

**STATE OF MAINE
DEPARTMENT OF INLAND FISHERIES AND WILDLIFE**

IN THE MATTER OF

CUMBERLAND MILLS DAM)	
FISHWAY PROCEEDING)	FINDINGS OF FACT AND DECISION
)	

In order to conserve, develop or restore anadromous or migratory fish resources, the Commissioner of the Maine Department of Inland Fisheries and Wildlife is authorized by 12 M.R.S. § 12760(1) to require that fish passage be erected, maintained, repaired or altered by the owners, lessors or other persons in control of any dam or other artificial obstruction within inland waters frequented by alewives, shad, salmon, sturgeon or other anadromous or migratory fish species.

At issue in this proceeding is whether fish passage should be constructed and maintained at the Cumberland Mills Dam, located on the Presumpscot River in the City of Westbrook, Cumberland County, Maine. The dam is currently owned by S.D. Warren Company.

PROCEDURAL HISTORY

By letter dated October 19, 2006, American Rivers and Friends of the Presumpscot River (AR/FOPR) requested that proceedings be initiated pursuant to 12 M.R.S.A. § 12760(4) to consider construction of fish passage at the Cumberland Mills Dam. By letters dated November 1, November 6 and November 7, 2006, the Maine Department of Environmental Protection (DEP), the Maine Department of Marine Resources (DMR), and the Atlantic Salmon Commission all expressed support for the AR/FOPR request. By letter dated December 7, 2006, S. D. Warren (Warren) requested that, if fishway proceedings are initiated, a public hearing be held pursuant to 12 M.R.S.A. § 12760(5)(B). On January 10, 2007, based on a review of the available information, I determined that one or more of the statutorily-required conditions may exist and initiated this fishway proceeding.¹ I further determined that, based on the request by the dam owner, a public hearing would be scheduled.

In February, 2007, DIFW issued a public notice that adjudicatory proceedings were being initiated to consider construction of fishways for the two spillways that make up the Cumberland Mills Dam. A deadline of March 23, 2007 was established for the filing of petitions to intervene

¹ Pursuant to 12 M.R.S.A. § 12760(4), the Commissioner shall initiate proceedings to consider construction, repair or alteration of fishways in existing dams or other artificial obstructions whenever the Commissioner determines that one or more of the following conditions may exist: (A) fish passage at the dam or obstruction in issue, whether alone or in conjunction with fish passage at upriver barriers, will improve access to sufficient and suitable habitat anywhere in the watershed to support a substantial commercial or recreational fishery for one or more species of anadromous or migratory fish; or (B) fish passage at the dam or obstruction in issue is necessary to protect or enhance rare, threatened or endangered fish species.

in the proceeding. AR/FOPR, DEP, DMR, the Maine Atlantic Salmon Commission (ASC),² and the Coastal Conservation Association (CCA) sought to intervene in support of fishways, and the Maine Pulp & Paper Association (MPPA) sought to intervene in opposition. All petitions to intervene were granted.

The proceedings were subsequently stayed, at the request of Warren, AR/FOPR and DMR, to allow the parties to engage in settlement discussions. After the last stay expired on June 15, 2008, the parties notified the Commissioner that settlement efforts had failed and requested that the fishway proceeding be re-started.

Pre-hearing conferences were held on August 28, 2008, October 3, 2008 and December 8, 2008. At these conferences, and in a series of procedural orders, rulings were made regarding the applicable legal standards and organization of the hearing. The first procedural order, in particular, provided that the proceeding would be held in two phases, with the first phase addressing whether fish passage should be required under the decision criteria of 12 M.R.S.A. § 12760, and with the second phase, if needed, addressing the fishway design. A second procedural order consolidated AR/FOPR and, separately, DEP/DMR, for the purposes of the proceeding. The second procedural order also required the parties to submit pre-filed testimony on the issue whether construction of fish passage should be required at Cumberland Mills Dam under the legal standards set forth in 12 M.R.S.A. § 12760.

