Friends of Merrymeeting Bay

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October 17, 2004

Ms. Magalie Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

RE: COMPLAINT: Ongoing Killing of Adult American Eels at the Benton Falls Project, Sebasticook River, Maine. FERC No. 5073. Ref. Original Docket # P-5073-000

Dear Secretary Salas,

This letter is to inform the Commission that a large and severe kill of migrating female American eel (Anguilla rostrata) is now occuring at the Benton Falls Project on the Sebasticook River in Benton, Maine. Friends of Merrymeeting Bay [FOMB] requests that FERC **immediately** require the Benton Falls Dam licensee to cease and desist dawn to dusk turbine operations each year between September 15 until November 15 while downstream migration of the species occurs.

This kill was first observed and documented by Douglas Watts of Friends of the Kennebec Salmon at 6:45 a.m. on October 14, 2004. Mr. Watts observed and photographed 25-30 large female American eels in various states of decomposition on the river bottom immediately below the Benton Falls Project turbine outfall. All of the eels bore wounds and injuries indicative of turbine blade strike (ie. decapitation, severed and partially severed torsos). Most of the eels observed were 3-4 feet in length. Four bald eagles were observed directly below the dam actively feeding on decapitated eels. Mr. Watts collected two large freshly killed eels to display for officials of the Maine Department of Environmental Protection and the Maine Department of Marine Resources. During these collection efforts, two employees of Benton Falls Associates working at the dam were shown the eels by Mr. Watts. Mr. Watts informed the employees the decapitated eels had been killed by the dam turbines and were just a small fraction of those he had just observed lying dead on the river bottom below the dam. One Benton Falls Associates employee told Mr. Watts the eels were killed by seagulls, not the dam turbines. One employee informed Mr. Watts that he was trespassing. Project turbines were running at the time of Mr. Watts' visit to the site and there was no spill at the dam. All river flow was exiting through the project turbines and the surface bypass for juvenile alewives and shad. Despite that

the surface bypass was in operation at the time of his visit, Mr. Watts observed and photographed numerous freshly decapitated juvenile alewives below the dam as well.

All photographs taken can be viewed at www.kennebecriver.org.

On Friday, October 15, 2004 Mr. Nathan Gray of the Maine Department of Marine Resources accompanied Mr. Watts to the Benton Falls project to perform a more thorough survey of the project tailrace for dead and injured American eel. Using chest waders and dip nets, Mr. Gray and Mr. Watts surveyed the wadeable portions of the Sebasticook River for a distance of approx. 300 yards below the Benton Falls Project. The survey lasted approximately 90 minutes with visibility hampered by dark, overcast skies. During the October 15 survey, Mr. Gray and Mr. Watts captured several very large eels that had been struck by the dam turbines the previous evening and were still barely alive but so wounded they could not avoid being captured or swim correctly. These were eels that would not have been killed had Mr. Calvin Neal of Benton Falls Associates shut down the project turbines when first alerted to the killing of eels at the dam by Mr. Watts at 8 a.m. the day before.

Mr. Gray's October 15, 2004 report to his superiors reads as follows:

"-----Original Message-----

From: Gray, Nate
Sent: Friday, October 15, 2004 4:09 PM
To: Squiers, Tom; Wippelhauser, Gail; Glowa, John M
Subject: Benton Eel kill

Returned to the tailrace of Benton Fall Hydroelectric facility this PM with Doug Watts after he reported a significant eel kill having happened sometime prior to 10/14/04. Using chest waders we inspected the tailrace outfall and found there were at least a few hundred eels killed over the past few weeks. Eels ranged from highly decomposed to cripples unable to swim. A bald eagle was noted taking off with eel remains. Nearly all sections of the tailrace that were wadeable contained the remains of adult eels that appeared to have been killed by turbine blade strike. Calvin Neal, the station operator had reduced flows to the turbine in order to more efficiently utilize water resources in generating electricity. This may account for the eels that were found that appeared whole but were nevertheless dead. On 10/14/04 I performed a routine downstream inspection of the site and was informed by Mr. Neal that a certain person in the form of Douglas Watts had come to the site and was very upset that there were dead eels below the project. I asked Mr. Neal to accompany me on an inspection walk down in the tail waters to see if there were any eels or alewives that had been entrained and killed by the turbine. Viewing conditions were less than ideal but I did note that there appeared to be a

