

FPCR Environment and Design Ltd

Land off Barnsley Road Goldthorpe – Ecological Note

- 1.1 This note provides responses to comments provided by Yorkshire Wildlife Trust (YWT), Barnsley Metropolitan Borough Council (BMBC) and RSPB, related to the proposed development of Land off Barnsley Road, Goldthorpe ('the Site') (National Grid Reference SE 4414 0356).
- 1.2 The Site is allocated within the BMBC Barnsley Local Plan as employment land allocation. Site ES10. The Site has been subject to masterplanning and previous Ecological Impact Assessment (EclA) to establish that this area was suitable for development. Ecological surveys undertaken prior to the allocation of the ES10 Site informed the general layout of the masterplan design.
- 1.3 The ES10 masterplan document produced by BMBC states:
- "During the development of the Barnsley Local Plan, the council worked closely with partners including the RSPB, Natural England and the Environment Agency to understand the ecological sensitivities of the site. By doing so, the council was able to satisfy itself and partners that the site is suitable for development."*
- 1.4 The ecological requirements for the ES10 masterplan allocation included in the Barnsley Local Plan state:
- Protect and enhance biodiversity value (this will be achieved evidenced by the proposed significant increase in biodiversity calculated using the BNG Metric);
 - Mitigate for potential impact to Golden Plover (since found not to be using the Site);
 - Provide a contribution to Dearne Valley Green Heart NIA (the NIA is no longer funded);
 - Include an 8m habitat corridor following Carr Dike with a sustainable drainage scheme on-site (the scheme provides substantially more than 8m);
 - Retain hedgerows and woodland on the Site periphery (this is included in the scheme, additional significant gains in hedgerow and woodland creation within the scheme);
 - Retain a section of hedgerow in the north-west of the Site (not identified in the masterplan constraints, but the scheme includes hedgerow retention and hedgerow creation).
- 1.5 Natural England have also provided a response to the proposed application, providing no objection subject to appropriate mitigation measures. Specifically Natural England require the following:
- Production of a Construction Environmental Management Plan (CEMP)
 - Measures to be put in place to prevent potential pollution water quality impacts (as in ES chapter 10)
 - Scrub creation and management and deadwood habitats to be provided for willow tit.
- 1.6 It is noted that Natural England provided no comment on air quality, marsh harrier, farmland birds.
- 1.7 The responses provided below are to be taken as high-level notes for further discussion. Additional detail will be provided after liaison with stakeholders.

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DESIGNATED SITES

Stakeholder	Comment	Response
BMBC	BMBC note that they have consulted with Natural England	See above, NE response – No objection subject to appropriate mitigation.

HABITATS

Stakeholder	Comment	Response
BMBC	Hedgerow H1 – clarification Middleton Bell – classified as “important” under hedgerow regulations. FPCR did not classify in 2022	FPCR conducted an updated hedgerow survey of hedgerow H1 in February 2024. The survey in 2022 was carried out by a FISC Level 4 botanist, the survey conducted in Feb. 2024 was conducted by a different FISC Level 4 botanist. The entire hedgerow was surveyed during the Feb. 2024 survey. The hedgerow was not classified as important due to a lack of woody species in an average 30m section and lack of additional qualifying criteria.
BMBC YWT	Ancient woodland indicator species	Surveys undertaken in 2022 were conducted by a FISC Level 4 botanist and did not identify ancient woodland indicator species. None of the Site is shown on the ancient woodland inventory. OS map 1892 (surveyed 1890) shows Carr Dike to have some tree lined sections. Does not constitute woodland. Carr Dike has been managed and had influence from arable agricultural since at least 1890 (chemicals and physical). Woodland at the Site is not shown on OS map 1961. Woodland not established in historical aerial imagery (Google earth) 2003, becoming established around 2008. This woodland is planted on areas previously subject to intensive arable cultivation which would have removed any ancient woodland soils (the main feature of ecological importance in ancient woodlands and that which implies the habitat is irreplaceable). Although some ancient woodland indicator species were identified in considered unlikely that the banks of Carr Dike are ancient woodland.

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BMBC	Himalayan balsam	<p>Not recorded during the habitat survey or River Corridor Assessment in 2022. Not recorded in walkover undertaken in Feb. 2024, although admittedly out of season.</p> <p>Should the species be present, this would impact upon the condition assessment of Carr Dike and removal would be a beneficial enhancement to the watercourse and habitats in general. Should the species be present it will be mitigated for within a CEMP.</p>
BMBC	Individual trees/urban trees on-site	<p>Trees associated with woodland blocks were not assessed to be individual trees.</p> <p>Within the baseline habitats mapped for BNG some mature hedgerow trees were classified as individual trees and are shown on Figure 1 of the BNG report.</p> <p>The BNG assessment identified 34 trees baseline – 24 to be retained. The BNG report states all trees will be retained – this will be amended.</p>

