

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/6R

REBUTTAL PROOF OF EVIDENCE

OF

ROBERT VAUGHAN

MANAGER OF SUSTAINABLE LAND, FARMING AND FOREST MANAGEMENT

on behalf of

NATURAL RESOURCES WALES

JANUARY 2019

This page has been left intentionally blank

1 Introduction

- 1.1 Further to my Proof of Evidence submitted on 21st November 2018 (**NRW/6**), and having considered the objectors' evidence submitted on 18th December 2018, I Robert Vaughan present this rebuttal evidence.
- 1.2 My rebuttal is limited to those matters which require the submission of additional written evidence and will not repeat evidence already before the inquiry.
- 1.3 My rebuttal evidence addresses the following key issues:
 - 1.3.1 Impacts of river flows;
 - 1.3.2 Land management;
 - 1.3.3 NRW's approach to legislation and regulation, and;
 - 1.3.4 Other miscellaneous comments.

This page has been left intentionally blank

2 Issues already covered in my Evidence

- 2.1 Many objectors make references to the All Wales Byelaws being the only option being pursued.¹ In my proof of evidence, I set out a wide range of principles and examples of the work that NRW undertakes.²
- 2.2 To be clear, the Wales Rod and Line (Salmon and Sea Trout) Byelaws 2017 and the Wales Net Fishing (Salmon and Sea Trout) Byelaws 2017 (together “**the All Wales Byelaws**”) are not the only measure being undertaken to address depleting salmon and sea trout stocks. The All Wales Byelaws are part of a broad suite of complementary measures as explained in my primary evidence³.

¹ See, for example, CPWF/2, para 12, AOA/1 para 84, AR/1 para 18 and 21, AN/1a para 32

² NRW/6.

³ NRW/6

This page has been left intentionally blank

3 Impacts on River Flows

3.1 Objectors have raised a number of issues relating to various impacts on river flows that affect the riverine environment, and generally argue that these factors are not being addressed. In short, these objections relate to the following four factors:

- (a) Dredging;
- (b) Abstraction;
- (c) Small-scale run of river hydroelectric schemes (“**HEP**”), and;
- (d) Physical barriers on the river

3.2 In large part, these four objections are addressed in my main proof of evidence⁴. However, I make the following brief additional points in response to the concerns raised about each of these factors.

Objector contention 1: Dredging

3.3 Dredging is said by some Objectors to have a detrimental impact on the riverine environment.⁵

3.4 NRW always removes major blockages in a main river which pose a flood risk to people's homes or businesses. However, the routine dredging of rivers (as referred to in objector evidence) is not a frequent practice by NRW this is because it is not always effective at reducing flooding as many rivers quickly silt up again.

3.5 Instead NRW advises land managers on good practice to reduce sediment loss in the first place. It focusses its efforts on dredging at those locations where it is cost effective and has a proven benefit of reducing flood risk. Owners or managers of land which have watercourses, can undertake certain maintenance activities themselves without permission – but it is advisable to check with NRW first to check if it does require permission. Any works undertaken or authorised by NRW would undergo assessments of their likely impact thereby reducing the risk of harm to fish.

⁴ NRW/6, sections 6, 8, 9, 10 and 16.

⁵ AOA/1, paras 48 and 56.

Objector contention 2: Abstraction

- 3.6 Abstractions are also identified as an objector concern in terms of the impact on the riverine environment.⁶ In large part, this is addressed in my primary evidence.⁷ However, I make the following additional point in rebuttal.
- 3.7 In the case of the Mawddach, where the issue has been specifically identified by an Objector, there are just 19 licensed abstractions:- 17 of these are hydropower and so the water is returned to the river after use meaning that the impact is minimal. Of the other two abstractions one is for fish aquaculture and the other for public water supply. For the Wye and Usk, the points raised mirror my main proof of evidence.⁸

Objector contention 3: Small-scale run of river hydroelectric schemes (“HEP”)

- 3.8 The increase of small-scale run of river HEP is raised by some Objectors as a concern.⁹ Again, this is primarily dealt with in my proof of evidence.¹⁰ In short, NRW has an evidence-based licensing procedure which seeks to evolve to protect the environmental impact that HEP sites could create.

