



Dr Peter Sturgess

Rory McLaggan

10 February 2023

Dear Rory,

Proposed development at Island Farm, Bridgend

Further to my previous letter about the possible Island Farm development, I thought I'd better add a further comment about potential ecological impacts on the protected sites in the wider area.

The coastal habitats at Merthyr Mawr include some extraordinarily diverse sand dunes and saltmarsh, as well as coastal woodland and important geological features. They include the Merthyr Mawr Warren National Nature Reserve (NNR), Merthyr Mawr Site of Special Scientific Interest (SSSI), and they make up a substantial part of the Kenfig Special Area of Conservation (SAC). These sites are designated because they are amongst the very best examples of these habitats within the UK and Europe, and they support a disproportionately rich assemblage of rare species when compared with other areas of countryside (** see below for some examples). As such, I think they need to carry a much higher weighting in the LDP assessment.

In my letter I mainly focussed on the area immediately around the proposed Island Farm site, but please make sure that the inspector is aware that the impacts are likely to extend to the protected areas at the coast. The dunes are less than 3km from Island Farm, so well within range of any dog-walkers wanting a 5-6km walk, and even more if they drive for their walk as many are likely to.

I studied sand dune ecology for my PhD and am very conscious that although these coastal habitats are dynamic ecosystems that can cope with some disturbance they can suffer harm when public pressure is too high. Sand dunes and salt-marshes are very susceptible to direct damage such as erosion, but also the indirect effects of nutrient enrichment by dog excreta. One only has to look at the vegetation around the Candleston car-park in the NNR to realise that the dominant plants are 'nitrophilous' species such as Nettles and Dog's Mercury. These common species are thriving because of the excessive nutrient loading, at the expense of the sand dune rarities that require low-nutrient soils. Also, the famous species-rich 'grey dunes' are so named due to the colour of their moss and lichen communities, but some of the key species (especially *Cladonia* lichens) are very easily damaged by trampling. Once the structure or species composition of the vegetation has been changed by these pressures, it is very unlikely to support the same associated wildlife, such as the rare invertebrate communities.

The levels of public pressure on Merthyr Mawr are already very high, being bordered by Porthcawl to the west and Ogmere to the East, and there are many obvious signs of trampling damage, erosion and nutrient enrichment through much of the dunes and saltmarsh, as well as signs of fires, littering and spreading Himalayan Balsam. With the current situation already at such a level, any additional recreational pressure on these habitats will clearly be detrimental. Therefore adding over 900 houses within walking

distance to the north must surely be contrary to the government's planning guidance as I've set out previously. I would suggest that the council really ought to be carrying out a Habitat Regulations Assessment with regard to the SAC, to clarify how serious the additional pressure would be.

Yours sincerely,



Dr Peter Sturgess CEnv MCIEEM

** Some of the most relevant species and habitats in and around the protected sites should be taken account of due to their inclusion in the Welsh Government's Environment (Wales) Act 2016 Section 7 lists of habitats and living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. The main coastal habitats are clearly relevant because 'coastal sand dunes' and 'coastal saltmarsh' are both included as Section 7 habitats.

There are many Section 7 species within the site. It is the only place where I've ever seen the Scaly Stalkball fungus, and there are only a few sites in Britain where this is found. Section 7 plants known from the dunes and marsh include Petalwort *Petalophyllum ralfsii*, which is one of the SAC features. Other Section 7 plants that have been recorded include Prickly Saltwort, Yellow Bird's-nest (including the subspecies *hypophegea*), Fragrant Orchid and Field Gentian, and possibly others.

I'm afraid I don't know a huge amount about the invertebrates but the NNR is well known as a good site for bees and butterflies, with records of Shril Carder Bee, Brown Banded Carder Bee, Grizzled Skipper, Dingy Skipper, Grayling, Small Blue, Small Heath, Garden Tiger Moth and Ghost Moth, and there may well be others I'm not aware of (especially moths, flies and beetles). Violet Oil Beetle and Black Oil Beetle are Section 7 beetles known to occur near Merthyr Mawr village, rather than in the nature reserve, so would be even closer to the proposed development at Island Farm.

Several Section 7 reptiles are present, including Adder, Grass Snake, Slow Worm and Common Lizard, and some of these can be very sensitive to disturbance. Section 7 amphibians known from the area include Common Toad and Great Crested Newt (as you know, the Great Crested Newts have been recorded at Ton Farm, Candleston and in the pond at Chapel Barns in the village, so they are actually closer to the proposed development).

There are undoubtedly many Section 7 birds that use the dunes and marsh, and you probably have a better idea than me about what turns up most regularly. Skylark, Linnet, Cuckoo, Reed Bunting, Kestrel, Dunnock and Song Thrush are all likely to occur regularly. I understand that there are a few pairs of breeding Lapwings, although numbers vary from year to year. These could be especially at risk from increased disturbance.