CULVERTS

Stakeholder	Comment	Response
BMBC	Highlights the potential for culverts to increase flood risk and severance of habitats	<p>Culverts have been designed to minimise impacts as far as possible whilst still accommodating the required development and taking into account the masterplan and allocation requirements.</p> <p>It is unfeasible to amend the location/length of these given the engineering implications.</p> <p>Engineering has accounted for flood risk and flows.</p> <p>Features highlighted by BMBC will be looked to be accommodated with as many features as possible.</p> <p>Ledges and mammal underpasses will be provided and shown in updated designs.</p> <p>Culverts will be of sufficient size to allow for a natural bed to be provided/develop within the culvert.</p> <p>If required baffles/other features to slow flows and provide shelter and natural bed development will be incorporated.</p>

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MAMMALS

Stakeholder	Comment	Response
BMBC	Harvest mouse	<p>No species specific UK legal protection.</p> <p>Arable habitat to the west will remain. Flood compensation areas will provide habitat with some suitability.</p> <p>Will be highlighted in CEMP with appropriate mitigation.</p>
BMBC	<p>Otter and Water Vole Details of survey not provided</p> <p>Carr Dike stated to be a valuable commuting route for otter</p>	<p>Extended phase 1 habitat survey in 2022 included a check for field signs for otter and water vole on Carr Dike and the tributary watercourse. No field signs were noted.</p> <p>Feb. 2024 a walkover survey of the Site was conducted which included walking the entire length of Carr Dike on-Site from the A635 in the north to the boundary and walking the length of Ditch D1 from the eastern Site boundary to the confluence with Carr Dike.</p> <p>No field signs of otter or water vole were noted.</p> <p>Dispute that Carr Dike is an important commuting route due to lack of suitable/optimal connected habitats to the north.</p> <p>There is more suitable habitat for otter and water vole in the Dearne Valley SSSI and River Dearne to the south. Carr Dike on-site provides less suitable habitat and connectivity to the north is in part severed by the A635 with only further arable habitat beyond</p>
BMBC	Badgers – Requires consideration in a CEMP	<p>Will be provided for in CEMP. Mammal underpasses to be provided near to culverts.</p>
BMBC	<p>Bats Trees with Potential Roost Features to be included in CEMP</p> <p>Secure habitat creation and enhancement in a BEMP</p> <p>Request data from SYBG</p>	<p>Will be provided for in CEMP</p> <p>A LEMP/BEMP or similar document will be produced to support BNG proposals as well as species specific mitigation and will secure habitat creation for bats.</p> <p>A data request has been made to SYBG response is awaited</p>

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HERPETOFAUNA

Stakeholder	Comment	Response
BMBC	BMBC satisfied with low suitability of Site for GCN	Acknowledged, no comments
BMBC	Highlight that other amphibians may be present (e.g. common toad)	CEMP when created will take account of potential for common/widespread amphibian species
BMBC	BMBC satisfied with low suitability of Site for reptiles	Acknowledged, no comments

AQUATIC SPECIES

Stakeholder	Comment	Response
BMBC	BMBC satisfied that white clawed crayfish have been scoped out due to previous survey	Acknowledged, no comments
	Other aquatic species should be further considered, particularly in relation to culverts.	<p>Minnow and stone loach – both common species were identified in records for either Carr Dike or within 1km of the Site.</p> <p>Other species known from records are in wider area (River Dearne, ponds within RSPB reserves) include bony fish and European eel.</p> <p>Culverts will be designed to allow fish to pass, with sufficient depth for a natural bed to develop.</p> <p>It is noted that Carr Dike is culverted at the A635 at the northern Site boundary for c. 30m.</p> <p>Reduction of agricultural inputs in the long term may increase water quality of Carr Dike in the vicinity of the Site.</p>

BIODIVERSITY NET GAIN

Stakeholder	Comment	Response
YWT	Commented that full excel file (BNG metric) not available for review.	Excel file was provided in the submission. This can be shared with YWT.
BMBC YWT	<p>YWT noted that the BNG report stated habitats had strategic importance due to being within NIA</p> <p>BMBC noted that the habitats were not assigned strategic importance.</p>	<p>The BNG report states all habitats are within the NIA and have strategic significance. However in the most recent revision to the metric the strategic significance was not applied in the metric spreadsheet.</p> <p>The metric spreadsheet will be amended. As all habitats both pre and post development will be located in the NIA and be assigned strategic significance no major changes to the overall BNG calculation are expected.</p>
BMBC	Noted that detailed condition assessments have not been provided.	The condition assessments will be provided as an appendix to the BNG report.
BMBC	Culvert designs	See culverts above

