



STATE OF MAINE  
DEPARTMENT OF  
INLAND FISHERIES & WILDLIFE  
353 WATER STREET  
41 STATE HOUSE STATION  
AUGUSTA ME 04333-0041



***Via Electronic Filing***

November 17, 2023

Kevin Bernier  
Senior Compliance Specialist  
Great Lakes Hydro America  
1024 Central Street  
Millinocket, ME 04462

**Re: MDIFW Comments on Interim Measures for the Ripogenus Hydroelectric Project  
(FERC No. 2572)**

Dear Mr. Bernier:

August 22, 2023, FERC requested that Great Lakes Hydro America, LLC (GLHA) consult with the US Fish and Wildlife Service (USFWS), the Maine Department of Inland Fisheries and Wildlife (MDIFW), the Maine Department of Environmental Protection (MDEP), and the Maine Land Use Planning Commission to identify interim measures aimed at reducing the instances of fish and macroinvertebrate strandings in the West Branch of the Penobscot River downstream of McKay Station (Ripogenus Hydroelectric Project, FERC No. 2572) during downramping events until the current relicensing process is concluded. FERC issued the order after complaints from the public about fish stranding during low flow events that occurred recently on the river. FERC determined these events were not the fault of GHLA but noted that stranding did occur and resulted in fish mortalities. The interim measures would be implemented until a new license is issued sometime in 2026. MDIFW staff met with GHLA staff via Teams on November 2, 2023, to discuss options identified by both GHLA and MDIFW. MDIFW is the agency responsible for the protection and management of the inland fisheries resources in the State of Maine, and we have been actively involved in all stages of the current relicensing of the Ripogenus Project.

MDIFW has reviewed the flow data provided to the stakeholders in May 2023 to determine the frequency and duration of low flow events below Ripogenus Dam. We determined that flows less than the minimum flow occur in most years. While some events were planned and consultation occurred ahead of time (i.e., due to drought), many were unplanned and occurred from lightning strikes and other acts of nature. We estimate that flows less than 500 cfs occurred in 17 of 23 (74%) years since 2000. There were multiple events in some years, for a total of 40 events of flows 500 cfs or less during this period. Presumably, the flows never dropped below 500 cfs after 2018 when GHLA improved the automatic release procedure at McKay Station. We would anticipate a range of mortalities of fish, primarily young landlocked salmon, when these events occurred, especially prior to 2018, based on results of the Stranding Study, with some areas of the river impacted to a greater degree, while other areas impacted to a lesser degree.

MDIFW staff were on-site during the Stranding Study conducted on the West Branch of the Penobscot River on October 5, 2022. They were stationed at the Holbrook Side Channel study site, which was one of the most severely impacted areas during the Study. The Stranding Study showed a spectrum of impacts in the river that occurred when the flow decreases from the normal daily flow (~2,000 cfs) to the ~500 cfs that is automatically released when McKay Station trips offline. There were mortalities at the Holbrook site due to its shallow topography and quality rearing habitat for young landlocked salmon. The salmon mortalities observed were young-of-the-year salmon and parr. Yet, just upstream and downstream, and directly across the river from this site, there were minimal impacts on salmon because the river is deeper and the shoreline much steeper. Most of the river, including the thalweg, remained wetted in this area. The Stranding Study report details the range of impacts at all the Study sites.

MDIFW monitors the landlocked salmon and brook trout fishery in the West Branch of the Penobscot River using voluntary record books and, more recently, survey boxes placed at angler access points along the river. MDIFW utilizes angler survey boxes on many rivers throughout the State, including nearby at the East Outlet of the Kennebec River and the Moose River. Both rivers are similar to the West Branch in terms of clientele and type of fishery. The data were presented in comments already filed by MDIFW and are present again below. The results show that catch rates for salmon in the West Branch are very good compared to other similar rivers in the region. Fish catch and size evaluations show that recruitment in the West Branch of the Penobscot is robust. This implies that the low flow events which have occurred once or a few times in most years, while an impact, are not catastrophic for the salmon population in the West Branch of the Penobscot River.

