As SEPA lead agency, Mason County has the responsibility under WAC 197-11-310 and Mason County Code 8.16 for making a threshold determination on the proposal.

Community Development staff have reviewed the environmental checklist and supporting documents submitted for the proposed project. As part of the review process our staff consulted with other County departments and agencies with jurisdiction and received written comments from the Mason County Public Works and Public Health Departments, the Mason County Noxious Weed Control Board, the City of Shelton, and the Washington Department of Ecology. A summary of those comments is attached to this letter.

In addition, the County's SEPA consultant, Pacific International Engineering, reviewed the checklist and supporting documents and identified additional data gaps or areas needing clarification. Those items are also listed in the attachment.

Based on our initial review, Mason County considers issuance of a DS likely for the proposal. We have two primary areas of concern. First, WAC 197-11-330 states that a number of marginal impacts may together result in a significant impact. The proposed project would entail several potential impacts that may be mitigated, but not completely eliminated. Such impacts include but may not be limited to:

- Odor emissions from biomass storage or other areas on site
- Air emissions not captured by pollution controls
- Degradation of water quality from accidental spills or releases
- Permanent loss of 75 or more acres of forested habitat
- Injury and/or mortality of wildlife from vehicle/animal collisions
- Ongoing, long-term disturbance of adjacent habitats
- Impacts (e.g., noise, dust, engine emissions, public safety, visual aesthetics) on residential areas from construction and use of the relocated access road
- Noise from heavy trucks idling or operating on site

- Impacts on existing uses from added truck and employee vehicle traffic on access routes
- Injury, property damage, or other impacts from fire, explosion, or accidental release of chemical products

We have concluded that, considered together, these impacts are likely to result in a significant adverse impact and that a DS is consistent with the provisions of WAC 197-11-330.

Second, WAC 197-11-794 states that an impact may be significant if its chance of occurrence is not great, but its effect would be severe if it occurred. With regard to the proposed project, the likelihood of fire, explosion or accidental release of chemicals is not known. Although the probability of occurrence may be low, if any of these events were to occur, the impact could be significant because of the proximity of residential areas to the west and south of the project site.

In addition, a review of RCW 70.95.700 indicates that an Environmental Impact Statement (EIS) is required for this proposal. That statute provides that "[N]o solid waste incineration or energy recovery facility shall be operated prior to completion of an environmental impact statement containing the considerations required under RCW 43.21C.030(2)(c) and prepared pursuant to the procedures of chapter 43.21C RCW."

Under RCW 70.95D.010, facilities that have the primary purpose of burning hog fuel are excluded as solid waste incinerators. However, RCW 70.95.030(8) defines "energy recovery" as "a process operating under federal and state environmental laws and regulations for converting solid waste into usable energy and for reducing the volume of solid waste." The proposed project appears to be an energy recovery facility under this definition.

"Solid waste" is defined under RCW 70.95.030 as "all putrescible or nonputrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, and recyclable materials." At least a portion of the biomass fuel proposed to be used (i.e., construction wood waste) explicitly meets this definition. The fuel derived from slash wood, understory wood, and material from pre-commercial thinning is woody debris that would normally be abandoned on logged sites and may also be considered solid waste under this definition.

We interpret these statutes to mean that the proposed project is a solid waste energy recovery facility that may not be operated until an EIS on the project has been completed.

The information that has been submitted and reviewed to date is reasonably sufficient to evaluate the impacts of the proposal and to make a threshold determination. However, under MCC 8.16.050 an applicant may change or clarify a proposal to mitigate impacts, revising the environmental checklist as necessary to reflect the changes or clarifications. Should ADAGE Mason LLC wish to make changes or clarifications to its proposal to mitigate the project's impacts, those measures must be submitted in writing and must be specific. Changes and clarifications should address the concerns raised in this letter as well as those listed in the attached comment summary. They should also address the additional information requested in

our July 26, 2010 letters of incompleteness issued in response to ADAGE Mason's Special Use Permit and Environmental Permit applications. All changes and clarifications should be contained in one composite set of new or revised documents and must be received by Mason County within 60 days of the date of this letter. The SEPA review process will be suspended during this period. If a revised submittal is not received by November 12, 2010, Mason County will issue a threshold determination based on the information that has already been submitted and reviewed.