few dead eels in the tailrace. One in particular was quite visible. Having no chest waders with me I told Mr. Neal that I would return on 10/15/04 to confirm the presence of the eel(s) in the project tailwaters. Mr. Watts visited the office on the morning of 10/15/04 and told what he had seen below the Benton facility so I asked him to accompany me to show me what he had seen. He did so. There were more than he had seen the previous day. Below the rapids there is a large fall-out pool and the bottom here showed eels in various states of decay from very fresh to weeks old."

Immediately after this October 15, 2004 inspection, Mr. Gray informed Mr. Calvin Neal, the dam operator, that the river bottom below the dam contained several hundred dead eels which had been recently killed by the project turbines. Despite being provided with this information, Mr. Neal did not offer to shut down the project turbines. The project turbines continued running when Mr. Gray and Mr. Watts left the dam site at approx. 3 p.m. October 15, 2004.

II. Discussion

The above described severe kill of migrating American eels at the Benton Falls Project, which is still continuing at this writing, was accurately predicted by Friends of the Kennebec Salmon in their August 20, 2004 letter to the Commission.

On August 20, 2004, Friends of the Kennebec Salmon informed the Commission by letter:

"Severe eel kills like those documented by Maine DMR in 2001 have undoubtedly occurred every fall at the Benton Falls Project since it went on-line in 1988. Severe eel kills will undoubtedly occur at the Benton Falls Project this fall and every fall thereafter. These eel kills will not stop until safe downstream passage is provided at the project for migrating female American eels."

And now, as of this writing, the bottom of the Sebasticook River below the Benton Falls Project is carpeted with the bodies of hundreds of decapitated and chopped up female American eels.

Friends of the Kennebec Salmon knew this killing was going to occur this fall. This is why they requested on August 20, 2004 that the Commission order the Benton Falls Project Licensee to cease project operation from dusk to dawn from Sept. 15 to Nov. 15 this fall to prevent the death of American eels in the project turbines. As they predicted, the bottom of the Sebasticook River below the Benton Falls Project is now carpeted with the bodies of hundreds of decapitated and chopped up female American eels.

On September 8, 2004 the Commission informed the Licensee of the request

by FKS to shutdown the Benton Falls Project turbines during the eel migration season to prevent the death of American eels in the project turbines. In this letter, the Commission instructed the Licensee:

"Please provide your comments regarding FKS's report and their recommended action to protect American eels. Also, describe what, if any, recent improvements have been made at the project to facilitate downstream passage of American eels. The migration of American eels occurs throughout autumn nights with adults descending streams and rivers for spawing in January in the Sargasso Sea. In order to address this matter before the outmigration season of American eels has passed, please file an original and eight copies of your comments, within 15 days of the date of this letter."

On September 21, 2004, the Licensee filed its response to the Commission. In this response, the Licensee denied the Benton Falls Project turbines are killing hundreds of adult female American eel each autumn. The Licensee rejected as "inconclusive and inadequate" the direct observations by Maine Department of Marine Resources staff of large piles of chopped-up American carcasses in the deep hole directly below the turbine outfall of the Benton Falls Project in October, 2001.

In its September 21, 2004 response, the Licensee refused to take any steps to prevent the death of migrating American eel at the Benton Falls Project this fall; and specifically refused to commence evening turbine shutdowns this fall to prevent the death of migrating American eel in the Benton Falls Project turbines.

Now, three weeks later, the bottom of the Sebasticook River below the Benton Falls Project is carpeted with the bodies of hundreds of female American eel killed by the turbines of the Benton Falls Project. At this writing, the Licensee continues to refuse to shut down the project turbines and the killing of female American eel continues unabated.

