UNITED STATES of AMERICA
before the
FEDERAL ENERGY REGULATORY COMMISSION

MOTION OF FRIENDS OF SEBAGO LAKE FOR SUPPLEMENTAL ENVIRONMENTAL ANALYSIS AT EEL WEIR PROJECT, SEBAGO LAKE, MAINE FERC PROJECT NO. 2984

Pursuant to §385.1114 of Commission Rules, Intervenor Friends of Sebago Lake ("FOSL") moves to request the Commission conduct a Supplemental Environmental Analysis for the Eel Weir Project at Sebago Lake, Maine, FERC Project No. 2984.

I. Procedural History.

On Nov. 29, 2005 FERC issued its Final Environmental Assessment (EA) for the Eel Weir project. Since this date, FERC has not issued a new license for Eel Weir because it is waiting for the Maine DEP to issue a water quality certification for the project.

Since the onset of the relicensing process in 1999, Maine DEP has delayed issuing a draft water quality certification because it voluntarily chose to wait until FERC had issued its Final EA. Since FERC issued its Final EA on Nov. 29, 2005 Maine DEP has delayed issuing a draft water quality certification because they claimed to have needed additional time to conduct water quality modelling studies in the Presumpscot River below Sebago Lake. As far as we know, these studies were conducted in the summer of 2008. Today, a year since these studies were completed, Maine DEP has not issued a draft water quality certification order for the Eel Weir dam.

For the above reasons, the entire Eel Weir licensing process has been in limbo for four years and seems to be going nowhere.

II. The need for a Supplemental EA.

The Council on Environmental Quality (CEQ) states:

"As a rule of thumb, if the proposal has not yet been implemented, or if the EIS concerns an ongoing program, EISs that are more than 5 years old should be carefully reexamined to determine if the criteria in Section 1502.9 compel preparation of an EIS supplement. If an agency has made a substantial change in a proposed action that is relevant to environmental concerns, or if there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts, a supplemental EIS must be prepared for an old EIS so that the agency has the best possible information to make any necessary substantive changes in its decisions regarding the proposal. Section 1502.9(c)."[1]

Section 1502.9(c) of NEPA states:

"(c) Agencies:

Shall prepare supplements to either draft or final environmental impact statements if:

(i) The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or

(ii) There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts."

In accordance with NEPA regulations and CEQ guidance cited above, FOSL believes a Supplemental EA is warranted and necessary for the Eel Weir Project. As evidence in support of Sect. 1502.9(c)(ii) of NEPA, FOSL provides the following new information that was not available when the Final EA was issued in Nov. 2005:

III. Evidence supporting the need for a Supplemental EA.

A. Portland Water District now admits its water quality analysis was wrong.

The Final EA relies greatly on water quality data collected and analyzed by the Portland Water District ("PWD"), which uses Sebago Lake as a public water

[1] http://www.nepa.gov/nepa/regs/40/30-40.HTM

supply. Sebago Lake is the largest public water supply in the State of Maine. (*See* p. 55 of Final EA and its water quality discussion in general.) The PWD has been collecting water quality data at Sebago Lake since the 1970s. Prior to 1990, PWD conducted its water quality sampling in Lower Bay at an inshore location. In 1990, PWD moved its Lower Bay sampling site to a deeper, offshore location. Up until 2008, PWD staff combined the sampling results of these two Lower Bay sampling stations, assuming they were equivalent. Based upon the combined data from these two sampling sites, PWD concluded water quality in Sebago Lake was stable or increasing. This is asserted in a 1998 PWD customer newsletter:

"Just how clean is Sebago Lake? Based on data collected over the last 20 years in the middle of the bays, Sebago Lake is in excellent condition. Phosphorus, the main nutrient that supports algae growth, is very low. The levels actually seem to be decreasing in the deep parts of the lake. Tests show that chlorophyll, the material that gives algae its green color, is also decreasing because the algae has less phosphorus to feed on. Since there is less algae to make the water cloudy, the water clarity is also getting better."

