

**ERAP (Consultant Ecologists) Ltd ref: 2021-216e**

**Land at Radcliffe Moor Road, Little Lever, Bury BL2 6QG**

## **Statement on Ecology Prepared in Relation to Condition 10: Protection of Ponds at Bradley Fold Site of Biological Importance and Bradshaw Brook**

**Bury Council reference: 67658**

**19<sup>th</sup> November 2023**

### **1.0 Introduction and Rationale**

- 1.1 Planning consent has been granted for the “*change of use of the land for use as outdoor sports pitches including engineering operations to form 4 pitches, the construction of a clubhouse, ancillary storage structures, creation of access from Radcliffe Moor Road, parking, landscaping, drainage, and associated works*” the land off Radcliffe Moor Road, Little Lever Bury (hereafter referred to as the ‘site’).
- 1.2 The planning application was informed by an *Ecological Survey and Assessment* report (ERAP (Consultant Ecologists) Ltd, 2021), hereafter referred to as the ‘ecology report’.
- 1.3 The ecology report identifies that the Bradley Fold Site of Biological Importance (SBI) lies adjacent to the southern site boundary (refer to **Figure 1**, appended). The SBI is designated for the presence of a series of four small lodges, between which is a mixture of scrub, acid grassland and neutral grassland. Lodges are a Greater Manchester Biodiversity Habitat and breeding common frog and smooth newt have been recorded together with common toad (a Priority Species) and palmate newt.
- 1.4 In addition Bradshaw Brook, an Environment Agency main river, flows to the west of the site (refer to **Figure 1**) and a small area of the site currently falls in the direction of the brook.
- 1.5 The Inspector’s report dated 3<sup>rd</sup> May 2023 for the granted appeal states:

*“In relation to any potential impact on biodiversity (including ecology and loss of wildlife corridors) I note that the appeal site is adjacent to Bradley Fold Grade C SBI and that the Lancashire Wildlife Trust (LWT) did raise some initial concerns relating to potential increased fertiliser run-off into the lodge habitats. However, the LWT did not object to the proposal but recommended that a habitat management plan be provided and that the SBI be protected from potential pollution and fertiliser run-off. It also suggested that the Council consult the Greater Manchester Ecology Unit (GMEU).*

*When consulted, the GMEU raised no objection to the proposal subject to the inclusion of conditions relating to nesting birds, invasive species, the submission of a method statement, the disposal of surface water and landscaping. Therefore, based on the submitted evidence, including the submitted*

*Ecological Survey and Assessment report, I am satisfied that any potential impact in this regard could be adequately mitigated via the imposition of suitably worded conditions and as a result afford this matter little weight."*

1.6 The following conditions are attached to the planning consent:

**Condition 6:** *Before the drainage system associated with the club house, playing pitches and car park is brought into use, a Management and Maintenance Scheme for the playing pitches and other facilities hereby approved including management and maintenance responsibilities, a maintenance schedule, a monitoring regime (after first establishing a baseline for quantity and quality) including the monitoring of water quantity and quantity discharged from the proposed reed bed, and a mechanism for review, shall be submitted to and approved in writing by the local planning authority.*

*The scheme shall include details of any fertiliser to be used on the site, including its type, chemical composition, method, and density of application, as well as the timing of application.*

*The Management and Maintenance of the site including the playing surfaces, swale and reed bed shall thereafter be strictly in accordance with the approved scheme.*

*No fertiliser, pesticides, conditioning agents, or other chemicals shall be used on the site other than that expressly identified in the Maintenance and Management Scheme.*

*Should the monitoring and maintenance regime not be followed then use of the facility (pitches, clubhouse, and car park) must cease immediately until the breach is investigated and rectified.*

*No fertiliser, pesticides, conditioning agents, or other chemicals shall be applied until the swale and reed bed are established and functioning as intended.*

**Condition 9:** *No earth moving shall take place or material or machinery brought on site until a method statement to protect the ponds at Bradley Fold and the Blackshaw Brook from accidental spillages, dust and debris has been supplied to and agreed by the local planning authority. All measures will be implemented and maintained for the duration of the construction period in accordance with the approved details.*

**Condition 10:** *No development shall take place until it can be demonstrated that there will be no negative impacts on the ecological potential of the ponds at Bradley Fold and Blackshaw Brook resulting from the disposal of surface water post-development submitted to and approved in writing by the local planning authority. The details, as approved, shall be implemented in full in accordance with a timetable which has first been agreed in writing by the local planning authority.*

**Condition 17:** *Prior to the commencement of development, a detailed drainage design, broadly in accordance with the principles established in the Hydrological Assessment (July 2022) (ref. HYD633) and Preliminary Drainage Strategy (ref. HYD633.633.BET.1 Rev. A) shall be submitted to and approved in writing by the local planning authority.*

