
WRITTEN STATEMENT

Michael Webb

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: I am Michael Webb. I am an officer of the Gwent Wildlife Trust, and a chartered town planner. I hold a BSc (Hons.) in Environmental Biology and Plant Biology from Queen Mary College, University of London, and a MSc in Environmental Planning from Liverpool John Moores University. I have 18 years' experience as a planner, in both the statutory and non-statutory sectors.

The Gwent Wildlife Trust considers that the proposed highway should not be viewed in isolation, but should be viewed in context as the latest (albeit very large and very damaging) in a long line of damaging developments, which have significantly adversely affected the key biodiversity resources of hundreds of hectares of the Gwent Levels in recent decades.

Background: In this written statement we will show that severe, permanent and irreversible adverse impacts on the Gwent Levels, which would manifest themselves as a result of the new M4, would significantly add to the damage already caused by decades of built development in and around the vicinity of the Gwent Levels. Further, we will show that these would be both "additive" (i.e. adverse impacts from the many built developments would add to the damage caused by the new M4) and "exacerbatory" (the sum total of damage would be more than the sum of damage arising from individual developments)

Such adverse impacts arising from the new M4 can be categorised as follows:

- a. **Additive Impacts:** These are direct or indirect impacts, which should be added to those already existing adverse impacts arising from other damaging development.
- b. **Further Adverse Impacts, Over and Above Additive Impacts:** These are direct and indirect impacts which are more than additive, termed **synergistic** i.e. the combined impacts of these and those from other built development are more than the sum of their impacts.

This written statement will concentrate on the latter impacts, as other written statements and proofs of evidence have addressed the former.

Fragmentation: Fragmentation is the phenomenon whereby development may have the physical effect of cutting off sections of fragile habitat from each other. This results in the impoverishment of the resultant fragments from the point of view of biodiversity, due to the proportionately larger "edge effects", whereby neighbouring damaging developments or other land-use damages the fragment to a larger degree than they would a larger block of such habitat.

This phenomenon is synergistic, in that the sum of individual fragmentations arising from individual developments are worse than their individual fragmenting effects. This is because each fragmentation renders the habitat or species increasingly vulnerable to damage from further fragmentations, by producing increasingly sub-optimal conditions, and thereby reducing their resilience to both further development, and to other types of man-made adverse impacts from for example agricultural intensification.

Pollution: Other witnesses have shown that there would be significant adverse impacts on water quality from the new M4. This also a synergistic impact, and should be considered in combination with past and likely future development (and other man-made adverse impacts). This is because, like fragmentation, each damaging built development causes sub-optimal conditions, as set out above.

Developments, Allocations and other "Actions" to be Considered Cumulatively Against the M4CaN: Whilst not an exhaustive list, the following should be considered cumulatively with the new M4 proposal, and with other man-made adverse impacts, both existing and reasonably likely future:

- The Llanwern Steelworks
- The Gwent Europark
- The LG Factory
- Cardiff's expansion eastward- including the St Mellons development, the Rover Way development and the Newton and Wentloog Corporate Park.
- Newport's expansion eastward, industrial, retail and residential, Queensway Meadows, Traston Road development.
- West of Newport Duffryn housing / school / retail units.

- Uskmouth powerstation
- Widespread incremental change of use in a planned and unplanned manner of agricultural ground and buildings, e.g. farm yards becoming haulage firms, agricultural barn change of use, golf courses, caravan parks, equine paddocks etc.
- Widespread, incremental expansion of existing settlements of e.g. Rogiet, Undy, Caldicot, Marshfield,
- Magor Brewery
- M4- Original and toll plaza etc. for new seven crossing
- The sites in and around the vicinity of the Gwent Levels in the Newport and Monmouthshire adopted Local Development Plans. Sites allocated for development are likely to be constructed, because the adoption of a development plan establishes the principle of development at a site.