A hearing on the first phase of the fishway proceeding was held on December 15th and 16th, 2008 in Westbrook and public notice of the hearing was issued. The parties presented oral testimony summarizing their pre-filed testimony and were provided an opportunity to cross-examine the other parties' witnesses. An evening session was held on December 15 to take public testimony.

At the conclusion of the hearing on December 16th a deadline of February 27, 2009 was established for the submission of written closing arguments and proposed findings of fact and conclusions. Written closings and proposed findings were submitted by Warren and jointly by DEP/DMR and AR/FOPR on February 27th. CCA submitted a letter supporting the filings submitted by DEP/DMR and AR/FOPR. MPPA did not file a written closing or proposed findings.

DECISION CRITERIA

Pursuant to 12 M.R.S.A. § 12760(6), the Commissioner of DIFW may issue a decision requiring the owners, lessees or other persons in control of a dam or obstruction to construct, repair, alter or maintain a fishway. Such a decision must be supported by a finding based on evidence submitted to the Commissioner that either of the following conditions exist:

- (A) One or more species of anadromous or migratory fish can be restored in substantial numbers to the watershed by construction, alteration, repair or maintenance of a fishway and habitat anywhere in the watershed above the dam or

² The ASC was subsequently incorporated within a new Bureau of Sea Run Fisheries and Habitat at DMR, and these two parties became one.

obstruction is sufficient and suitable to support a substantial commercial or recreational fishery for one or more species of anadromous or migratory fish; or

- (B) The construction, alteration, repair or maintenance of a fishway is necessary to protect or enhance rare, threatened or endangered fish species.

No evidence has been presented in this proceeding that the construction of a fishway at the Cumberland Mills Dam is necessary to protect or enhance rare, threatened or endangered fish species. Therefore, the decision to require construction of a fishway at the Cumberland Mills Dam must be supported by a finding that one or more species of anadromous or migratory fish can be restored in substantial numbers to the watershed by construction and maintenance of a fishway and habitat anywhere in the watershed above the dam or obstruction is sufficient and suitable to support a substantial commercial or recreational fishery for one or more species of anadromous or migratory fish.

FINDINGS OF FACT

The Presumpscot River flows for 25 miles from the outlet of Sebago Lake in Standish and Windham to the ocean in Falmouth.

There are currently eight dams on the Presumpscot River. Starting at the tidewater, the first dam is the Cumberland Mills Dam.³ Proceeding in order upstream from the Cumberland Mills Dam are the Saccarappa Dam, the Mallison Falls Dam, the Little Falls Dam, the Gambo Dam, the Dundee Dam the North Gorham Dam finally, the Eel Weir Dam, located at the outlet of Sebago Lake. Each of these dams, with the exception of the North Gorham Dam, are owned by Warren.

The Cumberland Mills Dam is located approximately seven miles upstream from the head-of-tide and is the only major coastal Maine river that lacks fish passage for anadromous or migratory fish at the first, most downstream dam on that river. The Cumberland Mills Dam is not a hydropower dam and, therefore, is not subject to licensing by the Federal Energy Regulatory Commission (FERC).

The five dams immediately above the Cumberland Mills Dam (Saccarappa, Mallison Falls, Little Falls, Gambo and Dundee) are licensed by FERC as hydropower projects (known collectively as the Presumpscot River Hydro Projects). The licenses issued by DEP and FERC for these dams require the phased installation of upstream and downstream passage facilities designed to pass river herring (alewives and blueback herring are collectively referred to as “river herring”), American shad, and Atlantic salmon at all five dams. The first of these fish passage facilities must be operational at the Saccarappa Dam no later than two years after passage is available at the Cumberland Mills Dam, with the sequential installation of fish passage facilities at the Mallison Falls, Little Falls, Gambo and Dundee Dams occurring thereafter based on specific trigger numbers of returning fish at each dam. Until fish passage is

³ Historically, the Smelt Hill Dam was the first dam on the river. This dam was removed in 2002 as a habitat restoration project to increase habitat and fish passage opportunities for various species of anadromous and catadromous fish.

