Law Offices of
Bruce M. Merrill, P.A.
A Professional Corporation
225 Commercial Street/Suite 501
Portland, Maine 04101

TELEPHONE: (207)775-3333
FAX: (207)775-2166
E-MAIL: mainelaw@maine.rr.com

Bruce M. Merrill
Member ME, NJ, NY & PA Bars

January 25, 2006

Mr. Matthew Scott, Chair
Maine Board of Environmental Protection
State House Station 17
Augusta, ME 04333-0017

Re: Friends Of Merrymeeting Bay Petition To Modify Water Quality Certifications Of Dams On The Androscoggin Rivers

Dear Chairman Scott and members of the Board:

On behalf of Friends of Merrymeeting Bay (hereinafter referred to as "FOMB"), I write this to oppose the requests of various dam operators to dismiss FOMB's September 29, 2005 petition to modify water quality certifications of certain dams on the Androscoggin River (hereinafter referred to as "the Petition"). FOMB respectfully requests that the Board enter this letter and the underlying evidence cited in the Petition into the record.

At the meeting on the petitions to modify the water quality certifications for certain dams on the Kennebec River, the Board looked to Ch. 2, § 7(B) for guidance on a standard to use in deciding whether to grant a public hearing on a petition to modify water quality certifications. Under that standard - *i.e.*, a hearing is granted where there is credible conflicting technical information regarding a licensing criterion and it is likely that a public hearing will assist the decision maker in understanding the evidence – the Board should grant a hearing on this Petition as well.

I. THE PETITION DESCRIBES THE FACTUAL BASES AND THE EVIDENCE TO SUPPORT MODIFICATIONS.

FPL Energy Maine Hydro LLC (operators of the Brunswick, Lewiston Falls and Gulf Island-Deer Rips hydroelectric dams, Miller Hydro Group (operator of the Worumbo hydroelectric dam), Topsham Hydro Partners (operator of the Pejepscot hydroelectric dam), and the City of Lewiston (operator of the Upper Androscoggin Falls hydroelectric dam) argue that FOMB does not provide the factual bases for, or evidence to support, the Petition. The dam operators are wrong.

The factual bases for the Petition are apparent. The Petition states that the dams pose a threat to the environment and violate water quality standards because they kill and injure American eels and destroy eel habitat. The Petition states that dams block upstream and downstream eel passage, and that turbines kill and injure eels. The Petition also notes the concern that the American eel is being extirpated, and that a petition to grant the American eel endangered species status is currently under review by the federal government. The Petition also states that dams exacerbate the problem of high toxicant levels in eels because dam related deaths and injuries make the chemical body burdens of eels more bioavailable to predators like turtles, otters, and bald eagles. The Petition makes clear that the recent awareness and new information about eels is a change of circumstance requiring modification. In addition, the Petition incorporates by reference Douglas Watts' petition.

The Petition lists supporting evidence. It specifically refers to data collected from dams in Maine, other empirical data on the adverse effects of dams on eels, and government findings. The gruesome nature of eel kills and injuries – heads cut off, bodies chopped in half, decomposing bodies – are established by photographs and eyewitness accounts. Some of the evidence includes:

1. The U.S. Fish and Wildlife Service (the "Service"), in its 90-Day Finding On A Petition To List The American Eel As Threatened Or Endangered ("90-Day Finding") that initiated a status review of the species (Petition Evidence "K"), states:

> We agree with the petitioners' assertions that rivers with hydropower are a documented threat to female American eels as they leave the rivers to spawn and may be a threat to the species as a whole. Although hydropower turbines are on less than 7 percent of the rivers, this mortality may be playing a larger role as the population declines (because as the population declines, gravid females become a vital resource and a high percentage of these individuals are lost to hydropower turbines). Additionally, not all hydroelectric power facilities are currently equipped with structures that ensure safe upstream and downstream passage.

70 Fed. Reg. 38,859 (2005).

2. The Service states on its website (Petition Evidence "U")[1]:

> American eels . . . have been especially impacted by dams and other obstructions in rivers [and] hydropower plants. . . American eel populations are already in decline and the eel could become scarce and could even disappear if current trends continue.

