
SUMMARY PROOF OF EVIDENCE

Richard Bakere

ON BEHALF OF

GWENT WILDLIFE TRUST

In the matter of:

**Public Local Inquiry into the M4 relief road around Newport: The effects of the proposed M4
extension across the Gwent Levels**

February 2017

INTRODUCTION

Witness introduction

1. I am a Senior Reserves Officer for Gwent Wildlife Trust. I have been responsible for many of Gwent Wildlife Trust's nature reserves since 2006, and the Magor Marsh nature reserve since 2010.

SUMMARY OF EVIDENCE

History of the Magor Marsh Nature Reserve

2. The Gwent Levels has evolved in parallel with people over millennia. Consistency in agriculture and management of the drainage structures produced a stable environment where wildlife and farming flourished. This is not a simple habitat that can be simply recreated.
3. In response to the threats of development and changing agriculture, the Magor Marsh Nature Reserve¹ was established in 1963. Since then the reserve has grown in size when funding has allowed, and both the reserve and surrounding area have received legal protection with multiple SSSI designations (established in 1982 and 1989). Namely;

Magor and Undy SSSI²

Magor Marsh SSSI³

Redwick and Llandeenny SSSI⁴
4. These designations reflect only the best examples of habitat type SSSI areas cannot function in isolation. It is only with resilient habitat in the wider context that viable long term robust populations can be supported.
5. The Barecroft Common part of Magor Marsh Nature Reserve was purchased by the Gwent Wildlife Trust in 2012. The particular interest is its peatland. This is clearly expressed in the lowland peatland survey of 2009 conducted by the Countryside Council for Wales (subsequently referred to as CCW). **"The Barecroft Common area has, along with Magor Marsh, escaped the large scale habitat loss that has affected the Gwent Levels"**. In addition, the definitive work the **Flora of Monmouthshire** by Vice county recorder Trevor Evans singles out the species-rich nature of the Barecroft Common fields, which support plant communities of SINC quality (site of importance for nature conservation).

¹ See [Magor Marsh Nature Reserve](#) webpage

² See Appendix 1

³ See [Magor Marsh SSSI](#) citation

⁴ See [Redwick and Llandeenny](#) SSSI citation

6. The purchase of the fields at Barecroft Common, was funded by an appeal to the members of Gwent Wildlife Trust, and other likeminded individuals and organisations. In recognition of the wildlife value of the ground the money raised for the land purchase was matched by the CCW⁵. Since then the ground has been managed for the benefit of wildlife with the collaborative help of a local grazier and volunteers from Gwent Wildlife Trust.

IMPACT OF M4 PROPOSAL ON MAGOR MARSH NATURE RESERVE.

Direct Loss to the Habitat of the Nature Reserve

7. The two fields on Barecroft Common that are part of the Magor Marsh Nature Reserve which would be lost or partially lost to the motorway together are home to a rare habitat (both rare on the Gwent Levels and rare in the UK) which includes the terrestrial habitats of Fen meadow, Marshy grassland and Rush pasture (**section 7 habitats** of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales). This area is special because of the peat-rich ground, high water table and history of sympathetic management. These fields are home to, meadow thistle (*Cirsium dissectum*) and meadow rue (*Thalictrum flavum*) *both these plants are on the Vascular Plant Red Data List for Great Britain - 2006*). These two plant species are found in fewer than a handful of sites on the Gwent Levels.
8. A section of Stutwall reen runs through this section of the reserve and would be lost beneath the motorway embankment, this reen and the adjacent field ditches are part of the Redwick and Llandeenny SSSI. **European protected species** otter (*Lutra lutra*) and **nationally protected** water vole (*Arvicola amphibious*) (**protected on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended)**) use this reen.
9. A diverse range of marginal vegetation exists alongside a more open central channel in this reen. Records which have both been noted on the **Gwent Rare Plants Register** as well as being listed on the Vascular Plant Red Data List for Great Britain – 2006 are;
- Rootless duckweed (*Wolffia arrhiza*)
 - Hairlike pondweed (*Potamogeton trichoides*)

⁵Gwent Wildlife Trust buys marshland <http://www.bbc.co.uk/news/uk-wales-south-east-wales-17896501>

10. Harvest mice (*Micromys minutus*) nests have been found in these fields. The harvest mouse is protected by the **Section 7 of the Environment (Wales) Act 2016** which states:

“Welsh Ministers must— (a) take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section”.