According to PWD (2008), these conclusions were wrong. The PWD Report (2008) states:

"The Portland Water District has previously proclaimed that Secchi disk readings in Lower Bay have showed an improving trend. However, the validity of the early Secchi disk data has been questioned by current PWD staff. Problems arise due to the locations of the sampling stations. Historical records show that samples taken from 1976-1990 were taken from "near shore" locations in Lower Bay. These readings are consistently different than the true deep basin in Lower Bay and should not be included with the Lower Bay deep basin data set .... The standardization of the sampling location in Lower Bay invalidates a long held notion, by the Portland Water District, that water quality in Lower Bay is improving over time."

PWD has now admitted that the PWD dataset used by Commission staff, and entered into the official record for the Eel Weir proceeding, was fundamentally wrong due to PWD improperly combining data from two disparate sampling sites in Lower Bay. PWD only noticed and corrected this methodological error in 2008, three years after the Final EA was issued.

PWD now states that its water quality dataset from 1990-2008 shows "definite degradation" in all three of its deepwater sampling sites in Lower Bay, Big Bay and Jordan Bay on Sebago Lake. This degradation is shown for water clarity and trophic state. (PWD 2008, 2009). PWD's raw water quality study results for 1993-2008 (PWD 2009b) has found a statistically significant increase in algae counts at one of its highly protected intakes in the Lower Bay of Sebago Lake. None of this

evidence and data was examined or reviewed by FERC staff prior to issuance of the Final EA in Nov. 2005.

C. PWD's re-analyzed water quality shows Sebago Lake is in violation of its Class GPA water quality standard.

Maine's Class GPA water quality standard requires a large, natural lake such as Sebago to have a trophic state that is stable or decreasing, subject only to natural fluctuations. PWD's re-analyzed water quality data from 1990-2008 (PWD 2009) shows an increasing trophic state in all three of the deepwater sample sites in Sebago's three deep basins (Lower Bay, Jordan Bay and Big Bay). This is emphasized by PWD in a Dec. 5, 2008 letter to Roy Bouchard of the Maine DEP which states:

"The Portland Water District (the District) has been monitoring Sebago Lake continuously for several decades. Though we have data from the 1970s and 1980s, our methodology is consistent for the period beginning in 1990 and so it is for the most recent 18 years (1990 to 2007) that trends would be most valid. For this period Sebago Lake shows a pattern of episodic improvement and decline of Secchi readings and related Total P and chlorophyll *a* concentrations, generally about five improving years followed by five declining years. However, the overall trendline for this period slopes downward –corresponding to a water quality decline and increasing trophic state. So the District does not believe Sebago Lake is experiencing a decreasing trophic state (improving water quality condition).

This leaves the question of whether or not the lake's trophic state is "stable, subject only to natural fluctuations." At our meeting you noted that if one does not consider data from the last three field seasons (2005, 2006, 2007) the trophic state trend is essentially flat, which seems like a reasonable definition of stable. Your point was not that the last three years of data are not valid, simply that the downward slope from 1990 to 2007 is strongly the result of the three most recent years of data – including some exceedingly wet years. You commented that it may be unwise to draw conclusions about long term water quality trends based on a short-term phenomenon. You postulate that if lake water quality follows the episodic pattern that is apparent for the past 18 years, then it would be expected to be moving into a period of improved water quality (increased transparency, decreased Total P and chlorophyll *a* concentrations) over the next 3 to 5 years. If this happens, then the trendline would flatten out and this may suggest a stable trophic state.

The District's concern with this line of thinking is that it will be three to five years before we can see if it happens but a water quality certification decision has been requested now. **For this reason, we advocate for a 5-year certification**. If the lake trophic state is stable, historical trends suggest it will show an improving trend for the next several years. This could be evaluated in five years and, if this is the case, the certification could be extended at that time. If not, then

this likely indicates an increasing trophic state index and no certification should be issued." (emphasis in original)[2]

Maine DEP creates a flat trend in trophic state in the PWD dataset by lopping off the period 2005-2007. The strength of a time series dataset to detect water quality trends is proportional to the number of years in the time series. The shorter the time series, the less its predictive power. DEP's analytical methodology reduces the time series from 18 years of data (1990-2007) to 15 years of data (1990-2004). DEP's selection of which years of the time series to disregard (2005-2007) and which years to preserve (1990-2004) is based solely upon DEP's decision that the period 2005-2007 were "wet" years and "bad" for water quality. The last six years (1999-2004) of the PWD time series retained by Maine DEP were very dry, ie. "good" years for lake water clarity. According to the U.S. Geological Survey, the drought of 1999-2002 was "the most severe drought on Maine rivers in more than 50 years. The only comparable period of statewide drought was from 1947 to 1950." (Lombard 2004).[3] This is cherrypicking.

