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March 28, 2008

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS  
ON THE  
FINAL ENVIRONMENTAL IMPACT REPORT

PROJECT NAME: Russell Biomass Power Plant  
PROJECT LOCATION: Russell  
PROJECT WATERSHED: Westfield  
EEA NUMBER: 13635  
PROJECT PROPONENT: Russell Biomass LLC  
DATE NOTICED IN MONITOR: February 15, 2008

As Secretary of Energy and Environmental Affairs, I hereby determine that the Final Environmental Impact Report (FEIR) submitted on the above project **adequately and properly** complies with the Massachusetts Environmental Policy Act (MEPA, M.G.L. c. 30, ss. 61-62H) and with its implementing regulations (301 CMR 11.00).

The purpose of MEPA review is to ensure that a Project proponent studies feasible alternatives to a proposed project; fully discloses environmental impacts of a proposed project; and incorporates all feasible means to avoid, minimize, or mitigate Damage to the Environment as defined by the MEPA statute. I have fully examined the record before me, including but not limited to the Scope issued on September 7, 2007, the FEIR filed in response; and the comments entered into the record. I find that the FEIR is sufficiently responsive to the requirements of the MEPA regulations and the Scope to meet the regulatory standard for adequacy.

In considering the Proponent's response, I remind commenters that MEPA review does not permit me to approve or deny a project, but rather requires that I determine whether the Draft and Final EIRs have provided adequate information about the project to assist state permitting agencies in using all feasible means to avoid damage to the environment, or, to the extent it cannot be avoided, to minimize and mitigate damage to the environment to the

maximum extent practicable. In making a determination of adequacy, the MEPA regulations require me to determine that a FEIR is adequate, even if certain aspects of the project or issues require additional analysis of technical details, provided that I find that the aspects and issues have been clearly described and their nature and general elements analyzed in the FEIR or during MEPA review, that the issues can be fully analyzed prior to any agency issuing its final Section 61 Findings, and that there will be meaningful opportunities for public review of the additional analysis prior to any Agency taking action on the project.

As described in more detail in this Certificate, after examining the record before me, I find that there is enough information on alternatives, impacts, and mitigation to meet that standard. A central purpose of MEPA is to inform subsequent Agency Actions, including in this instance the Department of Public Utilities (DPU) decision on the Proponent's request for an exemption from local zoning. I have received comments that request a Supplemental FEIR to provide additional information on those issues subject to local zoning that are being reviewed as part of the DPU proceedings. I note that the DEIR and FEIR are part of the DPU record, and that as part of the record, the Proponent must also provide a copy of this Certificate and a copy of all comments submitted to MEPA on the FEIR. I am satisfied that the DPU through its review of the MEPA record and material developed in its own evidentiary hearings has developed sufficient information to ensure that its actions will avoid, minimize and mitigate local impacts to the maximum extent feasible. I also expect that the information in the FEIR in conjunction with information in other permit applications has provided a sufficient level of detail for permitting agencies to act. I expect EEA agencies to take their permitting responsibilities for this project very seriously.

I note the receipt of many detailed comment letters on the FEIR, which I have reviewed with the MEPA office. I also acknowledge the receipt of hundreds of comments and petitions submitted in opposition to the project over the course of its review. I thank commenters for their thoughtful and thorough analysis of the potential impacts of the proposed project and for their involvement in the MEPA process over the past 3 years. I am confident that the involvement of the public has resulted in a better project. The MEPA review of the project as outlined in the FEIR is concluded. This Certificate provides an assessment of the Proponent's response to the Certificate on the DEIR/NPC and outlines remaining issues to be addressed during permitting.

### Project Description

As presented in the FEIR, the project involves the construction of a 50-megawatt (MW) (nominal net design output) biomass-fired power plant, on an approximately 20-acre site in Russell, MA. Approximately 510,000 tons of biomass wood fuel will be consumed annually to produce heat to drive the turbine to generate electricity. The energy generated from the facility will be transmitted to the existing electrical grid and the net annual energy production will be approximately 400,000,000 kilowatt hours (kWh). Power will be conveyed from the plant to an interconnection point in Westfield at Western Massachusetts Electric Company's (WMECO's) existing 115 kilovolt (kV) transmission line via a new approximately 5.1 mile 115 kV transmission line. Ancillary facilities associated with the transmission line include a new 115 kV

switching station in Westfield to connect the proposed transmission line with the existing transmission line.

The facility will consist of a complete fuel receiving and handling system, either a single fluidized bubbling bed boiler (BFB) or a stoker fired boiler, a single condensing turbine, a mechanical draft evaporative cooling tower withdrawing water from the Westfield River via an existing intake structure, air and water quality control systems, a biodiesel boiler start up system, and auxiliaries typical of a stand alone power generating station.

The proposed site of the biomass facility is the location of the former Westfield River Paper Company, situated between Shatterack Mountain and the active CSX railroad along the Westfield River. The paper mill complex has been abandoned since its shutdown in 1994. Former paper mill buildings and infrastructure occupy the central portion of the site. Areas on the north end of the site not currently covered with buildings or pavement are primarily used for the temporary storage of timber products associated with the current Hull Forest Products lease on the site. Between 2000 and 2005, there were also gravel removal operations at the site.

The site is bounded by industrial uses and vacant land. To the west, CSX active railroad tracks, the Indian River Power Supply hydroelectric facility and the Westfield River bound the site. To the south, east and north the site is bounded by undeveloped forested land, portions of which are owned by the Massachusetts Division of Fisheries and Wildlife (DFW). The proposed transmission line associated with the project will be within or generally parallel to the existing easement. The closest residential areas are the Grove and River Street neighborhoods in the Town of Russell, which are approximately 1,000 and 2,000 feet northwest of the proposed facility and plant stack. The Russell Elementary School is 2,400 feet to the northwest of the site.

A sizable portion of the facility will be used for the stockpile of 20 to 30 days of wood fuel storage to assure continuous, adequate supply for the plant. Transportation of wood fuel to the site will necessitate approximately 75 to 80 deliveries daily via Main Street of Russell to supply the required 2,000 tons of fuel per day. Ash, the by-product from burning wood fuel, will be trucked from the site. The Proponent has estimated that the project will generate a total of 220 new daily vehicle trips consisting of round trips of 75 to 80 wood fuel trucks, 4 ash-disposal trucks, 4 logging trucks, and the vehicles of 22 permanent employees.

### MEPA History

In September of 2005 the Proponent submitted an Expanded ENF (EENF) for the project with a request that the Secretary of Energy & Environmental Affairs allow the preparation of a Single EIR for the project. In an October 31, 2005 Certificate, the Secretary found that the EENF did not meet the standards for a Single EIR at 301 CMR 11.05(7) and issued a Scope for a Draft EIR (DEIR). MassDEP comments submitted on the EENF indicated that the Department intended to review the project as outlined in the EENF and any future permit applications with the understanding that the only wood fuel proposed for the project would be derived from clean by-products of the forest industry, as outlined in the Town of Russell Special Permit issued on June 28, 2005. The Secretary's Certificate on the EENF directed the Proponent to prepare a

Notice of Project Change (NPC) if the proposed fuel source for the power plant deviated from the fuel source specified in the Special Permit.

In July of 2007 the Proponent submitted a combined DEIR/NPC in response to the Certificate on the EENF. The Proponent requested in the DEIR/NPC that further MEPA review of the project proceed on the basis of using wood fuel as defined at 310 CMR 7.00 and not in the Town of Russell Special Permit as the primary fuel source for the plant. In a September 7, 2007 Certificate, the Secretary determined that the DEIR/NPC adequately and properly complied with the MEPA regulations and directed the Proponent to prepare the FEIR for review. The Scope for the FEIR reflected the changes to the project described in the NPC. The FEIR currently under review has been filed in response to the Certificate on the DEIR/NPC.

### Jurisdiction and Permitting

The project is undergoing environmental review and is subject to the preparation of a mandatory EIR pursuant to the following sections of the MEPA regulations:

- Section 11.03(1)(a)(1): Direct alteration of 50 or more acres of land associated with the construction of the transmission line.
- Section 11.03(1)(a)(2): Creation of 10 or more acres of new impervious surface at the power plant facility.

The project also meets the following review thresholds for an Environmental Notification Form:

- Section 11.03(1)(b)(3): Conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97.
- Section 11.03(2)(b)(2): Rare species impacts in the Westfield River and associated with the transmission line corridor.
- Section 11.03(3)(b)(1)(d): Alteration of more than 5,000 square feet (sf) of Bordering Vegetated Wetlands (BVW) associated with the construction of the transmission line.
- Section 11.03(3)(b)(1)(f): Alteration of ½ acre or more of “any other wetlands”, in this case, Riverfront Area.
- Section 11.03(4)(b)(1): Expansion in withdrawal of 100,000 or more gallons per day (gpd) of water from the Westfield River for cooling.
- Section 11.03(5)(b)(4)(b)(ii): New surface water discharge of 20,000 gpd or more of industrial wastewater for cooling.
- Section 11.03(7)(b)(1): Construction of a new electrical generating facility with a capacity of 25 or more MW.
- Section 11.03(8)(b)(1): Construction of a new major stationary source with federal potential emissions, after construction and the imposition of required controls of: 100 tons per year (tpy) of particulate matter (PM) as PM<sub>10</sub>, carbon monoxide (CO), lead or sulfur dioxide (SO<sub>2</sub>); 50 tpy of volatile organic compounds (VOC) or nitrogen oxide (NOx); 10 tpy of any hazardous air pollutant (HAP); or any 25 tpy of any combination of HAPs related to the proposed power plant emissions.