INDIRECT LOSS TO THE ADJACENT HABITAT ON THE NATURE RESERVE.

11. As one of the last fragments of unimproved peatland on the Gwent Levels, any loss of this ground is irreplaceable.
12. Disturbance to wildlife in the reens, ditches and fields would be severe and long-lasting. It has taken centuries of consistent management for the wildlife balance to become established.
13. We have significant concerns that the following negative impacts would affect the reserve;
- This proposal risks the very essence of the Nature Reserve at Magor Marsh by threatening the water that creates the wetland habitat in the reserve. Ground water flow to the spring in the nature reserve, which is vital to maintaining the high water levels, could be permanently lost.
 - Reduced water levels and reduced water quality would lead to a loss of biodiversity and localised extinctions of sensitive species across the whole reserve. The complexity of the area is staggering, over 800 invertebrate species were recorded by Peter Kirby on part of Magor Marsh in 2010 (see appendix 3) including the red listed water beetles, *Agabus uliginosus* and *Dytiscus dimidiatus*.
 - The quality and stability of this water not only protects the wildlife, but preserves the archaeology (e.g. the Romano-Celtic boat found 1km west of the reserve near the line of the proposed route)
 - Polluted water from the carriageway is likely to pass into the reen and ditch system.
 - Silt flow into the historic SSSI ditch network during the build process caused both by the creation of new water courses and from direct run off from the construction site.
 - The wildlife isolated on the northern side of the road would no longer be able to effectively link with that to the south, decreasing the robustness of populations on both sides of the divide.
 - Noise would be carried from the elevated level over the nature reserve, effecting wildlife.
 - Increased flood and drought risk from disturbance to the drainage system.

- Otter and bat casualties are likely to increase.

14. I have great concerns regarding the inadequacy of the proposed reed and ditch mitigation. In particular with reference to:

- the timescales for equivalent habitat to become established on new watercourses.
- the mitigation ratio of 1:1.
- the sites of proposed mitigation within existing SSSIs.

I am aware that other witnesses share my grave concerns over the impacts of the proposed scheme and the limitations of the proposed mitigation/ compensation, and I ask the inspector to refer to their submissions.

IMPACT ON THE PEOPLE THAT USE THE NATURE RESERVE.

15. The oldest and most visited of all of Gwent Wildlife Trusts Nature Reserves, Magor Marsh is a cherished place. Each year;

- 3000 visits by school children are made to the education centre on the reserve.
- 10,000 people visit the nature reserve.
- The infrastructure and wildlife is supported by an outstanding army of volunteers who contribute in the order of 1000 man days per annum.
- Regular Recording Walks for both Bumblebees and Butterflies pass through the fields earmarked for loss.
- Guided walks which encourage people to learn more about wildlife visit these fields.
- Visitors to the nature reserve would be affected by the noise from the motorway on its raised embankment, carrying across all of the nature reserve.

16. **Natural Resources Wales** and their predecessor CCW have completed a character assessment for all of Wales using “**LANDMAP**”⁶. Evaluating landscapes from a cultural, geological, historic, habitat and visual & sensory perspective.

“It’s a tool to help sustainable decision-making and natural resource planning at a range of levels from local to national whilst ensuring transparency in decision-making.”⁷

⁶ LANDMAP - the Welsh landscape baseline <https://naturalresources.wales/planning-and-development/landmap/?lang=en>

17. The landscape within which Magor Marsh lies has been assessed within the LANDMAP characterisation as follows;

- “Outstanding habitat significance”
- “Outstanding as an evolved reclaimed landscape dating back 2 millennia”
- “A cultural resource of exceptional importance”
- “Outstanding rarity from a visual and sensory point of view”

18. LANDMAP assessments can be found in **Appendix 2**.

19. Gwent Wildlife Trust has been the custodian of the Magor Marsh nature reserve for more than 50 years, but the wildlife we are fortunate to still have is the legacy of the work that has taken place over proceeding millennia. Evidence for this lies in both the archaeology of the landscape and the wildlife it supports. This proposal would be hugely detrimental to both features.

20. The people, wildlife and geography of the Gwent Levels are now threatened like never before. Home to a host of wildlife and appreciated by a huge number of people and organisations, I hope the area will be protected in the manner that its designations warrant and deserve.

⁷ ibid