Iolo Williams Statement to the M4 Public Inquiry 4th April 2017

I love the Gwent Levels and am furious at the Welsh Government for their plan to put 16kms of motorway through this 'protected area'. Its government sponsored ecocide^[1] ('extensive damage, destruction to non-human life^[2]).

The Gwent Levels is one of the jewels in the crown of Wales, with immense cultural and historical significance. This rare and complex wetland habitat is nationally important for its wildlife and is protected by national designations that encompass very rare water beetles and other aquatic bugs and wetland plants^[3] that live in and around the area's network of reens and ditches. The list of species that live here – plants, fish, invertebrates (bugs), mammals and birds – is so impressive. There is a very healthy population of water voles here - a mammal I remember being on our rivers when I was younger but is virtually gone now. The Gwent Levels is also a real stronghold for otters and eels. From a bird point of view, it is the only place in Wales you will see the magnificent cranes – breeding for the first time in 400 years. You can also see other Welsh rarities such as bearded tits, avocets, bitterns and harriers.

There is nowhere else like this in Wales. The only place that comes close in the UK is parts of East Anglia or the Somerset Levels.

To think about directly destroying four Sites of Special Scientific Interest that make up this Welsh jewel is madness. The direct effects of 125ha of land take and the fragmentation caused by the 16kms of concrete on those habitats is immense — and unprecedented in Wales. Added to this are the indirect effects on yet more of the Gwent Levels SSSIs e.g. the pollution from construction and operation (traffic) that will enter the ancient, complex and inter-connected reen and ditch systems. The fragmentation will devalue the habitat on both sides of the 6 land motorway and leave the northern part at risk of further development.

The 'mitigation' proposed is nothing short of a joke,

- replacing ancient and irreplaceable ecosystems (reens and ditches) with freshly dug holes within or adjacent to current SSSIs. The replacement ratio is 1:1 (SSSI features).
- damaging or destroying 5 ancient and irreplaceable woodlands and 'mitigating' this through planting new saplings. The woodland replacement ratio is 1:2 (ancient woodland)
- the replacement ratios do not account for (a) the massive time lag to get these habitats to ecological maturity which could take tens, if not hundreds, of years and (b) the high failure rate of creating new habitats¹. On the HS2, Natural England (NRWs equivalent body for England) required a replacement ratio of 1:30 for ancient woodland.
- mitigating the complete loss of grassland habitats by making other areas of grassland a bit better

^[3] 144 Nationally Notable or Red Data Book aquatic invertebrate species (water bugs!) including water beetles and dragonflies have been recorded from the Gwent Levels. The Levels also supports the nationally scarce rootless duckweed (Wolffia arrhiza). This is considered to be the world's smallest flowering plant and occurs nowhere else in Wales

^[1] http://eradicatingecocide.com/

^[2] http://pollyhiggins.com/

¹ David Moreno-Mateos et al (2017) Anthropogenic ecosystem disturbance and the recovery debt http://www.nature.com/articles/ncomms14163

- putting pipes of up to 775m under, or wires over, 6 lanes of motorway and hope that dormice, otters, water voles, bats and the SSSI aquatic bugs will use them.
- using the new motorway embankments to mitigate for the loss of shrill carder bee habitat
- after construction/ destroying they intend to 'restore' biodiverse brownfield sites which currently have hundreds of species of terrestrial bugs, many of which are very rare but little details of how this will be done or how effective it will be are given.
- shoving all mitigation (water voles, otters, great crested newts and other amphibians, reptiles, cranes etc) into 3 areas of already good for wildlife, two of which are current SSSIs. None of this is based on the ecological requirements of these species it's only based on the fact that Welsh Government own those parcels of land.

All of these raises many important questions, including

- Is there scientific evidence that the above measures are effective to maintain and enhance wildlife? No in fact, quite the opposite.
- Are the mitigation measures 100% effective e.g. will the pollution prevention measures stop 100% of the toxic chemicals from construction and operation entering the reens?
 No.
- Will this lead to an overall loss in wildlife? Yes.
- Will it lead contribute to Wales not achieving its target of habiting the loss of biodiversity by 2020²? Yes.

The Gwent Levels is also about more than just the wildlife. It is people and it is history. This whole area was an ancient marsh that people would have grazed only in the summer, because in winter it would have been flooded. Walking along the Gwent Levels is like walking through time. You feel like you are walking among ancestors. I will never forget walking on the shore about 10 years ago with a professor from Reading University and finding a child's footprint in the mud. The professor said it was 4,000 years old. That just shows the history that is here.

This place is used mainly by the people of Newport. There are strong links between the Gwent Levels and the folks here. This is their lungs. This is their green space, where grandparents come with their grandchildren to walk around and enjoy the wildlife, the views and the peace and the solitude that you get here and you do not get in Newport. You are not going to get that with a second M4 going through the Gwent Levels.

All cities take great pride in their green spaces. New York would not be New York without Central Park. And Newport, has these amazing wetland habitats, wouldn't be the same without the Gwent Levels. The Gwent Levels are a fantastic place to visit but to hear and see motorway traffic going past, and less wildlife, would break my heart.

It has been shown around the world that building more roads only encourages more traffic. It's been said that building a motorway to ease congestion is like loosening your belt to fight obesity! We have already lost so much of the Gwent Levels already due to development. There is no doubt in my mind that this scheme does not make economic, financial or environmental sense. I despair. I really do despair. It genuinely doesn't make sense.

² National Assembly For Wales - Sustainability Committee Inquiry into biodiversity in Wales
January 2011 – which highlights the failure to achieve the target of having 95% of Welsh SSSIs in favourable condition by 2010.
Downloaded from http://www.assembly.wales/Laid%20Documents/CR-LD8384%20-%20Sustainability%20Committee%20Inquiry%20into%20biodiversity%20in%20Wales-31012011-208859/cr-ld8384-e-English.pdf

People are not stuck in traffic, they are the traffic. If we want to get people happier and healthier and reduce greenhouse gases, we should invest in smarter choices such as travel planning, carreduction policies, telecommunications, cycling schemes, local bus, rail quality and reliability enhancements etc.

Wales' USP is the Well-being of Future Generations – let's actually do this and not pay lip service to it.

APPENDIX 1 DAVID MORENO-MATEOS ET AL (2017) ANTHROPOGENIC ECOSYSTEM DISTURBANCE AND THE RECOVERY DEBT

http://www.nature.com/articles/ncomms14163

Ecosystem recovery from anthropogenic disturbances, either without human intervention or assisted by ecological restoration, is increasingly occurring worldwide. As ecosystems progress through recovery, it is important to estimate any resulting deficit in biodiversity and functions. Here we use data from 3,035 sampling plots worldwide, to quantify the interim reduction of biodiversity and functions occurring during the recovery process (that is, the 'recovery debt'). Compared with reference levels, recovering ecosystems run annual deficits of 46–51% for organism abundance, 27–33% for species diversity, 32–42% for carbon cycling and 31–41% for nitrogen cycling. Our results are consistent across biomes but not across degrading factors. Our results suggest that recovering and restored ecosystems have less abundance, diversity and cycling of carbon and nitrogen than 'undisturbed' ecosystems, and that even if complete recovery is reached, an interim recovery debt will accumulate. Under such circumstances, increasing the quantity of less-functional ecosystems through ecological restoration and offsetting are inadequate alternatives to ecosystem protection.