

DEVAL L. PATRICK Governor

TIMOTHY P. MURRAY Licutenant Governor

## COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS DEPARTMENT OF ENVIRONMENTAL PROTECTION

Division of Watershed Management, 627 Main Street 2nd Floor, Worcester, MA 01608

IAN A. BOWLES Secretary

LAURIE BURT Commissioner

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	<b>,</b>
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IAN A. BOWLES Secretary

LAURIE BURT

Mr. Fred Ayer, Executive Director Low Impact Hydropower Institute 34 Providence Street Portland ME 04103

March 3, 2009

Re: Comments to the Fife Brook Development of Bear Swamp Project (FERC #2669) LIHI Certification

Dear Mr. Ayer,

The Massachusetts Department of Environmental Protection (the Department) is the state agency responsible for issuing the 401 Water Quality Certificate and offers the following comments in response to the Low Impact Hydropower Institute's request for comment on Brookfield Renewable Power's application for certification of the Fife Brook development, located on the Deerfield River.

The Department acknowledges the Fife Brook development has met FERC license and state Water Quality Certification requirements since they were issued. We believe however, that the Fife Brook development does not qualify as a <u>Low</u> Impact Hydroelectric Facility. Our reasoning follows:

## River Flows

According to the MassDEP Deerfield River Watershed 2000 Water Quality Assessment Report (WQAR), along the mainstem there are nine licensed hydroelectric stations (seven in MA, including a pumped storage facility) and associated dams, that effectively control the flow of the river. Water released from the dams affects the entire range of stream flow and causes multiple daily stream stage fluctuations.

The Executive Office of Environmental Affairs, Massachusetts Watershed Initiative and the Deerfield Watershed Team's annual workplans from 1999 to 2004 have identified a number of issues of concern related to environmental degradation of the watershed including flow alterations from hydropower generation in the mainstem and impeded fish passage and instream habitat degradation from dams.

The WQAR Aquatic Life Use is assessed as support based on the good survival of test organisms exposed to the Deerfield River and the water quality data. This use, however, is identified with an Alert Status because of concerns reported to the Deerfield River Watershed Team from river users' observations regarding flow regulation (hydromodification) resulting from the operations of the hydroelectric generating facilities. The effect, if any, of the hydropower generating developments on instream habitat and aquatic life is of concern and merits further investigation.

## Recreation

Safety risks to river users such as fishermen are an ongoing concern because of the rapid changes in flow caused by the releases of water from the dams for hydropower generation. These safety risks became a greater threat after the Settlement Agreement was issued due to a change of ownership and schedule of operations.

Thank you for the opportunity to comment on this project. If you have any questions, please call me at 508-767-2854.

Sincerely,

Robert Kubit, P.E.

FOX XH

Cc: Deirdre Desmond Caleb Slater