



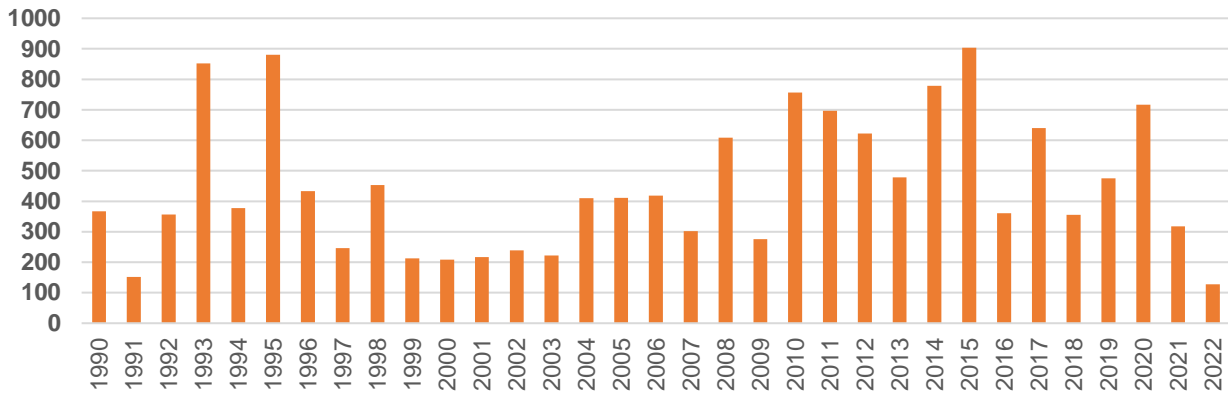
# Itchen Salmon Delivery Plan

26/05/2023

Version 3

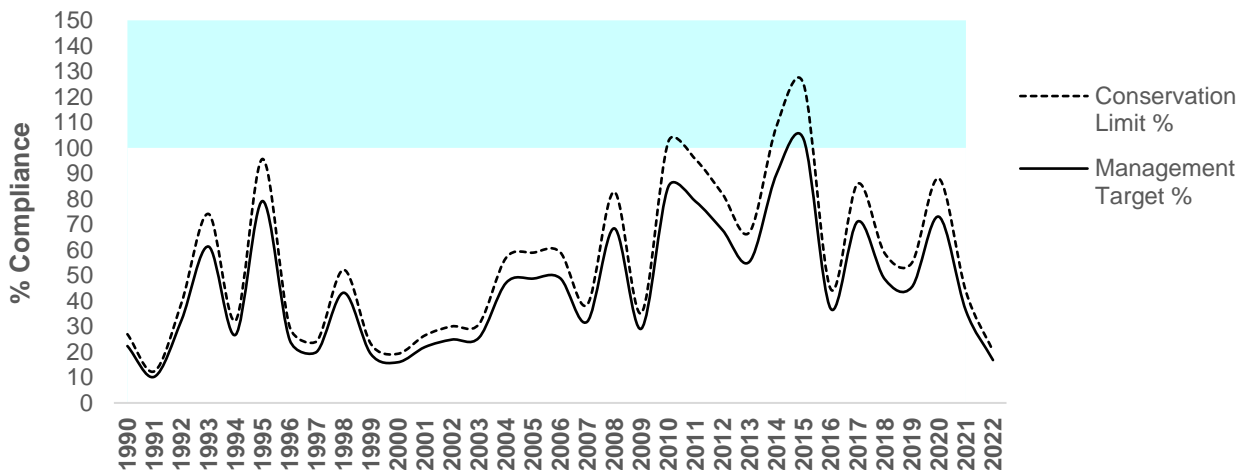
# Introduction

Salmon on the Itchen are in crisis and at risk of extinction. The number of returning adults in 2022 is the lowest since fish counter records began in 1990, a mere 133 fish, and this follows poor years experienced in 2021 and 2019 (Figure 1). In recent years there has been an overall decline in the number of returning adult salmon.



