

Woodland Dam

This dam was built at Spragues Falls on an international boundary river. It is operated by Woodland Pulp LLC in Baileyville, Maine. It is the second dam on the mainstem of the St Croix River, located nine miles upstream from the head of tide. The dam provides hydroelectric power to the mill operations for Woodland Pulp LLC. The dam is exempt from Federal Energy Regulatory Commission (“FERC”) regulation because it was constructed before the effective date of the Federal Power Act and is grandfathered.ⁱ The dam operates at 48 feet head. The IJC has regulatory jurisdiction over the water levels and water flow at the dam and fishway.

Woodland Fishway

- Denil design
- four feet wide
- 745 feet long
- Includes four resting pools
- 20 cfs fishway flow
- 25 cfs attraction flow
- Inactive fish trap
- Built in 1964-65

History of Spragues Falls, Dam and Fishway

Early 1800’s – Crude timber crib dam constructed at Spragues Falls (Woodland). These crude dams were later rebuilt and some were moved slightly to their present locations.ⁱⁱ

1851 The Sprague’s Falls Dam has no provision for fish passage.ⁱⁱⁱ

1905 First power dam at Sprague’s Falls in Woodland. For the manufacturing of pulp and making paper. Hydropower takes a foothold in the river.

1906 Woodland Dam built at Woodland, ME. This dam had a wooden fishway 16 feet wide. This dam provided power to the newly formed St Croix Paper Co, which evolved as one of the major polluters of the St Croix. ^{iv}

1959 A supplementary report on the pollution survey of the St Croix in 1959 concluded that conditions resulting from pollution in that reach of the river from the St Croix Paper Company mill at Woodland, downstream for a distance of about 8 mi, were worse than those detailed in the 1956 survey. The effects of chemical pollution were greater than in 1956, with DO’s below the 5-ppm IJC objective for all main stem waters downstream of the paper mill. As well, there was neither an improvement in the physical condition of the river bottom

in the 4-mi reach downstream from the mill nor a decline in the grossly polluted conditions created by untreated municipal sewage.

1963 Federal funding of \$195,402 was provided to the state of Maine through the Accelerated Public Works Program for construction of fishways at Woodland and Grand Falls Dams to provide upstream passage to Atlantic Salmon, Alewives, and American Shad. These funds were administered under the Federal Aid in Sports Fish Restoration program regulations. The grant agreement included a 25 year agreement between the Maine and the dam owner to operate and maintain the fishways with an option for an additional 25 year renewal. ^v

1965 June, new Denil fishways officially opened at the Grand Falls and Woodland Dams.^{vi}

1966 Woodland pulp mill begins using chlorine as a bleaching agent in the kraft pulp process, producing highly toxic, endocrine disrupting dioxins and furans. Testing of lobster tomalley in the St Croix Estuary revealed high levels of dioxin.

1970s Mid '70s – Pollution treatment system installed at the Woodland Mill improving water quality.

1989 The 25 year lease for the operation and maintenance of the Woodland and Grand Falls fishways expired and was not renewed^{vii}

1995 Woodland fishway blocked off alewife by Maine Law. Alewife runs in the St Croix begin to crash.

1995 The mill process was changed at the Woodland Pulp mill to drastically reduce the production of toxic dioxins and furans^{viii}

2002 St Croix sea-run alewife count plummeted down to 900 returning adult fish at Milltown. This was the result of Maine closures of fishways at Woodland and Grand Falls.

Early 2000's - For about 6 years Canada trucked a total of 26,682 alewives upriver past the Woodland Dam blockage. Alewives caught at the Milltown research trap at the fishway are trucked into the Woodland flowage impound.

2004 July 1, 2004 Domtar spilled 3.5 million gallons of untreated waste water from the mill in Woodland into the St Croix River. The spill occurred over a period of approximately 4 hours, from 4-8am. The mill increased the river flow, by opening the dam gates, from approximately 875 cfs to 2,500 cfs. The discharge into the river was less than half of their allowable levels. No fish kills or visual impacts were noted.^{ix}

2008 Woodland dam fishway opened by Maine Law.

2016 September, Under the management of Woodland Pulp LLC burst pipes leaked more than 3 million gallons of partially treated waste water. About 1 million gallons of this leak flowed into the St Croix River.^x

2018 August 10, Woodland, Under management of Woodland Pulp LLC an estimated 535,000 gallons of partially treated wastewater was spilled into the St Croix River. DEP officials will review the report from the mill and inspector next month and determine what kind of enforcement action, if any, to take against the mill.^{xi}

ⁱ UNCERTAIN WATERS FOR FISH: ALEWIVES AND THE U.S./CANADA BOUNDARY WATERS TREATY, Charles Owen Verrill, Jr, Of Counsel, Wiley Rein LLP., 1776 K Street, NW, Washington, DC 20006

ⁱⁱ Domtar Industries Inc, St Croix River document about dams and flows, 2012, p8

ⁱⁱⁱ M. H. Perley, Report upon the Fisheries of the Bay of Fundy, 1851, Fredericton, New Brunswick

^{iv} Historical Perspectives of Resource Development Branch Activities in Restoring Anadromous Fishes to the St. Croix River, New Brunswick-Maine, by T.L. Marshall, December, 1976, Internal Report series no. Mar/I-76-2, Freshwater and Anadromous Division, Resource Branch, Fisheries and Marine Service, Department of Fisheries and the Environment, Halifax, Nova Scotia

^v Case Study on Potential Loss of a State's Eligibility to Participate in a Federal Aid Program: Anadromous Alewife Passage at St Croix River Fishways in Maine, by Ron Essig, Federal Aid Division, Region 5, December 4, 2002

^{vi} Historical Perspectives of Resource Development Branch Activities in Restoring Anadromous Fishes to the St. Croix River, New Brunswick-Maine, by T.L. Marshall, December, 1976, Internal Report series no. Mar/I-76-2, Freshwater and Anadromous Division, Resource Branch, Fisheries and Marine Service, Department of Fisheries and the Environment, Halifax, Nova Scotia (pg 13)

^{vii} Case Study on Potential Loss of a State's Eligibility to Participate in a Federal Aid Program: Anadromous Alewife Passage at St Croix River Fishways in Maine, by Ron Essig, Federal Aid Division, Region 5, December 4, 2002

^{viii} The Quoddy Report, Two Hundred Years of Ecological Change in the Outer Bay of Fundy, Quoddy Rivers and Their Fish, St Croix River: A History of Human Impacts, pg 13, December 2002, Conservation Council of New Brunswick, 180 St John Street, Fredericton, NB.

^{ix} EU Sanitary Survey 2010, Growing Area EU, St. Croix River; Eastport to Calais, Sanitary Survey Report, August 22, 2011, Erick Schaefer, Maine DMR, (pg 22)

<https://www1.maine.gov/dmr/shellfish-sanitation-management/programs/growingareas/reports/documents/sanitaryeu2010.pdf>

^x Bangor Daily News, State: Baileyville mill has a history of wastewater leaks, By Bill Trotter, BDN Staff, August 17, 2018 <https://bangordailynews.com/2018/08/17/news/down-east/state-baileyville-mill-has-a-history-of-wastewater-leaks/>

^{xi} Bangor Daily News, Down East, State Investigates Spill of more than half a million gallons of wastewater from Maine mill, by BillTrotter, BDN Staff, August 14, 2018, <https://bangordailynews.com/2018/08/14/news/down-east/state-investigates-spill-of-more-than-half-a-million-gallons-of-wastewater-from-maine-mill/>