CONNECTICUT RIVER WATERSHED COUNCIL
The River Connects Us
15 Bank Row, Greenfield, MA 01301

March 30, 2009

Secretary Ian A. Bowles
EOEA, Attn: MEPA Office
Nicholas Zavolas, EOEA No. 14388
100 Cambridge Street, Suite 900
Boston, MA 02114

Subject: Environmental Notification Form for EOEA# 14388
Pioneer Renewable Energy –Greenfield, Massachusetts

Dear Secretary Bowles,

I am submitting comments on the Environmental Notification Form (ENF) for the Pioneer Renewable Energy project in Greenfield on behalf the Connecticut River Watershed Council (CRWC). CRWC is the principal nonprofit environmental advocate for protection, restoration, and sustainable use of the Connecticut River and its watershed. The proposed 47-megawatt (MW) biomass energy facility will affect the Fall River and the Deerfield River.

On a personal note, I am writing this on my last day of work before going on maternity leave. The following comments represent only a cursory look at the ENF. I was not able to receive a full printout of the ENF before leaving, nor am I able to attend the MEPA scoping meeting.

1. Given that this is the fifth new power plant proposed in the Connecticut River watershed, it is our request that EOEEA please give some attention to regional water consumption, air quality, actual need for more than 800 MW in the Valley without replacement of older plants, and biomass fuel availability. A summary of other power plants and their water consumption is below.

- The **Stony Brook Energy Center II, Ludlow, MA** is an expansion of an existing plant. The new plant will generate 280-megawatt (MW) of electricity by burning natural gas and #2 distillate oil. Originally, Massachusetts Municipal Wholesale Electric Company proposed to use 1.13 million gallons per day (MGD) of municipal water from the Springfield Water and Sewer Commission (SWSC), returning 103,200 gallons per day (gpd) to Springfield's sewer system. MMWEC changed its plans from wet cooling to dry cooling, however, and now propose to use an average of 122,000 gpd, returning only 22,000 gpd to the sewer system. The SWSC's drinking water source comes chiefly from a tributary of the Westfield River, while its wastewater discharges into the Connecticut River.

- **Russell Biomass, Russell, MA** is a proposed 50-MW biomass plant, to be located on the banks of the Westfield River at a former paper mill site. The plant is aiming to use wet cooling technology, and will withdraw up to 885,000 gallons of Westfield River water daily to cool its steam turbines. Only 15 percent of the withdrawn water will be returned to the river.

- The **Pioneer Valley Energy Center, Westfield MA** is a proposed 400-MW natural gas energy facility that will burn diesel in the winter. Initially, the developers were proposing to use dry cooling technology, which would have required 200,000 gallons per day from the Westfield public water

supply, discharging 150,000 gpd to the Westfield Wastewater Treatment Plant. The developers now propose to use wet cooling and will buy up to 2 MGD from the City of Holyoke's Tighe-Carmody Reservoir, a dammed portion of the Manhan River. They will also be using between 120,000 to 500,000 gpd from the City of Westfield's water supply system. A small portion of the water used will be sent to the Westfield River via the City of Westfield's wastewater treatment plant, while the rest will be lost to evaporation.

- **Palmer Renewable Energy Project, Springfield MA**. This proposed 38-MW biomass energy plant will burn a combination of wood fuel from construction and demolition (C&D) processors and green wood chips. According to the MEPA Environmental Notification Form, the project will use an air cooled condenser instead of a wet-mechanical cooling tower, which minimizes water use. The project will use 115,500 gallons per day of municipal water from SWSC, returning just 23% of the water or 26,500 gpd to Springfield's sewer system.

- **Pioneer Renewable Energy Project, Greenfield MA**. This proposed 47-MW biomass energy plant will use wet cooling. The project will use between 550,000 and 880,000 gpd, mostly treated effluent from the Greenfield Water Pollution Control Plant (WPCP), returning only 161,260 gpd to the WPCP.

2. Approximately 49,000 gpd will be drawn from an on-site groundwater well. This well will be located near the Fall River. The Fall River is a Class B Cold Water stream under 314 CMR 4.06. The Fall River is stocked with Atlantic salmon fry each spring by the Massachusetts Division of Fisheries and Wildlife. According to DEP's 2003 Water Quality Assessment Report for the Connecticut River Watershed (published in October 2008), DWM biologists performed a habitat assessment of the Fall River and the habitat was scored as optimal, and was the best habitat score out of six stations sampled in the Connecticut River watershed. Three pollution intolerant cold water fish species were found to be present. I personally observed sea lamprey building a nest in June of 2008 in the Fall River under the Route 2 bridge. Because the minimum flow requirements at the Turners Falls Dam are only 250 cfs into the main Connecticut River channel, additional flow from the Fall River can impact the amount of water in the main stem of the Connecticut River in the "bypass" area parallel to the power canal. It is important to maintain adequate flow in the Fall River.

The ENF did not assess any impacts to the Fall River from the withdrawal of 49,000 gpd from the nearby well. This well will not need a Water Management Act permit because it is below the withdrawal threshold of 100,000 gpd. Because flows of the Fall River are not known, we recommend that the proponent install stream gages upstream and downstream, or perform some other kind of flow analysis to assure there will be no impacts to this special stream.

3. The ENF states that approximately 1,440 gpd will be used from Greenfield municipal water. On page F-6, it says that "the amount of municipal water could be as much as 400,000 gpd for a few days at a time, and would not exceed an average of 100,000 gpd over any three month period." Greenfield's Water Management Act registration allows for withdrawals from five sources a total of 2.12 million gallons per day (MGD) and recent usage statistics show that Greenfield has been using 1.8-1.97 MGD during the past three years. The ENF should identify potential options in case the treated wastewater idea does not pan out. Reliance on municipal water does not appear to be a viable alternative.

4. We believe that the habitat impacts to flow in the Deerfield River would be considerably less than the withdrawal proposed on the Westfield River from a similar plant in Russell. Nevertheless, we wish that all of these plants would use dry cooling to minimize the consumption of water. We would also like to point out that the ENF incorrectly has used StreamStats as a tool to demonstrate impacts to flow. The

StreamStats regression equations do not work for a watershed as large as the Deerfield, and that part of the analysis should be discounted.

5. We did not have sufficient time to assess watershed impacts from the biomass fuel use. Although the ENFs for all proposed biomass plants in the region indicate that only "waste" wood will be used, it does seem that there would be impacts to terrestrial and aquatic habitats if the three large biomass plants (Russell, this one, and the one in Pittsfield) are all built.

We thank EOEA for the opportunity to comment on this project.

Sincerely,

Andrea F. Donlon, M.S.
River Steward

cc: Kimberly Noake MacPhee, Franklin Regional Council of Governments
Christine Duerring, MassDEP Connecticut Basin Planner
Craig Givens, MassDEP WERO MEPA