Maine Departments of Marine Resources and Environmental Protection c/o Sean Ledwin and Laura Paye *via email*

Background on American shad and sturgeon in the Union River in support of improved passage requirements for pending water quality certification.

Sean and Laura,

The dates and accompanying information below provide examples from legislative, regulatory, news print, or firsthand accounts related to presence of American shad and sturgeon species in the Union River. There are likely countless other examples as this river has been an important pathway for anadromous fish and sustained human communities for thousands of years.

I'm providing this list to allow for appropriate review by staff at both Maine Department of Marine Resources and Maine Department of Environmental Protection.

Please add this list and the accompanying source material that I will provide for each item to the administrative record for the active Water Quality Certification application before the Department of Environmental Protection.

Thank you for your thoughtful review,

Brett Ciccotelli

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American shad and sturgeon references and documentation in the Union River: 1815 to present

1815—Massachusetts Laws, 1815, Ch. 129, enacted Feb. 27, 1815. Chap. CXXIX. An Act for the preservation of Fish, in Union river and bay, and in the waters emptying into the same. "Sect. 1. Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, that if any person shall make or continue any dams, or other obstruction in or across Union river in the county of Hancock, or any stream or pond emptying into the same or into any part of Union river bay, northerly of the southern extremes of Newbury-neck and Oak point, through or into which Salmon, Shad or Alewives, have ever been accustomed to pass, for the purpose of casting their spawn, without providing and keeping constantly open and clear, a sufficient passage or sluice way, for such salmon, shad and alewives to pass and repass, from the tenth day of May to the last day of June annually, every such person shall forfeit and pay a fine not exceeding two hundred dollars, nor less than fifty dollars..."

- 1815—Minutes of Ellsworth Selectmen, Mass. Archives, Boston, MA., May 8: "At a legal meeting of the inhabitants of the Town of Ellsworth qualified by law to vote in town affairs holden at said Ellsworth on the eighth day of May 1815. Voted that the Selectmen Petition the General Court in behalf of said Town for an alteration of the law for the Preservation of Salmon, Shad, Alewives in Union River & Bay and streams and Ponds entering into the same, that said Fish may be taken on two days each week. Whereas by the law passed for the Preservation of Salmon, Shad and Alewives in Union River & Bay and the streams and Ponds emptying into the same, the taking of said fish is prohibited for the term of three years, and whereas said Fish have increased so much that they may be taken at the stated times without any material detriment to their increase, the undersigned therefore in obedience to the vote aforesaid request your Honorable Body so far as the law aforesaid as to permit the taking of the fish aforesaid in the waters aforesaid two days in each week during the residue of the three years aforesaid."
- 1823—Special Laws of Maine: "An act making further provision for the preservation of Fish in Union river bay, and its waters." January. Pages 299-300 of the Act required anyone constructing a dam to keep open sluiceways for certain fish Including salmon, shad and alewives.
- 1824—Petition from Ellsworth Select Board, January 13: "This lumber is sawed at the mills above Union River Bridge, and the fish, to wit, salmon, shad, & alewives, have now all the passageway they can have, unless the dam is cut down, as entirely to stop the mills during the time allowed by law for them to pass up the River."
- 1824—Petition of the Assessors, Plantations #26 & #27, January 27:"...that the Proprietors built a mill & dam across the western branch of the Union River(at Mariaville Falls) and erected mills thereon for the benefit and encouragement of the settlement, that they have given the use of said dam to the settlers, a privilege to build a gristmill thereon, to which they are accustomed to have all their sawing & grinding done, and they cannot [illegible] grinding or sawing at any other place within 20 to 25 miles, that the said dam is built in a place where the banks are ledgy and very high, and precipitous, so much so that no passageway for salmon, or shad and alewives can be made except through the dam which would stop the mills during the time limited by law for keeping open the passageway..."
- 1855—Ellsworth American, June 29. Sturgeon stranding report during spawning season: "...A week ago last Sunday some men discovered a sturgeon floundering about just below the bridge in this village, his sturgeonship having failed to go out with the tide, and then unable to get out. He was captured and found to measure seven and half feet from nose to tail..."
- 1868—Report of the Commissioner of Fisheries: "The fishery on this river [the Union] was formerly excellent, producing salmon, shad, and alewives"
- 1878—Survey of Hancock County: "Formerly Union river was a favorite haunt of salmon, shad, and alewives."