available at Cumberland Mills, the requirements for upstream fish passage at Warren's upriver dams are not triggered.⁴

Historical Anadromous Fish Populations in the Presumpscot River

There is convincing evidence in the record that the Presumpscot River historically supported large quantities of anadromous and migratory fish, including Atlantic salmon, American shad and river herring. There is also evidence that, with the construction of the first dam on the river at Presumpscot Falls (at or near the site of the former Smelt Hill Dam) sometime between 1732 and 1735, fish migration up river was diminished. Over time, these species were eliminated from the river by the construction of dams that blocked passage and by pollution.

In 1869, the Maine Legislature enacted laws that, for the first time, asserted the state's authority to require the construction and maintenance of fish passage in dams or other artificial obstructions in rivers and streams. The 1875 annual report to the Maine Legislature of the Maine Fisheries Commission reported that a fishway was built at the Cumberland Mills Dam. By 1876, The Commissioners of Fisheries were able to report to the Legislature that the "Presumpscot River may now be pronounced accessible to salmon and alewives, as far as Mallison Falls..." Further, there is evidence in the record that, as a result of the presence of fishways and the construction of the Cumberland and Oxford canal alongside the river, anadromous fish again had access to Sebago Lake.

By 1900, the Cumberland and Oxford canal had been abandoned, fish passage up the Presumpscot River was blocked by a dam at Smelt Hill, and there were no reported runs of anadromous fish in the river until a fishway was again installed at the Smelt Hill Dam in 1990.

Warren did not contest the evidence regarding the existence of historic native anadromous fisheries nor the history of construction of impassable dams, with a brief intervening time period in the later part of the 19th century during which fishways existed on all dams on the Presumpscot.

Based on the historical records, I find that the Presumpscot River once supported large self-sustaining runs of native anadromous fish, including river herring, American shad and Atlantic salmon, and these historical fisheries were eliminated by the construction of impassable dams.

⁴ In issuing water quality certifications for these dams, the DEP determined that the installation of upstream and downstream anadromous fish passage facilities at all five dams would provide access to significant habitat for American shad, blueback herring, and Atlantic salmon. Moreover, DEP determined that the phased installation of anadromous fish passage at each of the dams is necessary and appropriate to allow access for target anadromous fish species to spawning and nursery habitat. In its Final Environmental Impact Statement (FEIS), with respect to anadromous fish, FERC concluded that, if fish passage or dam removal was provided at the Cumberland Mills Dam, upstream and downstream passage at all five projects would benefit American shad and river herring by providing access to potential spawning and rearing habitat.

Current Status of Anadromous and Migratory Fish in the Presumpscot River

At the present time, there are no anadromous fish in the Presumpscot River above the Cumberland Mills Dam. There is, however, evidence in the record that small runs of alewife, blueback herring and American shad are currently present in the Presumpscot River in the seven mile stretch above the site of the former Smelt Hill Dam and below the Cumberland Mills Dam.

The lower Presumpscot River, from Cumberland Mills Dam downstream to Casco Bay, has been open to migratory species since 1990. A fishway at the Smelt Hill Dam (designed to pass Atlantic salmon, American shad and river herring) was in operation between 1990 and 1996. Fish counts were conducted from 1994 to 1996. Approximately 27,000 river herring passed upstream through the fishway in 1994 and 1995. Approximately 5,300 river herring passed upstream through the fishway in 1996. Due to damage caused by floods, no fish counts were conducted at the Smelt Hill Dam after 1996, although the gates at the dam remained open to allow for passage. The Smelt Hill Dam was removed in 2002.

