

Updated Air Quality Assessment for Warrington Local Plan Habitats Regulations Assessment

Further Modelling of Manchester Mosses SAC

Warrington Borough Council

November 2022

5. Preferred Mitigation Strategy

- 5.1 At the October meeting with Natural England it was agreed that the specific circumstances which apply in this case are such that a mitigation option, not discussed in the original version of this Addendum, would involve the delivery of long-term ecological resilience works involving hydrological restoration measures to benefit the Holcroft Moss, commensurate with the impact on the site from traffic growth. That has now been confirmed as the preferred approach by all parties involved (Natural England, Warrington Borough Council and Greater Manchester Combined Authority).
- 5.2 In order to be regarded as mitigation the benefits of the hydrological improvements would need to be evident within the parts of the bog exposed to increased air pollution and the works would need to be over and above any management measures which are currently planned within Holcroft Moss. A Habitat Mitigation Plan would be put together with all parties involved in the site restoration led by Warrington Council. An appropriate mechanism would need to be put in place through proportionate contribution from developments towards these works. Warrington confirmed that such an approach could be secured through the modifications being proposed to the Plan and would be consistent with the respective Statements of Common Ground the Council has signed with site promoters.
- 5.3 Such a mitigation strategy will improve the resilience of the site to elevated ammonia and associated nitrogen deposition. According to the SACO *'Resilience may be described as the ability of an ecological system to cope with, and adapt to, environmental stress and change whilst retaining the same basic structure and ways of functioning'*.
- 5.4 Firstly, the SACO makes the following relevant statements:
- Degraded raised bogs only includes examples which are capable of natural regeneration, i.e. where the hydrology can be repaired and where, with appropriate rehabilitation management there is a reasonable expectation of re-establishing vegetation with peat-forming capability within 30 years;
 - Active raised bogs in particular show varying degrees of structural variation and surface patterning reflecting hydrological gradations (which may be natural or the result of previous damage). These can occur at both macro and micro scales across the habitat and include alternative aquatic and terrestrial surface features, such as pools and hummocks, and terrestrial features such as ridges and hollows. These features will support distinctive patterns of bog vegetation, and so will be sensitive to changes in topography and hydrology.
 - Usually, raised bog restoration measures will aim to elevate and stabilise the underlying water table and re-establish waterlogged conditions, so the bog can re-grow and regain its characteristic structural features (e.g. bog pools) and its typical plant assemblages
 - For the qualifying feature of the SAC the protection and management of peripheral peat and the land immediately around the peat body will be of critical functional importance to the restoration or maintenance of the hydrology of active bog; and
 - At Holcroft Moss about 8.6 ha of the qualifying feature has started to develop towards active bog.
- 5.5 These statements demonstrate that the site has the capacity for restoration, that hydrology is key to that restoration, and that at Holcroft Moss modification of site hydrology undertaken to date has been able to restore part of the site. There is inevitably some residual uncertainty concerning the degree of bog restoration that will occur from further rewetting (though not over the fact that restoration will occur). However, a measure of uncertainty is acceptable within the context of Habitats Regulations Assessment. Case law has established that absolute certainty is not required. If no certainty can be established it is necessary to work with probabilities, which must be reasoned, as has been done above: see Waddenzee, points 107 and 97 of the Advocate General's opinion, endorsed in Champion's case, at para 41, and by Sales LJ in *Smyth v Secretary of State for Communities and Local Government* [2015] PTSR 1417, para 78. More recently, in *Wyatt vs Fareham Council* (<https://www.bailii.org/ew/cases/EWHC/Admin/2021/1434.pdf>) Mr Justice Jay commented that where some uncertainty remains over any aspect of the HRA process, this is addressed by applying the precautionary principle. In this case, a precautionary approach will be applied by ensuring the Management Plan defines explicit measures for success (such as appropriate water depth) that are based on the best available scientific knowledge and include a precautionary element. Similarly, the Management Plan will contain a series of appropriate botanical and other performance targets against which the success of a restoration can be judged, and these will be suitably precautionary.

- 5.6 Secondly, the APIS websites states regarding the bog habitat for this SAC that '*The low end of the critical load range should be used for systems with a low water table and the high end of the range for systems with a high water table. Note that water table can be modified by management*'. This provides empirical evidence that with suitable management to raise the water table the applicable critical load will increase from 5 kgN/ha/yr to 10 kgN/ha/yr, reflecting the lower vulnerability of a rewetted functional bog to nitrogen deposition.
- 5.7 This is supported by Natural England Commissioned Report (NECR) 210³² which states: '*The bog habitat is probably affected more strongly by site hydrology ... For bogs, this means that the species richness response to N is buffered by the hydrological status and the response curve is shallower per unit N than the habitats that are more freely drained*' and it also refers to '*the strong effects of hydrology limiting the response to N*' in bogs.
- 5.8 It should be noted that this solution applies exclusively to Holcroft Moss SSSI and Manchester Mosses SAC. Since this solution has now been agreed to be feasible, the further hard measures discussed in Section 6 of this report are not required. They are retained in this report for completeness to illustrate the analytical process undertaken in reaching a final agreed position. Warrington Borough Council, working with Natural England, the Greater Manchester Combined Authority, Salford City Council, Trafford Borough Council and Wigan Borough Council, will lead on the preparation of a Habitat Mitigation Plan to confirm the scope, specification and costs of the restoration measures to be completed by December 2023. Warrington Borough Council is willing in principle to use its regulatory powers if necessary and as a last resort if required to deliver the mitigation works.
- 5.9 Warrington Borough Council, the Greater Manchester Combined Authority, Salford City Council, Trafford Borough Council and Wigan Borough will secure proportionate contributions towards restoration measures from development that will result in increased traffic flows on the M62 past Holcroft Moss over 100 vehicles per day or 20 Heavy Goods Vehicles per day, to be confirmed through modifications to the Warrington Local Plan and Places for Everyone Plan.
- 5.10 The Proposed Modification for the Warrington Local Plan that will secure this measure is as follows:
- 5.11 Policy ENV8, Part 4
- 5.12 *4. The main allocations (Policies MD1 to MD6) and the smaller settlement allocations, which line the M62 corridor (Policies OS1, OS2 and OS6) and all other new development that exceeds the thresholds for requiring a Transport Assessment, as specified in the Council's Transport SPD, will be required to consider air quality impacts on Holcroft Moss, within the Manchester Mosses Special Area of Conservation (SAC). Any proposals that would result in increased traffic flows on the M62 past Holcroft Moss the Manchester Mosses SAC of more than 100 vehicles per day or 20 Heavy Goods Vehicles (HGVs) per day must devise a scheme-specific range of measures to reduce reliance on cars, reduce trip generation and promote ultra-low emission vehicles and provide a contribution towards restoration measures in accordance with the Holcroft Moss Habitat Mitigation Plan.*
- 5.13 Warrington Borough Council and its partners commit to producing such a strategy by the end of 2023.
- 5.14 With this measure and commitment included in the Warrington Local Plan, it can be concluded that the plan will not result in adverse effects on the integrity of any European sites either alone or in combination with other projects or plans.

³² CAPORN, S., FIELD, C., PAYNE, R., DISE, N., BRITTON, A., EMMETT, B., JONES, L., PHOENIX, G., S POWER, S., SHEPPARD, L. & STEVENS, C. 2016. Assessing the effects of small increments of atmospheric nitrogen deposition (above the critical load) on semi-natural habitats of conservation importance. Natural England Commissioned Reports, Number 210.