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EXTRA MSA GROUP

MOTORWAY SERVICES, WARRINGTON

INFORMATION TO INFORM A HABITATS REGULATIONS ASSESSMENT

DECEMBER 2019

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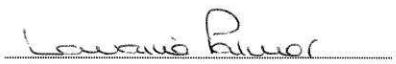
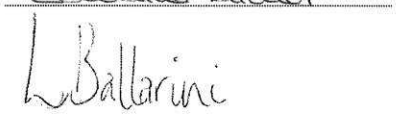
Lorraine Palmer	Associate Director (Ecology)	
Lauren Ballarini	Technical Director	
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EXECUTIVE SUMMARY

This report is provided to inform a Stage 1 (screening) Habitats Regulations Assessment (HRA) for the development of a new motorway service area, located to the north of junction 11 on the M62 (Ordnance Survey grid reference SJ 670936). The Project lies approximately 1 kilometre (Km) to the west of Holcroft Moss which is the closest component of the Manchester Mosses SAC suite. Risley Moss is also located approximately 1.4km to the south of the site.

The Project will involve the loss of mainly arable farmland habitat to accommodate buildings, access roads and a new motorway junction. None of the habitat losses will directly impact the SACs given the separation distance. This report considers whether there is any reasonable likelihood of Likely Significant Effects (LSE) arising from the Project on the Manchester Mosses SAC.

Impact pathways considered are:

- Hydrological modifications from the construction and operation of the MSA;
- Adverse air quality arising from any localised traffic increase; and
- Recreational impacts from visitors to the MSA.

The report concludes that there are no Likely Significant Adverse Effects because there will be no changes to the hydrological regime at the location of the SAC for the following reasons:

- The Project is hydrologically separate from the SAC and lies beyond the limits of any localised influences on surface or sub surface flows.
- The Development will not result in any significant increase in overall traffic flows and any minor changes arising from additional time vehicles spend at the operational MSA site are not within influencing distance.

The users of the MSA will be primarily located within the operational site itself and its immediate environment. The proposed Hotel is designed to accommodate short term use principally for road users taking an overnight break; very limited additional use of the nearby designated sites is predicted by users of the MSA.

1 INTRODUCTION

1.1 Terms of Reference

1.1.1 Wardell Armstrong LLP (WA) was appointed by Extra MSA Group to provide information to enable a Stage 1 (screening) Habitats Regulations Assessment (HRA) for the development of a new motorway service area (hereafter referred to as Project), located to the north of junction 11 on the M62 (Ordnance Survey grid reference SJ 670936).

1.1.2 The objective of the assessment is to identify any aspects of the project that would cause 'likely significant effects' on the interest features of Manchester Mosses SAC notably, Holcroft Moss and Risley Moss which lie closest to the location of the Project.

1.1.3 Natural England supplied a scoping opinion dated 10th January 2019 including the following advice in regard to European sites:

> *….the Impact Risk Zones for Risley Moss SSSI and Holcroft Moss SSSI are triggered for this development site. These SSSI's form part of the internationally designated site Manchester Mosses SAC so the EIA will need to conduct a full assessment to ensure that development on this site would not lead to hydrological impacts on the designated site. Changes to air quality as a result of changes to traffic volume/flow should also be considered.*

1.1.4 Greater Manchester Ecology Unit (GMEU) also provided a scoping opinion with the following advice relevant to this assessment:

> *The site is within 1km of parts of the Manchester Mosses Special Area of Conservation (SAC), in particular Holcroft Moss and Risley Moss. I would recommend that potential impacts on the special nature conservation interests of these sites are properly considered in the Environmental Statement. The potential of the development to cause –*
>
> - *Indirect hydrological changes and*
> - *Increases in diffuse air pollution arising from increased traffic generation*

1.1.5 Impacts to non-European protected sites are considered in the Ecology chapter (8) of the associated Environmental Impact Assessment. Impact pathways considered are:

- Hydrological modifications from the construction and operation of the MSA;

- Adverse air quality arising from any localised traffic increase; and
- Recreational impacts from visitors to the MSA.