Alewives were stocked into Highland Lake (a tributary which enters the Presumpscot approximately two miles below the Cumberland Mills Dam) in 1997 and 1998 by the owners of the Smelt Hill Dam; and in 2000 and 2001 by DMR. During the spring of 2003 (a year after the Smelt Hill Dam was removed) a boat electrofishing survey conducted by Normandeau Associates. The primary objective of the study was to qualitatively determine whether diadromous fish species were present in the river reach between the Cumberland Mills Dam downstream to the I-95 Bridge. Because of limitations associated with electrofishing, limited sampling dates, and other factors such as fish that likely avoided capture, the study was not suitable to establish quantitative estimates of the number of diadromous fish species present in the river. In any event, the study documented the presence of spawning adult shad and river herring, and juvenile American eels, in the reach between Mill Brook and the Cumberland Mills Dam (a section of river approximately 200 yards downstream to the dam was not sampled because of obstructions in the river that prohibited boat access).

In 2004, DMR trapped 7,560 pre-spawn alewives at the top of the Highland Lake fishway. There is no reason to believe that river herring have ceased migrating up the Presumpscot and its tributaries since then.⁵

Another electrofishing survey conducted by the Midwest Biodiversity Institute in the fall of 2006/spring 2007, also confirmed the presence of alewife and American shad in the lower Presumpscot.

In addition, three recreational fishermen with experience fishing the Presumpscot River testified that there has been a dramatic improvement in water quality and an increase in the number of anadromous fish, including river herring and shad. One witness in particular, Dana

⁵ The continued runs of river herring in the Presumpscot are consistent with continued large runs of river herring in the Kennebec, Androscoggin and Union rivers, and other small coastal rivers.

Eastman, testified as to his familiarity with blueback herring which, he also testified, he has personally observed and caught in the portion of the river below the Cumberland Mills Dam.⁶

There are no natural impediments in the river that would prevent the existing small runs of alewife, blueback herring or American shad from reaching the Cumberland Mills Dam.

Warren witness Dr. Richkus agreed that remnant populations of alewife and shad are in the Presumpscot River, but stated that he does not believe blueback herring exist in the river and that a coastwide decline of river herring will prevent its restoration in substantial numbers to the watershed. While DMR has not collected data specifically documenting the presence of blueback herring in the lower Presumpscot, Dr. Wippelhauser testified that they are likely present due to their historical presence and the documented occurrence and growth of blueback herring populations in other Maine coastal rivers such as the Kennebec and Saco. DMR also disagrees that there is a coastwide decline of river herring, stating that while the State has closed some overfished river herring runs to fishing for conservation purposes, other runs of river herring, such as those on the Kennebec, Androscoggin and Union rivers, have remained robust.⁷

Based on the available data for the Presumpscot River, DMR's knowledge of the alewife, blueback herring and American shad runs in surrounding rivers, and the absence of natural impediments that would prevent these species from reaching the Cumberland Mills Dam, I find that alewives, blueback herring and American shad are currently present in the seven miles stretch below Cumberland Mills Dam.⁸ I also find that the current populations of these fish may serve as a seed population for restoration.

DMR's Efforts to Restore Anadromous and Migratory Fish to the Penobscot River.

Over the past 25 years, the State has spent significant resources on the recovery of anadromous and migratory fish within the Presumpscot River.

In 1983, based on DMR's plans to restore alewives to the Presumpscot River, DEP and FERC approved the redevelopment of the Smelt Hill Dam as a hydropower project with a requirement that fish passage facilities be installed at the dam within 5 years. The required passage facilities were installed in 1990, giving alewives access to the Presumpscot River up to the Cumberland Mills Dam and to Highland Lake, which drains into the river via Mill Brook.

In 1996, the Smelt Hill Dam generating and fish passage facilities were severely damaged in a flood and project operation ceased. In 2001, following several years of negotiations, DMR

⁶ Mr. Eastman testified at hearing that this occurred at a point in the river past which he believed the Mill wouldn't allow access.

⁷ DMR witness Patrick Keliher stated that by combining the regulation of depressed stocks with continued restoration efforts statewide, any declines in river herring will be reversed. Mr. Keliher cited to the Atlantic States Marine Fisheries Commission's Management Plan for American Shad and River Herring which contains three objectives for these species: regulate overfishing of depressed stocks, improve habitat accessibility, and stock these species into waters that historically supported but do not presently support natural spawning migration. Dr. Richkus was a principal author of this management plan.

