Frequently asked questions

What fish are to be allowed up stream, how is that controlled, and what provisions are in place to change any decisions?

The Michigan Dept. of Natural Resources, in consultation with the tribes while incorporating local viewpoints, will determine which species should be allowed to pass through the facility and which species, including sea lamprey, need to be blocked. *During* the optimization phase of FishPass, no unintended fish species will be introduced to the river or passed above the Union Street Dam. The objective for long-term operation is to have a self-sustaining structure that allows desirable species to pass and prevents undesirable species (including invasive species) from moving above the barrier.

Why was the Boardman River selected?

The Boardman River ranked first out of a dozen other sites considered for FishPass because the community has been so engaged in the overall restoration of the river, because Union Street Dam is a barrier to fish passage to and from Lake Michigan, and because the Union Street Dam also serves as a much-needed, but in disrepair sea lamprey barrier that protects the Boardman River watershed from infestation.

Why experiment with the Boardman River?

FishPass does not "experiment" with the river, it experiments with technology. FishPass technologies will be tried and evaluated in contained channels below a complete barrier during the approximately 10-year optimization phase. The labyrinth weir (south bank) will operate as a permanent barrier to all fish while the fish-sorting channel headworks (north bank) will have redundant hydraulic gates that can be adjusted to block all or some fish passage depending on what species are deemed desirable for passage.

What if sea lamprey infest the watershed?

FishPass will have multiple fail-safes (e.g., high dam and redundant gates) incorporated to protect the Boardman River environment during the optimization phase and after implementation of fish sorting technology. The new structure will greatly reduce the risk of sea lamprey passage compared to the existing structure.
If sea lamprey do infest the upper Boardman watershed, it will be treated by the Great Lakes Fishery Commission as is currently done when necessary. The Boardman River has been treated with lampricide seventeen times since 1963. Of those treatments, six have been above the Union Street Dam, with the most recent treatment in 2015.

How will you prevent contaminants and diseases from moving up river?

Much of the contaminant pollution in the Great Lakes is now due to atmospheric deposition, which affects areas above and below the Union Street Dam. On the basis of current research at Notre Dame University by the Lamberti lab, Pacific Salmon carcasses and eggs do pose a risk of contaminant bio-transfer to fishes residing in streams, but most salmon are currently blocked and removed from the river at the Michigan Department of Natural Resources Trap and Transfer facility, downstream of Union Street Dam. Regardless, many Michigan streams have runs of Pacific Salmon and there have been no detrimental consequences associated with increased contaminant burden documented.

The FishPass team has also collaborated with Dr. Brandon Gerig, Northern Michigan University, to lead an EPA funded pre- and post- FishPass contaminant study. Water samples from the Boardman River watershed and a suite of Lake Michigan migratory fishes will be measured for contaminants to quantify background levels of contaminants and assess risk of contaminant transfer to resident fishes prior to and following implementation of selective fish passage.

Michigan Department of Natural Resources tests fish at the Trap and Transfer facility downstream of Union Street and have seen very low to no occurrences of diseases (e.g., VHS).

Will there be any change to operations at the Boardman River Trap & Transfer facility?

Michigan Department of Natural Resources does not expect to operate the facility any differently in the future. Chinook and Coho will be harvested to the point of diminishing return and all other species will be passed.

What will happen if the project fails and you are unable to selectively remove sea lampreys while passing other fishes?

If bi-directional selective fish passage is not achieved, we are still better than the status quo, as the deteriorating Union Street Dam will have been replaced with a new more effective barrier. This project is a big challenge, and we may not succeed with bi-directional selective fish passage. But, we must try.

How will gobies and other invasive fishes be prevented from entering the Boardman River?

The intent of the project is to develop an approach to exclude sea lamprey and selectively pass desirable fishes. Gobies are not a primary target for sorting as they currently occur in Boardman Lake, above Union Street Dam. Should other invasive fishes pose a risk to the river, FishPass can be modified to selectively sort them out as well, but this will require additional study.