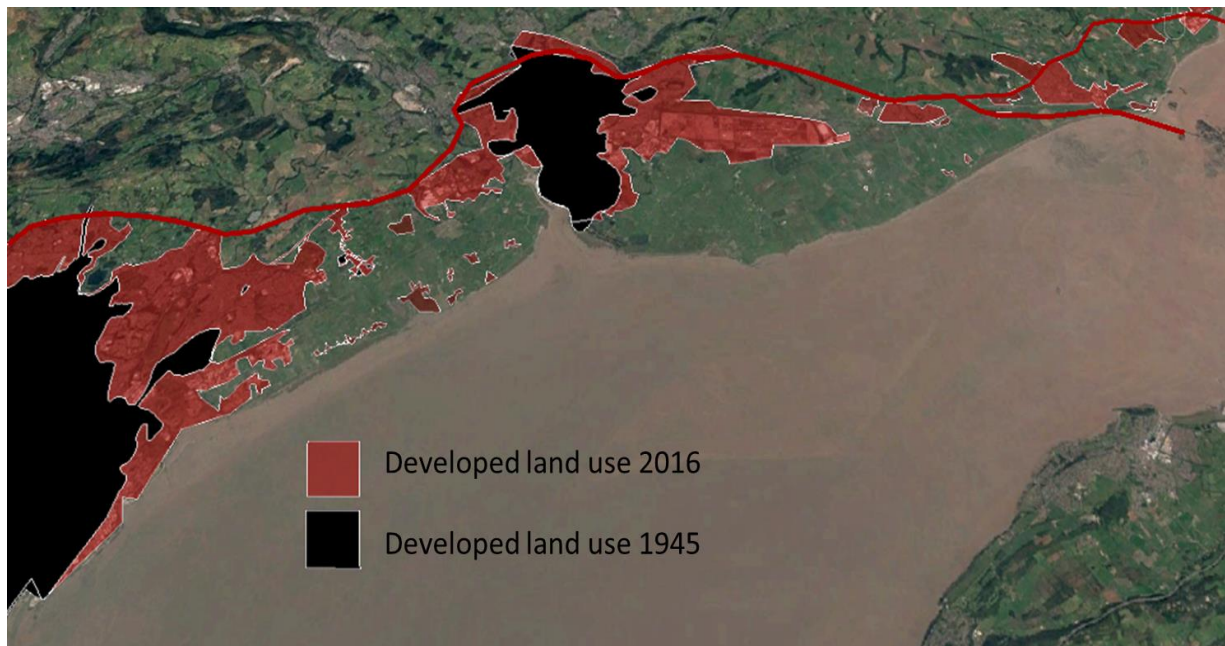
The Applicant's Treatment of Cumulative Issues:

1. We consider that the applicant has addressed the issue of cumulative adverse impacts in the deficient manner, for the following reasons:
2. The applicant has attempted to construct an argument to the effect that "mitigation" (in reality mainly compensation), either on the part of this scheme, or the project or allocation addressed, would reduce adverse impacts to a minor level, and therefore no cumulative impacts could, by definition, arise. In contrast, we have shown in our other written statements and proofs of evidence that the measures proposed by the applicant are deficient, and that there is a high likelihood that they would fail.
3. In any event, the applicant has merely addressed cumulative issues in terms of future potentially-damaging developments /allocations. This is contrary to European Union policy on cumulative impacts, which states that cumulative impacts can be considered as:

“impacts resulting from incremental changes caused by other past, present and reasonably foreseeable actions” (emphasis added)

Conclusion: We therefore conclude that the Gwent Levels' biodiversity is already receiving adverse impacts from a number of sources, including built development.

This is further cumulative impact – riding on the coattails of extensive post-War development across the Gwent Levels. The following map image (generated through Google Earth) illustrates the extent to which post-War developments on the Gwent Levels have fragmented the landscape.



The negative ecological impact of cumulative development is also attested to by the fact that condition monitoring of the SSSIs by the Countryside Council for Wales, the Welsh Government's statutory advisers on nature conservation matters, shows that the majority are in unfavourable condition, due to the impact of the built development.

The Welsh Government has failed to address cumulative impacts, because it has not addressed the full range, as set out in the European policy pursuant to the EIA Directive, and because even in those instances where it has addressed developments/allocations etc, it has relied on its own deficient “mitigation” in respect of the M4CAN to conclude that there would be no material cumulative impacts.

For the above reasons, we urge the Inspector to recommend refusal of the application.