⁸ In addition, American eel currently inhabit the entire Presumpscot River, although the size of the population is unknown.

signed a purchase and sale agreement with the dam owner to buy the project for the purpose of removing the dam to provide fish passage and restore the aquatic ecosystem of the lower Presumpscot River. DEP and FERC subsequently approved the removal of the dam, and in 2002 the dam was removed by the U.S. Army Corps of Engineers.

In 2001, DMR collaborated with DIFW and ASC to write a draft fisheries management plan for the Presumpscot River that proposed restoring migratory fish (including alewife, blueback herring, American shad and eel) to the entire river and promoting existing and potential commercial and recreational fisheries for these species.⁹

In addition, DMR participated in all aspects of the relicensing process for the Presumpscot River Hydro Projects, which began in the mid-1990s.

Finally, in a report to the Legislature last year, DMR listed obtaining fish passage at the Cumberland Mills Dam as one of DMR's highest priorities for the next five years.

DMR has had extensive experience restoring alewife, American shad, and, more recently, blueback herring to both natural and impounded habitat throughout Maine. It has successfully established runs of river herring to the Kennebec, Androscoggin and Union rivers, and river herring and American shad to the Saco River, among others. While the total restoration of these anadromous species to a river system can take 30-50 years, Patrick Keliher testified that, if fish passage is ordered at Cumberland Mills, DMR will jump start the process in the Presumpscot River by trapping alewife and blueback herring from proven sources in Maine and trucking them above the Cumberland Mills Dam, likely to the impoundment created by the next upriver dam, Saccarappa, to allow them to spawn. DMR is ready to commence this stocking program using existing resources. Warren's witness, Dr. Richkus, acknowledged that stocking of alewife has been successfully used by DMR to reintroduce alewife to the Sebasticook River and the Royal River, and that he recommended stocking of alewife in the Penobscot watershed as an effective restoration technique.

I find that obtaining fish passage at the Cumberland Mills Dam is consistent with the long-standing efforts of the state and federal fisheries agencies to restore anadromous and migratory fish to the Presumpscot River, and that DMR is prepared to jump start the restoration process by trapping and trucking alewife and blueback herring to the habitat above Cumberland Mills Dam.

Sufficiency and Suitability of Habitat above Cumberland Mills Dam for Alewife, Blueback Herring and American Shad

Gail Wipplehauser has been a diadromous fisheries scientist and fisheries manager with DMR for the past 12 years. She has extensive experience with the Presumpscot River. She participated in all aspects of the FERC relicensing process for Warren's hydroelectric projects on the Presumpscot, and was the lead person for DMR in the DEP water quality certification

⁹ The overall goal of the plan is to integrate the fishery management goals of DMR, DIFW and ASC so as to cooperatively manage the diadromous and resident fishes of the Presumpscot River for optimum habitat utilization, abundance and public benefit.

proceedings. She co-authored the Draft Fisheries Management Plan for the Presumpscot River Drainage.

In her pre-filed and oral testimony, Dr. Wipplehauser testified that habitat above Cumberland Mills Dam is suitable for production of alewife and blueback herring. She expressed the opinion that impoundments existed that were of sufficient size and that had sufficient food and oxygen to support populations of these species. She indicated that these species are “broadcast spawners” – that is, that they simply release their eggs into the water column. They don’t make nests like smallmouth bass, nor do they require a particular substrate. She stated that alewife would spawn in parts of the impoundment where water currents were slow, whereas blueback herring would spawn where water currents are swifter. Her testimony indicates that the river above the Cumberland Mills Dam contains both slow moving water and faster current. Finally, Dr. Wipplehauser testified that, while it is unknown whether more alewife or more blueback herring will use the habitat above Cumberland Mills, DMR and FERC agreed that both alewives and blueback herring will likely pass upstream if fish passage is provided at Cumberland Mills, and that the available upstream habitat will be used by both species. She testified that there are many examples in the northeast of populations of alewife, blueback herring and shad that have been restored to historic habitat that has been converted from riverine to impounded habitat by mainstem dams, citing DMR’s experience on the Kennebec and Saco Rivers.