How will you maintain water levels in Boardman Lake?

The proposed facility will utilize a passive, overtopping spillway to pass flood flows while maintaining water levels in Boardman Lake. As a result, water level fluctuations in Boardman Lake are expected to diminish from current conditions. A set of manually operated gates will be used only to divert a portion of available water through fish-sorting channels as needed without lowering the water level in Boardman Lake.

What safety measures will you take at the site to prevent people from getting injured or from tampering with experiments?

Appropriate signage, protective railings/fences, and lighting will be used to direct the public towards designated observation areas and away from any potentially hazardous conditions. Controls and experimental technology will only be accessible by research, city, and agency staff.

Will fishing be permitted at FishPass or will there be new regulations?

FishPass will have a nature-like channel located on the south shoreline of the river that will be available for fishing throughout the optimization phase. We anticipate there may be a need to temporarily halt fishing within the project footprint, but these instances would be few and of short duration. Once fully operational, fishing will be allowed per existing regulations.

Who is paying for this project?

The design phase of the project is currently funded by the Great Lakes Fishery Commission, the Great Lakes Fishery Trust, and the Great Lakes Restoration Initiative. Funding for the construction phase of the project (2020) has not yet been secured. Local funding team has had amazing success funding the project as a whole and efforts will continue.

Who will decide what tests are conducted at the site and when?

The FishPass Advisory Board will generate a program of research in accordance with the FishPass mission. The Board is composed of project managers, scientists, and engineers with representatives from, but not limited to, the Michigan Department of Natural Resources, U.S. Army Corps of Engineers, City of Traverse City, Grand Traverse Band of Chippewa and Ottawa Indians, U.S. Fish and Wildlife Service, U.S. Geological Survey, Fisheries and Oceans Canada, and collaborating academic institutions. Great Lakes Fishery Commission staff will serve as ex-officio members to the Board to help develop, conduct, and monitor research activities at FishPass. Research proposed by independent researchers would be reviewed and selected on an annual basis.

Who is going to maintain and operate the site?

Michigan Department of Natural Resources, the City of Traverse City, the Grand Traverse Band of Chippewa and Ottawa Indians, and Great Lakes Fishery Commission via a Memorandum of Understanding.

Will this project include a whitewater park?

FishPass does not feature a whitewater park, but can improve the recreational use of the Union Street Dam site by improving public access (i.e., kayak and canoe, walking & biking paths), angler access, and education and outreach opportunities. A wide range of river users, residents, and tourists will benefit from FishPass. A whitewater park could not be incorporated into the design because much of the elevation difference between the lake and downstream channel (the source of most whitewater features) is required to maintain a complete barrier to sea lamprey.

Why is it necessary to modify and retain a structure at Union Street?

The existing structure has allowed invasive, parasitic sea lamprey to pass above the dam on multiple occasions. The Boardman River Implementation Team has also identified structural issues with the Union Street Dam that require substantial repair and they determined it was not feasible to remove the Union Street Dam until a solution for blocking sea lamprey was developed. The Union Street Dam also provides about 6 feet of additional water level height at Boardman Lake.

The Boardman River is presently a "Blue Ribbon Trout Stream." How can the Boardman maintain this status with changes to fish passage at Union Street Dam?

Exactly how changes to fish passage at Union Street Dam will impact the upstream fishery is uncertain, as the river is undergoing dramatic changes with the removal of three upstream dams. Extensive monitoring and precise releases of fish are needed to be able to quantify and evaluate any environmental or biological responses, and FishPass is uniquely able to accommodate such analysis. To support research on fish passage technologies, FishPass will also incorporate a substantial assessment program that includes fishery and habitat surveys, genetic sampling, eDNA sampling, and fish tracking. In contrast, the existing fishway at the Union Street Dam offers little ability to control fish movement. In fact, the only species thought to be able to pass the existing fishway (albeit in low numbers) are introduced and non-native steelhead, pacific salmon, and brown trout.