28th March 2023

Opening Statement for the Joint Oireachtas Committee on Environment and Climate Action regarding the Nature Restoration Law and the Land Use Review

Introduction

I'm Dr. Elaine McGoff, I'm the Natural Environment Officer with An Taisce. An Taisce is a member of the Sustainable Water Network (SWAN), of which I'm the vice chair and I'm presenting the collective SWAN views here today. I have a PhD in Freshwater Ecology and an Advanced Diploma in Planning and Environmental law.

Current Situation

Waterways are very much a product of their landscape, they're the ultimate truth tellers, whatever is happening in the surrounding landscape will ultimately show up in the water quality. And that's what we're seeing in an Irish context- we are in the midst of an ever-worsening water quality crisis, with the EPA increasingly highlighting the deteriorating situation. Half of our rivers and lakes are considered polluted, and the EPA have highlighted the 'alarming declines' in our estuaries, ⅔ of which are now considered polluted.

The top 4 pressures on our water quality are, in order of magnitude, agriculture, hydromorphology, forestry and urban wastewater[1]. So 3 of those relate directly to how we're managing our land.

- In terms of agriculture, one of the biggest issues is nutrient pollution, from animals, fertilisers and slurry. Nitrogen is a particular problem in the south and south east of the country[2].

- Hydromorphology is a term you may be less familiar with, and it's essentially changes to the physical structure of a waterbody, so for example channelisation, dredging, and land drainage. It can have quite fundamental impacts on how that waterbody functions, the species it can support and how healthy it is.

- Badly sited and managed forestry leads to silt runoff and acidification of waterways, and can have detrimental impacts on one of our most critically threatened species, the Freshwater Pearl Mussel. Forestry has the greatest impact on what are called our high

[1] https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/EPA_WaterQualityReport2016_2021.pdf

[2] EPA (2021) Assessment of the catchments that need reductions in nitrogen concentrations to achieve water quality objectives

status sites, these are the best of the best, our pristine waters. Since the 80s we have seen a dramatic decline from having 500 of these down to around 20 currently.

- And then we have urban wastewater treatment, the failures of which should be a national scandal, but for the purposes of today's discussion on land use I'll set this particular pressure aside for now.

Synergies and Trade Offs

There can be multiple benefits from well planned nature restoration, with co-benefits for water quality, biodiversity and climate mitigation, in addition to health and amenity benefits for communities. As outlined in the recent IPCC report, nature restoration increases resilience to extreme weather events, such as floods and droughts, mitigating the impact, and providing greater adaptation, including improved long-term food security.

However, there can be trade-offs with some climate mitigation measures, such as with rapid and widespread afforestation, like that modelled in the recent EPA land use synthesis report[3], which, if it's done wrong, could have significant negative impacts on water quality and biodiversity.

This is a complicated picture, and it's imperative that we look at it in a holistic way over the medium to long term, not just through the lens of climate benefits, or the lens of short term economic impact. We need to manage land in an integrated way, so that land use can meet multiple goals, while recognising the trade-offs and synergies between them, and balancing environmental, social and economic outcomes. The only way to achieve that is with the support and involvement of farmers and communities.

Wetland Restoration

Restoration of wetlands (incl. peatland) will be critical to an effective catchment-based land use strategy for climate mitigation and adaptation, in addition to addressing water pollution and reversing biodiversity loss. Wetland loss has been particularly stark in Ireland, by a recent estimate Ireland has lost 90% of our wetlands[4], more than any other country in the world. We are strongly supportive of a national water and wetland restoration programme, and have called on the Government for a prohibition on wetland drainage. We have also called for a review of the Arterial Drainage Act under which the OPW dredge thousands of kilometres of Irish waterways annually, maintaining them in a perennially unnatural state.

However, the current draft plan for managing water quality, the draft River Basin Management Plan, lacks ambition and does not reflect the systematic, strategic and landscape scale change required for addressing wetland loss.

[3] EPA (2022). Land Use Review: Fluxes, Scenarios and Capacity. Synthesis Report EPA Research Evidence Synthesis Report

[4] Fluet-Chouinard, E., Stocker, B.D., Zhang, Z. *et al.* Extensive global wetland loss over the past three centuries. *Nature* 614, 281–286 (2023). https://doi.org/10.1038/s41586-022-05572-

Natural function of rivers

Greater efforts are needed to restore freshwater ecosystems and the natural functions of rivers, and this is reflected by the Nature Restoration Law objective to restore at least 25,000 km of rivers into free-flowing rivers by 2030 through the removal of barriers and the restoration of floodplains and wetlands. This need for lateral connectivity, reconnecting rivers with their flood plains, is not reflected in the draft River Basin Management Plan, nor is it an obligation under the Water Framework Directive. However, it is a critical element for allowing rivers to function naturally, and pertinently from a climate adaptation standpoint, it provides flood attenuation and alleviation, by 'slowing the flow'. In fact many countries are actively relocating people outside of floodplains to facilitate this reconnection for that very reason[5]. Increased flood events are an unavoidable consequence of climate breakdown, so it's in our future, whether we plan to mitigate for that or not.

Conclusion

The Nature Restoration Law, in combination with the Land Use Review could provide an invaluable lever to address the ongoing failures in land management, and critical gaps in policy. We are in the final cycle of the River Basin Management Plan, but the current draft Plan sorely lacks ambition, and will not achieve good status for our waterbodies. All life revolves around access to clean water, it's imperative we bear that in mind in terms of any discussions here today. Clearly fundamental changes are necessary in how we protect waterways, and how we manage land has a massive bearing on that. We believe that nature restoration, in particular the restoration of rivers and wetlands, including peatlands and organic soils, is one of the best investments Ireland can make, and given what we're facing we simply can't afford to not do it.

[5] https://www.dutchwatersector.com/news/room-for-the-river-programme