3. Eels are attracted to the current drawn by the turbines while migrating at night. December 14, 1994 account by Frederick W. Kircheis of Maine Department of Inland Fisheries & Wildlife of meetings with eel harvesters (Watts Kennebec Petition, p.16; Watts Androscoggin Petition, pp. 10-11).

4. Studies have established that eel mortality and injury (sublethal) rates can be as high as 100%. Reported in McCleave, Simulation of the Impact of Dams and Fishing Weirs on Reproductive Potential of Silver-Phase American Eels in the Kennebec River Basin, Maine, *North American Journal of Fisheries Management*, 21:592, 593 (2001). (Petition Evidence "C").

5. Gail Wippelhauser of the Department of Marine Resources stated that severe eel kills like the one at Benton Falls are "probably happening at every hydro facility on the East Coast that has a run of eels." Northern Sky News, November 2004 (Watts Kennebec Petition, p. 19; Watts Androscoggin Petition, p. 13).

6. A DMR study of downstream migration at Lockwood found that despite the presence of a bypass, two of five (40%) radio-tagged eels migrated through the turbines "and were presumed to be injured or dead." Kennebec River Diadromous Fish Restoration Annual Report 2002, p. 63. (Petition Evidence. "B"). Turbine kills at Benton Falls have also been well documented. E.g., Kennebec River Diadromous Fish Restoration Annual Report 2001, p. 37 (Petition Evidence. "B"). DMR studies of downstream migration in 2003 and 2004 failed and did not generate any data.

7. FOMB has recovered eels killed by dam turbines. Petition, p. 3. Photographs show horrible eel deaths and injuries. (Petition Evidence "A" and "U.") See also Watts Petition photographs .

8. According to the Service, blocked upstream migration "may present increased risks of predation (predation may be significant at the blockage where predatory fish may congregate)." The Service also found that "the decline in American eel may be in some part attributable to the loss of upper tributary habitat for female eel, and if not responsible for the decline initially, *may well be a limiting factor as population numbers decrease.*" 90-Day Finding, p. 38,855 (Petition Evidence. "K") (emphasis added).

9. The Service has stated that safe upstream and downstream passage is considered "standard" when hydropower licenses are required. It also found: "However,

[1] The U.S. Fish and Wildlife American Eel web site is linked to the Friends of Merrymeeting Bay web site, which is Petition Evidence "U."

not all hydroelectric power facilities are currently equipped with structures that ensure safe upstream and downstream passage." 90-Day Finding, p. 38,858 (Petition Evidence "K").

10. In 2001, DMR found upstream passage hindered at Hydro-Kennebec, Shawmut, and Weston and recommended installation of upstream eel passages. Kennebec River Diadromous Fish Restoration Annual Report 2001, pp. 34-35 (Petition Evidence "B"). In 2002, DMR found that upstream eel passage at Lockwood was hindered by leakage of the dam. Kennebec River Diadromous Fish Restoration Annual Report 2002, p. 55. (Petition Evidence "B"). In 2003, DMR found upstream passage problems at Hydro-Kennebec, Shawmut, Weston, and Lockwood. Kennebec River Diadromous Fish Restoration Annual Report 2003, p. 44-45. (Petition Evidence "B"). In 2004, DMR found upstream passage problems at Lockwood and Weston. Kennebec River Diadromous Fish Restoration Annual Report 2004, p. 25. (Petition Evidence "B"). These problems existed even though the dam operators installed experimental upstream eel passages. There are no upstream passages installed at the Androscoggin dams designed for eels, and no requirement in the water quality certifications to have them.

11. Measures to facilitate safe upstream and downstream passage are being implemented at other dams. June 17, 2005 letter from Dana Murch of DEP to Watts and others (Petition Evidence "I"). Deep sluice gates are used at the American Tissue Project, nighttime shutdowns occur at S.D Warren dams during eel migration season, hydroacoustic monitoring which can trigger a shutdown is being installed at the Anson and Abenaki Projects, etc.

