

Angus, Briony (EEA)

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**From:** JANA CHICOINE [janachicoine@verizon.net]  
**Sent:** Wednesday, August 22, 2007 2:14 PM  
**To:** Briony Angus  
**Subject:** Comments on EOEEA 13635  
**Attachments:** DEP WMA Order to Complete.pdf

Dear Secretary Bowles:

Greetings from Russell. I wish you well in your difficult and vitally important job, and I hope that your tenure as Secretary of the Executive Office of Energy and Environmental Affairs proves very rewarding and enjoyable for you. As you serve the citizens of the Commonwealth, I am certain that you can indeed leave a legacy of policies and actions worthy of you -- a legacy that everyone can applaud and that you can be proud of in the coming years. I want to thank you for the opportunity to comment on Russell Biomass LLC, EOEEA 13635.

I have done considerable research on biomass power plants, and one thing that everyone seems to agree on is that these plants must be properly sited or they will cause unnecessary grief and suffering, as well as being a constant headache for municipalities, the state, and even the company itself. MEPA regulations allow you as Secretary to weigh the impacts of the company's siting decision and to order the "No-build alternative" if impacts cannot be mitigated or minimized given the chosen site. This is certainly the situation with Russell Biomass -- in fact, it is hard to imagine a worse site with a longer list of avoidable impacts than this one.

Secretary Bowles, I am absolutely opposed to the Russell Biomass project and ask that you seriously consider the fatal flaws of this project and reject the DEIR. The "No-build alternative" is the only acceptable choice as far as I am concerned, because the many harms of this project simply cannot be mitigated or minimized without moving the project elsewhere. This plant is so poorly sited that it would certainly prove to be a constant grief to our communities, a source of environmental and health problems, and a shame for the state if you were to let it go forward. The many risks and real costs clearly outweigh the benefits of this project. We are pleading with you to rescue us and not to allow this company to get away with giving misleading information to state agencies. Following is a small sampling of the problems with this project and the DEIR:

- The Notice of Project Change (NOPC) seeks permission from the state to break an explicit promise to the town of Russell to burn 100% virgin wood and asks MEPA to allow the company to include pallets in the fuel mix. These pallets may be chemically contaminated with arsenic, copper, and other toxins. Please address the company's false and dangerous claims that chemical contamination of pallets is visually discernible, and reject the NOPC.
- The NOPC is written in such a way that could allow other chemically contaminated fuels in as well, including construction and demolition debris which is loaded with toxics. The company is in effect asking the state to act as 'thugs' in allowing them to burn what they explicitly promised not to burn. I want to ask that your office take great pains not to allow this nor be party to it in any way.
- The Draft Environmental Impact Report (DEIR) bases all of its studies on a 50-megawatt plant when in fact Russell Biomass is a 55-60-megawatt plant. According to MEPA regulations, this should trigger a Notice of Project Change and a redo of all environmental impact studies.
- Rare and endangered species on the Tekoa Mountain Wildlife Management Area and the Grace Robson Wildlife Sanctuary are threatened by the construction and maintenance of the transmission line for this project. These vital habitats, scenic overlooks, and recreation areas should be preserved and not trashed for this ill-conceived project.
- The DEIR claims to prove that 840 weekly truck trips down Main Street Russell (at an average of one truck every 3.5 minutes) will have no adverse affect on local air quality. If it were not such a serious subject, this would be laughable: is the DEIR really scientific, or is it more like voodoo? If this meets the technical merits of the review process, then the review process itself is fatally flawed. The reality is that an estimated 450 people die from diesel fume inhalation every year in Massachusetts. Russell residents and schoolchildren deserve full state oversight of this situation and protection from this

8/30/2007

- serious threat.
- Many of the original MEPA comments have not been sufficiently addressed.
  - >>>>>>> The attached letter from western MA DEP establishes that the lowest flow day recorded on the Westfield River is 13.2cfs. See the last sentence of the first paragraph on p.3 of the letter (p.4 of the pdf).
  - Over 1,200 individuals, businesses, and environmental organizations have joined together to oppose this project. Please note that this includes Clean Water Action and Toxics Action Center which support the development of biomass power plants generally. However, they oppose this project because its siting clearly "poses an unacceptable risk to children, families and the environment" as explained in the petition statement below:

"Dear Secretary Bowles:

We, the undersigned, express our opposition to the Russell Biomass proposal, EOE # 13635 currently under review by your office through the Environmental Policy Act (MEPA) process. We think this is the wrong plant in the wrong place, and request that you seriously consider several major siting issues in your review of the proposal. This massive plant is proposed in a residential neighborhood, only 1600 feet from an elementary school and 600 feet from the nearest homes, and would bring a tractor-trailer truck down residential roads 840 times a week or about every four minutes. This is in a river valley with frequent air inversions that will trap hazardous air pollution at ground level like liquid filling up a bowl. Hampden and Hampshire Counties have some of the worst air pollution in the Commonwealth of Massachusetts. In particular, the American Lung Association cites Hampden as having the worst 24-hour particle pollution levels in the state. Both also receive "F" ratings for ozone, and the proponents have stated in their EENF that this power plant will exceed federal New Source Review standards for NOx, an ozone precursor. A new large-scale source of stationary air pollution thus poses an unacceptable risk to children, families and the environment. Thank you for your consideration."

