

**WATER RESOURCES ACT 1991**

**THE WALES ROD AND LINE (SALMON AND SEA TROUT) BYELAWS 2017**

**THE WALES NET FISHING (SALMON AND SEA TROUT) BYELAWS 2017**

**DOCUMENT NRW/1A  
SUMMARY PROOF OF EVIDENCE  
OF**

**PETER GOUGH**

**PRINCIPAL FISHERIES ADVISOR**

**on behalf of  
NATURAL RESOURCES WALES**

**NOVEMBER 2018**

## 1 Personal Background

- 1.1 My name is Peter Gough and I am the Principal Fisheries Advisor for Natural Resources Wales (**NRW**). I have worked for NRW, its predecessor bodies in Wales and for other similar bodies in England for 38 years. During this time, I have worked on fisheries matters, principally the management of migratory salmonids and the maintenance, improvement and restoration of their habitats.
- 1.2 I am a Master of Science in Hydrobiology, a member of the Institute of Fisheries Management and a Chartered Environmentalist.

## 2 Scope of evidence

- 2.1 In my evidence, I address the following issues in relation to the status of salmon and sea trout stocks in Wales and to the proposed Wales Rod and Line (Salmon and Sea Trout) Byelaws 2017 and the Wales Net Fishing (Salmon and Sea Trout) Byelaws 2017 (“the All Wales Byelaws”): -
  - a. identification of the status of salmon and sea trout stocks in Wales;
  - b. consideration of whether the available data indicates that there is a decline in these stocks and if so, its nature and extent;
  - c. assessment of the causes of stock decline;
  - d. NRW’s proposed measures to address this decline;
  - e. consideration of the contribution and effectiveness of the All Wales Byelaws as part of these measures;
  - f. the proportionality of the All Wales Byelaws as a means to address the decline in stock.

## 3 Introduction

- 3.1 There are about 33 rivers in Wales that support populations of migratory salmonids – salmon and sea trout. Principal Salmon Rivers, of which there are 23, were designated under a Ministerial Direction in 1998 (“**the Direction**”)<sup>1</sup> which required the Environment Agency (the duties of which became part of NRW’s statutory roles in 2013) to undertake a number of

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<sup>1</sup> LEG/13, LEG/14.

processes relating to the assessment and conservation of salmonid populations.

- 3.2 NRW's current procedures follow this Direction (which remains extant today), and which has since been supplemented by further statutory duties and guidance.

#### **4 Identification of the status of salmon and sea trout stocks in Wales**

4.1 Through its annual adult salmon and sea trout stock assessments and the evidence drawn from juvenile salmonid population surveys, NRW has gathered substantial evidence of the status of salmonid fish stocks.

4.2 The annual datasets for salmon are used to assess the likely status of stocks into the future. This method, which is complex and employs Bayesian statistics, uses a 10-year time period of annual data and the fitting of a regression line that is extended to a 5-year estimate of future stock status.<sup>2</sup> The Management Target adopted is for adult stocks to exceed their annual Conservation Limit in at least four of every five years.

#### **5 Consideration of whether the available data indicates that there is a decline in stocks and if so, its nature and extent**

5.1 The great majority of salmon stocks in Wales and most sea trout stocks are falling below their Management Targets (achievement of which requires stocks to exceed their annual egg deposition targets for at least 4 years in any 5) and are deemed unsustainable because of the risk of ongoing decline. It is now imperative for spawning fish to be preserved so that stock levels do not fall to unsafe levels and that declines are reversed.

#### **6 Assessment of causes of stock decline**

6.1 NRW recognises that a range of factors contribute to decline of salmon and sea trout stocks. The key causes of stock decline include:

- a. **Marine environment:** Pressures in the marine environment, such as industrial developments and bycatch of migrating salmon smolts.

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<sup>2</sup> The method is described in detail by my colleague Ian Davidson (NRW/2) and by NRW's advisors, Cefas, in a witness statement by Dr Jonathan Barry (NRW/3). The latter also addresses a critique of the statistical modelling that was commissioned by the Angling Trust on behalf of a consortium of anglers.

b. **Riverine Environment:** The degradation of the species' freshwater riverine habitats, due to factors such water quantity, pollution and damaged river riparian habitats.

c. **Avian predation:** The process of predation is a natural one, however this has become clouded by relatively recent adjustments to the geographic range of both bird species. Depleted stocks of fish may not withstand ongoing predation that might still occur as birds are attracted by and target more abundant species.

d. **Climate change:** Salmon and trout are highly sensitive to temperature, particularly in the final stages of adult maturation and in their development from eggs to young fish. Rising river temperature as a result of climate change is a contributing factor.

