



## APPENDIX 6-3

BAT RISK ASSESSMENTS



Table 3a: Stage 1 - Initial site risk assessment

| Site Risk Level<br>(1-5)*   | Project Size  |       |        |       |
|---|---|-------|--------|-------|
| Habitat Risk  |   | Small | Medium | Large |
|   | Low   | 1     | 2      | 3     |
|   | Moderate  | 2     | 3      | 4     |
|   | High  | 3     | 4      | 5     |
| Key: Green (1-2) - low/lowest site risk; Amber (3) - medium site risk; Red (4-5) - high/highest site risk.  |   |       |        |       |
| * Some sites could conceivably be assessed as being of no (0) risk to bats. This assessment is only likely to be valid in more extreme environments, such as above the known altitudinal range of bats, or outside the known geographical distribution of any resident British species. |   |       |        |       |
| Habitat Risk  | Description   |       |        |       |
| Low   | <p>Small number of potential roost features, of low quality.</p> <p>Low quality foraging habitat that could be used by small numbers of foraging bats.</p> <p>Isolated site not connected to the wider landscape by prominent linear features.</p>  |       |        |       |
| Moderate  | <p>Buildings, trees or other structures with moderate-high potential as roost sites on or near the site.</p> <p>Habitat could be used extensively by foraging bats.</p> <p>Site is connected to the wider landscape by linear features such as scrub, tree lines and streams.</p>   |       |        |       |
| High  | <p>Numerous suitable buildings, trees (particularly mature ancient woodland) or other structures with moderate-high potential as roost sites on or near the site, and/or confirmed roosts present close to or on the site.</p> <p>Extensive and diverse habitat mosaic of high quality for foraging bats.</p> <p>Site is connected to the wider landscape by a network of strong linear features such as rivers, blocks of woodland and mature hedgerows.</p> <p>At/near edge of range and/or on an important flyway.</p> <p>Close to key roost and/or swarming site.</p> |       |        |       |
| Project Size  | Description   |       |        |       |
| Small   | <p>Small scale development (<math>\leq 10</math> turbines). No other wind energy developments within 10km.</p> <p>Comprising turbines <math>&lt; 50</math>m in height.</p>  |       |        |       |
| Medium  | <p>Larger developments (between 10 and 40 turbines). May have some other wind developments within 5km.</p> <p>Comprising turbines 50-100m in height.</p>  |       |        |       |
| Large   | <p>Largest developments (<math>&gt; 40</math> turbines) with other wind energy developments within 5km.</p> <p>Comprising turbines <math>&gt; 100</math>m in height.</p>  |       |        |       |

Table 3b: *Stage 2 - Overall risk assessment*

| Site risk level (from Table 3a) | Ecobat activity category (or equivalent justified categorisation) |         |                  |              |                   |          |
|---------------------------------|---|---------|------------------|--------------|-------------------|----------|
|                                 | Nil (0)   | Low (1) | Low-moderate (2) | Moderate (3) | Moderate-high (4) | High (5) |
| Lowest (1)                      | 0   | 1       | 2                | 3            | 4                 | 5        |
| Low (2)                         | 0   | 2       | 4                | 6            | 8                 | 10       |
| Med (3)                         | 0   | 3       | 6                | 9            | 12                | 15       |
| High (4)                        | 0   | 4       | 8                | 12           | 15                | 18       |
| Highest (5)                     | 0   | 5       | 10               | 15           | 20                | 25       |

The scores in the table are a product of multiplying site risk level and the Ecobat activity category (or equivalent). The activity categories equate to those given in Table 1 for high collision risk species. Nil (0) means no bat activity was recorded across the whole site, but caution is needed here, because although the values given in this column are "0", at sites where pre-construction surveys found no bat activity, there remains the possibility that new turbines could attract some bat species, thereby altering the level of risk that applies in reality.

Overall assessment:

Low (green) 0-4  
Medium (amber) 5-12  
High (red) 15-25

It is important to have an understanding of both "typical" and unusually high levels of bat activity at a site so that potentially important peaks in activity are not overlooked. It is therefore recommended that both the highest Ecobat activity category and the most frequent activity category (i.e. the median) are assessed separately in Table 3b and presented in the overall risk assessment. A judgement can then be made on which is the most relevant. It should be noted that presenting mean activity levels can be highly misleading where the data are highly skewed, as is frequently the case with bat activity at wind turbines (Lintott & Mathews, 2018).