- Section 11.03(10)(b)(1): Demolition of all or any exterior parts of any historic structure listed in the Inventory of Historic Assets of the Commonwealth associated with the abandoned Mill.

The project requires the following federal permits and/or review: an Individual Permit from the U.S. Army Corps of Engineers (ACOE) pursuant to Section 404 of the Clean Water Act; a National Pollutant Discharge Elimination System (NPDES) Construction General Permit, a NPDES Individual Permit for Surface Water Discharge, and a NPDES Individual Permit for Operational Stormwater Discharges from the U.S. Environmental Protection Agency (USEPA).

The project requires the following state permits and/or review: a Major Comprehensive Plan Approval, a Water Management Act Permit, a 401 Water Quality Certificate, and a Beneficial Use Determination (BUD) from the Department of Environmental Protection (MassDEP); a Stack Registration Permit from the Federal Aviation Authority (FAA); a Request for Interconnection for a Large Generating Facility from the Independent System Operator – New England (ISO-NE); a Petition for Approval of Construction for the transmission line and substation from the Energy Facility Siting Board (EFSB); a Section 72 Petition from the Department of Public Utilities (DPU)/EFSB; a Conservation and Management Permit from the Division of Fisheries and Wildlife (DFW), Natural Heritage and Endangered Species Program (NHESP); an Authorization to Access from the Massachusetts Turnpike Authority (MTA) for transmission line construction in the Turnpike Right of Way; a State Highway Access Permit from the Massachusetts Highway Department (MassHighway); and a Determination of No Adverse Impact from the Massachusetts Historical Commission (MHC).

The project requires the following local permits and/or review: Orders of Conditions from the Russell and Westfield Conservation Commissions; Subsurface Sewage Disposal Works Permits from the Russell and Westfield Boards of Health; Site Plan Review from the Russell Planning Board; and a possible Special Permit from the Russell Zoning Board of Appeals (ZBA). The project also requires Fuel Oil Tank Permits and a Use Permit under 502 CMR 5.00 from the State Fire Marshall and the Russell Fire Department for ammonia and fuel oil storage tanks.

While the project did receive funding for a feasibility study from the Massachusetts Technology Collaborative (MTC), the Proponent is not seeking financial assistance from the Commonwealth for the construction or operation of the project and therefore MEPA jurisdiction is limited to the subject matter of required or potentially required state permits. In this case MEPA jurisdiction applies to land alteration, Article 97 protection, stormwater, rare species, wetlands, water withdrawal, wastewater, energy, air quality, solid and hazardous waste and historic resources.

The Proponent received a Special Permit for the project from the Town of Russell ZBA in July 2005. The Special Permit was appealed in August 2006. The Proponent has since applied for a Petition for Zoning Exemption for the power plant facility from the DPU and a Petition for Zoning Exemption from the DPU/EFSB for the transmission line and switching station. All parties to the Special Permit Land Court Appeal have agreed to a stay of the appeal pending the

DPU's decision on the zoning exemption. If the zoning exemption is not granted, the appeal process will continue.

The Proponent's request for a Zoning Exemption in effect grants the DPU review authority over all impacts that would be addressed during the Town of Russell Special Permit process. As the Petition for Zoning Exemption is a possible state permit associated with the project, MEPA jurisdiction extends to those issues that the DPU is considering in its review of the Petition. As outlined in the Certificate on the DEIR/NPC, MEPA jurisdiction extends to potential environmental impacts related to project-generated traffic.

I remind the Proponent that should there be material changes (as defined at 301 CMR 11.10) to the project as proposed in the FEIR as a result of conditions imposed by the DPU Zoning Exemption, a Town of Russell Special Permit, or other factors, the project may require further MEPA review through the filing of a NPC.

#### Project Changes since the DEIR/NPC

The Proponent has identified the following changes to the project and/or project design since the MEPA review of the DEIR/NPC:

- The Proponent has identified a Preferred Alternative for the transmission line route, known as Route 1a Modified.
- The Proponent has identified a Preferred Alternative for the switching station site in Westfield. The Preferred Alternative is Site S-2.
- The Proponent has reconfigured the design of the fuel storage area to comply with state and local fire codes.
- Both BFB and stoker boiler technologies now qualify under the Renewable Energy Portfolio Standard (RPS) regulations. Both technologies are still under consideration. The Proponent has evaluated the potential impacts and mitigation measures for both boiler technologies.
- The Proponent has completed rare species surveys for the site as required by NHESP.
- Wetland resources at the facility and along the transmission line corridor have been delineated and were confirmed by the Abbreviated Notice of Resource Area Delineation (ANRAD) process.
- The Proponent has secured an agreement with Indian River Hydro, owners of the dam, for permission to withdraw make-up water from the dam's impoundment.
- The Proponent has proposed enhancements to Main Street in Russell to address potential impacts from project-related truck traffic.

#### Power Output

The Certificate on the DEIR/NPC directed the Proponent to resolve concerns regarding discrepancies about the projected power output of the proposed facility. The FEIR provided a comprehensive response to address the issue. The proposed facility is designed to generate a 50 MW net electrical power output to the ISO-NE transmission grid on a hot (90° F) summer day.

According to the FEIR, this is referred to as the plant's "design net output" or nominal output. The plant's gross generation is the total generation of electricity that must be supplied by the turbine-generator to produce the plant's design net output. The proposed facility is expected to require 5 MW of power for internal operations. Therefore in order to generate the specified design net output of 50 MW, the turbine-generator must produce at least a gross power generation of 55 MW for the stoker boiler alternative and 58 MW for the BFB boiler alternative.

The plant's design net output is most difficult to obtain during hot weather. As ambient temperature decreases, plant efficiency improvements occur that allow the plant to generate increased power without increasing the amount of fuel burned. Therefore, as the temperature decreases, there may be an increase in net plant output but no additional environmental impacts occur because the amount of fuel burned does not increase. The Proponent estimates that the proposed project will have the capability to generate as much as 55 MW net to the grid at low ambient temperatures while using the same amount of fuel as on a hot summer day.

The ISO-NE Request for Interconnection for a Large Generating Facility requires that the maximum net output of a facility be evaluated for its impact on the capacity limit of the transmission system, and for compatibility of the power generation characteristics with the system. Therefore, the maximum net output of 55 MW, possible at low ambient temperatures was provided in the ISO-NE Request. ISO-NE also evaluated the corresponding gross output capability of the turbine-generator in its study. The Proponent states in the FEIR that a 60 MW gross output capability for the stoker boiler alternative and a 63 MW gross output capability for the BFB boiler alternative correspond with a maximum 55 MW net plant output capability, and therefore 60 MW/63 MW was provided to ISO-NE as an estimated maximum gross generator capacity.

Permitting agencies must ensure that no adverse impacts will occur under the maximum power output, maximum fuel input, and maximum water withdrawal and discharge volumes. To produce the electric power, steam will be generated by a boiler to power a turbine-generator. For either boiler alternative, a maximum fuel input rate of 740 million British thermal units per hour (MMBtu/hr) has been assumed as the maximum fuel requirement to power the turbine and auxiliary plant loads under the most limiting ambient and plant-operating conditions. This maximum fuel input rate has been used in the MassDEP Major Comprehensive Plan Approval application.

### Alternatives

The DEIR/NPC presented a comprehensive analysis of alternatives related to project design and technology. At the time of the DEIR/NPC, multiple alternatives were still being considered. As outlined in the FEIR, many of the alternatives analyzed have been refined, and a single Preferred Alternative chosen. The Certificate on the DEIR/NPC determined that the Proponent provided an adequate analysis of alternatives related to the following impact areas: power plant siting, power plant size, water intake siting, and wastewater and discharge point siting. The FEIR provided additional information on alternatives related to site access, site

configuration, boiler technology, cooling technology, transmission line route, switching station location and wetlands. The discussion below responds to this new information.

### *Site Access*

The Proponent evaluated three alternative access routes to the site in the DEIR/NPC: 1) the Preferred Alternative route from Main Street in Russell via an existing bridge over the Westfield River; 2) access via a newly constructed bridge one mile south of the site across the Westfield River off of U.S. Route 20; and 3) access via a new one-mile roadway extension of Frog Hollow Road to Route 20 around Turtle Bend Mountain. The Proponent has eliminated the access route involving construction of a new bridge based on consultation with MassDEP, who has indicated that a new bridge could not be permitted under the Wetlands Protection Act (WPA) because the existing Main Street Bridge is adequately sized to accommodate existing and project-related traffic. The alternative access route around Turtle Bend Mountain has been rejected by the Proponent because land for the alternate road would need to be acquired by the Town of Russell and because construction of the road would result in additional resource area and rare species impacts.

The Certificate on the DEIR/NPC required that the Proponent provide additional information in response to concerns raised regarding the public health, noise, traffic and safety impacts of the Main Street access alternative. The Proponent's FEIR response to these issues is addressed in a later section of this Certificate.

The Certificate on the DEIR/NPC also required that the Proponent expand the analysis of alternative routes to the site to include rail. CSX Transportation currently operates and maintains a single track directly west of the facility site. The FEIR provided analysis of the rail access alternative with regard to cost, logistics, noise and air impacts. The Proponent outlines the results of the analysis in the FEIR:

- The Proponent estimates that wood fuel delivery costs by rail would be approximately \$48 to \$54 per ton, as compared to approximately \$20 per ton for truck delivery.
- The average fuel supply of 2,000 tons per day would require an average of 25 to 35 rail car deliveries per day.
- Wood fuel would be unloaded from rail cars using one of two methods: rotary dumping or via a clam shell. The Proponent estimates that it would take approximately 6 hours to unload 30 rail cars using the rotary dumping method and approximately 10 to 12 hours using a clam shell.
- There are a number of delivery constraints associated with rail access including saturation of the single rail line through Russell, which handles all the east-west trade traffic through Massachusetts; CSX schedule constraints; and timing and coordination issues related to the emptying of wood fuel and pick-up of empty rail cars.
- The Proponent has not included a new rail siding configuration for the delivery, car exchange and unloading operations in the facility design. The estimated cost to reconstruct the existing rail siding at the site to accommodate the project is \$750,000.
- The rail access alternative would result in additional noise impacts from maneuvering into and at the siding at the site and from the rail car unloading.