Since receiving the Licensee's September 21, 2004 response, the Commission has been totally silent. In its silence and lack of any substantive action, the Commission has by default rejected the Friends of Kennebec Salmon August 20, 2004 request that it require the Benton Falls Project licensee to shutdown the Benton Falls Project turbines each evening this fall to prevent the slaughter of female American eel at the project. It would appear FERC has thus aided and abetted the Benton Falls Project in its eel slaughter.

And now, due to the Commission's silence, the bottom of the Sebasticook River below the Benton Falls Project is carpeted with the bodies of hundreds of female American eel killed during the past three weeks by the turbines of the Benton Falls Project. And at this writing, the Licensee continues to refuse to shut down the project turbines and the killing of female American eels continues unabated.

III. Recommendations

Friends of Merrymeeting Bay joins the Friends of Kennebec Salmon in requesting the Commission, by FAX, to immediately order the Benton Falls Project licensee to cease project operation from dusk to dawn at the Benton Falls Project for the remainder of the 2004 fall migration season for American eel.

Friends of Merrymeeting Bay also requests the Commission immediately amend its License for the Benton Falls Project to require dusk to dawn turbine shutdowns at the project from Sept. 15 to Nov. 15 annually to prevent the further slaughter of female American eels at this project.

Friends of the Merrymeeting Bay requests the Commission order the Benton Falls Project Licensee to immediately collect and document all dead American eels, and parts of American eels, now deposited on the bottom of the Sebasticook River below the Benton Falls project; to number and photograph all eel carcasses and parts collected below the project and submit these photographs to the Commission; and to submit to the Commission a report by a professional fisheries biologist of the likely cause of death of all dead American eel and and eel parts collected below the project.

IV. Conclusion

Despite repeated conversations with staff of Benton Falls Associates on October 14 and October 15, 2004 and the presentation of freshly killed female American eels to Benton Falls Associates staff by Mr. Nate Gray of the Maine Department of Marine Resources and Mr. Douglas Watts of Friends of the Kennebec Salmon, the staff of Benton Falls Associates have repeatedly refused to cease project operations during the evening to prevent the further death of American eels at the Benton Falls Project.

The recent and continuing slaughter of hundreds of female American eel at the Benton Falls Project is inexcusable and totally avoidable. The Licensee could have easily prevented this carnage by ceasing project operations from dusk to dawn during the fall 2004 eel migration season; and ceased further killing by shutting down the project when Benton Falls Associates staff were repeatedly shown freshly killed eels on 14 and 15 October, 2004 by Maine DMR and Friends of the Kennebec Salmon.

The Commission could have easily prevented this carnage by ordering the Licensee to cease project operations from dusk to dawn during the fall 2004 eel migration season, as requested on August 20, 2004 by Friends of the Kennebec Salmon.

Because of the complete failure of the Licensee and the Commission to do anything to stop this carnage, it happened, it continues, and the bottom of the Sebasticook River is now carpeted with the decapitated and mangled bodies of hundreds of 20-50 year old female American eels killed by the

turbines of the Benton Falls dam for the crime of trying to swim to the Sargasso Sea to give birth to their children.

Regretfully Submitted,

Ed Friedman, Chair
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Friends of the Kennebec Salmon
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Ms. Magalie Salas, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

August 20, 2004

RE: American Eel Passage at the Benton Falls Project, Sebasticook River, Maine. FERC No. 5073.

Dear Secretary Salas,

Friends of the Kennebec Salmon requests the Commission require evening turbine shutdowns at the Benton Falls Project this fall from September 15 to Nov. 15 and each year thereafter to protect adult migrating American eel (Anguilla rostrata) in the Sebasticook River, Maine.