Sincerely,

Barbara A. Adkins, AICP
Department Manager

c: Monty Cobb, Chief Deputy Prosecuting Attorney
Grace Miller, Senior Planner
Mason County Board of County Commissioners

Summary of Comments
on SEPA Checklist and Supporting Documents

Department of Ecology

- The alignment of the site access road proposed in the checklist would entail construction in and impacts to a wetland. The documents submitted do not adequately address mitigation sequencing (i.e., avoiding, minimizing, and compensating for impacts) required by SEPA and Section 404 of the federal Clean Water Act.
- The wetland rating form submitted by the project proponent may contain errors related to wetland classification and water quality scoring.
- Clarification is needed as to whether a tipping fee would be collected from suppliers of woody material.
- The SEPA checklist does not provide adequate detail on the volumes of fuel required or ash generated, storage needs, or ash disposal plans.
- A State Waste Discharge Permit would be needed for discharge of process wastewater to the City of Shelton sewage treatment works. This permit should be listed in the permit summary.
- Insufficient detail is provided to confirm that the proposed stormwater treatment design will achieve benchmarks contained in the NPDES general permit.

Mason County Public Health Department

- Pollutants emitted by the project's truck traffic should be calculated and changes in ambient air quality from vehicle emissions should be evaluated.

Mason County Department of Public Works

- The permit summary should be corrected to show the Department of Ecology as issuer of the Construction Stormwater General Permit.

The Department of Public Works reviewed the Traffic Impact Analysis (TIA) submitted with the SEPA checklist on June 28, 2010 and prepared comments on the adequacy of the analysis. Public Works staff subsequently reviewed the July, 2010 update to the TIA and identified the following areas that remain unaddressed:

- Consolidation of PUD facilities within one mile of the project site and the effects of the combined truck traffic are not addressed.
- There is inadequate detail on fuel volumes, fuel source locations, the types of trucks that would be used for hauling fuel to the site, and fuel volumes hauled by each truck type.
- There should be analysis of traffic impacts on all possible roadways from fuel sources including, but not limited to, Shelton Matlock, Brockdale, and Cloquallum.
- Information is needed on rotation of fuel sources and projected routes for the life of the plant.
- Changes in traffic patterns in the event of emergency closure of US 101 need to be analyzed.

- Alternate site access using a connector between Johns Prairie Rd. and McEwan Prairie Rd. should be analyzed to reduce truck traffic impacts on businesses, schools, and residential areas in north Shelton.
- Acceleration/deceleration turning lanes on Johns Prairie Rd. at the site entrance may be needed and should be analyzed.
- The analysis should address traffic impacts over the life of the project. The analysis uses a 5-year horizon, but a 20- to 25-year analysis would be more consistent with typical standards of analysis.
- The TIA does not adequately define construction traffic impact in terms of materials sources and likely routes to be used.
- Coordination with WSDOT is needed since there would be traffic impacts on US 101 and SR 3 intersections.
- A Fill and Grade permit would be required for re-routing of Capitol Hill Rd.

City of Shelton

- Analysis is needed to determine if project traffic warrants signalizing of the 4-way stop at Johns Prairie Rd. and Brockdale.

Additional comments from the City on the TIA mirror those of the County of Public Works Department.

Mason County Noxious Weed Control Board

- The proposed project site is infested with diffuse knapweed, a Class B designated noxious weed. A vegetation management plan is recommended to minimize further spread of this species.

Pacific International Engineering

- Project Description

  Within the SEPA checklist additional detail is needed on the volume of biomass that will be needed to fuel the facility. The Economic Impact Analysis indicates that a 50 MW plant would consume 600,000 green tons of fuel per year. The checklist needs to state clearly what the estimated annual fuel consumption would be for the proposed 60 MW facility.