- The Proponent notes that diesel-powered trains emit diesel particulate matter (DPM) similar to diesel trucks. DPM would be emitted at the site during the rail car drop-off and pick-up operations. The Proponent states however that because the air quality impacts of project-related truck traffic have been modeled at less than 1 percent of the U.S. EPA inhalation standard, there would be no measurable net air quality benefit associated with the rail access alternative. In addition, the Proponent notes additional cumulative rail transportation air impacts because wood fuel would need to first be trucked to rail collection points rather than being driven directly from the fuel source to the facility.

I note concerns regarding the adequacy of the analysis on the rail access alternative, however I am satisfied that the FEIR has adequately responded to the Certificate on the issue. I expect that the DPU will continue to assess site access alternatives in its permitting process.

#### *Site Design/Configuration*

The Preferred Alternative site layout features the fuel receiving and storage at the north end of the site, and power facilities and plant stack at the south end. The FEIR included a discussion of how the selection of boiler technology would affect site layout, as both the stoker and BFB technology are still under consideration. The general layout of both alternatives is similar, with the fuel pile located to the north and the plant located to the south. The stack is in the same location for both alternatives, but an approximately 20 foot northward shift in other plant components is required for the BFB alternative. Site plans displaying the alternative site layouts were submitted with the FEIR.

Both site plans have been updated since the DEIR/NPC to reflect revisions to the design of the fuel storage area to improve emergency access for fire prevention and protection. Previously the Proponent proposed a single, large fuel storage area; the site plan now includes two smaller areas for fuel storage as well as revisions to the access road to provide for emergency equipment access around each pile.

#### *Power Plant Equipment/Technology*

As of October 19, 2007 the Division of Energy Resources (DOER) RPS regulations allow stoker boiler technology to be eligible for inclusion under the RPS; previously the BFB technology was the Proponent's only alternative that qualified under the RPS regulations. The Proponent has not selected a Preferred Alternative boiler technology in the FEIR and states that this selection will be based on a determination of which boiler is the most environmentally efficient and economical.

As noted above the choice of boiler type will have minor impacts to the site plan. The selected boiler type will impact the fuel-burning method, the gross amount of generated steam needed to cover auxiliary loads, and the volume of fuel needed to meet output requirements. Selection of boiler type will not impact inputs and outputs of the operating system, including the steam turbine, estimated volumes of water withdrawal for cooling, estimated volumes and pollutant concentrations of wastewater discharge, and cooling tower design. For either technology, all air emission concentrations will meet the same MassDEP air permit limits.

*Cooling Technique/Alternatives*

The proposed biomass plant will include a mechanical draft evaporative cooling tower that will withdraw make-up water from the Westfield River via an existing intake structure and will continuously circulate the water through a steam condenser for cooling purposes. The Proponent evaluated several alternative cooling techniques in the DEIR/NPC including wet/dry evaporative cooling, once-through cooling, direct air exchange cooling, and combined wet/dry cooling. The Certificate on the DEIR/NPC required a further analysis of cooling technology alternatives, including an analysis of economics, water withdrawal/discharge volumes, water quality/temperature, and required wastewater treatment. The Proponent notes that an extensive alternatives analysis was developed in response to MassDEP's Order to Complete (OTC) on the project's Water Management Act (WMA) permit application; the OTC response was submitted as an appendix to the FEIR.

The expanded discussion in the FEIR presents a comparative analysis of a dry air cooled condensing (ACC) system versus the wet cooled condenser (WCC). The Proponent eliminated the combined air and water cooled hybrid system, also known as parallel condensing technology (PAC) from further consideration due to the complexity of operational control, expense, and limited sources of supply for this type of system.

As part of the analysis, the Proponent established ACC and WCC design parameters and then modeled ACC and WCC system performance across a range of typical ambient temperatures for the project site. Results of the modeling reveal that compared to WCC, the net plant power output using ACC falls off more rapidly than WCC temperatures above 60°F; in a simulation of annual plant operation, a plant using WCC technology would produce 4% more net output than a plant using ACC technology. According to the FEIR, the reduced annual output associated with the ACC technology would cause a loss of 12,290 MWh of energy or 0.54 MW of capacity to the state's RPS program.

On an average annual basis, water withdrawal associated with the WCC alternative would be 673,604 gpd while the withdrawal associated with the ACC alternative would be 13,460 gpd. The Proponent notes that during actual plant operation, which includes planned maintenance downtime, the annual average withdrawal will not exceed 662,000 gpd and a peak withdrawal of 885,000 gpd. Cooling water discharge from a plant using ACC technology will be more concentrated, as the boiler blowdown will not be mixed with returned cooling water as under the WCC option. Both WCC and ACC alternatives will require water quality treatment to meet the NPDES Individual Permit requirements and the Massachusetts Water Quality Standards at the edge of the mixing zone.

The Proponent estimates that an ACC system would cost \$13,558,500 to install and \$184,000 per year in annual operation and maintenance costs. The WCC is estimated to cost \$3,886,507 to install and \$169,684 for operation and maintenance annually. The approximate capital cost of ACC (\$13.6 million) compared to that for the WCC (\$4.0 million) equates to a ratio of 3.4:1. A further analysis of lost revenue costs conducted by the Proponent indicates that the ACC alternative would result in an increased dollar cost over the 30-year life of the project of \$67.8 million.

The Proponent concludes that the adverse impacts of the ACC technology in terms of financial impacts and loss of renewable energy output outweigh the water withdrawal impacts of the WCC alternative. The WCC alternative is the Preferred Alternative. After reviewing the expanded alternatives analysis that was also provided in the OTC, MassDEP has concluded that although using air-cooled technology appears to be technically feasible for the project, the costs of construction, operation and maintenance of air-cooled technology over the design life of the facility, outweigh the benefits of avoiding the proposed withdrawal for water-cooled technology in this case. Based on the information in the FEIR and MassDEP's review of the potential impact of the proposed withdrawal, and upon MassDEP's conclusion that the withdrawal will have a de minimus impact on low flow conditions as discussed in a subsequent section of this Certificate, no further MEPA review is required related to cooling technology alternatives.

### *Transmission Line Alternatives*

In the DEIR/NPC, the Proponent considered two main alternative transmission line routes for connecting the facility to the WMECO #1512 115 kV transmission line in Westfield: 1) the Southern Interconnection Point (Southern IP), which would extend from the southern end of the Russell Biomass property, through Russell, Montgomery and into Westfield for an approximate distance of 5.3 miles before connecting with the existing #1512 115 kV transmission line; and 2) the Northern Interconnection Point (Northern IP), an approximately 10-mile transmission interconnect to a substation in North Blandford. The Southern IP route is preferred over the Northern IP route because the length of the Northern IP transmission line is almost twice the length of the Preferred Alternative. In addition, the Northern IP route would require crossings of the Main and West Branches of the Westfield River in Huntington and at least five crossings of tributaries to surface drinking water supplies.

Once the Southern IP was selected as the Preferred Alternative, the Proponent then evaluated five different routes including:

- Route Alternative 1a: This alternative involves moving the existing transmission line right-of-way (ROW) down Shatterack Mountain closer to the CSX railroad.  
Route Alternative 1b: This alternative incorporates portions of the existing WMECO easement and new easements on DFW property.  
Route Alternative 1c: This alternative uses the existing WMECO easement.
- Route Alternative 2: The majority of this alternative follows Route 20.  
Route Alternative 3: This alternative is the existing CSX right-of-way.

Route Alternatives 2 and 3 were eliminated from further consideration, and the three variations of the Route 1 Alternative were evaluated further related to NHESP rare species concerns on Shatterack Mountain, the need to secure legislative approval for an Article 97 land swap between DFW and WMECO, and negotiations with CSX who owns the ROW at the active rail corridor.

The FEIR presents a Route 1a Modified Alternative as the Preferred Alternative based on advancement of the Article 97 process and the outcome of negotiations with CSX Railroad. The

proposed route extends from the southern end of the project site through Russell, Montgomery and into Westfield, for an approximate distance of 5.1 miles, before connecting with the existing 1512 line. The route then runs southeasterly along the west side of Shatterack Mountain and Tekoa Mountain and to the east of Punchbowl Mountain, Mount Nero and Russell Mountain, and then over the Massachusetts Turnpike (I-90). South of I-90, the line will run easterly along an existing WMECO easement where an active 23 kV line is already located, toward the existing 115 kV line northeast of Pochassic Hills.

The Preferred Alternative has been developed in close consultation with permitting agencies to avoid, minimize and mitigate potential impacts to rare and endangered species and wetland resource areas. The Administrative Board of DFW has approved the concept of an easement swap between DFW and WMECO in a March 28, 2006 decision. The Article 97 legislation required to relocate the WMECO easement on state conservation lands is progressing through the legislature. Variation 1c also remains a viable option in the event that Article 97 legislation is not passed.