Outside Maine, American shad has been successfully restored to the Merrimack River above the Lawrence project dam. In addition, DMR witness Stephen Gephard, a fisheries biologist from the Connecticut Department of Environmental Protection, provided testimony describing seven restoration projects in which alewife, blueback herring and/or American shad have been restored to impounded habitat in Connecticut rivers.

Other evidence in the record shows that the water quality in the Presumpscot has improved to the point of being suitable for fish restoration.

Warren witness Dr. Richkus stated his opinion that the restoration of alewife, blueback herring and American shad must fail because only a very low percentage of these species stray, as opposed to homing back to their natal waters, therefore not enough fish will use the fish passage at Cumberland Mills Dam. Responding to this testimony, Dr. Wippelhauser cited an example in Maine where strays have re-colonized non-natal habitat. The first year that fish passage was available at the lower set of dams on the Saco River (Cataract Project), previously undetected shad and river herring strayed upriver into non-natal habitat and establish spawning runs. Mr. Gephard also provided examples from rivers in Connecticut where strays re-colonized non-natal habitat when fish passage was provided.

Moreover, as noted above, DMR has testified that it is committed to stocking river herring above the Cumberland Mills Dam, which will accelerate the restoration process considerably. Dr. Richkus agreed that stocking is a viable tool in reintroducing extirpated anadromous species to a river system.

Based on the evidence in the record on the character and quality of the upstream habitat, the spawning and nursery needs of alewife, blueback herring and American shad, and the experience of Maine and other states with restoration of these species to historically riverine but currently impounded habitat, I find that the habitat of the Presumpscot River watershed above Cumberland Mills is suitable and sufficient for alewife, blueback herring and American shad.

DMR's Estimates Regarding the Number of Anadromous Fish that can be Restored to the Watershed if Fish Passage is Constructed at Cumberland Mills Dam.

Dr. Wipplehauser testified as to her estimates of harvestable fish that can be produced in the habitats above the Cumberland Mills Dam. The estimates were provided for alewives and blueback herring separately. She arrived at the estimates by first determining the surface acres of the impoundment using GIS technology, and then multiplying the total by a unit production of fish. For alewife she used 235 fish per acre; and for blueback herring she used 600 fish per acre. She factored in spawning escapement and passage efficiency, and also took into consideration the DMR's experience in the Saco and Kennebec Rivers. Dr. Wipplehauser testified that the estimates were based on current river conditions, without stocking, and that the timeframe for reaching the estimated numbers of fish would be approximately 30 to 50 years. The timeframe would likely be shortened by a stocking program, as planned by DMR.

Dr. Wipplehauser estimated that the existing habitat in the Cumberland Mills and Saccarappa impoundments can produce a run of 40,025 alewives and 145,823 by habitat in the Cumberland Mills, Saccarappa, Mallison Falls, Little Falls, Gambo and Dundee impoundments. When spawn escapements and passage efficiency is factored in, the estimates of harvestable alewives become 33,180 and 121,868, respectively.

With regard to blueback herring, Dr. Wipplehauser estimated that the existing habitat in the Cumberland Mills and Saccarappa impoundments can produce a run of 102,191 blueback herring and 372,314 by habitat in the Cumberland Mills, Saccarappa, Mallison Falls, Little Falls, Gambo and Dundee impoundments. When spawn escapements and passage efficiency is factored in, the estimates of harvestable blueback herring become 84,591 and 310,716, respectively.

Because the harvestable surplus will be a mix of river herring, the potential production range is between 33,180 and 84,591 that will be produced by the Cumberland Mills and Saccarappa impoundment habitat; and the harvestable surplus of river herring the will be produced in the six impoundments above the Cumberland Mills Dam is between 121,868 and 310,716 fish.