**Figure 1. The number of returning adult salmon to the river Itchen from 1990 to 2022.**

Since 2015 the Itchen has not reached its Conservation Limit. The Conservation Limit (dashed line in Figure 2) represents the minimum number of eggs required to maintain the population at a biologically safe level and below which the probability of further decline becomes increasingly likely. This is shown in Figure 2, where the blue shading represents where the conservation target has been met i.e., 100% or more. In 2022, the number of returning adult salmon represented only 20% of the Conservation Limit.



**Figure 2. River Itchen salmon stock target compliance.**

The Management Target (solid line in Figure 2) is set above the Conservation Limit and indicates a level of increased stock stability and resilience.

The rate of decline appears to be worse on the Itchen when compared to neighbouring chalk streams. As such, urgent and catchment-specific measures are now required to try and 'hold the line', by preventing further declines and protecting salmon at all life stages.

## Purpose of this document

Urgent and targeted action is needed in the short to medium term to support the recovery and rebuilding of the Itchen salmon population. The purpose of this document is to outline and prioritise a set of Specific, Measurable, Achievable, Realistic and Time-related (SMART) actions that can be taken forward and carried out.

A collaborative approach is needed with the common objective of reducing pressure on, conserving and enhancing the Itchen salmon population for the future. To this end, the Environment Agency (EA) has facilitated initial discussions with the Itchen Salmon Group, Test and Itchen Catchment Partnership and Natural England. Those discussions have helped to inform the development of a primary list of around 30 actions which could be carried out in the short to medium term. These actions aim to:

- Maximise the survival of spawning adults
- Maximise the production and survival of wild smolts

The list of actions have then been prioritised and presented in three tables.

**Table 1** includes the 'Top 10' actions selected for implementation over the next three years which the EA will prioritise and lead on carrying out. We have already made a start on several of these and action will continue as resources and finances allow. For many of the actions, delivery will be sought in partnership with riparian owners and other external stakeholders.

**Table 2** identifies actions the EA would like others to take a lead on with potential support from EA. Many of these actions relate to measures that all can take to help protect salmon populations.

**Table 3** notes activities that the EA will be completing as part of our day-to-day work. This includes our activity to regulate water companies, action to reduce the pressure of abstraction on the river and action to reduce the impact on water quality from activities such as point sources and diffuse pollution from agriculture.

Whilst these tables represent actions that have been identified in discussion with multiple stakeholders to date, it is recognised that our collective knowledge will almost certainly evolve and there will be the need to update and review these actions. As such, these actions within the delivery plan should be considered as 'live' ones, that can be amended and refined as necessary.

**Table 1. 'Top 10' actions identified for delivery over the next three years and lead by the EA.**

Action	Timescale for delivery
1. Collection of estuarine water quality monitoring within the Itchen estuary.	By 2023
2. Commence Lower Itchen Project - high level options appraisal to consider future management of the River Itchen and adjacent habitats downstream of Mansbridge on the A27.	By 2024/25
3. Improve fish passage at Stoke Lock.	By 2024/25
4. Adopt/promote measures to restrict salmon angling methods to reduce post catch and release mortality <sup>1</sup> , including use of bait, hook size and type.	By 2023
5. Promote catch and release and fish handling best practice.	By 2023
6. Habitat restoration, including creation of spawning habitat and removal of structures/improvements to fish passage, at identified locations downstream of Winchester.	By 2024/25
7. Specific assessment of existing and potential Atlantic salmon spawning habitat, including areas of key importance, with known diffuse pollution/sediment issues, to inform an action plan to tackle hotspots and implement simple interventions to improve habitat.	By 2024/25
8. Implement short-term (3-year) gravel cleaning programme at key spawning locations (where required) to optimise spawning success.	By 2023
9. Work with riparian owners and river keepers to review hatch control to optimise upstream adult migration from Woodmill to Winchester.	By 2023
10. Work with others to investigate measures to deter poaching at vulnerable locations.	By 2023

<sup>1</sup> This action features in the 'top 10' as the exploitation rate (the proportion of salmon population caught and then released which can be calculated when there is an independent measure of the population i.e. a fish counter) on the Itchen is significantly higher (68% in 2022) than any other Principal Salmon River in England. This means that a greater percentage of the population are subject to angling pressure and therefore exposed to risks associated with salmon fishing i.e. post catch and release mortality, reduced reproductive success.