#### *Switching Station Alternatives*

Because the proposed transmission line will be a radial configuration, a new switching station is required at the interconnection point with WMECO's existing #1512 115 kV transmission line at the southern end. The DEIR/NPC presented two alternative switching station sites located in Westfield. The Preferred Alternative is to site the switching station at Alternative S-2, which is located approximately 700 feet west of the proposed interconnection point. Access to this location would be from the east and would require use of a private road for approximately 1,800 feet from the end of Furrowtown Road, a public road. Where necessary, the private road and approximately 3,000 feet of existing road located on WMECO's existing easement will be upgraded.

#### *Section 401 Water Quality Certificate Analysis*

As required by the Certificate on the DEIR/NPC, the FEIR provided a detailed alternatives analysis for impacts to waters of the United States as required under the Clean Water Act (CWA) 401 regulations. The alternative transmission line approaches were analyzed under 314 CMR 9.06(1). The analysis of factors including impacts to wetlands and rare species, costs, existing technology and logistics supports the Proponent's preference for Route 1a Modified route as the Preferred Alternative. Additional detail regarding the project's anticipated wetland impacts and mitigation are discussed in a later section of this Certificate.

#### Land Alteration & Stormwater

##### *Biomass Facility Site*

4.7 +/- acres of impervious area currently exist at the site. The proposed project will result in an increase of 5.3 +/- acres of impervious surface at the site, for a total of approximately 10 acres. A discussion of existing drainage conditions at the site, along the transmission line

corridor and at the proposed switching station site was submitted with the DEIR/NPC and updated in the FEIR.

The FEIR outlined the proposed stormwater management system for the facility site and provided an expanded discussion of proposed Best Management Practices (BMPs). All paved areas will be curbed to confine runoff and direct it into deep sump hooded catch basins. From these catch basins, stormwater will be piped to one of two sediment forebays and then into two associated detention/infiltration basins. All runoff from the fuel storage area will be treated prior to offsite discharge. The BFB and stoker fired boiler alternatives will require slightly different plant configurations. The proposed stormwater management system will remain the same for either boiler selected. The different plant configurations will cause a slight alternation of the fuel storage area, however the site designs for each alternative have reserved sufficient areas to ensure no significant alteration to the stormwater management system would be required with either boiler option.

The outfall for the detention basin located on the northwest portion of the site will discharge to a manhole where the stormwater will be combined with the treated plant discharge. The combined flow will be piped under the CSX railroad to a new outfall on the eastern bank of the Westfield River approximately 500 feet south of the Indian River Hydro Dam. The outfall for the basin located in the southern portion of the site will discharge to an energy dissipation area and then will flow overland via an existing discharge point on the southern property line. The two basins have outlet control structures which will control the rate of stormwater discharge to the outfall locations. The outlet control devices have been revised to increase infiltration during the more frequent storm events and to supply water quality volume necessary to provide greater protection of critical areas.

The Proponent will seek a NPDES Individual Permit for the plant to cover both stormwater and process wastewater associated with the facility. The NPDES Individual Permit will also ensure the project's compliance with the requirements of the Massachusetts Surface Water Discharge Permit Program. Because the stormwater will be regulated under the NPDES Individual Permit, stormwater discharges associated with the generating facility are presumed to meet the standards of MassDEP's Stormwater Management Policy (SMP). Despite this presumption, the project will be designed to incorporate BMPs to ensure that the facility meets MassDEP's SMP Standards. The Proponent notes in the FEIR that recent changes to the Massachusetts WPA regulations include updates to the SMP standards. Applicable modifications to the stormwater management system will be made to address the revisions.

The FEIR included an updated discussion of the project's compliance with the SMP. In response to the Certificate on the DEIR/NPC, the Proponent clarified that although the proposed site usage is not explicitly defined as a source of higher potential pollutant loads, BMPs will be incorporated into the design to capture and pre-treat stormwater in a manner consistent with SMP Standard #5. The stormwater management system has also been revised to treat the higher volume of 1 inch of runoff in compliance with SMP Standard #6 – Protection of Critical Areas, in response to DFW concerns that the Westfield River in the vicinity of the project supports cold water fisheries.

The Proponent will develop a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the NPDES program for construction-period stormwater discharges. The FEIR contained a discussion of the SWPPP and a spill contingency plan that will be developed for the project. A preliminary Operations & Maintenance Plan (O & M Plan) for both structural and non-structural stormwater BMPs has been prepared and summarized in the FEIR.

### *Transmission Line and Switching Station*

Existing drainage patterns for the transmission line corridor will be minimally altered by construction of the transmission line. During installation of the transmission line, the Proponent will implement erosion and sedimentation controls to control construction-period runoff; however the corridor will not require additional treatment in the completed, stabilized, post-construction condition.

The proposed switching station will encompass approximately 0.8 acres of land. The switching station will result in the creation of approximately 1,100 sf of impervious surface. An approximately 3,000 linear foot (lf) gravel road will be constructed along the existing transmission easement for permanent access to the switching station. A detention area will be installed directly south of the switching station to collect stormwater runoff for treatment and detainment prior to discharge to a nearby wetland.

### Rare Species

According to the 12<sup>th</sup> Edition of the Massachusetts Natural Heritage Atlas (October 1, 2006), the following state-listed species are identified in or near the project site:

- Triangle Floater (Mussel) – Special Concern
- Creeper (Mussel) – Special Concern
- Eastern Box Turtle (Reptile) – Special Concern
- Zebra Clubtail (Dragonfly) – Endangered
- Arrow Clubtail (Dragonfly) – Threatened
- Spiked False-oats (Plant) – Endangered
- Smooth Rock-cress (Plant) – Threatened
- Houghton's Flatsedge (Plant) – Endangered
- Data Sensitive Vertebrate

Since the submission of the DEIR/NPC, the Proponent has continued to consult with NHESP regarding rare species impacts and mitigation. Based on a preliminary review of the proposed project by NHESP, construction of the proposed biomass facility will result in a "take" of the smooth rock-cress and Houghton's flatsedge at the facility site. Construction of the biomass plant, transmission line corridor and switching station is not anticipated to result in a "take" of any other rare species populations.

The Proponent conducted surveys for plant, terrestrial and aquatic species in the project area during 2005 and 2006. The results of those surveys were outlined in the DEIR/NPC. The FEIR discussed the findings of additional survey work that was completed after the review of the

DEIR/NPC. The FEIR also provided an expanded discussion of potential impacts to rare species and mitigation. In its comment on the FEIR, NHESP states that outstanding issues related to rare species impacts and mitigation can be resolved during the Conservation & Management Permit process.

### *Aquatic Species*

Additional surveys of state-listed rare mussel species conducted in June and July 2007 found that freshwater mussels were absent or extremely sparse in the vicinity of the project. Two specimens of state-listed mussels were identified approximately 800 feet upstream of the proposed intake and two specimens were located approximately 2,800 feet downstream of the proposed discharge. Based on the results of the survey and an evaluation of potential impacts associated with the proposed intake and discharge, the Proponent concludes that the project will not adversely impact the habitat of state-listed freshwater mussels.

The Proponent conducted additional surveys in August 2007 for state-listed rare dragonfly species. Nymphs of three state-listed species were found downstream of the discharge location. No species were found in the pool above the dam or in the vicinity of the facility discharge pipe location. The dragonfly survey report concluded that adult dragonflies and dragonfly nymphs would be unlikely to be impacted as a result of the project. The Proponent also undertook a technical evaluation of potential water quality impacts to dragonflies in the vicinity of the proposed intake and discharge structures. The evaluation concluded that the proposed intake would have no definable effect on entrainment of dragonfly eggs or nymphs and that temperature changes and maximum concentrations associated with the discharge that may occur prior to mixing would be unlikely to adversely impact dragonfly nymphs. The results of the study evaluating water quality impacts to dragonflies were included as an Appendix to the FEIR.

As part of the repair to the existing intake pipe, intake structure screens will be modified as required to minimize the potential for impingement and entrainment of aquatic species. A coarse bar trash rack with approximately one-inch openings will be located in front of the screens. The intake structure vault will be used as a protective enclosure during work associated with the existing intake pipe; no work will occur outside the existing concrete vault. The Proponent will install sedimentation control measures prior to starting the pipe repair work. During plant operation, the estimate velocity into the intake structure will be approximately 0.19 feet per second (cfs), which is lower than the USEPA limit of 0.5 cfs.

The project involves construction of a new discharge outfall located approximately 500 feet downstream of the Indian River Hydro Dam at the beginning of a strong riffle in the Westfield River. The following measures will be implemented to minimize adverse impacts to aquatic habitat from the installation of the discharge pipe. The use of a bank discharge as opposed to a submerged pipe discharge will be less disruptive to the river. The outfall pipe will discharge onto a natural stone pad which will provide velocity control to minimize scour. The Proponent will install erosion and sedimentation controls during the installation of the discharge pipe. Following installation, the vegetated areas of the bank will be restabilized with native plants.

The FEIR also included an updated discussion outlining how the proposed discharge will result in negligible changes to water temperature, water quality and hydrologic regime in the Westfield River. The discharge will be required to meet the analytical requirements of the NPDES Multi-Sector Stormwater General Permit for both Sector O (steam electric generating facilities) for the biomass facility and Sector A (timber products) for the fuel storage. Samples will be taken on a regular basis from each regulated outfall to be analyzed for required constituents to ensure that the discharge does not cause a violation of water quality standards. The permit will include enforceable requirements for effluent and in-stream monitoring and reporting. The Proponent's evaluation of potential water quality impacts summarized in the DEIR/NPC and FEIR indicate that the proposed discharge will meet or exceed all water quality standards for Class B waters.

