



Strategic Exe Weirs



Restoring natural migration of native fish in the River Exe with bespoke fish passage solutions

Newsletter

July 2022

➔ **Bridgetown Weir is LIVE for 2022**

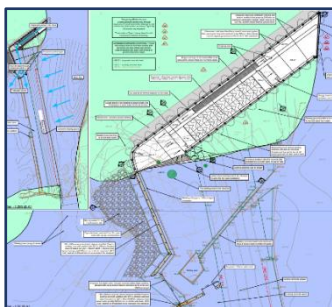


Bridgetown Weir is the first of the SEW priority sites (between Exe Estuary and Exmoor) to reach construction stage for a bespoke fish passage solution! Bridgetown Weir must remain in river for a number of reasons, including a licensed abstraction, heritage value, and a potential role in helping secure the A396. The best solution available that fits these constraints is a single flight 'Larinier' fishway slotted into an existing channel, accompanied by a smolt screen and chute. The works will be completed this summer by Teignmouth Maritime Services.

While the impact of weirs on upstream migration are more obvious, we are equally concerned about the impact on downstream migration of smolts. At each weir that we tackle, we are putting in screens to avoid smolts being diverted into leats and, where possible, inserting chute channels to ease passage down the weir and reduce delays which leave the smolts exposed to predation.

This fish pass begins the primary delivery of the SEW programme by reducing the cumulative effects of River Exe weirs. The new fish pass will build on previous temporary measures to secure sustainable open access to pristine habitat for salmon and trout in the upper Exe & river Quarme, even in years where low flows limit migration opportunities. We look forward to reporting on successful delivery later this year, and plan to have a snazzy video to share with you all!

➔ **Designs in progress for 2022**



Technical designs for the **Bolham Weir** fish pass, smolt screen and chute are currently undergoing quality assurance with the lead designer. With a restricted land area available for fish pass design, the most cost effective bespoke solution is a super-active baffle fish pass that can be built in the dry through the river bank. The next step is to present the completed design to South West Water and gain support for the SEW team to start the arduous (!) but necessary consenting process.

Bickleigh Bridge Weir is a picture-postcard site for East Devon in a Conservation Area. The specific targeting of low-moderate flows for fish passage improvement enables a novel semi-technical approach, which has been visualised for stakeholder engagement (right). The visualisations have been accepted by the weir owners and local heritage conservation authorities, and detailed designs are on the way. Progress at this sensitive site continues to build confidence in the SEW programme towards action at the 'big ones' downstream.



🐟 Flow modelling at Exeter Weirs



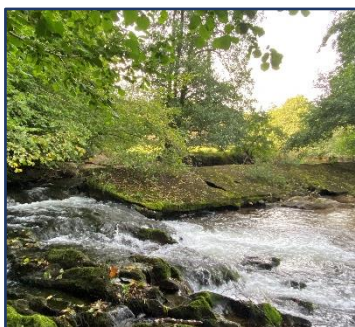
Exwick, Cowley and the **Mill on the Exe** weirs have been subject to high-level flow modelling to establish baseflows, test high level options, and suggest answers for why previous radio tracking revealed migration delays in the area. The results suggest the weirs as the main suspects, as opposed to impacts on attraction flows from the flow split at Cowley. This essential work will provide evidence to stimulate engagement with local flood risk authorities, and will form the foundation of the full Options & Constraints Assessments for these major River Exe weirs.

🐟 Visualisations at Mill on the Exe

Progress at **Mill on the Exe** has now enabled the SEW team to begin a full Options & Constraints Assessment process. These weirs are highly accessible and technically challenging, and it is imperative that we build on current political support gained for such large-scale projects. Following planned consultations with the EA's Flood & Coastal Risk Management team, for high level options appraisals, the SEW team will look to commission exciting 3D visualisations to present to all site stakeholders.



🐟 Opening migration in Exmoor National Park



The RETA funded Fry Index Surveys show every year the importance of Exmoor rivers for juvenile salmon and trout. Impacts on migration flow windows over weirs are more pronounced in smaller rivers, and so it is essential we continue to make progress towards securing sustainable access to and from these crucial habitats.

The SEW team is making headway towards our first potential weir removal at **Helebridge Weir** on the upper Exe, the next steps to gain foundational data for the design process. We continue to consult with Dulverton Weir & Leat Conservation Trust on fish passage, advice that is welcomed and continues to raise the profile of fish migration within and around Exmoor National Park.

🐟 Other fisheries work in the River Exe

- The Fisheries & Conservation Water Bank, stored in Wimbleball Reservoir for the benefit of River Exe fisheries, was used in late spring/early summer to strategically and temporarily improve river flows to aid the crucial smolt migration to sea, helping smolts over the multiple weirs on the way!
- WRT, with support from RETA, are working with the University of Plymouth to monitor gravel cleaning efficacy in multiple major River Exe tributaries. This will involve UoP students sampling physical effects of gravel cleaning, combined with Fry Index Survey and Riverfly results to test ecological impacts. It is hoped this will be the first year of continued gravel cleaning and monitoring in the wider Exe catchment in future years to support River Exe fisheries.
- The Environment Agency are performing catchment wide electrofishing surveys as part of their Core Fisheries Monitoring. As a result, the RETA funded 2022 Fry Index Surveys have been scaled back, saving resource, with the combined results complementary for maximum benefit.