The DEP's speculation that the water quality trends in the PWD dataset from 1990 to present are solely the result of 'natural fluctuations' is refuted by PWD Secchi disk data in all three deep basins, which show a real decline in water clarity by as much as 1.5 meters since 1990.[4] PWD (2009) shows Big Bay transparency is declining by an average of 0.11 m/year ($p=1.0^{-5}$) since 1990; Jordan Bay transparency is decreasing by an average of 0.13 m/year ($p=4.4^{-7}$) since 1990; Lower Bay transparency is decreasing by an average of 0.08 m/year ($p= 3.5^{-5}$) since 1990. DEP's speculation is further weakened by recent PWD data showing increased nutrient enrichment in the lower Crooked River since 1991; increased periphyton growth in shallow, nearshore areas of the lake since 1995; and a statistically signicant increase in algae counts at one of its deepwater raw water intakes since 1993.

[2] Since this letter was written by the PWD in Dec. 2008, PWD has added its 2008 data to the 1990-2007 dataset analyzed by the Maine DEP. The full 1990-2008 dataset shows the trend of increasing trophic state and decreasing water clarity documented in the 1900-2007 dataset to continue unabated (PWD 2009). Moreover, the weather in Portland, Maine since 2007 does not accord with the Maine DEP's prediction of 3-5 years of "dry" weather beginning in 2008 to counter the "wet years" of 2005-2007. According to the National Weather Service on Jan. 16, 2009, "The year 2008 will go into the record books as one of the wettest years ever recorded in the past 138 years." Weather data for 2009 are even less kind to the Maine DEP. According to the NWS, June 2009 was the fifth rainiest June on record in Portland, Maine, July 2009 was the second wettest July on record in Portland, Maine, June/July 2009 were the wettest June/July periods on record, and the period of June/July/August 2009 was the wettest June/July/August period on record in Portland, Maine. Rainfall records began in Portland, Maine in 1871. We are now nearly halfway through the "dry" period that Maine DEP predicted would occur after 2007 and the region is instead setting new records for wetness.

[3] Lombard, P.J. 2004. Drought conditions in Maine, 1999-2002: An Historical Perspective. U.S. Geological Survey Water-Resources Investigations Report 03-4310.

[4] A careful examination of Secchi disk readings in PWD (2009) for all three deep basins shows that the Secchi disk readings during the 1999-2002 drought years improved but did not equal or exceed the readings in the earliest four years of the dataset. If very dry years tend to produce better Secchi disk readings, and the most severe drought on Maine rivers in 50 years (1999-2002) fails to produce better readings than much wetter years earlier in the time series (1990-1993), then the 'natural fluctuation' hypothesis is falsified.

DEP's speculative hypothesis fails to consider the commonplace occurrence of real, negative water quality trends being overprinted upon a natural, weather-driven cycle of water quality fluctuations. This is especially true in the case of cultural eutrophication of a natural lake, where the vehicle for the input of culturally produced phosphorus is precipitation and higher than average lake levels due to precipitation. Cultural inputs of phosphorus to Sebago Lake are caused by soil erosion and stormwater run-off from development and land use change, new home construction and additions, septic system leaching and the increase in septage production by the conversion of seasonal camps into year-round homes, and soil erosion and bluff collapse due to the increased average annual water levels mandated by the LLMP. Due to their mode of transport, all of these cultural inputs of phosphorus tend to have their greatest effect during years of high precipitation and a lesser effect during years of low precipitation. As such, one would expect the strongest signal from cultural eutrophication at Sebago Lake to occur during and immediately after wetter years, and a weaker signal during drier years.

One of the primary purposes of PWD's water quality data collection efforts at Sebago Lake is to detect a long-term cultural eutrophication signal.[5] By lopping off "wet years" because they are wet, the DEP methodology lops off those years which should have the strongest signal from cultural eutrophication while preserving those years (the driest) which should have the weakest signal.

