

Guidance for ornithological information required to support Small Wind Turbine Developments in West Yorkshire.

Application of these guidelines

These guidelines are applicable to all wind turbine proposals which do not require Environmental Impact Assessment (EIA) and where ornithological interest has not been identified within the scope set by the Local Planning Authority of the EIA (see Appendix 1). These guidelines focus on sites within 1km of the South Pennine Moors Special Protection Area, Sites of Special Scientific Interest notified for ornithological interest and any other sites with records of notable bird species (see Appendix 2).

The South Pennine Moors Special Protection Area (SPA) supports internationally important populations of breeding upland moorland birds. These are given protection under The Conservation of Habitats and Species Regulations (2010)¹. Regulation 61(1)(a) requires planning authorities to consider whether “alone or in combination with other plans or projects” a proposed development will have a “likely significant effect” on the interest of the site. This decision then determines whether or not a more detailed “Appropriate Assessment” will be needed under Regulation 61(5) where the planning authority needs to be satisfied that the proposal will not adversely affect the integrity of the SPA or that there is no alternative solution and that there is an imperative reason of over-riding public interest for the development to go ahead (Reg 62(1)).

In addition, National Planning Policy Framework (NPPF) paragraph 118 requires local planning authorities to aim to conserve and enhance biodiversity by applying the following principle:

“Proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted.” [Note that the Special Protection Area is also designated as a Site of Special Scientific Interest].

This paper seeks to lay down some provisional guidance for defining what is proportionate ornithological survey and assessment information required for small wind development applications. Where such development has a “likely significant effect” and requires an “Appropriate Assessment” additional information may be required by the planning authority (see Appendix 3).

Developers and wind power companies are encouraged to use this guidance to steer development away from locations which may have an adverse impact on the

¹ Formerly The Conservation (Habitats & c.) Regulations 1994

SPAs/SSSIs and where the cost of bird survey work may seem to be prohibitively expensive, with a higher risk of failure to gain planning approval.

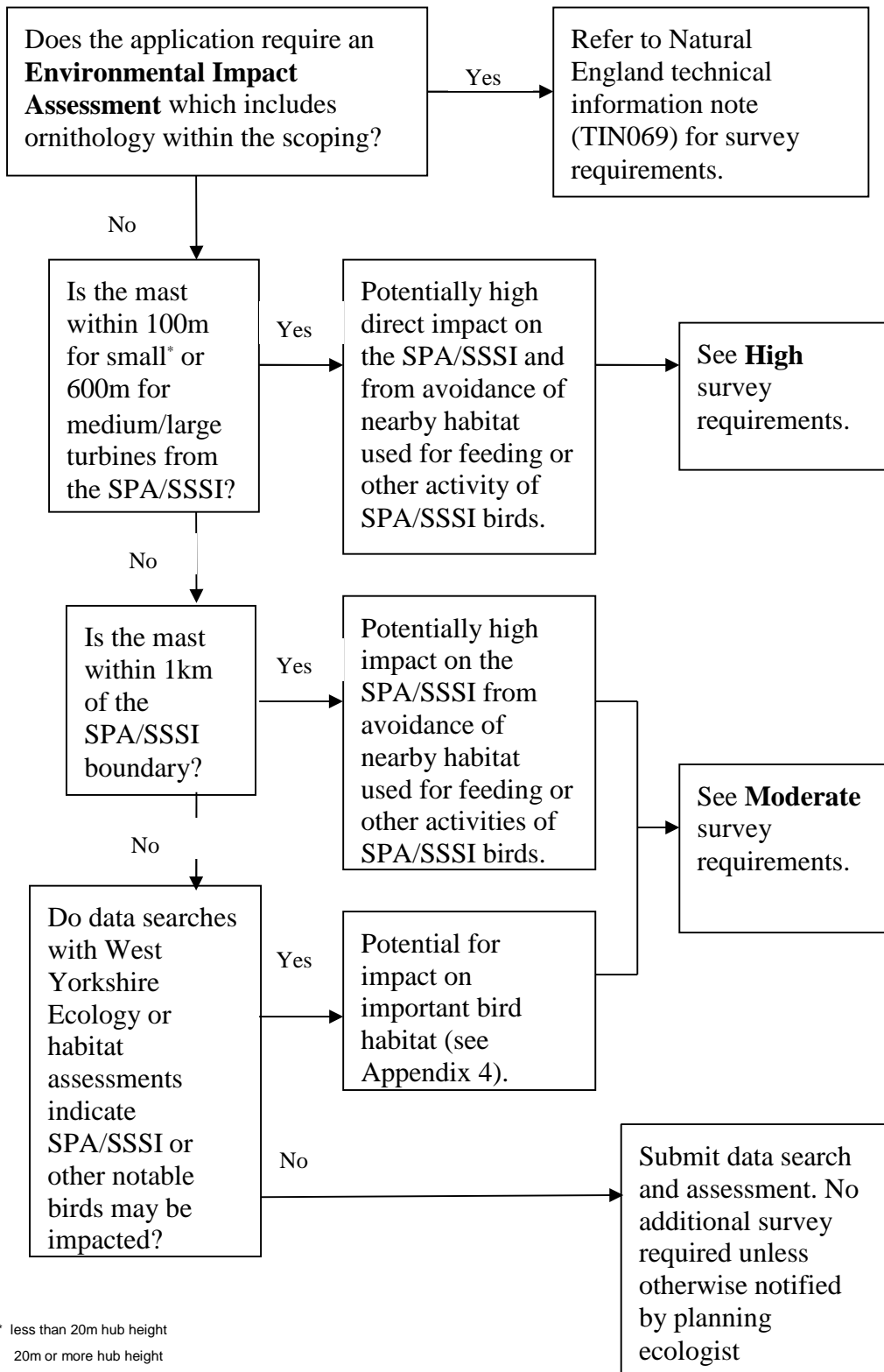
It is considered that in the context of this guidance “in combination” effects should generally be taken to be from other existing or permitted wind developments within 5km of the mast(s). Details of the location and hub height for all wind developments should be retained by each planning authority and made available to developers and ecological consultants.

