

Housing and Employment Land Allocation DPD
Site 36-4 Land north of Burringham Road, Scunthorpe

Note on biodiversity matters

15th January 2015

Areas for discussion

The applicant's agent has submitted a report (Portas 2015) which makes various assertions about the likely impacts on biodiversity of development of the above site. These may be paraphrased as follows:

- The land is of low value for arable cropping, partly due to well-drained, acid, sandy soils and grazing by rabbits.
- Animal and plant diversity is low due to the arable cropping with associated pesticides, herbicides and fertilizers.
- A change to residential land use would lead to an increased in biodiversity, mainly through wildlife gardening.
- Government policy is to increase biodiversity.

The areas of dispute fall into two categories:

- Evidence for the current biodiversity of the land.
- The likelihood of an increase or decrease in biodiversity upon development for housing, compared to alternative uses of the site.

Existing Biodiversity Value

The southern part of this site is a mosaic of open habitats, with spoil heaps, scrub, ruderal (weedy) vegetation, semi-improved grassland and grassland with characteristics of lowland dry acid grassland- a priority habitat (pers. obs.).

The northern part is recorded as broadleaved woodland with mature oaks, silver birch, grey willow, hawthorn and elder in the phase 1 habitat survey carried out in support of the Lucent Planning applications. The intervening land appears to be arable farmland with tall hedgerows. More broadleaved woodland and open water lies immediately to the east of this site.

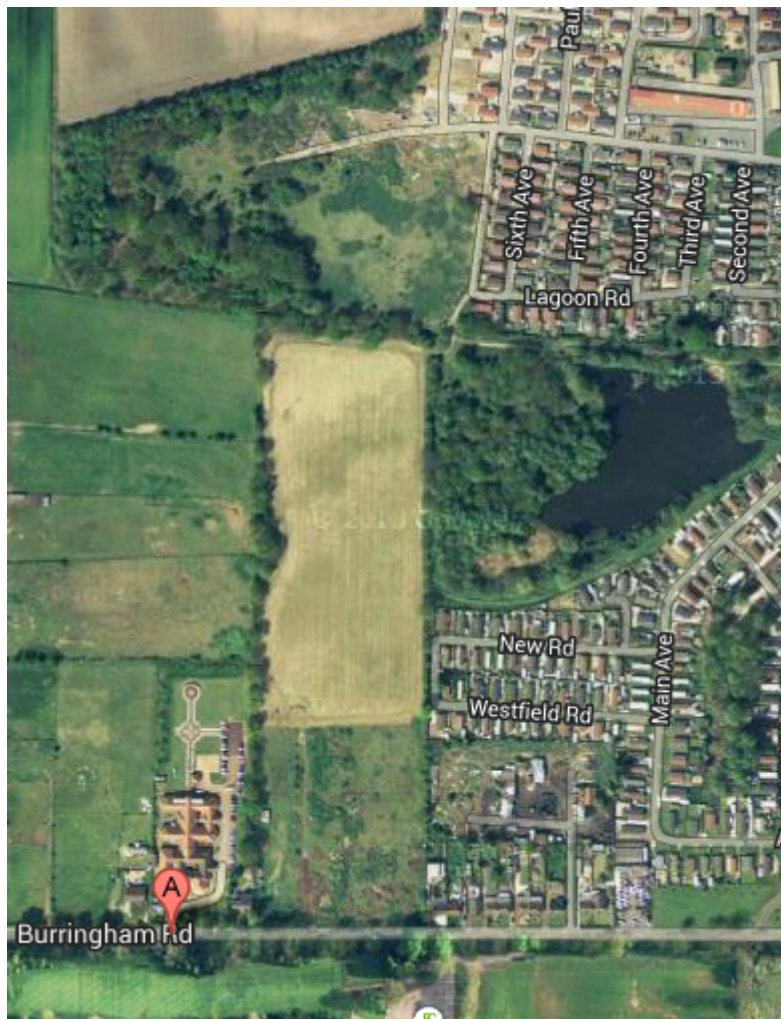
Such habitats could potentially support the following protected or priority species or groups of species:

- Bats
- Declining breeding birds of farmland and woodland.
- Badgers
- Hedgehog
- Great crested newts and other amphibians
- Reptiles
- Butterflies such as wall and small heath.

