



2 October 2014

<b>Paper Title</b>	<b>Protecting, through best-practice scientific management and the ecosystem approach, the sustainability and productivity of our wild salmon and sea trout stocks in Wales.</b>
<b>Paper Reference:</b>	<b>NRW B B 66.14</b>
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<b>Purpose of Paper:</b>	<b>Action</b>
<b>Recommendations:</b>	<ul style="list-style-type: none"> <li>• All salmon and sea trout mitigation and enhancement stocking in Wales undertaken by NRW and 3<sup>rd</sup> parties should end immediately (noting that current production cycles will be completed).</li> <li>• Alternative methods of mitigation will be developed with stakeholders that provide broader and more sustainable environmental benefits.</li> <li>• Mawddach hatchery near Dolgellau and Maerdy hatchery near Corwen should close.</li> <li>• NRW should continue core biodiversity work at Cynrig and assess the feasibility of developing the site as a freshwater research centre.</li> </ul>
<b>Decision Required:</b>	To endorse the recommendations.
<b>Impact:</b> To note – all headings might not be applicable to the topic	<p><b>Impact on the Environment:</b> Fish require good water quality and free access to good quality habitat. They are a key indicator of ecological performance and environmental quality.</p> <p><b>Impact on the Economy:</b> Fisheries in Wales have an important role in providing jobs and income in fishing, fisheries management and tourism.</p> <p><b>Impact on Community:</b> Fish can play an important role in engaging people in their environment and providing opportunities for education, recreation and associated health benefits.</p> <p><b>Impact on Knowledge:</b> We need a strong evidence base to inform our advice to Welsh Government on fisheries policy, to inform NRW decision making on fisheries management and to inform discussions with partners and co-deliverers.</p>

## **Issue**

1. The annual assessment of salmon stocks and fisheries in England and Wales produced by CEFAS (Centre for Environment, Fisheries & Aquaculture Science), and the Environment Agency with input from NRW following the 2013 season indicates that stocks and catches provide considerable ongoing concern and the conservation of salmon remains a priority.
2. Although environmental factors in freshwater are key reasons why salmon stocks are not recovering in many of our rivers, the decline in stocks is also due to reduced survival at sea. It is essential that we address these factors, within the wider framework of policies to manage the environment and our natural resources. We intend to deliver more and diverse habitat improvement schemes through greater use of third sector partnerships to ensure that as many salmon as possible survive to spawn.
3. NRW is reviewing many aspects of its work to ensure they are delivering for the economy and the environment. This included a review of salmon stocking policy and hatchery operations.

## **Summary**

4. This paper presents the recommendations for NRW's salmon stocking, third party salmon stocking and the future of NRW's hatcheries following the review and consultation.

## **Background**

5. A review of our existing salmon stocking activity and associated hatchery operations was discussed by Executive Team in December 2013.
6. The review considered contemporary evidence on the effectiveness and risks around stocking and concluded that concerns arising from both indicated we should cease stocking operations.
7. At the December 2013 meeting, the Board were advised that a consultation on the recommendations of the review would be undertaken in the New Year.
8. On the 4<sup>th</sup> March NRW launched a 12 week public consultation seeking additional evidence either in support of, or at variance with, the evidence which informed the recommendation to cease operation of our salmon hatcheries and the stocking of salmon.

Summary of consultation responses (Annex 1)

9. In total 112 responses were received of which 86 (77%) were from individuals and 26 (23%) were from organisations including national and regional angling representative bodies, angling clubs, rivers trusts, private sector organisations and universities. Some groups of organisations and individuals made joint responses.
10. A number of respondents raised the same issue of interest to a specific group e.g. 25% of all responses received specifically mentioned the Wye Semi-Natural Rearing (SNR) project. Some replicate responses were also received.
11. The consultation responses expressed polarised and often strong opinions, however they provided no new material evidence we were not already aware of.

#### Evidence

12. The responses to the consultation, together with the results of our own ongoing evidence and literature searches and reviews, have been considered alongside advice from NRW's evidence team and the Knowledge Board Group (Annex 2).
13. Papers and sources that have been identified, have become relevant, or have been published since the consultation are listed on page 48 of Annex 4. Of particular relevance is a scientific consensus on salmon stocking provided in a paper following the Glasgow conference on Atlantic salmon stocking (Annex 3).

#### Opinion on the application of the law to stocking

14. Whilst there are general statutory powers which allow NRW to carry out stocking, there is no specific statutory duty on NRW to carry out salmon and sea trout stocking in Wales.
15. There is no statutory duty on NRW to retain specified hatcheries.
16. In a small number of specific cases, NRW has obligations to provide or contribute towards mitigation measures for historic damage to fisheries. These measures currently provide for the mitigation to be provided through stocking but in all instances they can be amended either by agreement or unilaterally.

#### Conclusions

17. There has been no new evidence brought to our attention that might amend the conclusions set out in our initial review. On the contrary there is an increasing resource of publications and new evidence to substantiate our position that the stocking of salmon and sea trout:

- Is ineffective and therefore represents a waste of resources. Our evidence from the River Taff demonstrates that hatchery returns are poor in abundance and less than would have occurred if the parent fish had been left in the river. We note however past evidence from some stocking programmes that indicate better returns.
- Is potentially damaging to populations, as removing adults from the wild for hatchery broodstock depletes the resource of potential wild spawners, leading to the depletion of the resource of fit and adapted juveniles.
- Represents a risk to the maintenance of local populations and their adaptations to existing and future conditions. This is because, in hatcheries, adult fish are selected for mating crosses that would not otherwise occur in the wild leading to potential loss of specific adaptations and fitness. Contribution to wild spawning by hatchery-derived adults represents a similar risk to population fitness.