  The project proponent should provide an analysis of fuel sources to demonstrate that adequate supplies of clean woody biomass will be available for the planned life of the facility. The Economic Impact Analysis states that there is adequate logging residue in Mason and Grays Harbor counties to fuel a 50 MW plant on an annual basis, but that owing to market uncertainties, it is desirable to have twice as much material within a 50-mile radius as is actually needed. A review of existing biomass power plants in the United States and Europe (NREL 2000) indicates that maintaining an adequate supply of low-cost fuel has been a significant challenge for many plants and that fuel types may change significantly over the years as various fuel sources dry up and others become available. Plants have had to expand the types of fuel burned to include agricultural residues, scrap tires, landfill gas, natural gas, and other fuels. Because changes in fuel types from those currently proposed could entail significantly different effects on air emissions, traffic routes, traffic volumes, and other elements of the environment, the fuel

source analysis needs to address the long-term availability of clean woody biomass and provide an evaluation of alternate fuel types.

Additional detail is needed on fuel handling and storage. Estimates should be provided for the volume of woody biomass that would need to be stored on site to ensure uninterrupted operation and the volume of fossil fuel used for start-up and bed stabilization. The site plan included with the SEPA checklist does not clearly identify fuel handling or storage areas.

The project description needs to include an estimate of the volume of bottom ash and fly ash produced and additional detail on the volume of ash that would be stored on site, how often waste would be transported off site for disposal, and disposal options.

Information needs to be provided on how treated wood or other unacceptable material be would be identified, segregated, stored, and disposed of. Detail should also be provided on handling, storage, and disposal of wood fines that cannot be combusted, and an estimate provided of these waste volumes.

The project description refers to a "proposed road running through the Site connecting East Production Road to East Capitol Prairie Road" that would be re-routed as part of the project. Our understanding is that the connector has been constructed as planned. The project description should be corrected to reflect this.

The project description should include information on hours of operation, especially the times of day when biomass would be accepted at the facility and wastes would be shipped off site. The "Transportation" section of the checklist notes the peak hours that biomass deliveries would be expected, but it is not clear if deliveries would be accepted at other times. The checklist needs to describe hours of operation in detail.

- Earth

The table showing estimated cut and fill quantities indicates that 26,000 CY of material would be used for wetland fill as part of access road construction. If the proposed wetland fill is not permitted (see the Department of Ecology's comment above), how would the "excess" 26,000 CY of cut and fill material be handled?

Chapter 17.01.080 (D)(6) lists surface mining as a prohibited use in critical aquifer recharge areas. The SEPA checklist indicates that all fill material needed for site development would be obtained on site. With the required cut and fill volumes, it appears that the project proponent anticipates some surface mining on site as part of project development. Since surface mining is a prohibited use, it is not clear that the proposed cut and fill approach is feasible.

- Air

The SEPA checklist does not address odor control from biomass storage areas. ADAGE's Notice of Construction/air operating permit application states that the plant will comply with ORCAA rules for odor control, but does not state how compliance will be achieved. A number of existing plants have had to modify storage yard operations to address significant unanticipated odor impacts (NREL 2000). Therefore, the SEPA checklist should discuss the potential for odor emissions, identify the adjacent

areas/businesses/persons potentially affected, and evaluate alternatives for biomass storage or other measures that could be taken to minimize odor production.

The Greenhouse Gas Analysis does not address a number of the items listed on the Department of Ecology's greenhouse gas emissions worksheet template. Emission sources not covered in the analysis submitted include land disturbance, purchased electricity, employee commuting, and waste management (solid waste and wastewater disposal). Analysis of these items is needed so that the project's overall effect on climate change can be adequately assessed.

- Water

The checklist indicates that 34 acres of new impervious surfaces would be created as a result of plant and road construction. Analysis is needed of potential changes in local groundwater recharge resulting from the increased impervious area.

The Preliminary Storm Drainage Plan does not appear to be based on a specific storm event. The plan should define the storm event frequency used for the analysis. The Stormwater Plan needs to state specifically how it complies with the 2005 *Stormwater Management Manual for Western Washington* and with applicable Mason County codes, including Chapter 17.80 (Low Impact Development) and 17.01.080 (Critical Aquifer Recharge Areas).