Here in Russell and Westfield and other nearby communities, tens of thousands of people, including many thousands with respiratory sensitivities, look to you as you weigh the claims of both sides on this issue. I hope that you will do the right thing, protecting our families from these serious harms which are clearly so needless when better siting alternatives are considered. If the threat posed by Russell Biomass were not so serious, I would never have given all I have in the past three years to bring the truth to light. I am motivated entirely by the desire to protect my loved ones and especially to help our asthmatic friends and other vulnerable people to be able to stay in their homes and breathe easy. We have personally suffered a great deal at the hands of Bill Hull, but we have done that believing that persons such as yourself who hold sacred offices of public trust will be glad to administer justice after everything is weighed in the balance.

I look forward to hearing from you.

Sincerely Yours,

Jana Chicoine, Spokesperson  
Pioneer Valley Preservation Coalition  
P.O. Box 481  
189 Frog Hollow Road ( a.k.a. Hullabaloo Hollow )  
Russell, MA 01071



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
WESTERN REGIONAL OFFICE

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METT ROMNEY  
Governor

KERRY HEALEY  
Lieutenant Governor

ROBERT W. COLLEDGE, Jr.  
Secretary

ARLEEN O'DONNELL  
Commissioner

December 21, 2006

William B. Hull  
Russell Biomass, LLC  
101 Hampton Road  
Poinfret Center, CT 06259

RE: Russell -- WMA  
Russell Biomass Facility  
Water Management Act  
WMA permit application/Order to Complete  
Transmittal #W077973

Mr. Hull:

Please find attached the following information:

- Water Management Act Order to Complete for Russell Biomass, LLC

The document describes specific information required for a complete permit application. If you have any questions regarding this letter, please contact Jim Bumgardner at (413) 755-2270.

Respectfully,

Deirdre Cabral, Section Chief  
Drinking Water Program  
Bureau of Resource Protection

cc: Russell Conservation Commission w/ attach.  
Jim Bumgardner, DEP WERO, Duane LeVangie, DEP-Boston, Brian Harrington, DEP WERO w/ attach.  
Rebecca Sherer, P.E., Tighe and Bond, 53 Southampton Road, Westfield, MA 01085 w/ attach.  
Thomas French, Division of Fisheries & Wildlife, One Rabbit Hill Road, Westborough, MA 01581 w/ attach.  
Curt Freedman, CMR Engineering, Inc., 24 Ridge Road, Longmeadow, MA 01106  
Henry Warhol, 2 Sackville Avenue, Westfield, MA 01085  
Robin Unger, 240 Frog Hollow Road, Russell, MA 01071  
Sarah Underwood, 249 City View Blvd., Westfield, MA 01085  
Mike and Claudia Hurley, 25 Ridgecrest Circle, Westfield, MA 01085  
Laune Protono and Christopher Davis, 50 Country Club Drive, Westfield, MA 01085

File Name: Y:\DWP Archive\WERO\Russell-WMA-OTC-W077973-2006-12-21

WERO File: W:\hrp\wma\Permits\Area 2\Russell Biomass\TDOC\RussellBiomass.doc

Certified Mail: 7005 1160 0003 7960 0506

The signature on this cover letter indicates formal issuance of the attached document.  
This information is available in alternate format. Call Donald M. Gomes, ADA Coordinator at 617-556-1057, TDD Service - 1-800-293-2277.

MassDLP on the World Wide Web: <http://www.state.ma.us/dep>

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**ORDER TO COMPLETE**

MASSACHUSETTS WATER MANAGEMENT ACT  
M.G.L. c 21G  
WATER WITHDRAWAL PERMIT APPLICATION  
WESTFIELD RIVER WATERSHED

RUSSELL BIOMASS, LLC  
RUSSELL BIOMASS FACILITY

APPLICATION #9P2-1-04-256.04

The Department of Environmental Protection (MassDEP) has completed its technical review of your application for a Water Management Act (WMA) permit to withdraw water from the Westfield River watershed. Rebecca Sherer, P.E. of Tighe and Bond Engineers submitted the application on your behalf on September 7, 2006. Our review reveals that some required components of your application are incomplete, require clarification, or are technically deficient. WMA permit applications are not complete until all relevant public comment is addressed to the satisfaction of MassDEP. As you know, all public comment is required to be submitted during the public comment period, which is after the application is submitted. Without submission of required components, your application is incomplete. **In accordance with 310 CMR 4.00 and 310 CMR 36.00, you have until March 6, 2007 to submit the additional information.** MassDEP may allow more time for you to submit this information if written requests for additional time are submitted before the deadline.