Objector contention 4: Physical barriers on the river

- 3.9 The impact of physical barriers on rivers on fish migration on stocks has been raised by a number of objectors.¹¹
- 3.10 The water released from reservoirs is cited in objector evidence as causing damage to fish due to its cold, de-oxygenated state.¹² This is widely recognised as a risk – and in most cases reservoirs have multiple draw-off points from within the body of water to mitigate the impact of drawing the cold, low oxygen water from the deeper parts of the reservoir. Wales does, however, have some locations where this cannot currently happen and NRW works with the reservoir owners to find ways to mitigate this problem.

⁶ CPWF/1b, para 18c; GM/1, paras 6, 5.2, 5.3, and 5.4.

⁷ NRW/6, paras 5.2-5.10; 8.1-8.9.

⁸ NRW/6, para 8.8.

⁹ AOA/1 para 55.CPWF/2 para 145, AT/1 para 12, AN.1c Para 8&9

¹⁰ NRW/6, paras 9.1-9.5.

¹¹ CPWF/2 paras 82,83,93, 145, AT/a para 12, STC/1para 5

¹² AR/1, para 15(d).

- 3.11 As noted in the evidence provided by Peter Gough, NRW has for at least the past 20 years been committed to prioritised work to address the impact of physical barriers on fish migration across Wales¹³. This is both through our own work and in facilitating the work of others. Rivers Trusts have also completed a number of projects to improve connectivity. NRW has delivered over 270 projects, with Rivers Trusts completing around approximately 100 more projects.
- 3.12 These works include the construction of technical fish passes, and the delivery of more natural solutions such as rock ramps. The removal of barriers is always the preferred option because of the holistic benefits that result from this.

¹³ NRW/1, para 10.8

This page has been left intentionally blank

4 Land Management

4.1 Pollution is one of the major risks affecting Welsh Catchments. Some Objectors cite agricultural pollution as the key issue affecting fish¹⁴. However, all land management, both rural and urban, has the potential to damage river water quality. I address a range of land management issues which relate to river quality.¹⁵

4.2 Objectors address the following land management issues:

- (a) (5) Agricultural pollution;
- (b) (6) Mine remediation;
- (c) (7) Erosion;
- (d) (8) Chemicals
- (e) (9) Waste plastic.

Objector contention 5: Agricultural pollution

4.3 Many of the objections refer to agricultural pollution as a major concern¹⁶. Although my main proof deals in detail with this topic¹⁷, the following points of clarification are offered here.

4.4 First, many objections relate to regulation and enforcement; these are explored below. Agricultural pollution has been a long-term issue for NRW and its predecessors. Changes in farming brought about by Brexit and new legislation developed by the Welsh Government have created the need to take a fresh approach to tackling pollution. This is being taken forward by a proactive group which includes fisheries representatives.¹⁸

4.5 NRW and other partners carefully monitor water quality and other related factors across Wales to ascertain environmental condition. With the introduction of the Welsh Government's aspiration to manage land management through a system of payments for public services, NRW expect

¹⁴ CPWF/2, para 123; AOA/1, para 32; LAA/1, para 2; CFF/1, para 29; NH/1, para 14.

¹⁵ NRW/6, sections 7, and 11-19.

¹⁶ CPWF/2, para 123, AOA/1, para 32, LAA/1, para 2, CFF/1, para 29.

¹⁷ NRW/6, paras 12.1-13.26.

¹⁸ NRW/6, paras 13.1 – 13.26

monitoring and modelling of catchments to increase and become more focussed on positive change¹⁹.