It is not clear if the proposed relocated road is included in the drainage plan analysis. Since the road relocation would be an integral part of the project, this feature needs to be included in the analysis.

The alternative approaches being evaluated for sanitary sewer service should be described and their impacts identified.

In the discussion of the proposed spill containment facilities, it would be helpful to include citations to applicable regulations and include a brief discussion of how the facilities meet regulatory requirements.

The checklist states that "constructed wetlands and other systems will be evaluated" for treating stormwater runoff from biomass fuel storage areas. The checklist should identify what "other systems" are available for treatment and a brief analysis of the efficacy of various treatment methods.

Mitigation sequencing for impacts to wetlands must be consistent with Chapter 17.01.070 of the Mason County Code as well as provisions of the Clean Water Act and other applicable laws. Additional analysis is needed to demonstrate that the wetland excavation and fill proposed in the checklist meets mitigation sequencing requirements. (It is PI Engineering's understanding that ADAGE subsequently presented a revised roadway alignment, but we have not seen information on the proposed revision to allow assessment of its compliance with mitigation sequencing requirements.)

- Plants and Animals

Clarification is needed as to whether the 75 acres of forested vegetation to be removed includes the proposed road relocation. If not, the area affected by road relocation needs to be included in the total.

The checklist indicates that impacts to wildlife would be minor because few animals are believed to use or be present on the site and habitat is available in adjacent areas. However, the indirect and cumulative effects of removing 75 acres of forested habitat (and possibly more for road relocation) should be acknowledged. Displacement of animals is a concern because it can cause degradation of adjacent habitats as heavier concentrations of wildlife move into those areas. In general, the carrying capacities of habitats in western Washington are at a maximum level of use (PI Engineering 2010). Therefore, the remaining habitat could either be overloaded, resulting in habitat degradation, or the "excess" wildlife could be lost.

The potential for direct mortality of burrowing animals and other wildlife during site clearing should be identified.

The potential for injury and/or mortality of wildlife from vehicle/animal collisions along the site access road should be evaluated, along with mitigation measures such as speed limit controls and warning signs.

- Energy and Natural Resources

As noted in our comments on the project description, the volume of fossil fuel used for start-up and bed stabilization needs to be identified. The use of fossil fuels for employee commuting and transport of biomass to and waste from the site should be described.

- Land and Shoreline Use

The checklist should specifically identify what measures are proposed to ensure that the critical aquifer recharge area is adequately protected. The checklist refers to information submitted as part of the environmental permit application, but neither the checklist or permit application appear to address this issue.

Sounds produced by vehicles over 10,000 pounds GVW when operated off highways are exempt from regulatory noise limitations. Nevertheless, idling and operation of trucks delivering biomass to the site will produce noise and this impact should be acknowledged.

The checklist states that under peak conditions, truck traffic could rise to 140 trips per day; in that case, there would be a total 376 daily vehicle trips along the route from US 101 to the site. The impacts (e.g., noise, public safety, engine exhaust, fugitive dust) of adding this volume of traffic to a route that includes school crossing zones, public parks, residential areas, and other sensitive land uses should be addressed.

The checklist indicates that large structure shadows would remain "largely" within the confines of the site. Additional information should be provided on the potential for aesthetic impacts from offsite shadowing.

- Transportation

The checklist makes reference to an off-site queuing area where trucks delivering biomass may stage if they cannot immediately enter the site. This area is not identified on the site plan and no information is provided as to its queuing capacity. Has ADAGE obtained authorization to use an off-site area for this purpose?

The relocated access road appears to be outside the vegetated buffer proposed to be maintained around the facility. Therefore, additional information is needed on potential impacts of the roadway on adjacent residential areas to the west and south. Measures proposed for mitigating such impacts should be identified.

The accuracy of the statement that "there will be no significant impacts due to the facility" cannot be evaluated until concerns with the adequacy of the TIA have been completely addressed.

Construction impacts (e.g., detours, travel delays) from water supply and sewer line extensions and County road realignment are not addressed.

- Public Services

No information is provided on whether spill or other emergency response would require specialized equipment. If any is required, would ADAGE provide such equipment to the fire district?