MassDEP suggests that you submit the information required by this Order as quickly as possible to facilitate timely application review. If you fail to submit the additional information within the timeframe above, your application will be deemed withdrawn, and you must reapply if you intend to withdraw water in excess of the permitting threshold.

Please submit the additional information requested to the following address:

*Jim Bumgardner, P.E.  
Water Management Act Program Coordinator  
Department of Environmental Protection  
436 Dwight Street  
Springfield, MA 01103*

Following receipt of the information, MassDEP has 90 days to complete a supplemental Technical Review and issue a final decision unless it determines that additional time is necessary to give proper consideration to the application and sets a new deadline. Alternatively, MassDEP could issue another Order to Complete for further information necessary to complete the application.

**I. Project Description**

The proposed facility is a 50 megawatt, biomass wood fuel-fired power plant that would use water as its primary cooling medium. The applicant requests an average withdrawal of 0.662 million gallons per day (MGD), and a maximum withdrawal of 0.885 MGD from the Westfield River. Approximately 15% of the withdrawal will be returned to the river. The return water will be at a higher temperature and will have an increased solids content. The return water is to be 100% cooling tower blowdown. Boiler blowdown will be recycled directly into the cooling towers.

## II. Summary of Public Comments

### **i. General**

Public comment was received from individuals, state agencies, and watershed associations (copies attached). In general, germane comments include concerns over the withdrawal impacts on the Westfield River, the consideration of alternative forms of cooling in the application, and the sensitivity of the resource to withdrawal. Concerns regarding impacts to air quality and roadway safety may be addressed by other agencies or MassDEP programs responsible for evaluating the impact of this project on those issues. Those types of concerns may be addressed by other agencies or MassDEP programs reviewing permits required by this project.

### **ii. Withdrawal Impacts to Wildlife, Fisheries, and Floral Habitat**

During the comment period, the Massachusetts Division of Fisheries and Wildlife (DFW) and the Natural Heritage and Endangered Species Program (NHESP) submitted comments on the proposed withdrawal and potential discharge. Comments on the potential discharge will be addressed by MassDEP and USEPA in the required NPDES permitting process. MassDEP will address the effects of the withdrawal in reducing the water available for aquatic life in this Water Management Act permit review. Potential effects of the withdrawal identified by DFWELE and NHESP include concerns over impacts to a rare species, the *Creeping Mussel*, and numerous cold-water and warm water fisheries.

In Section 5 of the application, the applicant identified many relevant low-flow streamflow statistics based on a publicly available program "Streamstats" developed by United States Geographical Survey (USGS). Low-flow statistics, including the 7Q10<sup>1</sup> and August median are essential in any evaluation of the withdrawal impacts. DFWELE commented that using the 7Q10 streamflow statistic is not sufficient to insure protection of aquatic life in a River with "wildly fluctuating" flows such as the Westfield, and that the withdrawal impacts to the lowest observed daily flow should be considered, as that would be the most critical circumstance for dependent species. In Section 5 of the application, the applicant presents an estimated lowest daily streamflow as 20.7 cfs (recorded in 2005). The maximum daily withdrawal proposed by Russell Biomass, 885,000 gallons per day, is 6.6% of the lowest daily streamflow (20.7 cfs), as presented in the application.

### **iii. Evaluation of Alternatives to the Withdrawal**

One commenter (Curt M. Freedman, MSEM, PE, CFM) has submitted extensive evidence that dry cooling and the combination of dry cooling and wet cooling, constitute feasible alternatives to the technology proposed by the applicant. Mr. Freedman documents existing installations of similar size where those technologies are used to greatly limit the need for large volumes of cooling water.

## III. Department Review Comments and Action

Many reasonable comments were received regarding concern over the impacts of the magnitude of the withdrawal on the river streamflow, especially during low-flow periods. The application contains an evaluation of the volumetric impacts of its proposed withdrawal on the Westfield River streamflow during low flow periods. The applicant used an on-line application based on a regression equation developed by

<sup>1</sup> The 7Q10 is the lowest seven consecutive days in any 10 year period.