Potential impacts to fishery resources were addressed in the DEIR/NPC and summarized again in the FEIR. Although no state-listed fish species are listed in the vicinity of the project, several fish species naturally occur in the Westfield River. In addition, DFW regularly stocks the segment of the Westfield River near the project site with trout and also regularly stocks the upstream branches of and tributaries to the River with juvenile Atlantic salmon. The Westfield River in the vicinity of the project has been designated as Essential Fish Habitat (EFH) for Atlantic Salmon by the National Marine Fisheries Service (NMFS). EFH Assessment information was provided to the EPA in the NPDES Permit Application in August 2006. Based on the design of the intake and outfall structures, the relatively small volume of the proposed withdrawal, and the chemical and physical characteristics of the proposed discharge, the Proponent expects that potential adverse impacts to EFH will be minimal. The location and design of the water intake structure will reduce entrainment and impingement of fishery resources. The proposed discharge will be designed to meet CWA standards as well as the Antidegradation Provisions of the Massachusetts Surface Water Quality Standards; compliance with these standards will ensure that anticipated thermal and chemical impacts of the proposed discharge will not adversely impact fishery resources. As noted in its comment on the FEIR, the Proponent has adequately addressed NHESP's concerns regarding impacts to fisheries.

### *Plant Species*

Initial findings from botanical surveys conducted in advance of the DEIR/NPC indicated that of the state-listed plants in the vicinity of the project site, only smooth rock-cress was present within the power plant site and alternative transmission corridor routes. Additional botanical surveys undertaken in August and September 2007 revealed one specimen of Houghton's flatsedge at the biomass facility site. The Proponent also undertook additional survey work along the alternative Variation 1a, 1b, 1c and 1a Modified transmission line corridor routes and at the switching station location. Surveys revealed the presence of two state-listed rare plant species, smooth rock-cress and climbing fumitory. The project is expected to result in a "take" of the smooth rock-cress and Houghton's flatsedge.

Prior to construction, the transmission line corridor will be resurveyed for the Houghton's Flatsedge and the smooth rock-cress. Boundaries of rare plant populations will be clearly delineated in the field. If existing access roads containing rare plants cannot be avoided, temporary elevated bridge-type structures will be utilized to span over rare plants. If it is found



that substantially more rare plants are located within existing access roads than originally estimated, the Proponent will notify NHESP. Trees within the boundaries of smooth rock-cress populations will be cut without dropping or dragging them on the ground, and no storage of machinery, downed trees or other materials will occur on mapped areas of smooth rock-cress. Post-construction monitoring will be performed for a period of three years to identify any construction related impact to the populations.

Seeds from existing specimens will be collected, sowed and replanted in a NHESP-approved location. Some seeds may also be collected to be retained in a seed bank for future sowing. Surficial soil will be removed from the habitat areas and scattered at a location approved by NHESP in case the soil contains additional seeds. In addition, the Proponent has proposed the following measures as mitigation for unavoidable impacts to smooth rock-cress and Houghton's flatsedge:

- The deed of one or more parcels with frontage on the Westfield River, containing habitat for smooth rock-cress and/or Houghton's flatsedge to DFW or another qualified land trust or government entity, and/or funding to be used for management, research and inventory, purchase of other land, or other mutually agreeable measures to benefit smooth rock-cress and Houghton's flatsedge populations in Massachusetts.
- Installation of gates and guardrail barriers on adjacent property owned by DFW to minimize unauthorized vehicular access to DFW land containing rare plant populations.
- Development and funding for an Off-Road Vehicle (ORV) Management Plan to minimize unauthorized vehicular access to the transmission line corridor.

### *Terrestrial Species*

Surveys for the data sensitive vertebrate species and the eastern box turtle were not conducted along the proposed transmission corridor due to the mobility of these species and the large size of the project area. It is assumed that these species will periodically utilize the transmission line corridor. The Proponent will implement protective measures within areas of mapped Priority Habitat for these animals to ensure that they are not negatively impacted during construction activities.

The following steps will be taken to minimize impacts to the data sensitive rare species and the eastern box turtle during the installation of the transmission line. To the extent possible tree clearing and transmission line installation in the portion of the corridor where the data sensitive species is a concern will be performed during the dormancy period for this species. If work is planned during the active period for the data sensitive vertebrate species, qualified biologists will "sweep" the work areas prior to any work or equipment access. Qualified biologists will be present at the work site during the active period for the species and will train construction personnel prior to commencement of work activities. If a rare animal is observed, the specimen will be relocated in accordance with protocols approved by NHESP. Vegetation clearing within the transmission line corridor will be performed so as to preserve shrub layer canopy to the maximum extent possible. Transmission line structures will be located outside of rock outcroppings wherever possible.

In addition, the Proponent will implement an ORV Management Plan to minimize the potential for recreational ORVs to illegally enter the property and potentially impact rare species populations occurring along access roads. The ORV Plan will be finalized in coordination with DFW and NHESP. A copy of the ORV Plan was submitted as an Appendix to the FEIR. Final details regarding the ORV Plan, including long-term funding for enforcement of the ORV plan should be developed during NHESP review and permitting.

### Wetlands

The Proponent submitted Abbreviated Notices of Resource Area Delineation (ANRADs) to the Conservation Commissions in the Towns of Russell and Montgomery and the City of Westfield to confirm the extent of wetland resource areas and buffer zones present within the property. Orders of Resource Area Delineation (ORAD) were received from all three municipalities confirming the jurisdictional status and the extent of resource areas on-site. The Montgomery Conservation Commission confirmed that there are no state jurisdictional wetlands within the proposed transmission line corridor in Montgomery. The FEIR contained copies of the three ORADs. A request for delineation review and jurisdictional determination with regard to federally jurisdictional wetlands was submitted to the U.S. Army Corps of Engineers (ACOE) in October 2007.

As construction and repair related to electric utilities, all portions of the project qualify for consideration as Limited Projects under the WPA regulations at 310 CMR 10.53(3)(d). The project will require Orders of Conditions from the Russell and Westfield Conservation Commissions, a Water Quality Certificate from MassDEP and an Individual Section 404 Permit from the ACOE. The Proponent should note specific comments from MassDEP regarding filing requirements for limited projects.

Wetlands at the proposed biomass facility site include Bank, Bordering Land Subject to Flooding (BLSF) and Riverfront Area, as well as the 100-foot buffer zone to Bank. Portions of the biomass facility site qualify as a Historic Mill Complex per MGL c. 131 § 40 and are therefore exempt from the requirements for Riverfront Area per 310 CMR 10.58(6)(k). The extent of the facility site that is exempt under the Historic Mill provision as well as the extent of previously developed Riverfront Area per 310 CMR 10.58(5) will be reviewed during the Notice of Intent (NOI) permitting process. Wetlands within the transmission line corridor and at the switching station area include Bordering Vegetated Wetlands (BVW), Bank, Land Under Wetlands and Waterways (LUWW), Riverfront Area and Isolated Vegetated Wetlands (IVW). Although not certified, several potential vernal pools are also present within the easement.

The power plant portion of the project consists of construction of the power plant, rehabilitation of the water intake structure, and construction of the wastewater/stormwater discharge structure. Work associated with the power plant will not result in wetland impacts. The repair of the existing intake structure will result in impacts to 20 linear feet (lf) of Bank and 200 sf of BLSF. Construction of the new discharge structure will result in impacts to 40 lf of Bank, 8,000 sf of BLSF, and 9,500 sf of Riverfront Area.

Work associated with the installation of the transmission line includes installation of transmission structures and anchors, clearing within the 100-foot wide easement, construction of the switching station, improvements to existing access roads and the development of new access roads, and clearing of “danger trees”. Total wetland impacts associated with the transmission line corridor and switching station are anticipated to include: 49,000 sf of BVW, 2,600 lf of Bank, 275,200 sf of Riverfront Area, and 2,100 sf of IVW.

Multiple cart paths and fire roads, many of which are actively maintained by the Russell Fire Department and Westfield Gas & Electric, exist throughout the project area and will be used for access to the proposed transmission corridor to the maximum extent practicable. Where it is not practicable to avoid new wetland crossings, crossings will consist of either temporary bridges with supporting beams, temporary mat bridges, or temporary mat roads. The FEIR included detailed illustrations of various crossing types. Each crossing will be evaluated during the NOI, WQC and ACOE permitting processes to reach consensus regarding design. Permanent access is not proposed as part of the project design, with the exception of the access road to the proposed switching station. However, no wetland impacts are associated with the switching station access road.

The FEIR contains a summary of anticipated mitigation measures for impacts to wetland resource areas. The Proponent will continue to coordinate with local, state and federal regulatory authorities to finalize mitigation measures during permitting. The following measures are proposed:

Wetland replication, including in-situ replacement. Wetland replication areas will be created in accordance with MassDEP’s *Massachusetts Inland Wetland Replication Guidelines*.

Potential wetland replication areas are depicted in the FEIR. Detailed wetland replication plans will be submitted with the NOIs prepared for the Russell and Westfield Conservation Commissions. Impacts to BVW will be mitigated by a minimum 1:1 replication area.

- Wetland enhancement, including regrading to establish natural topography, supplemental seeding and invasive species removal.
- Installation of metal guardrails and gates to restrict illicit ORV access.
- Transfer of undeveloped acreage located on the Westfield River to DFW, or other qualified land trust or government entity for permanent protection. The proposed parcels are located along the Westfield River immediately upstream of the biomass facility. These parcels include approximately 10.5 acres along approximately 4,800 lf of the Westfield River.
- Placement of biotic structural features within replication and enhancement areas to provide wildlife habitat.

