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Appendix 5
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Respondents 821 and 822
Cam Valley Wildlife Group and Somer Valley Friends of the Earth

Contents:

Introductory paragraphs about important and rare species on Radstock Railway Land

Listed B&NES, Avon and UK Priority Species divided into invertebrates of national conservation concern or importance on Radstock Railway Land and other B&NES Priority species.

Highlight on two of the important insect species

Important and rare species on Radstock Railway Land.

A number of groups of insects were surveyed between 1998 and 2007 and not all the reports are available. The surveys revealed an incredible degree of biodiversity on this 7.6 hectare site and a high percentage of scarce, rare and threatened species. The 2005 survey recorded 9.7% combined scarce and Red Data Book (RDB) insects and 2.3% RDB insects. The surveys conducted have done, in the 2005 surveyor, David Gibbs' words "no more than sample the invertebrate fauna of the land" and have generally concentrated on true flies, bees and wasps, with some attention given to other, but not all, invertebrate groups.

Although some of the invertebrate species are thought to be less scarce than they were, many aculeate hymenoptera (ants, bees and wasps) which seemed to be increasing in 2000 - 2005 subsequently became scarce again after that; these may have fluctuating populations, may now be in decline, or could be increasing.

As data accrues it is becoming ever more apparent that so called brownfield sites are important refuges for biodiversity, including many rare species. As pressure on land from housing needs, agriculture etc increases, so such sites and their associated fauna become ever more valuable. In the absence of good evidence that the assemblage of invertebrates found at Radstock has a secure, long-term future elsewhere in the region, a precautionary approach would seem appropriate. It would, similarly, seem inappropriate to consider the importance of the land to be lessened due to what could be a temporary increase in occurrence of some of the species currently thought to be more common.

A total of about 140 (140 - 145/148) **B&NES Priority species** have been recorded, including at least 25 UK BAP Priority species and at least a further 69 species that are nationally scarce, rare or threatened were recorded, including 14 RDB species of invertebrate and 50 further scarce species, plus 7 UK BAP invertebrates as well. At least 33 Red List species were discovered. These are listed below.

B&NES Priority Species

1. Invertebrates of national conservation concern or importance on Radstock Railway Land.

David Gibbs, a report to Wardell Armstrong, 2005 (50):

12 Red Data Book insects - mining, solitary and cuckoo bees, *Andrena nitidiuscula*, *Ceratina cyanea* (the Blue Carpenter Bee), *Nomada conjugens*, *Nomada hirtipes*, *Stelis ornatula*; true flies, *Oxyna nebulosa*, *Homoneura interstincta*, *Cnemacantha muscaria*, *Agromyza viciae* (2nd British record), *Ophiomyia nasuta* (New for Britain), *Phytomyza ranunculicola* (New for Britain), *Botanophila lobata*, *Citogaster globosa*,
A further 38 scarce species of grasshopper, earwig, moth, beetle, wasp and true fly

Wessex Ecological Consultancy, 1999 (10)

8 further scarce and 2 further RDB species of insect not found in 2005, but thought to still survive on the site - *Platyderus ruficollis*, *Phytoecia cylindrica*, *Andrena bucephala* (inferred by continued existence of host-specific cleptoparasitoid), *Andrena proxima* (RDB, inferred by continued existence of host-specific cleptoparasitoid), *Sphex reticulatus*, *Nomada lathburiana* (RDB, host still present), *Neopachygaster meromelas*, *Brachypalpus laphriformis*, and *Noeeta pupillata*.

Conservation Consultancy 1998 (2)

Nysson dimidiatus, Nb (Scarce, Archer 2004/2005) and *Nysson trimaculatus* Nb (Widespread, Archer 2004/2005)

Wardell Armstrong 2001/2 (Christopher Betts Environmental Biology (1 or 2)

Light-feathered Rustic; rare spider (if correctly identified)

This 2001/2002 report is not publicly available and copies of the species lists were not retained; there may be records of rarities or of UK BAP species (especially moths), within those lists.

Other species of insect, 1999-2005 (8)

Bombylius discolor, the Dotted Bee-fly, nationally scarce (D. Porter 2006)

7 UK BAP Priority Species in decline - Grizzled Skipper, Dingy Skipper, Small Heath, The Cinnabar, Latticed Heath, The Dot Moth, Red-shanked Carder bee, *Bombus ruderarius* (some in 1999 assessment, others also recorded in 2005)

Note: further UK BAP Priority species of moth, such as White Ermine and Buff Ermine (recorded in an adjacent valley and still known to be present), are likely to be using the site as well.