I agree with Mr Portas that the arable land is of currently low biodiversity value, due to cropping and the use of agrochemicals. However, the other habitats are clearly of value, with lowland dry acid grassland being recognized as a priority habitat, listed by the Secretary of State in accordance with Section 41 of the Natural Environment and Rural Communities Act 2006. Priority species, if present, are listed under the same legislation.

The lowland dry acid grassland is present and maintained largely because of the well-drained, acid, sandy soils and grazing by rabbits identified by Mr Portas.

Fig 1. Aerial photo of habitat north of Burringham Road, Scunthorpe © Google.



The Effects of Housing Development and Alternative Land Uses.

It is a point of agreement that residential areas with gardens have the potential to support relatively high levels of biodiversity. The Biodiversity in Urban Gardens in Sheffield (BUGS) project, led by the University of Sheffield, showed that gardens may support a relatively high diversity of groups such as plants and invertebrates- particularly when non-native species are included in the calculations (Gaston et al. 2004, 2007). The value is particularly high in large and mature gardens, interconnected gardens and gardens bordering onto other good habitat (ibid.).

However, there is a body of evidence to show that building at the high densities required by contemporary planning guidance results in a landscape of generally low biodiversity (Henderson et al. 2007, Fuller et al. 2010), with declines even in birds otherwise best able to exploit urban environments (Tratalos et al. 2007). A glance at an aerial photograph of recent housing off Timberlands, Scunthorpe, reveals the area dominated by roads, footways and housing, with very small turfed lawns, few trees or shrubs and the occasional trampoline. This is very poor quality habitat compared to the diversity evident in Fig. 1. The theoretical benefits of garden biodiversity in urban areas depend very much on co-ordinated programmes of wildlife gardening involving multiple neighbours to create habitat networks (Goddard et al. 2009). No such schemes exist in Scunthorpe.

Fig 2. Aerial photo of habitat near Timberlands, Scunthorpe © Google.



In the absence of housing development north of Burringham Road, the habitat creation studies underpinning the Lincolnshire Lakes AAP propose this area for acid grassland and open countryside, in keeping with the evidence base (URS 2013).

Government Policy

It is a point of agreement that Government Policy is to enhance biodiversity. Relevant documentation includes the following:

- Natural Environment and Rural Communities Act 2006
- National Planning Policy Framework- Section 11
- Planning Circular 06/2005

Conclusions

- At present, the land north of Burringham Road has value for broadleaved woodland and lowland dry acid grassland, with potential for protected and priority species.
- Development of the site would lead to a loss of the existing biodiversity value, which is dependent upon the existing habitats.
- High density housing creates low quality habitat compared to the site at present.
- Management of the site as broadleaved woodland and lowland dry acid grassland would support the Lincolnshire Lakes Area Action Plan.

References

- Fuller, R.A., Tratalos, J., Warren, P.H., Davies, R.G., Pełkowska, A. & Gaston, K.J. 2010 Environment and Biodiversity. *Dimensions of the Sustainable City*
- Gaston, K. J., Smith, R. M., Thompson, K. & Warren, P.H. 2004 Gardens and wildlife- the BUGS project. *British Wildlife* 16: 1-9.
- Gaston, K. J., Cush, P., Ferguson, S., Frost, P., Gaston, S., Knight, D., Loram, A., Smith, R. M., Thompson, K. & Warren, P.H. 2007 Improving the contribution of urban gardens for wildlife: some guiding propositions. *British Wildlife* 18: 171-177.
- Goddard, M.A., Dougill, A.J. & Benton, T.G. 2009 Scaling up from gardens: biodiversity conservation in urban environments. *Trends in Ecology & Evolution*.
- Henderson, I., Chamberlain, D., Davis, S. & Noble, D. 2007 Changes in breeding bird populations due to housing development based on bird densities and assemblages along urban-rural gradients. *BTO Research Report No. 464*
- Nicholas Pearson Associates 2012 Lincolnshire Lakes – Lucent Land, Scunthorpe: Extended Phase 1 Habitat Survey and Desk Study Report. *Unpublished report*.
- Portas, S. 2015 Report on the Biodiversity of “ASDA” field, Burringham Road. *Unpublished report*.
- Tratalos, J., Fuller, R.A., Evans, K.L., Davies, R.G., Newson, S.E., Greenwood, J.J.D. & Gaston, K.J. 2007 Bird densities are associated with household densities. *Global Change Biology* 13: 1685–1695
- URS 2013 Lincolnshire Lakes AAP - Key Habitat Creation And Enhancement Zones