### Water Withdrawals

Under the preferred cooling technology alternative, water for the cooling tower will be withdrawn from the Westfield River via an existing intake structure and will be continuously circulated through a steam condenser for cooling purposes. Make-up water will be continually added to the cooling tower to replace the portion of cooling water lost by evaporation. A small percentage of the water circulating through the cooling tower must also be continuously removed

to carry away particulates scrubbed from the air, and solids that remain from the water that has evaporated. Make-up water pumped from the river will be stored in an on-site storage tank. Water withdrawal from the river will be continuous when the facility is operating. There will be a storage tank level control system that will shut the withdrawal pump off when the storage tank is full.

### *Historic Withdrawals*

As documented in the DEIR/NPC, the Westfield River Paper Company used the Westfield River as a water source under a deeded right until the mill closed in 1994. This historic withdrawal existed before the Massachusetts Water Management Act process went into effect in 1986. For water withdrawals in excess of 100,000 gpd that existed before 1986, there was a registration program which established a renewable right for that withdrawal. The Westfield River Paper Company never registered the water withdrawal with MassDEP before the registration period ended in 1988. There is no known historic water withdrawal date relative to the site's earlier manufacturing operations, and since 1994, no water withdrawals have occurred through the existing intake structure.

The Deerfield Holding Corporation granted Westfield Paper Lands LLC the rights to withdraw 600,000 gpd from the impoundment of the Westfield River created by the dam under a quitclaim deed that was recorded in January 2000. Since the review of the DEIR/NPC, Westfield Paper Lands, LLC and Indian River Power Supply, LLC have entered into a new easement agreement which supercedes the previous deeded rights. This easement agreement grants Westfield Paper Lands, LLC the right to withdraw an annual average of 662,000 gpd and a total maximum daily volume of 885,000 gpd of water from the impoundment of the Westfield River created by the Indian River Hydro Dam. The easement agreement also provides access to inspect, maintain, repair and replace the existing underground pipes that transmit water from the river to the proposed biomass facility site. A copy of the easement was provided with the FEIR. The easement agreement does not confer a permitted right to water withdrawal as regulated by MassDEP under the Water Management Act (WMA).

### *Existing Conditions*

In the DEIR/NPC and the FEIR, the Proponent presented a discussion of existing flow, water quality and temperature of the Westfield River to provide a baseline against which to measure project-related impacts. The FEIR contained an expanded discussion of methodology used to determine existing low flow conditions in the vicinity of the project site. Two sources of data were used to obtain low flow statistics for the proposed water withdrawal point for comparison to the proposed maximum withdrawal. This included use of the USGS StreamStats application and the use of gauging data from three USGS gauging stations located upstream of the proposed Russell Biomass facility. In addition, the Proponent reviewed gauging station reports that include general streamflow statistics available through the U.S. Geological Survey (USGS) website. In response to comments on the DEIR/NPC regarding the influence of evaporative loss on river flow statistics, the Proponent notes that evaporation along the river flow is accounted for in USGS gaging data and in the StreamStats application.

The Proponent used river flow data since 1965 following the installation of two upstream dams due to the change in flow characteristics associated with the two control structures. Only data after the construction of the Littleville Dam stations (between August 1, 1966 and September 30, 2005) was used for calculating the lowest single flow based on the combined streamflow from the three upstream gauging stations.

The USGS StreamStats application provides estimates for 50% duration flow (stream flow exceeded 50 percent of the time), 7Q10 flow (the lowest mean flow for seven consecutive days to be expected once in ten years) and the median flow for the month of August. In addition, daily data from the three upstream USGS gauging stations (post-1965) were used to calculate median flows for every individual August and September day. Total median flows were then calculated for each of the 61 days using the sum of the median flows for each gauging station. Using the median flows per gauging station per individual day, median flows were also calculated for each gauging station for the month of August and September. The sum of the time-series mean flow data from the three upstream gauging stations for every individual August and September day after the construction of the Littleville Dam indicates that the single lowest flow day since 1966 is 17.8 cfs, which occurred on August 19, 1970. The maximum proposed withdrawal of 885,000 gpd (or 1.37 cfs) represents approximately 7.7% of that single lowest flow day.

#### *Water Withdrawal Impacts*

The Proponent asserts in the FEIR that the proposed maximum withdrawal of 885,000 gpd (or 1.37 cfs) will have a negligible impact on the Westfield River streamflow and environment during low streamflow conditions. MassDEP has issued a Draft Water Management Act Permit and Draft Findings of Fact in Support of the Final Permit Decision for public review. I note the receipt of many comments that this action violates Section 11.12(4) of the MEPA regulations stating that “an Agency may not take Agency Action on a Project ... unless and until the Secretary has determined that ... the Single or Final EIR is adequate and 60 Days have elapsed following the publication of the notice of the availability of the Single or Final EIR in the Environmental Monitor.” I do not consider the draft WMA issued by MassDEP to constitute a final Agency Action, and MassDEP has acknowledged that they cannot issue the permit until MEPA review on the project has completed. Many comments submitted on the FEIR address issues specific to the WMA permitting process. These comments should be carefully considered by MassDEP in advance of issuing a final WMA permit and the draft permit and associated Section 61 Findings should be modified accordingly.

In its draft findings, MassDEP states that in issuing permits it looks at site-specific impacts and other issues specific to the hydrologic system near the withdrawal, such as impacts to nearby streams, wetlands or other water users, justification of long-term demand projections, alternatives to the proposed withdrawal, and the capacity of the permitted withdrawal points. MassDEP has determined that the requested volume will not have a significant or detrimental effect on the Westfield River streamflow based on the information provided by the Proponent in the OTC and in submissions to MEPA, and based on MassDEP’s own internal review of the site hydrology and proposed withdrawal. MassDEP’s analysis of cumulative impacts from all authorized withdrawals upstream of the proposed withdrawal results in a similar finding.

MassDEP's has also determined that the proposed withdrawal will have a minimal effect on existing permitted or registered withdrawals downstream in the Westfield River Basin.

The Draft Water Management Act Permit sets restrictions on water withdrawal at the project site during plant operations to mitigate the potential impact of the withdrawal during low flow periods. The conditions proposed in the draft permit are intended to ensure the efficient use of water and to mitigate the potential impact of withdrawals. I note that the draft permit for the Russell Biomass project is unique in issuing restrictive conditions and shut-down provisions. The FEIR provides a summary of these measures:

- On a daily basis between July 1 and October 1, the Proponent will calculate the combined flows from the three upstream USGS gauging stations using the reported average daily flow for the previous day.
- If the total flow of the three upstream USGS gauging station flow is less than 22 cfs, the Proponent will commence collecting real-time data measured in 15-minute intervals from the three USGS gauging stations every 8 hours.
- If the total flow of the three upstream USGS gauging stations flow falls below 20 cfs, the Proponent will commence logging a 24-hour running average of total flows every 4 hours. If the 24-hour running average falls below 19.2 cfs, the Proponent's withdrawal cannot exceed the 24-hour running average of total flow minus 17.8 cfs.
- If the 24-hour running average falls below 17.8 cfs, the Proponent's withdrawal must cease until the 24-running average rises above 17.8 cfs and then the withdrawal restrictions outlined above remain in effect until the 24-hour running average rises above 19.2 cfs.

The draft permit also sets forth reporting requirements to MassDEP during low flow periods, and the draft permit states that the Proponent's streamflow monitoring records and calculations shall be available to MassDEP at any time. MassDEP has also required that the Proponent develop a water conservation plan that evaluates all areas of water use throughout its facility.

I acknowledge the receipt of comments regarding the completion of a safe yield analysis for the Westfield River watershed. I have consulted with MassDEP on this issue specific to the Russell Biomass project and in general regarding the development of safe yield analyses across the Commonwealth. I am satisfied that the proposed withdrawal and the cumulative total of this and existing upstream and downstream withdrawals will not result in an adverse impact to the Westfield River and that MassDEP will impose a very conservative level of protection through its permit conditions.

As referenced above, the draft Section 61 Finding for the Water Management Act permit should be updated to reflect any additional changes that come out of the MEPA process. I encourage MassDEP to incorporate additional mitigation measures which could include, but are not limited to, investments in Westfield River improvements as suggested by the Connecticut River Watershed Council

### Wastewater

Discharge flow from the proposed facility will be piped to a new discharge outfall, located approximately 500 feet south of the Indian River Hydro Dam. The wastewater discharge will average 101,000 gpd with a maximum daily flow of 133,000 gpd. Both process wastewater and stormwater discharges will be regulated under a consolidated individual NPDES permit to be issued by the USEPA and MassDEP. The required discharge permit will identify all limitations necessary to assure that the proposed discharge does not cause a violation of water quality standards. An on-site subsurface sewage disposal system will be utilized to treat sanitary wastewater at the proposed Russell Biomass facility because the municipal sewer terminates on the other side of the Westfield River and the parcel is not served by the system. In addition, a septic system will be constructed on the switching station parcel in Westfield to treat sanitary wastewater from the switching station.

In the DEIR/NPC, the Proponent provided a detailed overview of chemical usage for water and process wastewater treatment at the facility. The DEIR/NPC outlined the doses, reactions and anticipated discharge concentrations of chemicals required for water and wastewater treatment. The DEIR/NPC contained an evaluation of potential impacts to river temperature, nutrients, metals and priority pollutants. The project will be designed to produce effluent that will meet the Massachusetts Water Quality Standards and industrial technology requirements that will be included in the NPDES permit. The FEIR provides additional information related to the potential impacts of the discharge on the Westfield River including the mixing zone, water quality, thermal impacts, aquatic life, and downstream NPDES dischargers.