Zone of Adverse Impact

The Zone of Adverse Impact for the purposes of this broad assessment can be taken to be 100m for small turbines up to 20m hub height or 600m for other turbines 20m and over hub height, unless data searches indicate that other larger zones are necessary.

The Zone of Adverse Impact resulting from the proposed development may be reduced where evidence from surveys demonstrates that there are already high background levels of disturbance which reduces the value of habitat for notable species. These assumptions are based on discussions with Natural England over previous planning applications.

Flow diagram for birds and wind development



Survey requirements

These guidance notes set out the minimum survey and assessment criteria which need to be addressed **before** an application should be validated. The work should be undertaken by an experienced ornithological consultant. Recommendations for additional survey work proposed by the consultant should also be either implemented or discussed with the district ecologist and a way forward agreed before the application is validated.

Please note that much of this work requires surveys at specific times of the year. Work can not be covered under planning condition after permission so developers are urged to plan survey work into schedules carefully to avoid delays.

ALL wind turbine applications

Undertake a data search with West Yorkshire Ecology. The search area should generally be a 2km radius from the mast(s).

VERY HIGH levels of survey requirement

For large developments requiring an Environmental Impact Assessment please refer to Natural England Technical Advice Note TIN069

HIGH levels of survey requirement

These are developments which are anticipated to have a direct impact on SPA birds both within the SPA boundary and on feeding and loafing/roosting sites outside of the SPA boundary. Impacts include loss of nesting sites, avoidance behaviour, collision risk, construction and de-commissioning disturbance and maintenance disturbance. Consideration should be given to the turbine and ancillary development including access tracks and connection to the grid.

- 1) Undertake additional data searches with local bird groups
- 2) Undertake a Phase 1 Habitat Survey with additional target notes on habitat structure/management relevant to birds, covering the Zone of Adverse Impact. The area covered by this survey may be reduced where transect surveys identify areas subject to high levels of disturbance and low levels of notable bird activity.
- 3) Undertake at least **4** repeat bird activity transect surveys spread across the bird breeding season March to July² Transects should cover the zone of adverse impact. Records should be made of:
 - a. Weather conditions
 - b. Time of survey
 - c. Species observed and numbers of individuals
 - d. Bird activity including evidence of breeding, feeding, loafing, over-flying etc.

² Note the timings of surveys may need to change for important wintering/passage bird populations.