The Maine DEP predicts that water quality at Sebago Lake will markedly improve during the next 3-5 years and fully reverse the declining trend documented from 1990-2008. This prediction requires that there is no overprint of cultural eutrophication on the "natural" fluctuations in water quality at Sebago Lake. The DEP fails to consider the more plausible hypothesis that the 1990-2008 PWD dataset shows the overprint of cultural eutrophication *on top of* a natural fluctuation.

This "overprint" hypothesis is supported by long-term PWD studies in the lower

[5] PWD's decision to locate its sampling sites for total water quality (Secchi disk, total phosphorus, chlorophyll *a*) in the deepest and most remote parts of Sebago Lake's three basins was done purposefully to minimize the influence of short-term effects, and in doing so, to increase the signal to noise ratio of the dataset to enhance its ability to detect long-term water quality trends, especially the lake's overall trophic state. The sensitivity of sampling site placement is demonstrated by the marked difference in Secchi disk and total water quality data from the two PWD Lower Bay sampling sites. The pre-1990 sampling site is much closer to shore and in much shallower water than the post-1990 sampling site. The PWD has found that the difference in depth and distance offshore between the two sites was sufficient to create substantially different readings. This difference is even more remarkable because both sites are in the PWD's two-mile "no contact zone" and are well away from any influence by tributaries or human activity.

Crooked River which show an increase in nutrient enrichment in the Crooked River since 1989 (PWD 2008a); nearshore periphyton studies which show an increase in cultural eutrophication since 1995 (PWD 2009a); and raw water quality data at its 1952 intake pipe which shows a statistically significant increase in algae counts since 1993.(PWD 2009b)[6]

The DEP's hypothesis also fails Occam's Razor, which favors the most parsimonious explanation for *all* of the observed data. The PWD datasets show a decrease in water clarity in the deepest and most remote parts of the lake's three basins, an increase in nearshore algae production, increased nutrient enrichment in the lower Crooked River, and an increase in algae counts at one of its two protected, deepwater intake pipes. These studies cover every part of Sebago Lake, from its largest tributary, to nearshore areas, to the deepest parts of the lake's three basins, and the most secure and protected part of Sebago, the PWD's raw water intakes in Lower Bay. Each of these water quality datasets is an independent line of evidence. All show a trend since 1990 toward increased cultural eutrophication, decreased water quality and increased trophic state in Sebago Lake. The DEP's hypothesis does not explain, nor does it try to explain, the synchronous decline in water quality in all of these datasets.

The DEP's hypothesis requires far more than just a modest, short-term improvement in water quality since 2007. The DEP's hypothesis requires annual improvements in water quality since 2007 that are of sufficient magnitude to *fully reverse* the negative water quality trend observed from 1990-2007 and to make the trend line for the entire time series data flat or positive. This is a tall order.

The DEP's prediction that existing water quality trends since 1990 will fully and "naturally" reverse themselves in 3-5 years (starting from 2008) illustrates why proceedings such as this must rely on the data at hand, not what the data "might be" or "could be" five or more years after the proceeding has concluded. Also, the DEP's hypothesis would have far more credibility if all available data sets showed no signs of increasing cultural eutrophication in Sebago Lake. Instead, all of PWD's datasets show that cultural eutrophication is increasing in Sebago Lake.

What is most significant for this proceeding, at its current stage, is that all of the PWD datasets described above have been generated since the Final EA was issued in Nov. 2005. FERC staff have never had the opportunity to examine or analyze any of them. NEPA states a Supplemental EA should be prepared whenever "there are significant new circumstances or information relevant to environmental

[6] Because of the location of PWD's 1952 raw water intake in the heart of PWD's two mile "no contact zone" in Lower Bay, the documentation of *any* statistically significant increase in algae counts at this site is notable.

concerns and bearing on the proposed action or its impacts."

These new datasets meet NEPA's definition of "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts" and show that a Supplemental EA is warranted.

C. Wetlands studies relied upon in the Final EA were designed incorrectly and provide no useful information on the impacts of the existing LLMP on Sebago Lake wetlands.