*The detailed scheme shall include the detailed design and construction of the swale (to include the detailed design of the reed bed, wet and dry portions of the swale, as well as the flow control mechanisms to deliver the required attenuation and flows to ensure the integrity and functionality of the reed bed as well as the provision of facilities to allow the monitoring off water quality from the reed bed) as well as all other proposed drainage features on the site. The detailed design calculations shall be submitted for the approved scheme, including attenuation design to accommodate a 1 in 100 year storm event, plus a minimum allowance of 75% for climate change.*

*The drainage scheme shall be implemented strictly in accordance with the approved details in its entirety prior to the pitches hereby approved being brought into use and shall thereafter be retained and managed and maintained in accordance with the Management and Maintenance Scheme required by condition no. 6 above.*

**Condition 18:** *Prior to the commencement of development, a scheme of intrusive site drainage investigations and preliminary engineering works to investigate ground water flows feeding Starmount reservoir and springs in the vicinity of the proposed swale, including the timing of such works, shall be submitted to and approved in writing by the local planning authority. A report of the findings of such investigations shall be submitted to the local planning authority.*

*Any such report should include where appropriate any additional drainage works that are necessary to safeguard the functionality of the swale and the water quality and ground water flows into the adjacent existing waterbodies. Including detailed design that demonstrates that the proposed works will safeguard the structural integrity of Starmount reservoir and the quantity and quality of the water feeding the reservoir.*

*Any such additional works shall be approved in writing by the local planning authority and shall thereafter be implemented prior to the completion of the drainage works to which they relate. The additional works shall be implemented in full in accordance with the approved details prior to the pitches hereby approved being brought into use and shall thereafter be retained and managed and maintained in accordance with the Management and Maintenance Scheme required by condition no. 6 above.*

- 1.7 This statement has been prepared to supplement the existing information and to facilitate the discharge of Condition 10. This statement has been prepared following liaison with Betts Hydro Consulting Engineers and a review of the following documents prepared to meet the requirements of Conditions 6, 9, 17 and 18 as detailed above:
- a. *Hydrological Assessment* (Betts Hydro Consulting Engineers, July 2022).
  - b. *Preliminary Drainage Strategy* (Betts Hydro Consulting Engineers, July 2022).
  - c. *Drainage Management Strategy* (Betts Hydro Consulting Engineers, September 2021).
  - d. *Protection of Bradley Fold Ponds and the Blackshaw Brook – Method Statement* (McArdle Sport Tec, 2023).
  - e. *Typical Drainage Details* (WML Consulting, 2021).
  - f. *Alternative Drainage Arrangement #2 Swale Arrangement* (Westchurch Homes, 2022).

## 2.0 Identified Risks

- 2.1 The potential risks to the SBI and Bradshaw Brook and their features of interest as a result of the approved works, both during construction and operation, are identified as:
- a. Siltation / sedimentation;
  - b. Flash floods / increased flow of surface water;
  - c. Pollution (namely hydrocarbons from machinery-related incidents / accidents);
  - d. Nutrient enrichment / eutrophication from the long-term treatments at the pitches; and
  - e. Accidental killing / injury and adverse effects on populations of amphibians associated with the off-site waterbodies which may use the terrestrial habitats within the site.

2.2 The information presented below outlines the features that are part of the inherent design / embedded mitigation of the proposals and the additional measures to be implemented to avoid negative impacts on the SBI and Bradshaw Brook. Although Condition 10 specifically refers to the post-development stage the protective measures to be implemented during construction phase are outlined for completeness and to ensure the risk of cumulative effects is addressed.

2.3 **Table 1**, appended, provides a summary of the sources of potential risks and the relevant mitigation measures.

### 3.0 Protection of Bradley Fold SBI and Bradshaw Brook and Wildlife *During Construction*

#### Silt Fencing

3.1 The *Protection of Bradley Fold Ponds and the Blackshaw Brook – Method Statement* (McArdle Sport Tec, 2023), hereafter referred to as the 'Method Statement', outlines the specification and installation of silt fencing which will act to intercept any potential silt laden construction site storm-water run-off.

3.2 As outlined in the Method Statement to ensure the silt fencing remains functional the on-going maintenance / repair of the fencing and the removal of trapped silt when the level reaches the top of the white band is essential.

3.3 It is essential that the silt fencing is only removed when the risk of sediment (this is likely to be when the surface water drainage system is operational and when the landscape planting has established).

#### Spillages

3.4 The Method Statement specifies the location of the storage of oil and fuels, the use of drip trays and bunds, the presence of spill kits and contractor awareness. Compliance with the following Pollution Prevention Guidelines (PPG) will be required:

- a. PPG1: Basic good environmental practices (Environment Agency, 2013);
- b. PPG5: Works in, near or over watercourses (Environment Agency, 2014);
- c. PPG6: Construction and demolition sites (Environment Agency, 2012); and
- d. PPG7: Operating refuelling sites (Environment Agency, 2011).