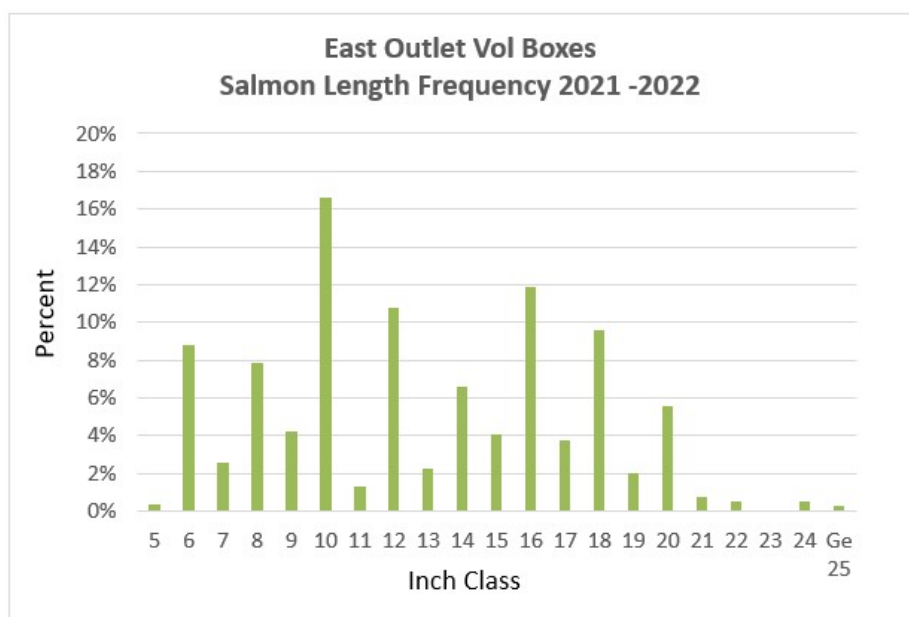
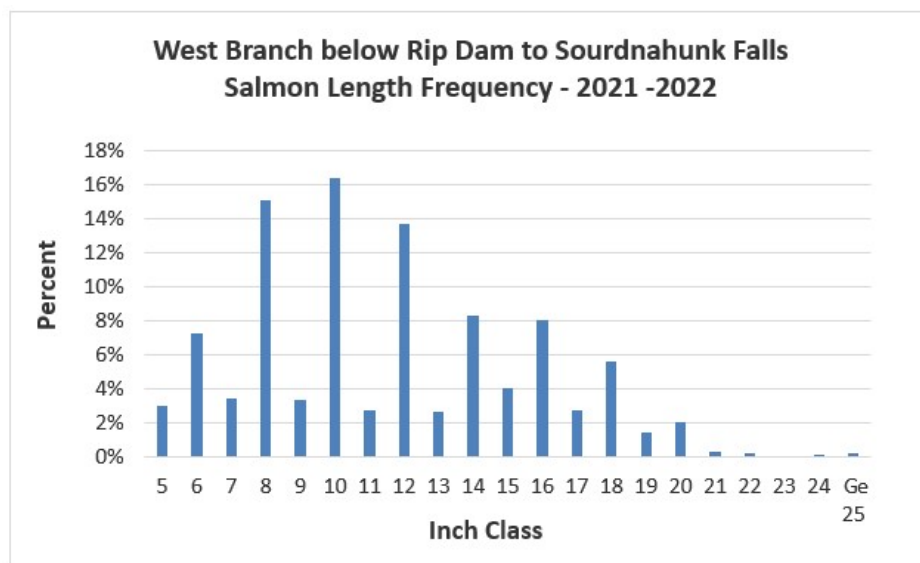
#### **Data Summary from West Branch of Penobscot angler boxes**

|                             | <b>2021</b> | <b>2022</b> |
|-----------------------------|-------------|-------------|
| <b>Parties</b>              | 356         | 216         |
| <b>Anglers</b>              | 612         | 358         |
| <b>Total Hours</b>          | 1545        | 762         |
|                             |             |             |
| <b>Salmon Kept</b>          | 1           | 0           |
| <b>Salmon Released</b>      | 863         | 748         |
|                             |             |             |
| <b>Brook Trout Kept</b>     | 4           | 1           |
| <b>Brook Trout Released</b> | 178         | 75          |
|                             |             |             |
| <b>All Salmon/hr.</b>       | <b>0.76</b> | <b>0.99</b> |
| <b>All Brook Trout/hr.</b>  | 0.15        | 0.13        |