## 7 **NRW's proposed measures to address the decline in stocks**

7.1 As noted above, NRW is responding to the problem in three complimentary ways:

a. First, NRW is proposing catch control byelaws that apply to rod and net fishing on rivers that are wholly within Wales, that will ensure that spawning populations are maximised ("**the All Wales Byelaws**").

b. Secondly, NRW is implementing a suite of land management measures aiming to improve the river environment.<sup>3</sup> Further, NRW is also engaged in remedial action to restore river habitat quality and to address other factors operating in the freshwater environment.

c. Thirdly, NRW is also proposing further byelaws in respect of cross border rivers.

### **The 'All Wales' Byelaws**

7.2 The depleted salmonid stocks support ongoing exploitation by net and rod fisheries if they are to return to a more favourable population status in future. In summary, the All Wales Byelaws will implement the following measures (some of which were adjusted following the consultation process in August 2017):

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<sup>3</sup> These measures will be addressed in the evidence of Mr Robert Vaughn (NRW/6), and in an Annex to my main proof of evidence NRW/1(B).

- a. Catch and release – a mandatory requirement that any fish caught will be returned to the river.
- b. Rod fishing method controls which prohibit the use of any of the following:
  - (a) treble and double hooks
  - (b) barbed and debarbed hooks
  - (c) flying c-lures
- c. Ban on fishing for salmon with bait (a seasonal restriction)
- d. Slot limit of 60cm for salmon

7.3 Additional control measures are proposed to protect sea trout stocks on targeted rivers where these are deemed necessary, including statutory C&R fishing in the period when net fishing is constrained each year until 1<sup>st</sup> May, and method controls on bait before 1<sup>st</sup> May.

7.4 There is a 5 year interim review in order to monitor performance of the All Wales Byelaws. There will also be ongoing annual stock assessments.

## **8 Consideration of the contribution and effectiveness of the All Wales Byelaws as part of these measures**

8.1 In short, the effectiveness of the All Wales Byelaws measures is as follows:

- a. Survival of fish, released after capture, can be high and guarantees an opportunity to survive to contribute to spawning that would not otherwise exist;
- b. Reductions in hooking injuries and handling time can be achieved by controls on hooks and barbs. These are important benefits to support the proposed regulation change to promote C&R fishing. This is very evident in proposed controls for Flying-C type lures that are known to have a comparatively high risk of mortality from deep-hooking.
- c. The ban on worm fishing for salmon should minimise the number of fish hooked on this bait, which generally results in deep and sometimes fatal hooking.

d. The proposals for seasonal use of shrimp and prawn will extend fishing opportunity whilst not increasing post-C&R mortality.

e. The slot limit will ensure that large, successful and fecund sea trout will survive to contribute to further spawnings.

8.2 NRW has various powers under statute to take such enforcement action as it deems appropriate in order to protect our fisheries resource.

## **9 The proportionality of the All Wales Byelaws as a means to address the decline in stock.**

9.1 The implementation of the All Wales Byelaws is firstly about the need to regulate the take of fish in these fisheries for conservation purposes and secondly to ensure a degree of equity between the fisheries in meeting these conservation requirements.

9.2 Moreover, NRW have carefully considered the socioeconomic impacts of the All Wales Byelaws. NRW have not proposed to close any Welsh river to angling and will keep this under review as stocks continue to be annually assessed. In addition, NRW completed an equalities impact assessment, and concluded that the All Wales Byelaws are appropriate and proportionate to meeting NRW's legitimate aim of protecting salmon and sea trout stocks.

9.3 The proposed duration of the All Wales Byelaws (10 years) would ensure (depending on the outcome of a mid-term review) protection of 2-3 generations of fish, most of which in Wales have a generation time of 5 years.

## **10 Conclusion**

10.1 NRW considers that the All Wales Byelaws, in combination with other measures, are essential as a means of addressing the urgent and severe problem of salmon and trout stock depletion in Wales.

### **Statement of Truth**

10.1 I hereby declare that:

- I. This proof of evidence includes all the facts which I regard as being relevant to the opinions that I have expressed and that the inquiry's attention has been drawn to any matter which would affect the validity of that opinion;
- II. I believe the facts that I have stated in this proof of evidence are true and that the opinions I have expressed are correct; and
- III. I understand my duty to the inquiry to help it with matters within my expertise and I have complied with that duty.

**Peter Gough**

Principal Adviser (Fisheries)

Natural Resources Wales