#### Dust Control

3.5 The Method Statement outlines the measures to be applied to minimise and mitigate dust.

#### Reasonable Avoidance Measures for the Protection of Amphibians

3.6 As advised in Section 5.8 of the ecology report the following reasonable avoidance measures will be implemented:

- a. The grazing / cutting regime at the site should be continued until immediately prior to commencement of works or prior to any soil strip, vegetation will be strimmed to a height of no less than 0.15 metres and all arisings removed;
- b. All personnel must be made aware of the RAMs Method Statement;
- c. During construction, any holes, trenches or other pits which amphibians or small mammals could fall into will be covered overnight or have sloped banks or ramps to allow escape;

- d. The use of chemicals, such as fertilisers and herbicides, harmful to amphibians and other wildlife should be avoided wherever possible;
- e. Materials will be stored away from the south-western site boundary (and nearby ponds) to prevent amphibians potentially using stored materials for shelter;
- f. In the event of the discovery of great crested newt whilst any site clearance or construction operations are in progress, then all works in the area must cease and ERAP (Consultant Ecologists) Ltd (01772 750502) must be contacted immediately for further assistance;
- g. No site contractors must handle a great crested newt; and
- h. If any other wildlife (such as common toad, common frog, palmate newt, smooth newt, or hedgehog) is detected, it must be carefully picked up, placed into a clean bucket and moved to an area of suitable habitat beyond the construction area (such as within Bradley Fold SBI).

### Responsibilities

- 3.7 The responsibility for the implementation of the actions outlined above will lie with the on-site contractor.

### 4.0 Protection of Bradley Fold SBI and Bradshaw Brook and Wildlife Post-Development

- 4.1 In consideration of the long-term protection of the ecological potential of Bradley Fold SBI and Bradshaw Brook the information as presented in the *Hydrological Assessment* is of relevance, particularly *Preliminary Drainage Strategy* which is appended to this statement.
- 4.2 In consideration of Bradshaw Brook, as outlined above a small area of the site current falls towards the west / the brook. However, the re-grading works at the site and the drainage installations, as outlined below and shown on the *Preliminary Drainage Strategy*, appended, will intercept and direct surface water through the drainage network which will avoid the risk of adverse effects on the Brook and its associated water quality.
- 4.3 It is confirmed that surface water from features within the site namely the pitches and the permeable car parking area will receive filtration in the first instance. There will be some infiltration, albeit very low due to the cohesive ground and some evaporation.
- 4.4 The proposed swales have been designed and specified to provide conveyance, water quality improvement and biodiversity and amenity value. Some sections of swale will typically be dry with the focus on conveyance and stormwater storage. Other sections are wet swales with a shallow retention element which, with appropriate planting, will help to remove dissolved phosphates to provide water quality improvement .
- 4.5 The proposed reed beds will, in time, provide a further mechanism for water quality improvement. It is understood that that the reedbeds can take up to 2 years to become established and it is understood that that this is reason for the restriction applied under Condition 6 which states “*No fertiliser, pesticides, conditioning agents, or other chemicals shall be applied until the swale and reed bed are established and functioning as intended*”.
- 4.6 A weir wall or similar control method will be installed will helps to maximise stormwater storage and provides a mechanism for the control of the water flow through the wet swale.
- 4.7 The features described above, as well as flow control features serving the pitches, help to slow the flow and maximise upstream water storage.

- 4.8 This drainage strategy will ensure that adverse effects on the water quality, geomorphological processes, fauna and features of special interest at the Bradley Fold SBI and Bradshaw Brook will not be adversely affected by frequent fluctuations in water levels and flow rate.
- 4.9 It is considered that under normal circumstances and the correct implementation and operation (and maintenance) of the surface water strategy at the post-development stage will not result in the creation of any additional sources of pollution. The measures proposed in the drainage strategy (both during and after construction phase) will adequately protect Bradley Fold SBI and Bradshaw Brook post development.

## 5.0 Long-term Maintenance and Management

- 5.1 The long-term management and maintenance will be secured by the preparation and implementation of a long-term detailed maintenance and management plan as required under Condition 6 of the planning consent.
- 5.2 In consideration of the long-term monitoring of water quality entering the SBI it is confirmed that water samples can be taken on site from surface level when necessary, to determine water quality and to determine that the drainage system and protective measures are functioning.

