FishPass Monthly Update



Dear partners:

On behalf of the FishPass team, I am pleased to provide an update from April-May 2025. Please distribute the update as you see fit.

NOTE: A time-lapse camera is capturing FishPass construction progress. Check it out here.

Construction:

- Over the past two months, contractors have completed all the concrete work on the south side of the river (Figure 1 & 2). The arc-labyrinth and low-flow weirs are complete, while the adjacent training wall awaits final concrete staining and finished earthwork. The temporary bypass channel has been graded and lined with rip rap. Note, the bypass channel will undergo final grading shaping the channel into a more natural river channel with vegetated banks once all other in-stream construction is complete in 2026. Vibration and settlement at nearby properties continue to be monitored and no thresholds have been exceeded. A huge thanks to the neighbors for their understanding and patience during the construction processes.
- The contractor is working towards finishing Phase 1, and beginning Phase 2 construction, which will see the river diverted over the new dam structure and shifting the cofferdam to close off the north side of the channel. Once the cofferdam is shifted to the north side of the river, construction of the fish-sorting channels will begin. Introduction of water into the temporary channel will be gradual to reduce suspension of loose sediments. The cofferdam sections on the up- and down-stream side will slowly be removed, introducing flow into the channel. During this time, slight cloudiness can be expected in the river for up to 24 hours.

Research:

• March-May—FishPass staff continue to operate the horizontal submerged screen weir (HSSW) at the MI DNR Traverse City Salmon Weir (**Figure 3**). As of 31 May, staff have processed over 1500 fish (**Table 1**). The HSSW is positioned 2 feet off the bottom of the river at the Salmon Weir in order to not impede river navigation or block free movement of fish. The purpose of the study is to assess the effectiveness of the HSSW to capture sea lamprey and non-target fishes migrating into the Boardman/Ottaway River. The HSSW is anticipated to be in-place through June 2025. Results from the trap operations are available in **Table 1**.



Figure 1. Image capture from the FishPass time-lapse camera: May 31, 2025 showing the nearly complete arc-labyrinth weir (right side of image) and temporary bypass channel. Water flows from right to left.



Figure 2. Aerial view of FishPass construction. Water flows left to right. Image courtesy of Team Elmers.

• April and May—FishPass team members have conducted eight electrofishing surveys in the lower Boardman/Ottaway River (Below Union Street Dam) (Figure 4). FishPass staff in corroboration with project partners have been conducting four seasonal electrofishing surveys annually in this stretch of river for the past six years. This increased sampling effort being conducted in 2025 will help further refine shifts in the composition of the spring fish community assemblage and will greatly increase the number of tagged fish present in the river in preparation for FishPass operations. As part of this work, staff have implanted over

700 passive integrated transponder (PIT) tags in fishes of suitable size and condition to likely to return to the river in the future and encounter the FishPass facility. These tagged fish will help researchers evaluate the effectiveness of sorting technologies when FishPass is operational. Additional information on the results of these surveys is available in **Table 1**.



Figure 3. Horizontal submerged screen weir (HSSW) installed at the MI DNR Traverse City Salmon Weir on 18 March 2025. The HSSW is designed to capture a portion of sea lamprey migrating along the bottom of the river while allowing other fish to swim past. If successful, the HSSW could help researchers assess sorting technologies at FishPass.



Figure 4. Reid Swanson, Great Lakes Fishery Commission Assessment Biologist, and Abbie Carstens, FishPass Technician, conducting an electrofishing survey, just below the MI DNR Salmon Weir on 27 March 2025.

Table 1. Number of fishes (n) sampled in spring of 2025 in the lower Boardman/Ottaway River (i.e., Below Union Street Dam), the number sampled during eight electrofishing surveys (n.efish) on 09, 15, 23, 28 April and 07, 13, 21, 27 May 2025 and the number of fish sampled at the Horizontal Submerged Screen Weir Trap (n.HSSW), the number of passive integrated transponder tags implanted (n.PIT), and the average length and weight of individuals measured and during all sampling events.