- 4.6 Secondly, there is a suggestion that NRW is being taken to the European Courts due to poor water quality²⁰. NRW regularly reports the status of water bodies, rivers and groundwaters to the European Union via Welsh Government. There is currently no evidence that Wales has not met its directive requirements. Indeed, there are no such infringement proceedings before the CJEU, despite one of the Objectors to this inquiry having made a complaint to the Commission.

Objector contention 6: Mine remediation

- 4.7 In my proof of evidence, I outline the work underway to remediate legacy metal mines.²¹ Where risks of pollution resulting from legacy mining and quarrying activity are high, NRW prepares programmes to mitigate the impact and seeks funding to carry out remediation. Objector evidence identifies the Mawddach as suffering from pollution as a result of legacy metal mine workings.²² The gold mine at Gwynfynydd is currently one of the top 50 sites in Wales for remediation and the Coal Authority are currently working with NRW to assess the site. Moreover, in relation to the Mawddach work, bidding is underway for funding to reduce the potential water quality and flooding impact of the Glasdir site.

Objector contention 7: Erosion

- 4.8 Erosion is just one way in which sedimentation loads in rivers can occur.²³ NRW can only tackle this through enforcement action where the sediment creates pollution. NRW only has enforcement powers that apply once an incident has happened and can be shown to be a pollution. This is why NRW promotes proactive work, outlined in my proof evidence, to help advise and guide better land management practices across catchments.²⁴ NRW is already working²⁵ with colleagues in England, Welsh universities, and with Afonydd Cymru and Dŵr Cymru on new techniques to model those areas within catchment that are

¹⁹ CFF/1, para 41.

²⁰ AN/1a, para 128; MF/1, para 17.

²¹ NRW/6, section 16.

²² CPWF/1B, para 18(c).

²³ AT/1, paras 14, 14.1 & 14.3.

²⁴ NRW/6, paras 2.5, 5.9, 7.1, 7.5 & 7.6, 10.6, 13.12, and 15.3.

²⁵ GM/1, paras 6 – 6.4

most at risk of soil loss from changes to land management and a changing climate, so that a proactive approach to mitigate soil loss can be adopted by land managers.

Objector contention 8: Chemicals

- 4.9 The use of chemicals, and specifically Cypermethrin, is identified as a pollution cause²⁶. Additionally the evidence suggests that NRW have extended the period of this chemicals use in its forestry operations when other countries have already banned it. NRW's Pesticide use is clearly set out within the UK Forestry Standards guidance. This restricts the use of pesticides to those approved by international agreement, confines necessary usage to the absolute minimum, and seeks alternatives to pesticide use. NRW reviewed its use of Cypermethrin in 2014 and, although it still remains legal, stopped its use in November 2017. Control of the damage caused by Pine Weevil (*Hylobius*) is now undertaken by a mix of alternative approaches; including nematodes, paper sleeves, and predictive modelling. When non-chemical approaches are inappropriate Acetamiprid is used as a last resort and following a Habitats Regulations Assessment. NRW are committed to reducing our use of chemicals on land still further and support and participate in UK-based R&D aimed at finding alternative treatment options that reduce the damage caused by *Hylobius*.

Objector contention 9: Plastic waste

- 4.10 Finally, waste plastic²⁷ in rivers is raised as matter of objector concern. With the closure of the main export markets to the Far East for re-cycled plastics the current problem may become worse in the short term. NRW, alongside other UK government agencies is investigating ways of removing the issue at source and finding alternatives for existing waste materials.

²⁶ NH/1 para 14 and 32

²⁷ AOA/1, para 32.