## 6.0 Conclusion

- 6.1 It is advised that, in the presence of the appropriate protective measures, the correct installation of the drainage strategy, adherence to the restrictions imposed by the planning conditions and by ensuring the water quality monitoring and the correct management and maintenance are in place, that the operation of the site as football pitches can be achieved with no negative impact on the ecological potential of Bradley Fold SBI and Bradshaw Brook.

Statement prepared by:



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19<sup>th</sup> November 2023

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*Table 1: Summary of Potential Risks on Bradley Fold SBI and Bradshaw Brook and Mitigation*

*Figure 1 : Aerial Image to Show Site, Surrounding Habitats, Bradshaw Brook, Ponds within 500 metres and Nearby Designated Sites*

*Preliminary Drainage Strategy (Betts Hydro Consulting Engineers, July 2022)*



**Table 1: Summary of Potential Risks on Bradley Fold SBI and Bradshaw Brook and Mitigation**

| Activity                                                                                    | Pathway                                                    | Potential Risks / Impacts                                                                                           | Receptor                                                                                                               | Avoidance / Mitigation                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site preparation works including vegetation clearance and soil strip and construction works | Earthworks                                                 | Adverse effects on water quality as a result of siltation and sedimentation of water and increased turbidity        | Fish and aquatic invertebrates.<br>Breeding amphibians.<br>Aquatic and emergent vegetation.                            | Installation of silt fencing (refer to <i>Protection of Bradley Fold Ponds and the Blackshaw Brook – Method Statement</i> (McArdle Sport Tec, 2023)).<br>Adherence to the relevant Pollution Prevention Guidelines (PPG).                                                                                                                                                                                                                        |
|                                                                                             | Creation of dust and settlement on vegetation / open water | Adverse effects on water quality as a result of dust entering water after a period of dry weather and then rainfall | Fish and aquatic invertebrates.<br>Breeding amphibians.<br>Aquatic and emergent vegetation.                            | Maintenance and repair of silt fencing and implementation of dust control measures (refer to <i>Protection of Bradley Fold Ponds and the Blackshaw Brook – Method Statement</i> (McArdle Sport Tec, 2023)).                                                                                                                                                                                                                                      |
|                                                                                             | Spills and incidents, including hydrocarbons               | Pollution                                                                                                           | Fish and aquatic invertebrates.<br>Breeding amphibians.<br>Cumulative effects further up the food chain.               | Adherence to the <i>Protection of Bradley Fold Ponds and the Blackshaw Brook – Method Statement</i> (McArdle Sport Tec, 2023).<br>Adherence to the relevant Pollution Prevention Guidelines (PPG).                                                                                                                                                                                                                                               |
|                                                                                             | Earthworks and operation of machinery                      | Killing and injury of amphibians and other fauna associated with the SBI                                            | Sheltering amphibians                                                                                                  | Implementation of the reasonable avoidance measures method statement (RAMMS) as outlined in section 3.6.                                                                                                                                                                                                                                                                                                                                         |
| Operation of the site                                                                       | Flash floods / increased rate of water entering the lodges | Silt and sediment entering water.<br>Scouring and dilution.                                                         | Fish and aquatic invertebrates.<br>Breeding amphibians.<br>Geomorphological processes (particularly at Bradshaw Brook) | Implementation of the <i>Preliminary Drainage Strategy</i> , appended, will ensure surface water is intercepted and directed through the drainage network which will avoid the risk of adverse effects on the Brook and its associated water quality.<br><br>A weir wall or similar control method will be installed will helps to maximise stormwater storage and provides a mechanism for the control of the water flow through the wet swale. |

| Activity | Pathway                                                | Potential Risks / Impacts | Receptor                                                                                                 | Avoidance / Mitigation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------|--------------------------------------------------------|---------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | Application of fertiliser and herbicide at the pitches |                           | Fish and aquatic invertebrates.<br>Breeding amphibians.<br>Cumulative effects further up the food chain. | <p>Implementation of the <i>Preliminary Drainage Strategy</i> i.e. water from features within the site, namely the pitches and the permeable car parking area will receive filtration in the first instance.</p> <p>The water will then enter the dry swale and then the wet swale with a shallow retention element which, with appropriate planting, will help to remove dissolved phosphates to provide water quality improvement.</p> <p>The proposed reed beds will, in time, provide a further mechanism for water quality improvement. It is understood that that the reedbeds can take up to 2 years to become established and it is understood that that this is reason for the restriction applied under Condition 6 which states “<i>No fertiliser, pesticides, conditioning agents, or other chemicals shall be applied until the swale and reed bed are established and functioning as intended</i>”.</p> |
|          | Spills and incidents, including hydrocarbons           | Pollution                 | Fish and aquatic invertebrates.<br>Breeding amphibians.<br>Cumulative effects further up the food chain. | Adherence to the relevant Pollution Prevention Guidelines (PPG) during operation of maintenance machinery at the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