Species	n	n.efish	n.HSSW	n.PIT	Ave. Length (in)	Ave. Weight (lbs)
rainbow trout	307	201	105	156	20.36	6.52
white sucker	186	151	34	142	16.23	2.72
cisco	18	1	17	1	8.74	-
walleye	25	22	3	22	23.14	4.71
brown trout	38	34	4	30	14.77	3.73
longnose sucker	512	346	165	308	17.45	2.3
Atlantic salmon	2	2	0	2	17.85	-
yellow perch	163	0	163	4	7.14	0.42
coho salmon	144	1	143	0	5.39	-
sea lamprey	24	0	24	19	20.01	0.78
smallmouth bass	20	20	0	20	15.85	3.17
three-spined stickleback	560	0	560	0	2.3	-
round goby	3	0	3	0	4.16	-
rock bass	302	0	302	4	6.1	-
freshwater drum	1	1	0	1	26.77*	11.11*
Northern pike	3	3	0	2	30.35	7.47
silver redhorse	1	1	0	1	23.66*	5.62*
Total	2309	783	1523	712		

* Denotes a sample size of one.

Outreach:

- 25 April—Great Lakes Fishery Commission (GLFC) staff joined members of the Grand Traverse Band of Ottawa and Chippewa Indians (GTB), Adams Chapter Trout Unlimited, and several local middle and high schools to release juvenile Lake Sturgeon in the Boardman/Ottaway River (**Figure 6**).
- May—FishPass was the featured presentation at the Traverse City Michigan Education Association Retired Teacher monthly meeting, TART Trails Staff Meeting, Traverse City Academy, and the Great Lakes Educators of Aquatic and Marine Sciences – which collectively included more than 120 individuals.
- 28 & 29 May—The GLFC hosted their annual meeting in Traverse City. GLFC Technical Advisors and Commissioners met to discuss pressing issues facing the Great Lakes fishery, provide updates on GLFC work to the public, and recognize individuals that have demonstrated outstanding commitment to the health and sustainability of the Great Lakes. The plenary theme of this annual meeting was aquatic connectivity which featured an update on FishPass, including site tours (Figure 7). A huge thanks to the Grand Traverse Band of Ottawa and Chippewa Indians for opening the meeting with a welcome address and facilitating a panel of Band members who reflected on the river and its restoration. GTBs leadership of the Boardman/Ottaway restoration and involvment in the GLFC annual meeting was incredibly meaningful – Chi-Miigwech.



Figure 6. Middle schoolers from Greenspire School release a young Lake Sturgeon near the mouth Boardman/Ottaway River (left), along with Sean Leask from GTB (right).



Figure 7. Leah Bagdon McCallum, FishPass Public Engagement Specialist and Frank Dituri, Traverse City Director of Public Services, leading annual meeting attendees on FishPass site tours.

• In April and May, more than 50 community members participated in public tours of FishPass. To sign up for a future tour, visit: <u>https://www.glfc.org/fishpass-tours.php</u>

Upcoming:

 8-13 June—The International Conference on Fish Telemetry will be held in Traverse City. As part of the conference, the public is welcome to attend a special screening of "All too Clear," a fantastic documentary on June 9 at the City Opera House (<u>https://cityoperahouse.org/node/648</u>). The film is full of spectacular underwater footage and tells the story of how invasive mussels have impacted the Great Lakes ecosystem. Part scientific exploration, part natural history adventure – the film showcases freshwater wildlife and environments like never before.

In the News:

- City to Take Closer Look at Fees, Policy for Boardman Tours (The Ticker, 02 April 2025): <u>https://www.traverseticker.com/news/city-to-take-closer-look-at-fees-policy-for-boardman-tours/</u>
- Four years later, a sturgeon returns to the Boardman-Ottaway River (WCMU, 14 May 2025): <u>https://radio.wcmu.org/local-regional-news/2025-05-14/four-years-later-a-sturgeon-returns-to-the-boardman-ottaway-river</u>
- Rotary Design Concepts Unveiled, More Downtown Project Updates (The Ticker, 17 May 2025): <u>https://www.traverseticker.com/news/rotary-design-concepts-unveiled-more-downtown-project-updates/</u>
- Great Lakes Fisheries Commission tackles invasive species at annual meeting (UpNorthLive, 28 May 2025): <u>https://upnorthlive.com/news/local/great-lakes-fisheries-commission-tackles-invasive-species-at-annual-meeting</u>



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