

	<p>Council</p> <p><i>Summary of Successful Actions undertaken in Wales to Protect Salmon Stocks</i></p>	<p>CNL(25)37</p> <p>Agenda item: 6.g)(ii)</p>
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A Summary of some Successful Actions undertaken in Wales to Protect Salmon Stocks

Introduction

Atlantic salmon (*Salmo salar*, hereafter salmon) are a highly valued and iconic anadromous fish species in Wales. The total abundance of salmon in Wales however has markedly declined during the last three decades, and in 2023 Wales recorded the lowest catches of salmon since consistent records began in the 1970's. Stock assessments show all 23 Principal Salmon Rivers in Wales are now categorised as being 'At Risk' of failing their management objectives (CEFAS, 2024).

This presentation sets out some of the successful actions that have been delivered in as part of the NASCO 3rd reporting cycle implementation plan to address know pressures on salmon in Wales.

Natural Resources Wales (NRW)'s Salmon and Sea Trout Plan of Action (hereafter PoA) has been central to NRW's work to protect and restore salmon stocks in Wales. The PoA was jointly developed with stakeholders to address the perceived pressures on salmon and included measures to address evidence gaps, as well as actions to tackle water quality & quantity, habitat access and restoration as well as predation.

NRW were required by Welsh Minsters to develop the PoA to identify a range of measures to complement the regulatory restrictions being placed on fisheries. The PoA has been invaluable in supporting a wide range of measures and securing funding, some of which are described below.

Fishery Regulations

NRW has implemented byelaws to protect salmon and sea trout by mandating the release of all salmon and placing a size limit on sea trout, thus reducing exploitation and enhancing survival rates. These byelaws also impose restrictions on fishing methods, such as banning bait fishing and requiring the use of barbless hooks, to minimize injury and improve survival of released fish. Additionally, NRW has shortened net fishing (sea trout netting is still allowed) seasons to further protect these species. Regulatory actions by the Environment Agency (EA) have ensured that the three cross border rivers shared with England have the same level of control. Moreover, further regulatory measures have been undertaken by the EA to remove all commercial salmon netting and close mixed stock fisheries in England.

Agricultural Pollution Regulations

The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021 have been introduced to reduce losses of pollutants from agriculture to the environment by setting rules for certain farming practices. This addresses one of the major water quality threats affecting salmon. NRW data from 2021 indicates that agricultural pollution is linked to 21% of water body failures to achieve good ecological status.

NRW is responsible for enforcing the Regulations, which also set standards for silage making, storage of silage effluent and for slurry storage systems. Slurry and silage effluent have caused significant pollution incidents, often due to farms having inadequate storage, a lack of capacity, or being of poor construction. Livestock manures can also contribute to environmental pollution when they are spread to land when soil and weather conditions are not appropriate or where there is no crop requirement.

By improving water quality, these measures will help create healthier habitats for salmon and sea trout, supporting their survival and reproduction. Additionally, NRW's efforts to enforce these regulations ensure that agricultural activities are conducted in a way that minimises environmental impact, which can contribute to the overall recovery of fish populations in Welsh rivers.

Metal Mine Pollution Remediation

Over the past five years, Welsh Government has funded NRW to work in partnership with the Mining Remediation Authority (formerly the Coal Authority) to address the pollution arising from abandoned metal mines. NRW started to design and build remedial measures to reduce the discharge of harmful metals like zinc, lead, cadmium, and iron into Welsh rivers. The programme's innovative approaches to remediation and collaboration with partners will improve over 700 km of watercourses, enhancing fish populations and invertebrate diversity. These improvements contribute to achieving the Water Framework Directive's good ecological status targets, ensuring a sustainable environment for future generations.

Habitat and Fish Passage Improvements

NRW has progressed several initiatives to significantly improve river habitats and remove barriers to migration to protect salmon and sea trout. Through a combination of NRW-led and collaborative efforts with partners like Afonydd Cymru and the six rivers trusts in Wales, NRW has supported or delivered projects to restore stream habitats and dismantle barriers such as weirs, enabling fish to migrate upstream more easily.

These initiatives have been enabled by funding from the Welsh Government's Nature and Climate Emergency (NaCE) fund, which has provided over £2 million each year to support these vital river conservation efforts.

NRW has also secured substantial EU LIFE funding to improve the condition of Welsh rivers designated as Special Areas of Conservation. The £6.8 million LIFE Dee River project focuses on restoring the River Dee's ecosystem by improving fish migration, biodiversity, and water quality. Similarly, the Four Rivers for LIFE project, with over £9 million in funding, aims to restore the Teifi, Tywi, Cleddau, and Usk rivers by enhancing fish passage, re-naturalizing river sections, and reducing agricultural pollution.

So far, these projects have delivered improvement to over 160 barriers, improving access to more than 920km of river habitat. They have also undertaken more than 290 river habitat restoration schemes, on 358km of river.

Fish Eating Birds

NRW's Fish Eating Birds project has played a crucial role in building consensus on action to conserve vulnerable salmon stocks in Wales. The Fish-eating Birds Advisory Group (FEBAG), which included representatives from various organisations such as the Royal Society for the Protection of Birds (RSPB) Cymru, Welsh Ornithological Society, Afonydd Cymru, and Salmon and Trout Conservation Cymru, and Angling Trust has facilitated a collaborative approach to address the issue. The group reviewed evidence and provided recommendations on how to balance the conservation of fish-eating birds with the protection of struggling fish populations. They emphasised the need to protect vulnerable life stages. Whilst the FEBAG highlighted the need to work towards the restoration and protection of ecosystems for both fish and birds, they also recommended actions to reduce predation pressure on vulnerable stocks, especially on migrating smolts.

In response NRW is updating our online licencing procedures to support catchment-based applications to control predation, which reflects the conservation status of salmon and the need

to protect them under the Wildlife and Countryside Act (1981) derogation to “conserve flora and fauna”.

We have Identified pinch points on all PSRs and making that information available to fisheries, along with new guidance for catchment-based applications.

We are also taking forward projects to improve downstream migration on man-made barriers, such as the new smolt by-wash at Brecon weir on the Usk.

These measures have been informed by an ongoing smolt tracking project on the river Usk, which has demonstrated when and where smolts are at greatest risk (especially in flow conditions).

Future Development

The success of these different initiatives demonstrates how actions to address the multiple pressures on salmon decline can be progressed by taking a collaborative and multidisciplinary approach, and how the plight of salmon can be used to incentivise non-fishery led actions.

Despite these comprehensive measures, salmon stocks in Wales have unfortunately continued to decline. All Welsh PSRs are currently “at Risk” and there is an increase in the number of water bodies failing to achieve good ecological status for fish under the Water Framework Directive. This highlights the need for urgent and impactful actions to address the stressors we have identified that affect salmon both within Welsh waters and in the high seas.