This page has been left intentionally blank

5 NRW's approach to Legislation and regulation

- 5.1 A number of Objectors raise concerns about the regulation of land management issues. In particular, they suggest that, first, NRW prosecute very few incidents and secondly, that further mandatory regulation should be applied to the farming sector. This is addressed briefly in my main proof of evidence. I make the following additional points in rebuttal.
- 5.2 It is important to understand the context of these contentions in terms of the actual number of pollution incidents. Some objectors have referred to data concerning the numbers of pollution incidents associated with dairy and beef farming.²⁸ However not all figures provided are accurate. For example, some figures quoted are for all incidents reported to NRW whether agricultural or not, and are therefore misleading. The position is made clear in a report to the Cabinet Secretary prepared by the Wales Land Management Forum sub group on agricultural pollution in April 2018²⁹ which details the incidence of pollution. Specifically there have been, between 120 and 170 substantiated pollution incidents over each of the last eight years.
- 5.3 In terms of enforcement it has been suggested that NRW prosecute very few incidents³⁰. Prosecution of those involved is one, but not the only action available to NRW. NRW consider each case on its merit and applies the enforcement option that it deems most appropriate to achieve the most effective outcome. NRW has a number of options available to it ranging from issuing formal warnings through to prosecution and these are set out in NRW's Enforcement and Prosecution Policy³¹. If a prosecution is pursued this may take many month to reach court. It is therefore difficult to link the numbers of incidents to prosecutions within a given period of time.
- 5.4 Proposals to introduce new regulations to tackle agricultural pollution from Spring 2019 have been announced by Welsh Government³². Additionally, future changes in the way land managers are supported by Government will see further regulatory change. NRW is supporting this work and is helping the

²⁸ AAC/1, para 29.5; AT/1, paras 12 & 15; AR/1, paras 21 to 26, DP/1, para 1.

²⁹ See Appendix 1, NRW/6R/A

³⁰ AAC/1 para 29 bullet 5 AT/1 Para 12, 15, AR/1 Para 20, AN/1a Para 32

³¹ POL/23

³² See Appendix 2, NRW/6R/B

Wales Land Management Forum sub group develop and support new approaches. NRW seeks new baseline regulations throughout Wales to help tackle pollution and wants to see these introduced as soon as practicable, alongside other complementary arrangements.

5.5 New regulations are a matter for Welsh Government. Introducing new formal regulation is an expensive and resource intensive approach. If Welsh Government follow this path they will need to provide appropriate resources in order for this to work effectively. This is usefully recognised in some of the evidence provided to this inquiry;

5.5.1 *“The reality is that the act...of polluting...cannot be stopped by a law”³³ “there will need to be substantial investment in additional resources for the environmental regulator if these new regulations are to have the desired effect.”³⁴*

5.6 NRW believe that combining a range of complementary approaches, including a voluntary farmer-led nutrient management scheme (covering more than just nitrates) with underpinning regulation, will deliver a better outcome than if either option were to be delivered on its own.

6 Explanation to for NRW's approach to Renewable Energy

6.1 Some Objectors have suggested³⁵ that NRW's approach to the sustainability of fisheries is at odds with its approach towards renewable energy. This is not a matter that was addressed in my primary evidence, and I respond below.

6.2 In terms of fisheries, the depletion in stocks currently experienced is directly impacting on the extent and long term sustainability of the remaining resource. With the exploitation of wind, solar and hydrological resources, apart from the immediate locality and in the short term, their use does not diminish the extent and long term sustainability of the remaining resource.

6.3 It is therefore misleading to suggest that NRW seek to exploit renewables energy resources. NRW closely manages their use through licencing abstractions in HEP and through restricting or excluding wind developments

³³ AOA/a 32,

³⁴ AT/1 14.1 and 14.3

³⁵ AOA/1 88

from sensitive landscape areas such as National Parks and Areas of Outstanding Natural Beauty. NRW's energy approach is very much about getting the right renewables in the right locations.³⁶

7 Statement of truth

7.1 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.

Robert Vaughan

Manager of Sustainable Land, Farming and Forest Management

Natural Resources Wales

January 2019

³⁶ See Appendix 3, NRW/6R/C