In 2008, Friends of Sebago Lake contracted with noted wetlands scientist Dr. Douglas Wilcox to conduct a site visit at Sebago Lake and to review the wetlands studies and results and other pertinent data relied upon by the Commission in its Final EA. Dr. Wilcox is the Empire Innovation Professor of Wetland Science at the State University of New York at Brockport, New York. Dr. Wilcox's findings are contained in a 15-page report ("Wilcox Report") titled "Site Visit and Evaluation of Wetland Conditions at Sebago Lake." In his report, Dr. Wilcox concluded:

"The site visit to Sebago Lake and subsequent analyses of the Normandeau studies, lake levels, discharges, and precipitation resulted in recognition that no studies had been conducted that relate wetland conditions to lake-level regulation or to changes in the regulation plan. Although the data collected were likely scientifically accurate, the study design did not allow evaluation of the effects of water-level changes. In addition, replication and randomization were not incorporated into the sampling design, rendering the data collected useful only in evaluating the specific sites sampled. The main problem with the study design was that placement of sampling quadrats was based on existing vegetation and not on hydrologic criteria. As a result, most sampling was directed toward upper elevations that are not affected by lake level, and lower elevations that should have been dewatered in 2002 were not sampled at all. If sampled, they might have shown only submersed aquatic vegetation or perhaps no vegetation at all. Basic wetland ecological knowledge suggests that if greater discharges from the lake had occurred in 2002 and lake levels were allowed to remain low during the growing season, those lower elevations might have been occupied by emergent plant species similar to those observed in segment 1 sampling by Normandeau. Absence of those emergent plants would have been the key evidence that regulation has altered the natural changes that occur in wetland plant communities of a water body such as Sebago Lake. Such alteration of vegetation would also result in alteration or loss of habitat for fish and wildlife. In addition to loss of an emergent plant community that would anchor sediments, lack of low lake levels to dry and consolidate sediments would likely result in continued sediment flocculation and increased turbidity of lake waters."

D. Maine DEP files show that more than 100 shoreland stabilization permits

have been issued to homeowners on Sebago Lake since 2000.

In 2006 and 2007, FOSL requested from the Maine DEP all of the shoreline stabilization permits it has issued to Sebago Lake property owners since 2000 [FOSL also requested all of the shoreline stabilization permits issued by the DEP from 1990 to 2000 but was told by the Maine DEP it had destroyed most of them.] For the period 2000 to 2007 we found that the Maine DEP issued more than 100 permits to Sebago Lake waterfront property owners to construct rip rap and other artificial devices to stop ongoing erosion of the lakeshore on their property. For reasons unknown to FOSL, the Maine DEP has never referenced or cited these permits in its submissions to FERC. During the relicensing process, the Maine DEP had full access to these permits, since they issued them and we obtained them from Maine DEP's files and archives. These permit documents contain hundreds of photographs documenting recent shoreline erosion of such an extent that the landowners required Maine DEP permits to stop the erosion. One of the documents found in our search, from Jan. 27, 1998, is a Findings of Fact and Order signed by the Maine DEP Commissioner granting Geoffrey Rice of Standish, Maine an after-the-fact permit to construct a gabion wall along his shorefront home on Frye Island, Sebago Lake to stem severe erosion on his property. The Order states in part:

"The applicant purchased this property and at that time no significant erosion problems existed. In the late 1980's, the lake management plan was revised resulting in higher lake levels. As a result the western shore of Frye Island, including the applicant's property, has developed widespread erosion problems. On the applicant's property the existing sand surface layer has washed away exposing a clay sub layer. The exposed clay bluff continues to erode and slump into the lake. For several years the applicant has tried to stabilize the eroding slope with vegetation. Repeated attempts to establish a stable slope have failed due to failure of the toe of the slope. Stable vegetation is lost when large chunks of the clay bluff slump into the lake."

These shoreline stabilization permits are key pieces of evidence which document the ongoing, negative effects of the LLMP on the shoreline stability of Sebago Lake. These permits and accompanying photographs have never been seen, analyzed or considered by FERC staff.