- e. Flight behaviour (direction, height, displaying etc.)
- 4) Vantage point surveys for 36 hours spread across the passage and breeding seasons (March to October) are needed to consider collision risk.
- 5) Project planning and surveys need to consider re-locating turbines to reduce the adverse impact on the SPA or other important areas used by SPA birds outside of the SPA. Mitigation through habitat management on land outside of the Zone of Adverse Impact of this or any other existing or permitted turbines will need to be considered, and information provided on existing management regimes and bird activity within any mitigation areas. These will mean expanding survey areas for points 2 and 3 above.
- 6) Information on all SPA and notable bird species should be presented in both maps and tables.
- 7) In-combination and cumulative impacts should be assessed and should include mapped Zones of Adverse Impact for all existing or permitted turbines of any size within 5km of the mast(s).
- 8) Ornithological assessments should include an opinion about the “likely significant effects” on the SPA and the need for an “Appropriate Assessment” under Reg 61 and 62 of The Conservation of Habitats and Species Regulations (2010).

MODERATE levels of survey requirement

These are developments which may result in avoidance behaviour by SPA birds on feeding and loafing/roosting sites outside of the SPA boundary. The focus is on a 1km buffer around the SPA, however other more distant but important sites for SPA birds or sites known to be used by other notable species are also applicable.

- 1) Undertake additional data searches with local bird groups
- 2) Undertake a Phase 1 Habitat Survey with additional target notes on habitat structure/management relevant to birds, covering the Zone of Adverse Impact. The area covered by this survey may be reduced where transect surveys identify areas subject to high levels of disturbance and low levels of notable bird activity.
- 3) Undertake at least **2** repeat bird activity transect surveys spread across the bird breeding season March to July³. Transects should cover the zone of adverse impact. Records should be made of:
 - a. Weather conditions
 - b. Time of survey
 - c. Species observed and numbers of individuals
 - d. Bird activity including evidence of breeding, feeding, loafing, over-flying etc.
 - e. Flight behaviour (direction, height, displaying etc.)
- 4) Project planning and surveys need to consider re-locating turbines to reduce the adverse impact on areas used by SPA birds. Mitigation through habitat

³ Note the timings of surveys may need to change for important wintering/passage bird populations.

management of land outside of the Zone of Adverse Impact of this or any other existing or permitted turbines should be considered, and information provided on existing management regimes and bird activity within any mitigation areas. These will mean expanding survey areas for points 2 and 3 above.

- 5) Information on all SPA and notable bird species should be presented in both maps and tables.
- 6) In-combination and cumulative impacts should be assessed and should include mapped Zones of Adverse Impact for all existing or permitted turbines of any size within 5km of the mast(s)
- 7) Ornithological assessments should include an opinion about the “likely significant effects” on the SPA and the need for an “Appropriate Assessment” under Reg 61 and 62 of The Conservation of Habitats and Species Regulations (2010).

Appendix 1

EIA for wind power projects falls under Sch2 (3)(i) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011. Schemes may require an EIA when there are more than two turbines or hub height exceeds 15m. Natural England (TIN069) considers that EIA is more likely for scheme with more than 5 turbines or a generating capacity greater than 5MW. Other triggers which make assessment (EIA?) likely to be necessary include:

- Locations where Sch1 (W&CAct 1981) or Annex 1 (EU Birds Directive) species are present in significant numbers, especially those sensitive to wind turbines.
- Locations in the vicinity of SPAs or ornithological SSSIs especially when used by birds sensitive to wind development.
- Known bird migration routes and local flight paths, wetland sites and locations where vulnerable species occur in relatively high concentrations.
- Topographic features such as ridges or valleys which may funnel or concentrate flight activity.

It is very important to check that the scope of the EIA includes birds before assuming that other provisions within this document do not apply.

Appendix 2

South Pennine Moors Special Protection Area (SPA)

The South Pennine Moors Special Protection Area (SPA) supports internationally important populations of breeding upland moorland birds.

The following species are of relevance to assessing the “likely significant effect” on the South Pennine Moors SPA.

South Pennine Moors (Phase 2)

Article 4.1 species (Annex I breeding species regularly supported by the SPA):

Short-eared owl	<i>Asio flammeus</i>
Merlin	<i>Falco columbarius</i>
Golden plover	<i>Pluvialis apricaria</i>

Article 4.2 species (internationally important breeding species regularly supported by the SPA):

Common sandpiper	<i>Actitis hypoleucos</i>
Dunlin	<i>Calidris alpina schinzii</i>
Twite	<i>Carduelis flavirostris</i>
Snipe	<i>Gallinago gallinago</i>
Curlew	<i>Numenius arquata</i>
Wheatear	<i>Oenanthe oenanthe</i>
Whinchat	<i>Saxicola rubetra</i>
Redshank	<i>Tringa totanus</i>
Ring ouzel	<i>Turdus torquatus</i>
Lapwing	<i>Vanellus vanellus</i>

Peak District Moors (South Pennine Moors Phase 1)