I. Background

The entire coastwide stock of American eel on the Atlantic seaboard of North America is now in steep decline. On March 10, 2004 the American Eel Management Board of the Atlantic States Marine Fisheries Commission (ASMFC) issued a statement recommending the protection of American eel under the United States Endangered Species Act. The statement reads in part:

"Canadian and US data show 2003 commercial landings are the lowest on record since 1945 and there are indications of localized recruitment failure in the Lake Ontario/St. Lawrence River system. The International Eel Symposium at the 2003 American Fisheries Society Annual Meeting reported a worldwide decline of eel populations, including the Atlantic coast stock of American eel ... The Commission also recommended that the US Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) consider American eel in the Lake Ontario/St. Lawrence River/Lake Champlain/Richelieu River system as a candidate for listing as a Distinct Population Segment under the Endangered Species Act. The Board also recommended that the USFWS and NMFS consider designating the entire coastwide stock as a candidate for listing under the ESA."

A copy of the above notice is attached as Appendix One.

II. Eel Kills at Benton Falls

Radio-tracking of adult female American eels by the Maine Department of Marine Resources (Maine DMR) at the Benton Falls Project in 2000 and 2001 indicate more than 50 percent of the migrating eels attempting to pass the Benton Falls project are entrained and killed in the project turbines. The studies also found that 100 percent of the eels entrained in the Benton Falls project turbines were killed by them. In fall 2001, Maine DMR staff used an underwater videocamera at the Benton Falls Project turbine outfall to attempt to locate two radio-tagged eels which had passed through the Benton Falls Project turbines. The videocamera revealed large numbers of dead eels and eel carcasses resting on the river bottom at the turbine outfall. Maine DMR' s 2001 study reported stated:

"DMR personnel attempted to recover these eels on five occasions (10/22, 10/26, 10/31, 11/2, 12/7). An underwater camera revealed a deep hole below the tailrace that contained many portions of eel carcasses in various states of decay. It was apparent these eels had been killed by turbine blades .... Based on two years data, the surface bypass at Benton Falls is not efficient at passing eels."

Radio-tracking of adult American eels by the Maine Department of Marine Resources at the nearby Lockwood Project on the Kennebec River during fall 2002 indicates that 40 percent or more of the adult American eel attempting to migrate pass the dam are entrained and killed dam turbines. This mortality was documented despite the availability of a surface bypass and the dam spillway for passage.

Copies of the 2000, 2001 and 2002 Maine DMR study reports are attached as Appendix Two.

Documented American eel turbine entrainment and mortality rates of more than 50 percent at the Benton Falls Project are exacerbated by the presence

of two other hydro-electric facilities on the Sebasticook River, the Fort Halifax Project (FERC No. 2552), located below Benton Falls Project, and the Burnham Project (FERC No. 11472), located above the Benton Falls Project. None of these Sebasticook River hydro projects are equipped with effective downstream passage for adult American eel. American eels migrating from above the Burnham Project must survive three hydro-electric dam passages on the Sebasticook River to reach the lower Kennebec River and the Atlantic Ocean. With 50 percent or greater mortality at each dam, it is possible that 80 to 90 percent of the American eel migrating out of the 950 square mile Sebasticook River watershed are being killed each fall in these dam turbines.

III. The Need for Project Shutdowns

In recent years, severe kills of migrating adult American eel have been repeatedly documented by the Maine Department of Marine Resources at the American Tissue Dam (FERC No. 2809) on Cobbosseecontee Stream in Gardiner, Maine. This stream is a major tributary of the Kennebec River located 25 miles below the confluence of the Sebasticook and Kennebec Rivers. Spillway passage is available for American eel at the American Tissue Project. However, recent fish kills of American eel demonstrate that most migrating American eel select the American Tissue Dam turbine intake as their migration route, rather than the dam spillway. This has caused significant entrainment and death of American eel in the project turbines since the dam was redeveloped for hydro-power more than 20 years ago. In 2002 and 2003, American eel kills at this dam were only stopped after the institution of dusk to dawn turbine shutdowns at the American Tissue Project. Extensive documentation of these eel kills is contained in the Commission' s record for the American Tissue Project at www.ferc.gov.

An extensive photographic record of these eel kills is attached as Appendix Three.