12. The United States is lagging when it comes to eel protection measures. The Environment Agency of the United Kingdom has already produced a study setting forth design criteria and best practice designs for eel passage. U.K. Environment Agency, Manual for provision of upstream migration facilities for Eel and Elver, Science Report SC020075/SR2 (2004) ("Manual"). (Petition Evidence "H"). The study states that with respect to the effect of man-made barriers on eels, "there is no doubt that production is restricted by eels being denied access to areas that they could formerly colonise." Manual, p.1. The study also found: "Turbine mortality can be high for adult eels, largely because of their elongated form." Manual, p. 33.

13. Miller Hydro Group argues that the extent of the eel population at Worumbo is not known, and suggests that it is impossible to assess any harm to eels at that site as a result. However, the U.S. Fish and Wildlife Service Gulf of Maine Program issued a map on October 20, 2005 titled, "American Eel Distribution and Dam Locations in the Merrymeeting Bay Watershed (Androscoggin and Kennebec River Watersheds)." (Petition Evidence "U;" linked to FOMB website). This map shows American eels on the Androscoggin and tributaries. In addition, a survey conducted by the Department of Marine Resources found eels in the Sabattus River, a tributary of the Androscoggin above the Worumbo, Pejepscto and Brunswick-Topsham dams. (Petition Evidence "U," linked to FOMB website). The types of harms from dams on the Androscoggin will be the same as from those on the Kennebec.

This and other evidence listed in the Petition clearly support FOMB's contention that the dams pose a threat to the environment and cause violations of water quality standards and the State's anti-degradation policy.[2]

It should be noted that the failure of dam operators and the state to conduct eel studies on the Androscoggin River does not preclude the Board from determining that eel protection measures need to be added to the water quality certifications for the Androscoggin dams. The Board can use the evidence it has – including the evidence of upstream and downstream eel passage problems at the dams on the Kennebec, which have been the most extensively studied – to make a reasonable conclusion that dam operations pose a significant threat to the American eel, and that therefore modification of the water quality certifications is warranted. The Board has no trouble drawing conclusions from available scientific evidence when that evidence is not site-specific. For instance, in the case of the salmon aquaculture general MEPDES permit, which is applicable to almost every salmon farm in Maine, the Board banned non-North American fish from being grown. The Board did this because government scientists and others determined that if non-North American fish escape from net pens, such fish could breed with wild fish, their offspring would be less likely to survive, and the wild salmon population would decline. Studies were not conducted at each of the aquaculture facilities; no one ever tracked the offspring of a farmed and wild salmon; conclusions were drawn based on studies conducted in Europe and Canada.[3]

[2] The dams at issue are located on waters classified as "B" and "C." Class B waters "shall be of such quality that they are suitable for the designated uses of. . . recreation in and on the water. . . and as habitat for fish and other aquatic life. The habitat must be characterized as unimpaired." 38 M.R.S.A. § 465(3)(A). "Discharges to Class B waters may not cause adverse impact to aquatic life in that the receiving waters must be of sufficient quality to support all aquatic species indigenous to the receiving water without detrimental changes in the resident biological community." 38 M.R.S.A. § 465(3)(C). Class C waters "shall be of such quality that they are suitable for the designated uses of. . . recreation in and on the water. . . and as a habitat for fish and other aquatic life." 38 M.R.S.A. § 465(4)(A). Discharges to Class C waters may cause some changes to aquatic life, except that the receiving waters must be of sufficient quality to support all species of fish indigenous to the receiving waters and maintain the structure and function of the resident biological community." 38 M.R.S.A. § 465(4)(C). Killing and injuring eels do not satisfy these standards. Also, killing and injuring eels violates the State's antidegradation law, which provides: "Existing in-stream water uses and the level of water quality necessary to protect those existing uses must be maintained and protected." 38 M.R.S.A. § 464(4)(F). Also, the antidegradation law provides that water quality certifications can be issued only if the standards of the water quality classification are met and the project does not cause or contribute to a failure of those standards. 38 M.R.S.A. § 464(4)(F)(3).

[3] To the extent the dam operators argue that a dam's water quality certification cannot be modified unless a dead or maimed eel from that particular dam is produced, they are incorrect. As the DMR diadromous fish restoration annual reports show, the water can be too deep or other conditions may exist that prevent fishing out the dead and injured eels.