Article 4.1 species (Annex I breeding species regularly supported by the SPA):

Short-eared owl	<i>Asio flammeus</i>
Merlin	<i>Falco columbarius</i>
Golden plover	<i>Pluvialis apricaria</i>

South Pennine Moors potential amendment (pSPA)⁴

Article 4.1 species (Annex I breeding species regularly supported by the SPA):

Peregrine	<i>Falco peregrinus</i>
-----------	-------------------------

Article 4.2 species (internationally important breeding species regularly supported by the SPA):

Dunlin	<i>Calidris alpina schinzii</i>
--------	---------------------------------

⁴ NPPF para 118 treats potential SPAs as having full protection.

Other Sites of Special Scientific Interest (SSSI) in West Yorkshire with significant bird interest

Eccup Reservoir SSSI - wintering, passage and breeding wildfowl and waders including 1-2% of British Isles wintering goosander population, wigeon, teal, pochard, goldeneye, mallard, tufted duck, shelduck, shoveler, greylag goose, dunlin, green sandpiper, curlew, redshank and common sandpiper.

Fairburn and Newton Ings SSSI – wintering, passage and breeding wildfowl and waders including >1% of British wintering gadwall, shoveler and mallard, >1% of north-west European population of whooper swan. Over 200 species regularly seen including long-tailed duck, hobby and peregrine and over 75 species of breeding birds.

Mickletown Ings SSSI – wintering, passage and breeding wildfowl and waders including coot, tufted duck, little grebe, pochard and whooper swan

Species of Principal Importance

Species of Principal Importance are a material consideration in the planning process. This includes both curlew and snipe. Where habitats suitable for these species are present then sufficient information should be provided for the LPA to determine whether there are likely to be any detrimental impacts on these species as a result of the development. Where impacts are predicted then alternative proposals should be put forward or measures proposed which will maintain species populations.

Appendix 3

Scientific papers, in particular Pearce-Higgins et al (2009)⁵, have shown statistically that large wind farms (>10 turbines) have a significant impact on golden plover, snipe, curlew and wheatear, all species for which the South Pennine Moors SPA has been designated. This report goes on to model the predicted impact on breeding density for these (and other birds).

Species	Distance of significant avoidance behaviour (Data grouped in 200m bands)
Golden plover	200m
Wheatear	200m
Snipe	400m
Curlew	800m

Species	Predicted % reduction in breeding density within 500m.
Golden plover	38.9%
Wheatear	44.4%
Snipe	47.5%
Curlew	42.4%

Further studies by Pearce Higgins et al (2011) have provided evidence that construction may have a more significant impact than operation for some species. This was not the found to be the case for curlew and snipe. It has also provided statistical evidence that the size and design of turbines did not have a significant impact on the results (all sites had over 5 turbines).

Studies on small wind turbine developments⁶ have not yet provided pertinent data on notable South Pennine Moors SPA bird species. In the absence of such information a precautionary approach is adopted⁷ using the best available scientific evidence.

Studies being undertaken by West Yorkshire Ecology (unpublished) have demonstrated that birds breeding within the boundary of the SPA use areas outside of the designated site during the breeding season for feeding and other activities. It is reasonable to deduce that increased levels of disturbance and avoidance of these

⁵ JW Pearce-Higgins, L Stephen, RHW Langston, IP Bainbridge and R Bullman, Journal of Applied Ecology 2009

⁶ Including work undertaken by Minderman (2012) which did not include any relevant information on species in upland habitats

⁷ ODPM Circular 06/2005 para.13.

feeding areas is likely to have an adverse impact on the breeding success and populations of the birds for which the SPA is designated. In-combination and cumulative effects from existing and permitted wind development needs to be included in assessment. This guidance recognises that turbines closer to the SPA boundary are likely to have a greater impact on SPA bird activity either through negative impact on feeding areas or through impact on birds moving to feeding areas further afield. The immediate zone around the SPA has been taken to be 1km, but it should be noted that on average SPA birds fly 2.5km from breeding to feeding sites, so surveys may be necessary beyond the 1km buffer.

Appendix 4

Important bird habitat

The assessment of important habitat for birds needs to take account of the requirements of the notable species associated with proximal designated sites or other species identified from the data search. These will typically be habitats which show signs of lower levels of agricultural improvement (heathland, wet grassland, acid grassland, species rich grassland, fen, mire and open water) but may in some circumstances include for example improved grassland used by feeding wildfowl or semi-improved pasture with rush tussocks.