For comparison, below are the catch rates for landlocked salmon and brook trout in 2021 and 2022 from the nearby Moose River and East Outlet of the Kennebec River, both which have similar fisheries and similar clientele:

|                            | <u><b>Moose River</b></u> | <u><b>East Outlet</b></u> |
|----------------------------|---------------------------|---------------------------|
| <b>All Salmon/hr.</b>      | <b>0.37</b>               | <b>0.49</b>               |
| <b>All Brook Trout/hr.</b> | 0.14                      | 0.22                      |

Below is the length frequency from angler caught fish reported in the voluntary boxes in the West Branch in 2021 and 2022. It is typical of a river system with all life stages of salmon present:



It is MDIFW's position that low flow events should be avoided when possible, and we believe that GLHA has acted in good faith by improving the system in 2018 so that 500 cfs is automatically released when the system trips off-line. However, these low flow events do cause fish and invertebrate mortalities.

During our November 2 consultation with GLHA we discussed several options. Firstly, MDIFW concurs that any automated flow releases through Ripogenus Dam should be avoided due to public safety concerns. The gorge area is very difficult to access, and any unscheduled releases could trap anglers when flows increase.

We discussed the possibility of a constant release from Ripogenus Dam to buffer against low flow events. Releasing 600 cfs through the dam at all times would achieve this, since McKay Station will automatically release 500 cfs during a station trip, bringing the total flow to the license requirement of 1,100 cfs minimum flow. However, there are drawbacks to this option. For example, one of the key issues identified so far in the relicensing process is the need to retain more water in the impoundment and releasing an extra 600 cfs at all times would likely exacerbate the issue of low water in the lake. FERC would likely have to further mandate that the excess flow be subtracted from the normal operating flow. This would be very cumbersome and likely difficult to enforce. This type of flow management could also lead to unintended consequences by overly restricting GHLA's ability to manage the water. MDIFW also believes that 600 cfs through Ripogenus Dam would make this stretch unfishable and we would lose angling opportunities due to excessive flows.

GHLA has proposed to complete a relay coordination study to improve the system's reliability and reduce outages at McKay Station due to events at other connected facilities. Although this is not new, GHLA will continue with their successful efforts to minimize transmission line issues. Based on MDIFW's long-term angler surveys, MDIFW does not believe the low events of 500 cfs *compromise* the salmonid or invertebrate populations in the West Branch; however, each event does cause mortalities which should be mitigated. MDIFW recommends moving forward with GHLA's proposals through the remainder of this relicensing process, but we recommend a monetary penalty for each future event that is scaled to the severity/duration of the event. This penalty would be placed in a mitigation fund for fisheries restoration and improvement projects in the region, to be utilized at MDIFW's discretion after consultation with USFWS and MDEP. GHLA and MDIFW would negotiate the amount for each event and present it to FERC for approval. We believe this option would provide incentive to GHLA to minimize low flow events while keeping interim measures in proportion to the biological impacts.

We appreciate GLHA's ongoing commitment to work through these important issues. Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

A handwritten signature in blue ink, appearing to read "John Perry".

John Perry  
Environmental Review Coordinator

Cc: Francis Brautigam, Joe Overlock—MDIFW Fisheries Division, Augusta Headquarters  
Tim Obrey, Jeff Bagley—MDIFW Fisheries Division, Region E  
Kevin Dunham, Kevin Gallant—MDIFW Fisheries Division, Region F  
Kyle Olcott, MDEP  
Julianne Rosset, USFWS