Dr. Wippelhauser also testified that the existing habitat in the Cumberland Mills and Saccarappa impoundments can produce a run of 14,681 American shad each year, and that the existing habitat in the Cumberland Mills impoundment plus the five upriver impoundments can produce a run of 41,523 American shad each year.

Warren witness Dr. Richkus criticized the methodology used by Dr. Wippelhauser in predicting the number of fish that could be produced by the impounded habitat upstream.

However, there is ample evidence in the record that this is a proven methodology used by state and federal fisheries agencies and FERC to estimate production of alewife, blueback herring and shad, and that it has accurately predicted fish production in other similar restoration efforts.

The estimated numbers of river herring and American shad that can be produced by the habitat above Cumberland Mills is substantial when compared to current runs on the Presumpscot River and to current and potential runs on other southern Maine rivers.

With respect to river herring, Dr. Wippelhauser testified that there is currently a complete lack of river herring production above Cumberland Mills Dam due to the lack of fish passage. There are currently small runs of river herring on other southern Maine rivers (including the Piscataquis/Salmon Falls River, Mousam River, Kennebec River, and Saco River), none of which have supported a commercial harvest in at least 25 years. Only the Saco River has sufficient habitat to support a larger run than the Presumpscot.

With respect to American shad, Dr. Wippelhauser testified that there is currently a complete lack of shad production above Cumberland Mills due to the lack of fish passage. There currently exist small runs of American shad in the Piscataquis/Salmon Falls and Mousam Rivers, and a substantial run of shad in the Saco River, all of which support local recreational fisheries. In southern Maine, only the Saco River has sufficient habitat to support a larger run than the Presumpscot River.

Based on the evidence, I find that alewife, blueback herring, and American shad can be restored in substantial numbers to the watershed by the construction of a fishway at Cumberland Mills Dam.

Restoration of Substantial Numbers of American Eel to the Watershed if Fish Passage is Constructed at Cumberland Mills Dam

There is evidence in the record that American eel currently inhabit the entire Presumpscot River, although the size of their population is unknown. The habitat above Cumberland Mills Dam is suitable growth habitat for eel, and dissolved oxygen levels are sufficient to maintain the species. DMR believes that eel passage at Cumberland Mills will enlarge the population. Eel passages are very effective at allowing eels to move upstream.

Warren witness Dr. Richkus stated his opinion that, while construction of a fishway at the Cumberland Mills Dam might result in an increase in the numbers of eels present in the watershed, the existing presence of eels indicates that this would not be restoration of the species, but an enhancement of the abundance of that species. However, “to restore” means to bring back to or put back into a former or original state.¹⁰ The fact that there are already eels in the Presumpscot River does not deprive me of authority to order eel passage at the Cumberland Mills Dam in order to restore the eel population to a former or original state.

¹⁰ Merriam-Webster Online Dictionary. 2009.

Accordingly, I find that there is sufficient and suitable habitat in the impoundments above Cumberland Mills for American eel and that this migratory species can be restored to the watershed in substantial numbers if an eel fishway is constructed and maintained at the Cumberland Mills Dam.

Substantial Commercial or Recreational Fishery for Anadromous and Migratory Fish

The record supports a finding that the habitat that would be made available by the provision of fish passage at the Cumberland Mills Dam can support a substantial commercial or recreational fishery for one or more species of anadromous or migratory fish.

River Herring

According to Mr. Keliher's testimony, at the present time there is no commercial river herring fishery in the Presumpscot River, and that there are no other such fisheries west of the Kennebec River. River herring are an important source of bait for Maine's lobster industry, especially during the May-June harvest period when there is a limited supply of sea herring. A small niche market also exists for smoked alewife for human consumption. Additionally, a small amount of river herring could be used as bait for halibut and striped bass.

Dr. Wipplehauser's estimated that a potential river herring harvest of 33,180 to 84,591 fish would be created in the Cumberland Mills and Saccarappa impoundment habitats, and a potential harvest of 121,868 to 310,716 fish would be created in the six impoundments above Cumberland Mills. This is substantial compared to current conditions in the Presumpscot River or to current or potential conditions in other southern Maine rivers.