II. IT IS NOT TRUE THAT WATER QUALITY CERTIFICATIONS ARE IMPERMISSIBLE SUBJECTS OF MODIFICATION PROCEEDINGS.

FPL Energy Maine argues that once a water quality certification is issued and FERC incorporates it into a license, "the WQC has no further effect independent of the federal permit, and it is the federal agency that has regulatory oversight over the WQC [water quality certification] through the terms of the federal permit or license. Consequently, once a FERC license has been issued in reliance on a WQC, the WQC may not be revoked, modified, or suspended. FPL Energy Opposition to Androscoggin Petition, pp. 16.

FPL misapprehends the legal significance of a water quality certification. First, water quality certifications *do* impose ongoing independent obligations. DEP and the Board have the power to enforce their own water quality certifications, even if they cannot enforce the terms of FERC licenses. For example, DEP enforced a violation of a water quality certification issued to Benton Falls Associates. The Board entered an Administrative Consent Agreement and Enforcement Order requiring Benton Falls Associates to take a variety of remedial measures as a result of alewives being killed in the turbines of Benton Falls Associates' dam on the Sebasticook River. In the Matter of Benton Falls Associates, 2000 Me. ENV. LEXIS 40 (Aug. 17, 2000).

In addition, the terms of a water quality certification are enforceable by private parties or a state in federal court under the "citizen suit" provision of the federal Clean Water Act. Section 505(a)(1)(A), 33 U.S.C. § 1365(a)(1)(A), of the CWA provides that private parties and states may commence a civil action against any person "who is alleged to be in violation of an effluent standard or limitation under this chapter…"[4] Section 505(f) of the CWA, 33 U.S.C. § 1365(f)(5) provides:

> For purposes of this section, the term "effluent standard or limitation under this chapter" means…(5) certification under section 1341 [401] of this title.

Thus, a citizen suit can be brought against any person who is alleged to be in violation of a certification under section 401. North Carolina Shellfish Growers Association v. Holly Ridge Associates, 200 F. Supp. 2d 551, 558 (E.D.N.C. 2001). Since certifications include conditions to protect water quality, those certifications can be enforced.

Second, it is not true that a water quality certification can no longer be modified once a FERC license is issued. DEP, in its response to comments on the Gulf Island-Deer Rips Hydro project, stated that the Board always has the authority under 38 M.R.S.A. § 341-D(3) to modify a water quality certification. FPL Energy Maine Hydro LLC Water Quality Certification of Gulf Island-Deer Rips Hydro Project, #L-17100-33-O-N, § 11.n. Similarly, a water quality certification need not contain specific "reopener" language to be modified, as the Gulf Island-Deer Rips water quality certification made clear. Id. (DEP

[4] "Citizen" is defined as "a person or persons having an interest which is or may be adversely affected," 33 U.S.C. § 1365(g), and "person" is defined to include an " individual, corporation . . . association, State . . . or political subdivision of a state . . .", 33 U.S.C. § 1362(5).

specifically rejected the idea that a reopener clause is required to modify water quality certifications).

Third, even if FERC licenses can be amended only upon the consent of FERC and the licensee, modification of a water quality certification may lead to FERC opening discussions with the licensee to modify the license to incorporate the new certification. One reason comes to mind as to why this may occur with Kennebec dam licensees. The American eel may be headed for inclusion on the federal Endangered Species List. One factor that U.S. Fish and Wildlife will be considering in deciding whether to list the American eel is "the inadequacy of existing regulatory mechanisms." 70 Fed. Reg. 38,849 (2005). As experience with the Atlantic salmon listing fight shows, regulated entities and the State may seek to shore up weak regulatory protection of a species in order to argue to the federal government that the "existing regulatory mechanisms" factor does not weigh in favor of listing. Amendment of the water quality certification and ultimately the FERC license certainly may be on the horizon for this reason.