E. Maine Geological Survey photo archive, 1990-present.

Since 1990, staff of the Maine Geological Survey have made a voluminous photographic record documenting the beach and soil erosion at Songo Beach at Sebago Lake State Park. For reasons unknown to FOSL, the State of Maine has

never submitted any of these hundreds of photographs into the record of this proceeding. In October 2007, FOSL brought a computer and a photographic scanner to the MGS headquarters in Augusta, Maine and scanned the MGS photo collection. This photographic record is the ONLY photographic record made by a public agency documenting the entire history of severe beach erosion at Sebago Lake State Park since lake levels at Sebago were increased by SAPPI after 1987. Together with photographs taken at the same areas by FOSL members from 1994 to present, the MGS collection is the only continuous visual record of the shoreline changes which have occurred at Sebago Lake State Park during the past 20 years. None of these photos were available to FERC staff during the preparation of their 2005 Final EA. FOSL has created an on-line archive of the Maine Geological Survey Sebago Lake photo collection, assembled by year taken, at http://www.kennebecriverartisans.com/MGS.html

F. FOSL photo survey of Hayden Fen documenting filamentous algae overgrowth due to the LLMP.

Hayden Fen is a natural, spring-fed wetland complex which flows into the southwest side of Sebago Lake in the town of Sebago. It is adjacent to the residences of numerous FOSL members, who have for many years fished and canoed it. In recent years, the open water areas of the fen have become infested with filamentous algae ("gook") of such magnitude that it carpets most of the wetted area of the fen during the summer. Since the implementation of the LLMP, the artificially elevated summer lake levels at Sebago have acted as a "dam" at the outlet of Hayden fen. This has prevented the fen from drying out in the summer, as it did prior to the LLMP, when the lake was a foot or more lower in summer than it is today. The damming and inundation of the fen by the elevated summer water levels of Sebago Lake has greatly accelerated the growth of filamentous algae in the fen. This thick, mucousy algae growth has eliminated any recreational use of the fen for fishing or canoeing and destroys most of its habitat for fish and other aquatic life. Since 2005, FOSL has collected more than 100 underwater and abovewater and aerial photographs documenting this invasion of Hayden Fen by filamentous algae. This recently documented phenomena has never been analyzed by FERC staff and was not addressed in the Final EA. FOSL has created an archive of the full size original digital images of filamentous alge infestation at Hayden Fen at: http://foslphotos.blogspot.com/2007/07/haydn-bog-72207-set-5.html

G. The Final EA did not examine the ongoing impact of the illegal introduction of Northern Pike into Sebago Lake.

In its 2008 "State of the Lake Report" (PWD 2008b), the Portland Water District states:

"In the spring of 2003 an illegal introduction of the voracious and non-native northern pike was discovered in the Songo River, just upstream of its confluence with Sebago Lake. Since then, multiple confirmed northern pike have been harvested by anglers in Sebago. In 2005, a 13 pound female northern pike laden with eggs was harvested in the Lower Bay of Sebago. Just this year an angler landed a 17 pound, 41-inch northern pike in Kettle Cove. Pike will prey upon smelt as well as salmon. According to MDIFW, 'Pike have established themselves in Sebago and are spawning. Because Sebago is so large with numerous inlets, there's virtually nothing that can be done at this point to limit the expansion of this new invader which threatens salmon recovery and fishery management efforts.'"

Studies in other Maine salmon waters where northern pike have been illegally stocked, ie. the Belgrade Lakes, show that northern pike are voracious predators of landlocked Atlantic salmon, and due to their large size (up to 30 pounds), northern pike will attack and eat even large, adult landlocked salmon of spawning age.

The Final EA contains two recommendations which require revisiting due to this new information. First is the requirement in the LLMP to cap fall outflows at the Eel Weir Dam to 1,000 cfm prior to Nov. 1st of each year to dissuade spawning Sebago Atlantic salmon from trying to use the upper Presumpscot River to spawn. The second recommendation is that the licensee should not have to construct a trap and sort facility at the Eel Weir Dam to allow spawning Sebago Atlantic salmon to utilize their historic spawning grounds in the upper Presumpscot River.