1887—The Fisheries and Fishery Industries of the United States, citing to Atkins, "The River Fisheries of Maine" at 705: "No river fisheries now exist here, though formerly salmon, shad, and alewives abounded. Especially good facilities are found at Ellsworth for the erection of dams, and they were improved at a very early date...In 1815, 1816, and 1823 the legislature passed acts regulating the fishery, but they were not sufficient to keep it alive many years"

1900—Serialized Ellsworth History from the Ellsworth American:

"The Union River was a great fishing and spawning ground for salmon. The Indians and early settlers speared them in the eddies and pools at the Falls. Later, after the dams were built, the salmon began to grow less. There was no fishways to allow them to ascend the River. A large number of shad were also caught. Alewives were caught on the river as they returned with the tide. The streams and branches of the Union River abounded in fur animals, and the Indians and a number of white men were engaged for years, hunting and trapping otter, mink, sable, [muskrat], bear and Lynx. A few beaver were also trapped"

1908—Ellsworth dam construction booklet with photo showing dam site before Ellsworth dam construction

1961—*Union River Management Plan*: "Among the restoration problems listed for salmon, one in particular-- downstream passage at the Ellsworth Dam--applies to alewives and shad."

1982—Statewide fisheries management plan: Tables of historic and current shad rivers in Maine lists Union at Ellsworth as both historical shad river with minor fishery with population numbers of 1,000-10,000 fish and current shad river with remnant stock.

1982—Anadromous Fish Streams of New England Map by Eipper, et al: Union River upstream of Leonard Lake for Proposed restoration of anadromous species, including shad

1982—Union and Minor Coastal Drainages East of the Penobscot, A River Management Report by the Atlantic Sea-run Salmon Commission: Shad listed in table of anadromous fish species

1987—FERC License for Ellsworth Project: "[b]efore dams were constructed the Union River supported anadromous Atlantic salmon (*Salmo salar*), alewife (*Alosa pseudoharengus*), and American shad (*A. sapidissima*)."

2014— Atlantic States Marine Fisheries Commission shad habitat plan: Union River is show as shad habitat in several maps and tables.

2015—Union River Federal Coordinating Committee's Comprehensive Management Plan: "A residual population of American shad together with strays from other river systems are likely present in the Union River estuary below the Ellsworth Dam. Shad have been observed incidentally in the commercial river herring harvest, by anglers, and historically by agency personnel tending the trap."

2018—Interview with local fisherman, Charlie Kelly:

"Well, I never precisely fished for shad. I was fishing more for stripers. I caught literally 100's of stripers and tagged them for American Littoral Society. But, what few shad I caught where below the dam, salmon fishing....Below the Ellsworth dam, salmon fishing with wet flies. And occasionally you would catch one. You would think it was a salmon cause they very strong in flight. But of course they never jumped. And um, I would land them and release them. And this all happened when we had salmon here, oh goodness back in the 1980's and early 90's we had a fair run of salmon in the river and that's when the shad, what few I was involved with, I caught...when I used to fish regularly I would catch usually 1 or 2 a year. Ah, but we never, we meaning two or three other fellas I talk with, ah there never seemed to be very many there. So at one time I wonder if there was a good shad run there? Like the salmon. I mean we had, we had salmon there. Of course a lot of those were put and take. So but, I've often wondered because down below the narrows on the Union River there's a couple of good, holes, deep holes there to catch stripers. And when I was tagging, I was bait fishing, I was interested in numbers. And even caught a couple of shad down there."

2021—Sturgeon at the Elllsworth dam: Photo and reporting documentation for sturgeon pieces found directly downstream of the Ellsworth dam.

2025—Sea run fish count data with Union River detail provided by Brookfield Renewable to MDMR. Most recently American shad were documented by Brookfield at the dam in 2021, 2022, and 2023.