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BMBC	Culvert design and BNG culvert lengths do not match.	The BNG assessment was made using the Site masterplan document. FPCR are reviewing the calculation of the rivers/watercourses section of the BNG metric using the maximum design lengths provided for the culverts.
BMBC	BNG report states urban trees to be retained but not shown in metric	BNG report is incorrect and will be amended. See habitats section above.
BMBC	Delay in habitat creation – phased development	Application is hybrid. The built development plots will be phased but habitat creation will be front loaded. No delay to habitat creation is expected.
BMBC	Phases to produce updated metric Phases to produce HMMPs	Discuss if required given that all habitat creation will be done prior to phases. Discuss if required given that all habitat creation will be done prior to phases. A sitewide LEMP/BEMP will be produced which will cover the 30-year management of habitats across the Site

WINTERING BIRDS

Stakeholder	Comment	Response
BMBC	May meet LWS criteria. May underestimate impacts	Although the site might meet LWS criteria, due to the management of the Site as arable/agricultural land it would be impractical to designate the Site as such. Therefore, it is noted that the Site supports bird species that would provide equivalent to LWS designation. Further discussion required. For hedgerow/scrub/tree species there will be an increase in habitat due to proposals. Therefore for those species no adverse impact likely. For farmland bird species there will be a reduction in habitat availability this is acknowledged Middleton bell survey 2020 stated “site is not considered important for wintering farmland birds”. Similar habitat will remain in wider landscape. The areas of grassland/flood compensation on-Site will provide some compensation. Effort has been made through Barnsley Naturalists Group – response was that the

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	Contact with Barnsley Bird Study Group	group may not be operating at the moment. Additional effort is continuing.
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BREEDING BIRDS/FARMLAND BIRDS

Stakeholder	Comment	Response
BMBC	Highlight that BTO survey methods was used (3 visits) and not Bird Survey Guidelines methodology was not used (6 surveys).	At the time of survey the BTO methodology was an accepted methodology for assessment of breeding birds. Whilst six visits would have provided additional data the three visits undertaken were considered to be within the correct time period for survey and provided sufficient information to characterise the bird assemblage and identify birds using the Site for breeding purposes.
YWT	Ground Nesting Birds – concerns have not been given appropriate consideration. Skylark and corn bunting.	Note that only a single corn bunting present in 2022 survey. See further discussion below
BMBC	Considers impact on farmland birds to be underestimated.	The masterplan allocation did not identify breeding/farmland birds as a significant constraint to the development. Middleton Bell report indicated farmland birds were mainly of local importance. Grey partridge and yellow wagtail were noted to be of District and Local/District level importance but not identified in 2022 surveys. FPCR report in 2022 also states the Site is of local importance. The entire site footprint = c. 85ha. West of the Site arable land-use to A6915 = c.90ha. North of A635 surrounding Billingley to Thurnscoe Lane = c. 280ha Arable land extends further to the north beyond Great Houghton and Thurnscoe and west following the Dearne Valley north of Darfield. Arable land continues to extend north and north-west for around 13km, almost to Wakefield. Taking into account only the 370ha immediately north and west - Site represents c. 23% of the local arable land. There is still significant available resource of arable habitats in the local and wider landscape.
BMBC	Carr Dike and breeding birds – importance should considering the function of the site for marsh harrier.	Marsh harriers were considered separately in the marsh harrier technical note and will be considered separately

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BMBC	Consideration is required for alternative mitigation	<p>Acknowledge that there is limited on-site compensation for farmland/ground nesting birds and there will be some impact.</p> <p>Green roofs will be provided on smaller structures such as cycle shelters, however would be unviable for the larger site buildings (increased building requirements would also impact sustainability)</p> <p>Mitigation as a whole throughout the Site will be as holistic as possible and will have benefits to some species of birds (those using scrub, woodland, and waterbodies, including willow tit which is one of the designated features of the nearby SSSI).</p>
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WILLOW TIT

Stakeholder	Comment	Response
YWT	Willow tit. Concerns on impacts as Carr Dike remains one of few corridors in landscape. Damp Scrub.	<p>Carr Dike corridor is sub-optimal for willow tit. No damp scrub.</p> <p>Woodland stands have limited if any scrub layer and not mature enough for extensive deadwood to be present.</p> <p>The proposals provide more suitable habitats than currently available for willow tit.</p>
BMBC	<p>Willow tit survey – was playback method used in April 2022?</p> <p>Additional survey should be carried out.</p>	<p>Willow tits were not included within the scope in April 2022 as the habitat was considered sub-optimal.</p> <p>An additional survey was carried out in 2024. Surveyors reported woodland areas sub-optimal with no extent of shrub layer. Playback method was carried out. No willow tits were observed or heard calling. 2 surveys now undertaken 2023 and 2022 with no observances</p> <p>Mitigation along Carr Dike to provide willow tit specific enhancements</p>