American shad

There is currently no recreational shad fishery in the Presumpscot River. Dr. Wipplehauser estimated that the habitat in the Cumberland Mills and Saccarappa impoundments can produce a run of 14,681 American shad each year, and the habitat in the Cumberland Mills impoundment plus the five upriver impoundments can produce a run of 41,523 American shad each year.

According to Dr. Wipplehauser's pre-filed testimony, there are small runs of American shad in the Piscataquis/Salmon Falls and Mousam Rivers and a substantial run of shad in the Saco River, all of which support popular local recreational fisheries. The number of shad in the Piscataquis and Mousam Rivers is unknown, but the recreational fishery in the Saco is supported by an annual run that has ranged from 399 to 4994 adult American shad annually. In southern Maine, only the Saco River has sufficient habitat to support a larger run than the Presumpscot River. A run of 14,681 to 41,523 shad would be substantial for southern Maine.

Mr. Keliher cited the Saco and Narraguagus Rivers as examples of rivers that have substantial recreational fisheries that will be of similar size, or larger, to the one created on the Presumpscot. He testified that a current average annual return of less than 2000 adult shad in the Saco River has created a substantial local recreational fishery and that he has observed as many

as 15 or 20 people fishing for shad in the Saco at any one time. He stated that as the population grows more anglers will target this fish.

American eel

There is evidence in the record that the habitat made available by the provision of fish passage at Cumberland Mills Dam can support a substantial commercial American eel fishery in the Presumpscot River watershed. Although eels were commercially harvested by weir in the 1990's at the outlet of Sebago Lake, that fishery has been closed. Yellow eels can be harvested by pot in the impoundments on the river. The habitat made available by the provision of fish passage at Cumberland Mills Dam will substantially enlarge the existing eel population and, therefore, a potential pot fishery for them in the Presumpscot River watershed. Given that there is currently no commercial American eel fishery in the river, as compared to the 13,000 pounds of eel commercially sold in Maine every year, this potential commercial eel fishery is substantial.

Based on the evidence, I find that the habitat that would be made available by the provision of fish passage at the Cumberland Mills Dam can support a substantial commercial or recreational fishery for one or more species of anadromous or migratory fish, specifically river herring, American shad and American eel.

CONCLUSIONS OF LAW

Based on the above Findings of Fact and the evidence contained in the record of this proceeding, I make the following conclusions:

1. One or more species of anadromous or migratory fish, specifically alewife, blueback herring, American shad and American eel, can be restored in substantial numbers to the Presumpscot River watershed by construction and maintenance of a fishway at Cumberland Mills Dam; and
2. Habitat in the Presumpscot River watershed above Cumberland Mill Dam is sufficient and suitable to support a substantial commercial or recreational fishery in the Presumpscot River watershed for anadromous or migratory fish, specifically river herring (alewife and blueback herring), American shad, striped bass and American eel.

DECISION

After having carefully considered the testimony and exhibits of the parties, the public testimony and other related record materials, I conclude that fish passage should be constructed and maintained at the Cumberland Mills Dam, in order to conserve, develop or restore anadromous or migratory fish resources.¹¹

¹¹ The number of fishways needed to provide effective fish passage at the Cumberland Mills Dam will be determined in the second phase of these proceedings. Any reference to "fishway" singular in this decision should not be construed as a finding on this question.

Because this proceeding is being held in two phases, the decision herein does not constitute final agency action. Further proceedings will follow to determine the requirements for fishway design and operation, including the appropriate number and location of fishways. Following those proceedings, a final order in the matter will be issued.

A separate procedural order will be issued, in which I will schedule further proceedings to determine the requirements for fishway design and operation, including the appropriate number and location of fishways, following which a final order will be issued in this matter pursuant to 12 M.R.S.A. § 12760(6).

DATED AT AUGUSTA, MAINE, THIS ____ DAY OF _____, 2009.

ROLAND D. MARTIN
Commissioner, Maine Department of Inland Fisheries and Wildlife