The upper Presumpscot River was one of two principal spawning areas for Sebago Atlantic salmon, the other being the Crooked River watershed. The upper Presumpscot River has been unavailable as spawning habitat for Sebago Atlantic salmon since the Eel Weir Dam was constructed in the early 20th century. According to MDIFW, the Crooked River/Songo River delta is now inhabited by northern pike and these pike now have access to the entire Crooked River watershed. Every single wild Atlantic salmon in Sebago Lake must pass through the Crooked River delta as a spawning adult and a juvenile. Because northern pike have been documented in Maine to feed voraciously on landlocked salmon, the use of the Crooked River as spawning habitat by Sebago Atlantic is now being impaired by the presence of pike. Due in part to the LLMP, the lower Crooked River delta is undergoing cultural eutrophication. Its formerly clean, sand bottom is becoming infested with thick growths of variable leaf milfoil and other aquatic

plants, creating ideal northern pike spawning, juvenile and adult habitat. If a substantial population of northern pike becomes established in Sebago Lake and the Crooked River delta, it is likely that their impact on spawning Atlantic salmon and downmigrating smolts will be severe.

The 1,000 cfm cap on fall outflows at the Eel Weir dam, the lack of fish passage for spawning Sebago Atlantic salmon at the Eel Weir dam, the illegal introduction of northern pike into Sebago Lake, and the documentation of northern pike in the Crooked River delta (the migration corridor for all wild Sebago salmon in Sebago Lake), act synergistically to impair the ability of native Sebago Atlantic salmon to successfully reproduce and maintain a population in Sebago Lake.

The Final EA contains no analysis of the potential effects of the impact of the four interactions described above on the viability of native Atlantic salmon in Sebago Lake. FOSL strenuously advocated for fish passage for Sebago Atlantic salmon at the Eel Weir dam so that these fish can gain access to their historic, traditional spawning habitat in the upper Presumpscot River. The illegal introduction of northern pike into Sebago Lake makes the restoration of access to the Sebago salmons' historic spawning habitat in the upper Presumpscot River more critical than ever, because it would create a spawning refugia in the Presumpscot that would not require all of the lake's wild salmon to travel through a bottleneck of ideal northern pike habitat in the Crooked River delta as spawning adults and as juveniles.[7] The Final EA did not analyze any of these recent scientific developments.

H. New evidence shows the Eel Weir Dam did not raise the level of Sebago Lake by 8-9 feet, as the Final EA assumes.

A central piece of "conventional wisdom" during this proceeding is that the Eel Weir Dam raised the natural height of Sebago Lake by 8-9 feet. New historic and physiogeographic evidence shows that the Eel Weir Dam never raised the level of Sebago Lake by more than 1-2 feet. This error was caused by earlier investigators incorrectly assuming the natural elevation of the upper Presumpscot River "Basin" is the same as Sebago Lake. This is false. Historic and physiogeographic data shows the "Basin" (as defined as the area downstream from White's Bridge in Standish) is more accurately defined as the head of the Presumpscot River and was

[7] FOSL's recommendation for a trap and sort facility at the Eel Weir Dam for Sebago salmon would allow MDIFW to keep northern pike out of the upper Presumpscot River by allowing biologists to only allow Sebago salmon below the dam and to destroy any northern pike found in the sorting area. Because the Crooked River delta and the Crooked River itself is undammed, biologists have no way to prevent northern pike from gaining further foothold in the Crooked River watershed and potentially occupying suitable habitat throughout the watershed. This unique benefit of a trap and sort facility at Eel Weir was never analyzed or considered in the Final EA.

naturally 5 feet or more lower in elevation than Sebago Lake itself prior to damming. This evidence shows the natural channel constriction at White's Bridge was the natural hydraulic control for Sebago Lake. In June 2009 Steven Kasprzak filed an extensive and fully referenced submission to the Commission on this topic. This new evidence refutes the longstanding claims, implied in the Final EA, that recent and severe shoreline erosion at Sebago Lake is in part caused by a 8-9 foot elevation increase on Sebago Lake due to construction of the Eel Weir Dam a century ago. New evidence shows this assumption is false. The Final EA never analyzed or considered this new historic and physiogeographic information supplied by Mr. Kasprzak.