USGS, the "Streamstats" application, to develop estimates of low streamflow statistics. Using those results, the applicant determined that the proposed withdrawal comprises a very small percentage of the August median and 7Q10 streamflow. The applicant presented a summary of the streamflow record and calculated the proposed withdrawal to be less than 7% of the historic low flow in the river. The information source of the historic lowest daily flow on record, and any assumptions made in determining that value was not presented in the application. Daily streamflow records are available from three upstream USGS stream gages on the Westfield River. Those stream gages likely report all but a small percentage of the flow downstream at the proposed withdrawal point. The lowest streamflow on record, based on the sum of the three upstream gages is 13.2 cfs on September 4, 1953.

Although the consultant presented an analysis of the total costs associated with air-cooling technology, MassDEP considers aspects of that analysis inconclusive. The applicant asserts that air cooling technology is infeasible because it adds \$9 million to the cost of facility construction. No comparison of the cost of the air cooling alternative is given relative to the cost of the entire facility or the impact of the expense on project profitability. No consideration of the combined air and water cooling technology alternative, or the costs of those technologies that would greatly reduce the need for such large volumes of water, was provided. The savings associated with withdrawing less water and discharging less wastewater, including savings associated with wastewater treatment, was not explicitly included in the analysis submitted.

MassDEP finds that the applicant did not adequately address the potential for wastewater treatment and associated costs and benefits in its alternatives analysis. The apparent assumption in the application is that no treatment will be required to meet NPDES permit limits, even with the increase in temperature and solids content of the wastewater effluent stream. \*

Department review of the application reveals that a copy of the property deed, reportedly containing limitations on water withdrawal, was not submitted as part of the application.

#### IV. Department Requirements Necessary to Complete this Application

The regulations at 310 CMR 36.20 define the required contents of a complete permit application. This section identifies for the applicant, all information necessary for the applicant to complete the application as defined by the regulations.

Because the wastewater treatment impacts are critical in evaluating cooling technology alternatives, **MassDEP requires the applicant to submit an approved NPDES permit prior to accepting this application as complete.** Final treatment decisions and their associated costs should be included in the cost-benefit comparison of cooling technology alternatives, required in this Order to Complete.

The applicant did not submit a MEPA Certificate indicating satisfaction of MEPA requirements and conditions. **A MEPA Certificate must be submitted before this application is complete.** Because no MEPA Certificate has been issued, the status of your application is "Hold pending other agency determination".

The regulations at 310 CMR 36.21 specify conditions of an incomplete application. The following items have not yet been submitted and therefore, the application is incomplete until the information listed below is submitted. To complete the application, MassDEP requires the applicant to submit the following information in writing:

1. Verify and validate how the low streamflow statistics at the withdrawal point were estimated. Describe the assumptions used in obtaining the estimate. If any of those statistics were

developed without actual observations of streamflow at the three upstream USGS stream gages (historical record), the applicant shall estimate and submit its results of those low streamflow statistics based on the time-series of daily streamflow observations by USGS upstream of the withdrawal location. At a minimum, daily flow at the withdrawal point shall be estimated as the sum of the daily flow at the three upstream USGS gages. Standard methods to extend or fill in gaps in the record will be acceptable to get a more complete picture of the streamflow. Median streamflow statistics shall be generated as the median of the estimated withdrawal point daily flows for the months of August and September, such that the "expected value" of streamflow during those months is presented. The median of the average daily flows is not sufficient to address this requirement.

2. Present an economic analysis that compares the costs, benefits, and impacts on profitability of each potential cooling scenario, air-only, air and water combination, and water-only cooling. Include a microeconomic analysis of the costs and benefits of installing alternative cooling technology and the relative impacts on the profitability of the endeavor over the design life of the facility. The economic analysis shall include consideration of the savings associated with withdrawing less water and discharging less wastewater, including savings in treatment costs for lower discharge volume, costs of pumping, and costs of obtaining and maintaining an NPDES discharge permit. This requirement assumes that an NPDES discharge permit is necessary and the associated costs of wastewater treatment reflect technology sufficient to meet the effluent water quality limits in that permit.
3. Quantify the volume of water that would be saved for the air-cooling alternatives above the volumes necessary for the water-only alternative.
4. Submit a copy of the property deed, including sections limiting water withdrawal, pursuant to 310 CMR 36.20 (3) (b).
5. Evaluate the impacts of the withdrawal on downstream NPDES dischargers.
6. Submit a copy of a valid NPDES permit for the Russell Biomass facility.
7. Submit a copy of the MEPA Certificate for the Russell Biomass facility.

The above information must be provided to fully complete your application within the above deadlines. Failure to do so may result in a determination by this Department that no application for a withdrawal permit has been made. Nothing contained in this Order should be interpreted to preclude MassDEP from requiring additional information that is determined necessary to evaluate the application.

Some information the applicant was required to provide to address comments made in the MEPA process will likely be responsive to a portion of the comments received by MassDEP as public comment on its Water Management Act permit application. Additional information will be required to respond to other comments that may not be raised in the MEPA process.