### *Thermal Impacts*

River temperature data available from the USGS indicate that daytime summer peak temperatures for each of the gauging stations in the vicinity of the project are typically above the cold water fisheries criterion of 68 ° F, but are generally below the warm water fisheries criterion of 83 ° F. In determining potential impacts to fishery resources in the Westfield River, the Proponent considered the more stringent Cold Water Fisheries standards in addition to the warm water standards considered in the DEIR/NPC. The Massachusetts Water Quality Standards at 314 CMR 4.00 provide two standards for in-stream water temperature for Class B Warm Water Fisheries. The first standard is not to exceed 83 °F and the second standard is not to cause an increase in temperature of 5 °F. Based on the analysis presented in the DEIR/NPC, the discharge effluent will meet these standards. In addition, except under conditions when the river is naturally above the cold water criterion of 68 °F, the criteria for Cold Water Fisheries of 68 ° F and no temperature increase greater than 3 °F will be met as well.

### *Water Quality*

The DEIR/NPC provided a discussion of how the project would comply with the guidelines for mixing zones in the water quality standards at 314 CMR 4.00. In an expanded discussion in the FEIR, the Proponent states that the effluent water quality, discharge, structure and mixing zone are designed to minimize impacts on the aquatic habitat and species. The design and siting of the discharge structure minimizes construction impacts and the size of the mixing

zone for the discharge. The mixing zone meets the standards of the MassDEP Implementation Policy for Mixing Zones.

Requirements for discharge monitoring for both process wastewater and stormwater will be specified in the NPDES permit. The proposed sampling and monitoring plan in the NPDES permit application includes provisions for monitoring process wastewater and runoff separately before they commingle in the discharge conveyance system. This will allow confirmation that each discharge component meets separately specified discharge requirements. Process wastewater is proposed to be monitored for flow, pH, temperature, total residual chlorine, phosphorus, aluminium, chromium, zinc and acute toxicity.

The Proponent provided additional information on potential increases in phosphorus loading from the facility in response to comments from the City of Westfield. Increases in in-stream phosphorus concentration will be well below recommended water quality criterion. The FEIR contained a discussion of alternative treatment technologies for removal of phosphate from the wastewater, including biological treatment and chemical precipitation methods. Biological treatment is not an applicable technology as there is no organic food source in the wastewater to develop a suitable microbiological population required for biological treatment. The Proponent notes that phosphate removal by chemical precipitation is feasible but would result in an increase in aluminum in the discharge. In addition, precipitation technology for the removal of phosphate from the boiler blowdown would require more water in the cooling tower to flush out solids from the tower.

The segment of the Westfield River from the confluence with the Middle Branch of the Westfield River in Huntington at the Route 20 Bridge in Westfield is listed as Category 5 (impaired and requiring one or more Total Maximum Daily Load (TMDL)) pursuant to 40 CFR 130.7 of the Clean Water Act. In the Category 5 listing, this segment is described as requiring a TMDL for taste, odor, color, noxious aquatic plants and turbidity. The cause of the impairment is unknown. The Certificate on the DEIR/NPC directed the Proponent to coordinate with MassDEP to develop a TMDL. The Proponent states in the FEIR that it consulted with MassDEP who indicated that the development of a TMDL has not been identified as a high priority for MassDEP or the USEPA. The Proponent notes that the NPDES permit for the facility is expected to contain standard language prohibiting discharges that would cause nuisance conditions, including color, taste and odor.

### Fuel Supply

The Proponent provided a description of the wood fuel to be used at the site in the DEIR/NPC. The facility will burn approximately 510,000 tons per year (tpy) of clean "Wood Fuel", as defined at 310 CMR 7.00 to generate approximately 400,000,000 kWh of net energy. The typical wood profile for the Russell Biomass plant will consist of approximately 90% clean wood from the existing wood residue market infrastructure, including whole tree chips from primary manufacturers, municipal sources, and logging and clearing operations. The remaining 10% of fuel will be comprised of recycled material, such as pallets. As clarified in the FEIR, wood fuel as defined at 310 CMR 7.00 does not include materials which are chemically treated



with any preservative, paint, or oil. In addition, the Proponent will not burn wood generated from the construction and demolition stream.

The FEIR provided further details regarding fuel supply sources and supplier specifications. The Proponent states that pallet recycling yards that are permitted to accept treated pallets, accept treated wood without a permit, or treated wood of any type will be excluded as a fuel source. The Proponent outlined inspection techniques that will be utilized to ensure that treated pallets are not included in the fuel stream. Wood fuel suppliers will be required to sign a contract prohibiting the supply of any type of treated wood to the facility. As part of the wood fuel procurement process, inspections of facilities and fuel sources will occur on a periodic basis and any fuel deliveries not meeting the fuel supply requirements will be rejected.

The outside wood fuel yard will measure approximately 300 feet wide by 700 feet long, with two chip piles separated by fire access lanes in compliance with the requirements of the Uniform Fire Code. Chips will be piled to approximately 45 feet high. All fire safety issues at the site will be subject to review and approval by the Town of Russell Fire Chief. The FEIR provided an outline of a draft Wood Fuel Storage Management Plan, which will detail procedures related to storage pile limits, storage pile handling, dust control, impervious surface containment, site security and control, and inspections. The fuel storage area will be managed so that no significant dust and/or odor emanates from the site. The facility will comply with applicable state Board of Fire Prevention regulations and the National Fire Protection Association (NFPA) Recommended Safe Practices for Forest Products.

#### Power Plant Air Emissions

As noted in the DEIR/NPC, air quality in the project area is in attainment with the National Ambient Air Quality Standards (NAAQS) for all pollutants including fine  $PM_{2.5}$ , with the exception of the 8-hour ozone standard. All of the air quality monitoring data used to establish background conditions were obtained from the USEPA and cover the most recent 3-year period, 2004-2006. Monitoring data from MassDEP air monitoring stations in Chicopee and Springfield were also used. In response to concerns about background air quality data sources, the Proponent states that the key characteristic that determines background air quality levels is not topography, but the density of air pollutant emissions on the land and the density of development. The Proponent states that the MassDEP air monitoring station at Westover Air Force Base in Chicopee provides a conservative estimate of background air quality in Russell; MassDEP has reviewed these data and approved their use in the project's air quality studies.

In response to comments from MassDEP, the Proponent has revised the Best Available Control Technology (BACT) analysis for  $NO_x$ ,  $PM_{10}$  and  $PM_{2.5}$  for the stoker boiler alternative in the FEIR. The BACT analysis for the BFB boiler did not require revision. Emission limits for both alternatives are lower than limits for wood-fire electric generating facilities. The project will have the Lowest Achievable Emissions Rate (LAER) for nitrogen oxides ( $NO_x$ ) of any similar biomass electric generating plant in the U.S. The project will acquire  $NO_x$  emission offsets (permanent reductions in  $NO_x$  emissions elsewhere in the region) that are greater than the project's  $NO_x$  emissions in a ratio of 1.26:1. The Proponent asserts that the operation of the

facility will therefore result in a net decrease in regional NO<sub>x</sub> emissions, and because NO<sub>x</sub> is a precursor to ozone formation, the project will affect a net decrease in regional ozone concentrations in the air. The Proponent states that the project will have an insignificant impact on ambient air quality in the Town of Russell. As outlined in the DEIR/NPC, the project will comply with state and federal air quality standards and guidelines for air pollutants at all levels.

Refined air quality dispersion modeling of the proposed project was performed using the USEPA AERMOD dispersion model. Results of the modeling were submitted with the DEIR/NPC. In the FEIR, the Proponent addressed specific comments from MassDEP regarding the AERMOD analysis. The modeling confirms that the project will comply with the NAAQS for all criteria pollutants and MassDEP Allowable Ambient Limits/Threshold Effects Exposure Limits for non-criteria pollutants.

The Certificate on the DEIR/NPC directed the Proponent to discuss the applicability of proposed MassDEP and Division of Energy Resources (DOER) regulations pertaining to carbon dioxide (CO<sub>2</sub>) emissions – 310 CMR 7.70 *Massachusetts CO<sub>2</sub> Budget Trading Program* and 225 CMR 13.00, respectively. These proposals are intended to fulfill the commitments of the Regional Greenhouse Gas Initiative (RGGI) Memorandum of Understanding signed by Governor Deval Patrick on January 18, 2007. According to the FEIR, only electric generating facilities over 25 MW in size and deriving more than 5% of their heat input from fossil fuel are subject to the proposed regulations. As the primary and secondary fuels for the facility are wood and B100 biodiesel or ultra-low sulfur diesel fuel, the project is not subject to the proposed regulations. The project is also not subject to the Clean Air Interstate Rule (CAIR) regulations at 310 CMR 7.32.

### Noise

The DEIR/NPC contained a discussion of the project's compliance with MassDEP noise regulations at 310 CMR 7.10 that prohibit "unnecessary emissions" of noise. A noise analysis conducted for the project demonstrated that the predicted changes in sound levels resulting from operation of the facility at the closest noise sensitive area will fully comply with the 10 dBA incremental limit in the MassDEP Noise Policy; the maximum sound level increases are expected to be 5 dBA. The Proponent expanded the noise analysis for the facility in the FEIR to include mobile sources such as front-end loaders and trucks, and their back up alarms. As noted in the report, which is included as an appendix to the FEIR, the addition of these noise sources does result in the project exceeding applicable noise standards.