IV. Conclusion.

Friends of Sebago Lake believes the above described new information is directly pertinent to the Commission's duty under NEPA to fully analyze the environmental impacts of re-licensing, or not re-licensing, the Eel Weir Dam; and is pertinent to the Commission's duty to fully analyze the impacts of the existing Commission-approved Lake Level Management Plan on Sebago Lake. None of this information was available to Commission staff when the Final EA was issued in Nov. 2005. Several pieces of information described above, particularly the PWD's 2008 retraction of its earlier water quality data analyses and Dr. Douglas Wilcox's expert review of the value of the wetland studies conducted by the applicant, refute key pieces of evidence relied upon by the Commission staff in the draft and Final EA.

The 1997 Commission-approved LLMP for Sebago Lake meets the definition of an "ongoing program" as set forth by CEQ guidance cited above ("As a rule of thumb, if the proposal has not yet been implemented, or if the EIS concerns an ongoing program, EISs that are more than 5 years old should be carefully reexamined to determine if the criteria in Section 1502.9 compel preparation of an EIS supplement."). Because the 1997 LLMP has not been revisited for 12 years, the Final EA is now four years old, and the Eel Weir license has been expired for more than five years, the CEQ and NEPA guidance requirements for a Supplemental EA are met.

For the above reasons, Intervenor Friends of Sebago Lake moves to request the Commission conduct a Supplemental EA for the Eel Weir Project in accordance with NEPA rules and the guidance of the Council on Environmental Quality. Friends of Sebago Lake requests the Commission, in preparing this Supplemental EA, allow FOSL to submit in full all of the new information and evidence

described above.

V. References cited.

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Portland Water District. 2009a. Portland Water District Watershed Monitoring Program Lake Monitoring: Presenting Periphyton data from 1995 to 2008. Portland Water District, Portland, Maine.

Portland Water District. 2009b. Raw Water Algae Counts: Presenting Data from 1993-2008. Portland Water District, Portland, Maine.

Portland Water District. 2008. Sebago Lake Trophic Trends: Presenting Data from 1990-2007. Portland Water District, Portland, Maine.

Portland Water District. 2008a. Portland Water District Watershed Monitoring Program Tributary Biological Monitoring: Presenting Data from 1989 to 2007. Portland Water District, Portland, Maine.

Portland Water District. 2008b. State of the Lake Report for 2008. Portland Water District, Portland, Maine.

Portland Water District. 2008c. Letter of Paul Hunt, PWD, to Roy Bouchard, Maine DEP. Dec. 5, 2008.

Wilcox, Douglas. 2008. Friends of Sebago Lake: Site Visit and Evaluation of Wetland Conditions at Sebago Lake. Friends of Sebago Lake, Sebago Lake, Maine.

VI. Evidentiary Appendices.

Attached as evidentiary appendices to this motion are the following documents in PDF form:

Portland Water District. 2009. Sebago Lake Trophic Trends: Presenting Data from 1990-2008. Portland Water District, Portland, Maine.

Portland Water District. 2009a. Portland Water District Watershed Monitoring Program Lake Monitoring: Presenting Periphyton data from 1995 to 2008. Portland Water District, Portland, Maine.

Portland Water District. 2009b. Raw Water Algae Counts: Presenting Data from 1993-2008. Portland Water District, Portland, Maine.

Portland Water District. 2008. Sebago Lake Trophic Trends: Presenting Data from 1990-2007. Portland Water District, Portland, Maine.

Portland Water District. 2008a. Portland Water District Watershed Monitoring Program Tributary Biological Monitoring: Presenting Data from 1989 to 2007. Portland Water District, Portland, Maine.

Wilcox, Douglas. 2008. Friends of Sebago Lake: Site Visit and Evaluation of Wetland Conditions at Sebago Lake. Friends of Sebago Lake, Sebago Lake, Maine.

The extensive FOSL photographic on-line archives referenced herein are available for inspection and downloading and, at the request of any party, will be sent by first class mail in CD-ROM format. Requests should be addressed to Douglas Watts at info@dougwatts.com or 131 Cony Street, Augusta, ME 04330.

Sincerely,

Roger Wheeler, President
Friends of Sebago Lake
PO Box 561
Fryeburg, ME

Douglas H. Watts
Executive Officer
Friends of Sebago Lake
131 Cony Street
Augusta, ME 04330

CERTIFICATE OF SERVICE

I, Douglas H. Watts, certify that on September 11, 2008 I provided a copy of this motion to all parties on the official service list for this proceeding by first class mail.

_____
Douglas H. Watts