Reconstruction of the Pumpkin Hill hydro-electric dam on the Passadumkeag River in Lowell, Maine (FERC No. 4202) was documented to cause severe kills of migrating adult American as soon as the project began operation in 1987. This dam is also called the Lowell Tannery dam. Commercial silver eel harvests in the Passadumkeag River below the dam declined from a 16-year average of 10,000 pounds per year to 2,500 pounds upon activation of the Pumpkin Hill project turbines in 1987. The commercial fisherman, Mr. Gerald Crommett of Passadumkeag, Maine, stated in a Nov. 4, 1987 letter to Maine DMR: "I feel the only eels we caught [this year] were from the waters of Cold Stream Ponds, which are below the dam." Mr. Crommett further stated: "We were never notified of the building of this dam in Lowell. The way to overcome this problem would be to close the power dam down from Aug. 15 to Oct. 15. We expect to be compensated for our loss from someone responsible for this."

After threats of legal action by Mr. Crommett, the dam owner began evening turbine shutdowns at the Pumpkin Hill project during the entire fall eel migration season. Eel mortality declined immediately. The fall turbine shutdowns continue at the project today.

Documentation of the above events are included as Appendix Four.

The Damariscotta Mills hydro-electric project in Damariscotta, Maine (FERC No. 11566) is required by the State of Maine to conduct annual day and evening turbine shutdowns from July 1 to November 30 to prevent turbine entrainment of both juvenile alewife and adult American eels.

A copy of the project' s Maine Water Quality Certificate is attached as Appendix Five.

On October 2, 2003 the Commission issued new licenses for five hydro-electric projects on Maine' s Presumpscot River. In these licenses, the Commission ordered mandatory evening project shutdowns to prevent the entrainment and death of American eel at these dams. These projects -- Dundee Falls (FERC No. 2942), Gambo Falls (FERC No. 2931), Mallison Falls (FERC No. 2932), Little Falls (FERC No. 2941) and Saccarappa Falls (FERC No. 2897) are owned and operated by the S.D. Warren Company. License Articles requiring evening project shutdowns at these dams to protect migrating American eel are found at 105 FERC ¶ 61,009; 61,010; 61,011; 61,012; 61,013.

License Articles for these projects state:

"Beginning September 1, 2004, and annually thereafter, the licensee shall cease generation at sunset for at least eight hours per night from September 1 through October 31, as required by Prescription 3 of Appendix B. The licensee shall determine the timing of the generation shutdown each year in consultation with the Maine Department of Marine Resources (MDMR) and the U.S. Fish & Wildlife Service (USFWS). The purpose of the shutdown period is to provide out-migrating American eel safe and timely passage downstream past the project via flows over the project dam."

IV. Conclusion

Direct study by the Maine Department of Marine Resources at the Benton Falls Dam in 2000 and 2001 demonstrates turbine entrainment rates for migrating adult American eel at the Benton Falls Project exceed 50 percent and 100 percent of the eels entrained in the turbines are killed by them. These Maine DMR studies show the existing surface bypass for juvenile shad and alewives fails to protect most American eels at the project from being entrained and killed in the project turbines.

Severe eel kills like those documented by Maine DMR in 2001 have

undoubtedly occurred every fall at the Benton Falls Project since it went on-line in 1988. Severe eel kills will undoubtedly occur at the Benton Falls Project this fall and every fall thereafter. These eel kills will not stop until safe downstream passage is provided at the project for migrating female American eels.

Given the recent conclusions of the the American Eel Management Board of the Atlantic States Marine Fisheries Commission (ASMFC), the annual slaughter of female American eels at the Benton Falls project is inexcusable.

For the above reasons, Friends of the Kennebec Salmon requests the Commission require dusk to dawn turbine shutdowns at the Benton Falls Project from September 15, 2004 to November 15, 2004 and each year thereafter to provide safe and timely passage for adult American eel (Anguilla rostrata) in the Sebasticook River, Maine during their spawning migration to the Atlantic Ocean.

Sincerely,

Douglas Watts, President
Friends of the Kennebec Salmon
P.O. Box 2473
Augusta, ME 04338

encl: Appendices sent by U.S. mail to the Commission and Licensee.