Phil Quinn for Wardell Armstrong, 2005 (1?)

White-clawed Crayfish, UK BAP - this may no longer be present

2. Other B&NES Priority species on Radstock Railway Land

Insects: 11 Regional rarities and 2 Avon BAP species

33/35 birds (1999 - 2005) including 9 UK BAP or Red List species:

Cuckoo (UK BAP), Yellowhammer (UK BAP, Red List), Linnet (UK BAP, Red List), Songthrush (UK BAP, Red List), Bullfinch (UK BAP, Red List), Starling (UK BAP, Red List), Marsh tit (UK BAP, Red List), House sparrow (UK BAP, Red List), Barn Owl (RDB, local sightings, Amber List).

14 mammals (developer surveys 1999 - 2011):

Greater horseshoe bat (UK BAP, RDB)*; Lesser horseshoe bat (UK BAP, RDB)*; Soprano Pipistrelle bat (UK BAP, RDB); Brown long-eared bat (UK BAP); Noctule bat (UK BAP, RDB); Myotis bat - Whiskered and/or Brandt's (Avon BAP, both RDB); Daubenton's bat (Avon BAP); Pipistrelle bat (Avon BAP, RDB); Serotine bat (Avon BAP, RDB); Leisler's bat (RDB, Bristol area a national stronghold); Natterers bat (RDB); Nathusius Pipistrelle bat (Very Rare; formerly vagrant, now resident); Water shrew (Avon BAP); Otter (UK BAP)

2 reptiles (Wardell Armstrong 2005): Common lizard (UK BAP); Slow worm (UK BAP)

11 plants (taken from 2005 EIA, 1999 EA and Somerset Rare Plants Group/Cam Valley Wildlife Group plant list for the site) including 5 protected, UK BAP or Red Data species:

Minuartia hybrida, Fine-leaved Sandwort (UK BAP; Red Data Book: Endangered, Nationally Scarce; only record for Avon); *Hypericum montanum*, Pale St Johns Wort (Red Data Book: Near Threatened; only record for B&NES); *Filago vulgaris* (Red Data Book: Near Threatened; only record for B&NES); *Vicia bithynica*, Bithynian Vetch (Avon BAP, Red Data Book: Vulnerable; Nationally Scarce); *Hyacinthoides non-scripta*, Bluebell (Schedule 8)

3. Highlight on two of the important species

Good populations of *Ceratina cyanea*, the Blue Carpenter Bee, are found on the Radstock Railway Land site. This is highly significant. There are no records of large populations elsewhere in the South West region. The bee is only known from two other sites in B&NES and one site in Gloucestershire, but these are very small to small populations. One is threatened by development and the future of the others is uncertain. The Radstock site is almost certainly playing a role in supporting small transient populations of this Red Data Book species elsewhere in the District. This particular species is, therefore, particularly important to Bath and North East Somerset. The site that supports it is of very high importance to the Region and, thereby, to the nation.

The likely loss of *Phytomyza ranunculicola*, recorded only on this site in the UK, is a potentially national loss, as so little is known about this species. It is a leaf miner of buttercup. Leaf miners have been collected for years and Colin Plant (who was responsible for the Invertebrate Data sheets for the EIA for the recent planning application), is a leaf miner expert. Although he claimed in 2006 that the leaf miner of this very common plant could be found elsewhere, it has still not been found either in the local area or elsewhere, some 5 years later. The invertebrate also appears to be rather scarce in Europe and is probably dependent on a particular ecotype, habitat or microclimate found at the Radstock Railway Land that could be rare elsewhere due to the varying nature of post-industrial land. The loss of any part of the site in which this invertebrate occurs could threaten the survival of the species on the site. Loss of this invertebrate would be significant in a national context. The increasing loss of post-industrial sites and the rarity of the particular conditions found at Radstock Railway Land combined with the lack of knowledge of the exact requirements of this species puts it at risk of national extinction.

The original notes on these species were checked for accuracy by David Gibbs, professional entomologist and ecologist, Bristol, November 2007, and have been updated in the light of further information.