In response to the Certificate on the DEIR/NPC, the Proponent conducted an analysis of noise impacts from wood fuel truck traffic on Main Street. The Proponent studied the short-term maximum sound level from two tractor-trailer trucks approaching each other and employed the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) acoustic model. Existing ambient levels on Main Street were estimated as part of a separate motor vehicle noise study performed to examine the existing and future sound levels at residences on Main Street using the FHWA TNM acoustic noise model. According to the FEIR, the modeling results reveal that the project will not cause noise standards to be exceeded at any nearby residences on Main Street.

## Transportation Impacts

### *Traffic Impacts*

The preferred route of access to the site will be via Main Street over the existing Westfield River Bridge. Vehicles will travel through the Town of Russell on Route 20, turn onto Main Street, and travel approximately 0.45 miles to the bridge and then into the site. In the FEIR the Proponent provided a description and illustration of existing conditions on Main Street related to travel lanes, parking, pedestrian facilities and signage. Main Street varies in width from 27 feet to 32 feet with a sidewalk on the north side of the roadway. The posted speed limit is 25 miles per hour (mph). **Currently, parking is allowed on the north side of Main Street with no restrictions from Route 20 to the Library.** Some restricted parking is available on the south side of Main Street. The intersection of Main Street and Route 20 was improved by the Massachusetts Highway Department (MassHighway) within the last ten years. Improvements included removing the center island on Main Street and increasing curb radii to better accommodate turning vehicles.

A traffic study was been prepared for the project as part of the Special Permit and Site Plan Review application to the Town of Russell. An expanded discussion of project-related traffic impacts was submitted with the FEIR. The project is expected to generate 220 average daily vehicle trips. An analysis of Level of Service (LOS) on Route 20 and Main Street in the vicinity of the project revealed that project-related traffic would not affect the current LOS C on Route 20 and would result in a decrease from LOS A to LOS B on Main Street. The Proponent also analyzed the impact of the project at three locations in the City of Westfield: the Great River Bridge, the intersection of Route 20/102/20 with Franklin Street, and the intersection of Route 10/202 with I-90 Interchange 3. The analysis of traffic impacts took into consideration future improvements to the Great River Bridge and improvements associated with the Westfield Pavlion project (EEA# 13819), the Westpark project (EEA # 13651) and the Target Distribution Center (EEA # 13361). The results of the analysis demonstrate that project-related truck traffic will not result in adverse impacts to capacity or LOS in the City of Westfield.

As a result of the Special Permit process and as part of the DPU petition, the following list of conditions is proposed to regulate and enforce facility truck traffic on Main Street:

- Adhere to required delivery hours and days;
- Maintain 25 mph posted speed limits on Main Street;
- Minimize the necessity to apply engine braking on Main Street;
- No truck idling or parking outside the facility or on any Town streets;
- Trucking idling will be limited to five minutes inside the facility area, after which trucks will be turned off; and,
- Implementation of enforcement procedures that include the following should truck drivers be non-compliant with idling or parking rules: 1) warning, 2) fine, 3) termination of delivery contract.

In addition, the following measures are proposed in the FEIR as enhancements to Main Street:

- On-Street Parking: Main Street on-street parking spaces and existing signage at the Town Hall and at the Fire Department/Library locations will be enhanced to provide better accessibility for short-term parking. The resulting typical roadway cross-section would include two travel lanes with a minimum width of 11 feet in each direction and an on-street parking lane 7 feet in width. The Proponent states that adequate right-of-way exists to accommodate the proposed improvements.

Sidewalks in the vicinity of the Fire Department/Library and at Town Hall will be upgraded to meet American with Disabilities Act (ADA) standards. A new sidewalk and crosswalk will be provided from Old Westfield Road to the Post Office along the south side of Main Street. The existing crossing at Old Westfield Road and Main Street will be upgraded.

- Roadway street signs, pavement markings and pedestrian crossings will be upgraded and replaced as required.
- The Proponent will work with MassHighway to further enhance the Route 20 westbound truck turning movement onto Main Street to provide an enhanced turning radius on the southeast corner.

The Proponent will make a direct one time payment of up to \$100,000 to cover the costs of the proposed Main Street enhancements outlined above. In addition, the Proponent will establish a fund of \$150,000 for the ongoing maintenance of Main Street to be replenished as used.

The Proponent concludes in the FEIR that with the proposed enhancements, Main Street will safely accommodate project-related truck traffic.

#### *Traffic Air Quality*

The diesel truck air quality study submitted with the DEIR/NPC demonstrated that maximum Diesel Particulate Matter (DPM) levels on Main Street in Russell would be less than 1% of the USEPA Reference Concentration set to protect the most sensitive people in the population with a margin of safety. An average truck speed of 25 miles per hour (mph) was used in the air quality study. According to the FEIR, modeling inputs were based on the Federal Test Procedure vehicle operation cycle for an urban area and includes a mixture of vehicle acceleration, deceleration, stopping and starting emissions. The Proponent states that the emission rates used in the analysis account for all truck operating conditions expected to occur on the streets of Russell and that the analysis demonstrates that project-related truck trips will not cause any adverse health impacts from truck emissions. MEPA has reviewed testimony from the DPU hearing related to diesel truck emissions and is satisfied with the level of analysis on diesel truck emissions. As noted in the FEIR, the Town of Russell's independent review consultant has also concurred that the analysis was "reasonably based technically, and portrays the expected air quality impacts from diesel truck emissions."

#### Solid and Hazardous Waste

In response to comments on the DEIR/NPC, the FEIR provided an expanded discussion of the storage of ammonia at the facility site. The selective catalytic reduction systems used for

either boiler alternative will use a 19% concentration of aqueous ammonia for pollution abatement. The ammonia will be stored in a 15,000-gallon above ground storage tank. The tank will be managed in accordance with 502 CMR 5.00 and will be registered with the Russell Fire Department and the State Fire Marshall's office. The Proponent conducted an evaluation of an off-site consequence analysis under a worst-case catastrophic spill of the entire volume of the ammonia tank using USEPA guidance. The results of the analysis revealed that all inhabited areas of Russell are well beyond distances outlined in the USEPA's Emergency Response Planning Guideline criteria.

### Historic Resources

The Westfield River Paper Company is included in MHC's Inventory of Historic and Archaeological Assets of the Commonwealth. However, in a letter dated July 1, 2006 MHC determined that the facility no longer meets the criteria of eligibility for listing in the National Register of Historic Places due to loss of integrity resulting from deferred maintenance, structural failure, and removal of portions of the complex. Since the review of the DEIR/NPC, the Proponent has continued to provide MHC with required information regarding potential impacts of the transmission line corridor and switching station on historic resources.

In its comments on the FEIR, MHC has requested that an intensive (locational) survey (950 CMR 70) be conducted for the project based on the selection of the Preferred Route 1a Modified transmission line route. The Proponent should consult with MHC regarding requirements and guidance for the survey work. In addition, MHC notes the presence of five historic properties within the vicinity of the proposed transmission line route that are included in the Inventory of Historic and Archaeological Assets of the Commonwealth. MHC has requested additional information from the Proponent to assist with determining the potential impact of the project on historic architectural resources. MHC has also requested additional information regarding proposed enhancements to Main Street. The Proponent should continue to consult with MHC and local Historical Commissions in Russell, Montgomery and Westfield to avoid and minimize impacts to historic resources.

### Construction Period Impacts

The DEIR/NPC provided a discussion of construction phasing for the project and outlined measures that will be implemented to minimize and mitigate construction-period impacts of dust, odor and noise. The Certificate on the DEIR/NPC did not require a further discussion of construction period impacts or mitigation in the FEIR.

### Mitigation

The FEIR included a separate chapter on mitigation that provided a summary of anticipated impacts and proposed mitigation measures for the biomass plant, transmission line corridor and switching station. In a separate appendix, the Proponent also provided draft Section

61 Findings for use by state permitting agencies, including MassDEP, DFW, NHESP, DPU, EFSB, MassHighway and the Massachusetts Turnpike Authority. The Section 61 Findings should be updated as necessary to reflect permit conditions once issued. The permitting agencies shall forward a copy of their final Section 61 Findings to the MEPA Office for completion of the project file.

### Conclusion

I find the FEIR to be adequate and am allowing the project to proceed to the state agencies for permitting. The FEIR contained sufficient information on project alternatives, impacts, and mitigation, and provided the state permitting agencies with sufficient information to understand the environmental consequences of their permit decisions. No further MEPA review is required.

March 28, 2008

Date



Ian A. Bowles

### Comments received:

(Note: Includes some comments that were jointly submitted to MEPA/MassDEP on WMA Permit Application #9P2-1-04-256.04 Russell Biomass, LLC)

2/29/2008	Berkshire Environmental Action Team
3/4/2008	Amy Porter
3/5/2008	Chris Matera
3/9/2008	Aline & Henry Euler
3/9/2008	Charles and Rosa Benson
3/9/2008	Paula Westcott
3/14/2008	Chris Matera
3/20/2008	Massachusetts Historical Commission
3/20/2008	Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program
3/20/2008	Mass Audubon
3/20/2008	Stephen H. Kaiser
3/21/2008	Conservation Law Foundation
3/21/2008	Hildegard Spielman-Bergamini
3/21/2008	Massachusetts Association of Conservation Commissions
3/21/2008	Philip H. Shaw, Jr.
3/21/2008	Department of Environmental Protection, Western Regional Office
3/21/2008	Pioneer Valley Planning Commission
3/21/2008	Berkshire Environmental Action Team
3/21/2008	Connecticut River Watershed Council

3/21/2008 Jonathan Long  
3/21/2008 Ellen Moyer  
3/21/2008 **Water Supply** Citizens Advisory Committee  
3/21/2008 WEST – Watchdogs for an Environmentally Safe Town  
3/21/2008 Jana Chicoine

IAB/BA/ba