



Salmon & Trout Association

Fighting for the future of game angling

Patron: HRH The Prince of Wales

President: The Duke of Northumberland

Dear the Pitt Review Team,

Thank you for giving the Salmon & Trout Association the opportunity to respond to the consultation of the Interim Pitt Report.

The Salmon & Trout Association (S&TA) is an international organisation representing the interests of 100,000 individual and club-based game anglers, fishery owners, managers and affiliated trades throughout the United Kingdom. We are especially concerned with promoting and communicating the environmental, social and economic benefits of game angling.

The S&TA supports the objectives of this report; in particular we strongly support the role that wetland creation can play in reducing flood risk. We would like to reiterate the request made in the Blueprint for Water, produced by a coalition of fisheries and conservation NGO's including S&TA, appealing for the government to:

- Retain water on floodplains and wetlands to reduce urban flooding, whilst improving water quality and quantity, and creating vital wildlife habitat.

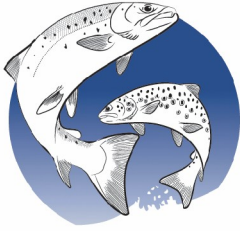
Wetlands, by definition, are vegetated areas covered by shallow permanent or temporary water, which act as transitional links between watercourses and the land. Efforts should be made to maximise these links, by returning areas of floodplain back to their natural purpose. Wetlands play a critical role in the water cycle by reducing and delaying floods, whilst increasing evaporation. Wetlands in urban areas are especially valuable for flood protection, since urban development increases the rate and volume of surface water runoff, and thus increasing the risk of flood damage. Records show that the majority of floods occur when the banks are overtopped by just a few centimetres. This indicates even small scale wetland creation can provide significant benefits to flood control.

Wetland creation not only provides primary flood defence by increasing flood storage capacity and evening out flow regimes, but wetlands also have the ability to deliver a wide range of other key functions, including nutrient and carbon storage, soil stabilisation, and improving biodiversity and water quality. We feel soft engineering options, such as wetlands, should be used wherever possible to reduce the risk from extreme flooding, whilst offering a multitude of other environmental benefits.

We feel that the Pitt Review should support the Environment Agency's *Making Space for Water* objective, to improve integration between policies to help achieve flood risk benefits in the most environmentally and economically sustainable ways. All environmental issues, including flood protection, should be addressed within integrated catchment management programmes, and no longer viewed as separate entities.

The S&TA is, however, concerned about the lack of emphasis on land management issues. We feel that Defra's recent Water Strategy, and the Interim Pitt Review, both focus predominantly on urban issues, which we agree are very important and need to be addressed, but not at the expense of land management issues affecting flooding, even though they may be harder to implement.

Flood risk is influenced by the rate and speed of run-off within the catchment. Poor land management practises (including poor cultivation techniques, pasture management, agricultural drainage and forestry practises) are all known to affect the rate and speed of



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water reaching our rivers. Poor land management can lead to surface soil layers becoming compacted and, therefore, impermeable to rain, even when there is a substantial soil moisture deficit. Good soil management can significantly increase the volume of rain water being absorbed into the soil, thus reducing both the speed and the volume of run-off. It is debatable whether this would be able to reduce peak flows in extreme floods, but it is certain it would improve flood warning time and, therefore, reduce flood damage, which is in the remit of the report.

The report states that there is no evidence available to substantiate the impact of land management practises on flooding at a catchment level. However, this does not mean that it has no impact, or that action is not required. Local scale land management is known to retain water in the soil, slow down water flow and thus reduce run-off. It is therefore highly likely that flooding would be reduced by the cumulative affects of good local land management. We feel, in this case, that the precautionary principle should be used in the absence of solid scientific evidence, and that further land management action be instigated to help reduce the threat of flooding. We also support the funding of catchment scale research projects, to help build-up scientific understanding and evidence on the subject.

The more severe flooding that we are now experiencing is likely to be the cumulative result of poor land management, increased hard urban surfaces, poor drainage schemes, expanding populations resulting in greater development in floodplains, and climate change. Tackling flooding requires action on all these fronts. The outcomes of this report should therefore include actions to address all these issues, including land management and wetland creation, in order to improve flood defence now, and mitigate against increased future flood risk caused by climate change.