18. Whilst there are no legal obligations for NRW to continue stocking salmon there are, in a small number of specific cases, obligations to provide or contribute to mitigation measures for historic damage to fisheries.

19. There is no evidence that might indicate a different approach is required to sea trout stocking, and we therefore include sea trout within our overall recommendations.

20. The principle under which we manage migratory salmonids in Wales must be to protect, through best-practice scientific management and the ecosystem approach, the sustainability and productivity of wild salmon and sea trout stocks.

### **Recommendations**

21. On 9 September 2014 NRW's Executive Team agreed to endorse the recommendations that:

- All salmon mitigation and enhancement stocking and sea trout stocking in Wales undertaken by NRW and 3<sup>rd</sup> parties should end.
- In the case of mitigation stocking, alternative methods should be agreed with stakeholders that provide broader and more sustainable environmental benefits.
- Mawddach hatchery near Dolgellau and Maerdy hatchery near Corwen should close.

- NRW should continue core biodiversity work at Cynrig and assess the feasibility of developing the site as a freshwater research centre.

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### **Next Steps**

22. Feedback from the consultation showed that stakeholders would like to see more information about what actions are being undertaken to improve fisheries in their local catchments. A wide range of actions are carried out by NRW and 3<sup>rd</sup> party organisations each year to resolve issues that are limiting the performance of our fisheries. Most of these actions are included in Water Framework Directive River Basin Management Action Plans. We will continue to implement the actions outlined in these plans.
23. In light of the consultation feedback we will review, in consultation with our Local Fishery Groups, how this information could best be presented to bring together all relevant fishery actions in one fisheries catchment plan.
24. We have prepared a paper which summarises alternative actions to deliver mitigation. NRW will engage with stakeholders to develop these plans that will describe how, working in partnership, NRW can deliver in the longer term to achieve an environment that supports sustainable inland fisheries as one of a range of ecosystem services. We will engage with stakeholders to take this forward.
25. We are working with colleagues in Finance to assess options for sources and timescales for funding to implement an ecosystem approach to delivering alternative mitigations that provide broader and more sustainable environmental benefits.
26. We are working with partners to prepare a business case to submit to Wales European Funding Office (WEFO) for funding consideration to develop a future research facility at Cynrig.

### **Risks**

#### **Legal challenge –**

27. To reduce the risk of any legal challenge on decisions which may be made by NRW, we must be able to show that in coming to any decision we have acted reasonably; that we have given due consideration to all options available (first review); that we have given due consideration to all available evidence including consultation responses (consultation, assessment of consultation responses and review of responses and new

evidence) ; and that any final decision follows a clear decision making process supported by appropriate evidence (Executive Team and Board papers).

28. We have written to certain third party organisations to advise them of the likely time scales for decisions, and that until any decision is made we intend to continue with planned hatchery stocking activities and that the introduction of any fish or ova that are currently held within hatcheries as part of approved stocking programmes will proceed. Therefore, irrespective of whatever decision is made, NRW and affected third parties should be able to complete the hatchery / stocking cycle for any fish currently held. The letter also advises that we will be delaying all brood stock collection this year until such time as the final decisions are made and that they may also wish to give consideration to this.
29. Anyone moving fish into any receiving water in Wales must get written consent from NRW before doing so. Removing adult fish for broodstock may also require consent. Consents for these operations in rivers designated as a Special Area of Conservation will further require a Habitats Regulations Assessment.

### **Communications –**

30. We need to explain the decision, the evidence used to reach our decision and the reasons for immediate rather than phased implementation. Stakeholder analysis of those who responded to the consultation will advise on the most effective engagement strategy.
31. We will seek early engagement with our stakeholders to identify the opportunities for co-delivering mitigation actions.
32. All staff involved have been engaged throughout the process and we will continue our regular, line management communications with hatchery staff. We have been clear throughout the consultation that staff affected by this review will be redeployed as they have key skills necessary for future actions.

### **Financial Implications**

33. Ensuring that our policies and our resources are deployed to achieve the best environmental outcomes.
34. We intend to invest any savings in implementing these recommendations into delivering the alternative mitigation work.

### **Equality impact assessment (EqIA)**

N/A

### **Index of Annexes**

1. Salmon stocking and Hatcheries - your views - Summary of responses to 'A consultation on NRW's salmon stocking, third party salmon stocking and the future of NRW's hatcheries' held 4 March - 27 May 2014
2. Natural Resources Wales salmon stocking policy and hatchery review - Analysis of consultation responses and additional evidence.
3. Young, K.A., Colin Adams, Andy Ferguson, Carlos Garcia de Leaniz, Stephen Gephard, Neil Metcalfe, Phil McGinnity, Ted Potter, Tom Reed, Ian Russell, Jamie Stevens & Eric Verspoor (2014). A scientific Consensus on salmon stocking. Paper produced following the conference Atlantic salmon stocking, 27-28 November, Glasgow, UK. The Atlantic Salmon Trust/IBIS.