**Table 2. Actions which it is hoped external stakeholders will lead on delivering.**

<b>Action</b>		<b>Timescale for delivery</b>
1.	Work with riparian owners and river keepers to review hatch control to optimise downstream smolt passage from Winchester down to Woodmill.	By 2024
2.	Work with others to consider club / fishery rules for river coarse fishing during the salmon close season and where amendments can be made to reduce incidental captures of salmon.	By 2023
3.	Review Keeping Rivers Cool map and work with others to implement programme of tree planting.	2025 and beyond
4.	Work with others to develop system of reporting for voluntary cessation of fishing when river temperatures reach 19°C at 09:00 or 20°C at any time during the day.	By 2024/25
5.	Work with others to create a network of salmon sanctuary areas.	By 2024/25
6.	Work with others to increase awareness and education of Itchen salmon population status through dedicated signage in public areas.	By 2024/25
7.	Instigate 'Smolt Watch' at Woodmill and Gaters Mill each year to monitor smolt abundance, ensure there is minimal delay and hatch set up/operation is optimised for smolt egress.	By 2023
8.	Work with others to provide advice and guidance to voluntary bailiffs patrolling public areas.	By 2023
9.	Work with others to develop and promote best practice stocking guidance to minimise any impact on salmon populations.	By 2024/25
10.	Work with others to develop and promote best practice guidance on weed cutting to minimise any impact on salmon populations.	By 2024/25

**Table 3. Remaining EA 'Business as Usual' actions. These actions form part of the EA's day to day business activities.**

<b>Action</b>	
1.	Implement maintenance regimes for all EA maintained / owned fish passes.
2.	Review internal procedures for operating Stoke Lock to ensure hatches are operated to facilitate fish passage.
3.	Implement Area's Fisheries Enforcement Plan and update it as and when required.
4.	Investigate and map pollution hotspots throughout the catchment and assess what action is being taken / needs to be taken.
5.	Continue to share knowledge within the EA to ensure other teams' work makes a positive contribution to salmon conservation wherever possible.
6.	Continue regulatory and enforcement activity to ensure permit holders comply with permit conditions - in particular abstraction licences and discharge consents.
7.	Maintain engagement in long term Water Company Strategic Plans to ensure that abstraction pressure is reduced and overall water quality is improved.

# Delivering the Plan

Great work is already being done on the Itchen to protect Salmon. Wherever possible identified actions would be incorporated into existing programmes to help prioritise where work can also deliver additional benefits for salmon.

The EA are keen to work with others to share best practice and build a community of stakeholders whose common objective is to reduce pressure, conserve and enhance the Itchen salmon population. We are very open as to how this is achieved and would like to hear views from our stakeholders about how we can establish a regular system of engagement and reporting.

One proposal is to convene a dedicated 'Itchen Salmon Working Group', with the aim to:

- Champion and take measures forward within their respective organisations.
- Integrate the actions identified into existing programmes of work.
- Act as a forum to report on the progress of actions.

The group could be made up of one representative from each lead organisation and be chaired by an external organisation.

There is also a wider group of people with an interest in the Itchen Salmon and so communication encompassing all interested parties will be needed. This could be achieved through posting regular updates on a website or sending a newsletter to an email distribution list.

## How you can get involved

Salmon on the Itchen are in crisis and at risk of extinction. The factors causing this are many and varied and action is urgently required across a broad range of activities. A collaborative approach is needed to give salmon the best chance of survival.

We are seeking views on how we can work with others to deliver the measures identified in this Itchen Salmon Delivery Plan.

In particular, we would like to hear from you on:

- Any actions which you or your organisation could take the lead or support on.
- Your views on the best ways to communicate with everyone who has an interest in the work to protect and conserve Itchen salmon.

You can contact us by email at: [Hampshire\\_Salmon@environment-agency.gov.uk](mailto:Hampshire_Salmon@environment-agency.gov.uk)