MARSH HARRIER

Stakeholder	Comment	Response
BMBC RSPB	RSPB records not accounted for	Request for more info was presented at the meeting and no response from RSPB.
BMBC RSPB	Flight lines towards Site	Circumstantial – Bolton Ings and The Mullins both also in the same direction as well as

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		other arable areas. Habitats are suitable for marsh harrier hunting and may even have more suitable habitat.
RSPB	FPCR 2022 survey did not include some of the area to west of Carr Dike	Surveyors had clear views across the entire area including areas west of Carr Dike. Surveyors would have been aware of birds in the wider vicinity of the Site and if significant provided this information in the survey results. No marsh harrier was observed at the time of survey.
BMBC RSPB	Not breeding on-site but function of Site not fully considered. Site considered to be important to foraging of breeding marsh harriers	Middleton Bell report has a heat map showing where marsh harriers were most frequently observed. In the south-west of the Site but also extending off-site to the west along the Carr Dike corridor. Marsh harriers are not using the Site exclusively. There is an abundance of suitable hunting habitat within the SSSI and wider landscape. Circumstantial – Bolton Ings and The Mullins both also in the same direction as well as other arable areas.
BMBC RSPB	Marsh Harrier mitigation BMBC noted reductions in farmland birds may have an impact. BMBC acknowledge some of the proposed mitigation has benefits. BMBC and RSPB requesting additional mitigation.	Noted that marsh harrier is not a species for which the SSSI is designated (though willow tit is a designation feature). Marsh harrier as a Sch. 1 species is provided with additional protection during breeding for nests, eggs, and dependant young. It is evident marsh harrier are not nesting at the Site. It is not evident that the Site is essential to the breeding success of marsh harrier, given that the previous 2020 survey also recorded use of similar habitats west of the Site and other habitats and opportunities remain in the wider landscape. Although the Middleton Bell report stated the loss of habitat at the Site could be significant the mitigation proposed to compensate for the loss included either a strip along Carr Dike or a limited corridor (north-south) situated west of the Site. This was discussed with BMBC at the time and considered sufficient within the masterplan allocation of ES10. The current proposals go further than the previously proposed mitigation providing a wider strip on the western part of the Site. Carr Dike corridor will be retained and the area in the south-west most used by marsh harrier will remain as grassland. Developed buildings will be screened from the grassland areas in the west of the Site

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		<p>by a large mound/bund which will be planted with trees/shrubs to minimise disturbance to these areas.</p> <p>The mitigation provided is considered to be appropriate.</p> <p>Further surveys are not considered to be required.</p>
BMBC	Request justification for deviation from 240-300m wide corridor as requested by RSPB.	Such a large corridor is considered impractical in the boundary of the Site. This was also recognised by the RSPB representative during our pre application discussion. The agreed minuting note dated 8 th February 2023 confirms RSPB support for the scheme based on the proposed habitat creation measures.

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<p>BMBC RSPB</p>	<p>Not breeding on-site but function of site not fully considered.</p> <p>Flight lines towards Site indicate still used by marsh harrier</p> <p>Marsh Harrier mitigation</p>	<p>Middleton Bell report has a heat map showing where marsh harriers were most frequently observed. In the south-west of the Site but also extending off-site to the west along the Carr Dike corridor.</p> <p>There is an abundance of suitable hunting habitat within the SSSI and wider landscape.</p> <p>Circumstantial – Bolton Ings and The Mullins both also in the same direction as well as other arable areas.</p> <p>Marsh harrier as a Sch. 1 species is provided with additional protection during breeding for nests, eggs, and dependant young. It is evident marsh harrier are not nesting at the Site.</p> <p>SSSI is not designated for marsh harrier.</p> <p>Although young were visiting the Site in 2020 they were also using the area to the west of the Site. There is similar habitat in abundance in the wider area.</p> <p>Previous mitigation proposed by Middleton Bell and discussed with BMBC included either a strip along Carr Dike or a limited corridor (north-south) situated west of the Site.</p> <p>Current proposals go further than the previously proposed mitigation providing a wider strip on the western part of the Site. Carr Dike corridor will be retained the area in the south-west most used by marsh harrier will remain grassland.</p> <p>Proposals may reduce the population of farmland birds within the Site but likely to increase populations of other prey species (small mammals, waterfowl).</p> <p>Carr Dike corridor and the Site itself need to be considered holistically rather than focused on a single species.</p>
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	<p>Request justification for deviation from 240-300m wide corridor as requested by RSPB.</p> <p>Was effort made to ascertain marsh harrier present at Old moor 2021-2023</p> <p>Request for further survey</p>	<p>Such a large corridor is impractical in the boundary of the Site. Further discussion required.</p> <p>Request for more info was presented at the meeting and no response from RSPB.</p> <p>Not considered to be necessary.</p>
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