The dam operators try to attach significance to the fact that a petition to modify was filed instead of appeals of water quality certifications. However, there is nothing in either the statute or Board rules that restricts when a petition to modify can be filed. In addition, some of the water quality certifications are very old, and a lot more information about eels has been generated since they were issued. In any event, it is not feasible for citizens to appeal every water quality certification; consolidated proceedings on a request to modify certifications is the most practical way for the concerned public to address the issues presented here.

III. ECONOMIC IMPACT IS NOT A FACTOR TO CONSIDER IN MAKING A DECISION ON MODIFICAITON.

Miller Hydro Group, Topsham Hydro and the City of Lewiston argue that FOMB's Petition does not discuss or present evidence with respect to cost of eel protection measures, and therefore should be dismissed. Ch. 2, § 27 sets forth the criteria to be evaluated in determining whether to modify a water quality certification; economics is not one of those criteria. Further, conditions for water quality certifications do not take into account the costs of measures necessary to achieve compliance with water quality standards. 38 M.R.S.A. § 464(F)(3).

In any event, the Petition provides evidence that eel protection measures such as deep gates and night time shutdowns are economically feasible: other dam operators have implemented these measures. June 17, 2005 letter from Dana Murch of DEP to Watts and others (Petition Ex. "I").

IV. FOMB HAS STANDING.

Miller Hydro and Topsham Hydro argues that FOMB does not have standing because FOMB has not presented evidence of harm to any species from the Worumbo Project on the Androscoggin and has not documented any harm to FOMB. DEP staff

recommended that the Board find that FOMB has standing to bring the petition seeking modifications of the Kennebec dam water quality certifications, and the Board should make the finding for the Androscoggin Petition as well.

As mentioned above, the U.S. Fish and Wildlife map establishes the presence of eels in the Androscoggin. The Board can use information on the types of harm to eels at other dams and conclude the same types of harm are occurring on the Androscoggin.

With respect to harm to FOMB, Ch. 2, § 27 of DEP rules provides that "any person" may petition the Board to revoke, modify or suspend a license. To the extent this is construed as limited to any person who can demonstrate a particular interest is harmed, it is settled that harm to aesthetic, environmental or recreational interests confers standing. Fitzgerald v. Baxter State Park Authority, 385 A.2d 189, 196-97 (Me. 1978) (citing Sierra Club v. Morton, 405 U.S. 727 (1972) (plaintiffs who were users of State park and who intended to use it in the future had standing to enjoin Park Authority from clearing timber blowdown). As detailed in FOMB's website (Petition Evidence "U), FOMB is a non-profit organization dedicated to protecting the ecological, aesthetic, historical, recreational and commercial values of Merrymeeting Bay. FOMB works to preserve, protect and preserve ecosystems of Merrymeeting Bay through education, conservation and stewardship, membership events, and research and advocacy. The geographic area of concern for FOMB is the mid-coast Maine riverine delta consisting of the Kennebec, Androscoggin, Cathance, Muddy, Eastern and Abbagadassett Rivers and surrounding towns. FOMB has over 300 members who use and enjoy these rivers. FOMB members are concerned about the declining American eel population and the threats to the eel in the Kennebec and Androscoggin Rivers, and FOMB has been active in eel issues from both educational and advocacy standpoints.

V. THE KHDG AGREEMENT DOES NOT PRECLUDE THE PETITION.

Inexplicably, Miller Hydro Group argues that an agreement the Kennebec River dam operators entered into with the State and others more than seven years ago to facilitate the removal of the Edwards Dam, known as the Kennebec Hydro Developers Group ("KHDG") Agreement, precludes the Board from granting the Petition. Miller Hydro Group is not a party to the Agreement, and the KHDG Agreement does not involve dams on the Androscoggin. Moreover, the Board already determined that the KHDG Agreement did not preclude the petition on the Kennebec dams from proceeding to a hearing; the Agreement certainly could not preclude a petition regarding dams on the Androscoggin from going forward.[5]

[5] In any event, the KHDG Agreement has never governed the approval of, or contents of, water quality certifications for dams. To the contrary, the KHDG Agreement expressly maintained the independence of DEP and the Board in performing their functions with respect to water quality certifications.

Thank you for your consideration of this letter.

Sincerely,

/s/Bruce M. Merrill
Bruce M. Merrill

cc: Androscoggin service list