1.1.6 Impact pathways are routes by which a change in activity within the project scope can lead to an effect upon a European site. Due to the scale and nature of this project it is considered that only Holcroft Moss and Risley Moss could be affected by the project works being undertaken at the application site. This is due to the fact that the Project is located within potential influencing distance of these conservation sites and could therefore affect their qualifying features (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of them.

1.1.7 Due to the negligible contribution of this development to any of the identified potential adverse effects, the scope of the in-combination assessments is limited, as pathways of effect are also inherently restricted.

1.2 Site Context

1.2.1 The proposed development is to be located immediately adjacent to Junction 11 of the M62. The survey area (Site) covers the application area plus adjacent habitats where these are relevant to the assessment of potential adverse effects.

1.2.2 The wider landscape comprises arable farmland/pasture to the east, south east and north, a capped landfill directly west of the site and Birchwood Business and Technology Park to the south west.

1.2.3 Holcroft Moss SSSI & SAC is located approximately 1km to the east of the Application Site. Risley Moss SSSI & SAC and Risley Moss Local Nature Reserve are located approximately 1.4km to the south of the site.

1.2.4 The location of the Application Site relative to these designated areas is shown on the following plan: 'Location of Statutory and Non-statutory Conservation Sites' (Drawing Ref. SH11739/016 Rev. A) contained in the PEA report included in this submission. Non-statutory conservation sites also shown on the plan are not relevant to this assessment.

1.2.5 The conservation Objectives for the Manchester Mosses SAC are as follows[1]:

[1] http://publications.naturalengland.org.uk/publication/5283870555504640

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- *The extent and distribution of qualifying natural habitats*
- *The structure and function (including typical species) of qualifying natural habitats, and,*
- *The supporting processes on which qualifying natural habitats rely*

This document should be read in conjunction with the accompanying Supplementary Advice document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

H7120. Degraded raised bogs still capable of natural regeneration

1.3 Project Description

1.3.1 The planning application is for outline consent for the erection of a Motorway Service Area with all matters reserved with the exception of access from the M62, comprising of:

> *'Environmental Assessment Application, Outline Planning Permission (Major) including details of access - Proposed Erection of a Motorway Service Area including Facilities Building, up to 100 bedroom Hotel, service yard, Fuel Filling Station, Electric Charging Station, parking facilities landscaping and amenity areas and associated infrastructure, all other details (Appearance, Landscaping, Layout and scale) reserved for subsequent applications.*

1.3.2 It is proposed to have one MSA development platform serving both westbound and eastbound carriageways of the M62, located to the north of the main carriageway, including one Facilities Building, Hotel and Fuel Filling Station. In addition, areas for parking for all vehicles (light vehicles, HGVs, coaches, caravans/motor homes, motorcycles and abnormal loads) are proposed, as well as electric vehicle charging points. Each of the buildings and parking areas will include specific landscaping.

1.3.3 The only vehicular access into the development will be taken from the M62 via the existing junction off the Motorway. This junction already provides access for both westbound and eastbound traffic. No vehicular connections are proposed to the local road network.

1.3.4 The habitats on site are summarised in Table 1 below.

Table 1: Phase I Habitat Descriptions
Arable Arable farmland dominates the survey area. This habitat is actively disturbed by agricultural operations and at the time of survey appeared to have been seeded with autumn sown cereals. Arable margins are scant, but where present, are dominated by cock's-foot *Dactylis glomerata*, Yorkshire-fog *Holcus lanatus*, creeping bent *Agrostis stolonifera* with occasional cleavers *Gallium aparine*, rosebay willowherb *Chamerion angustifolium*, bramble *Rubus fruiticosa* and nettle *Urtica dioica*.
Neutral Grassland, Tall Ruderal and scrub A mosaic of habitats is present along the southern and western boundaries of the site. Unmanaged neutral grassland being the dominant type with variable areas of continuous/scattered scrub and tall ruderals also present. Species present include great willowherb *Epilobium hirsutum* (D), broadleaved dock *Rumex obtusifolius* (D), creeping thistle *Cirsium arvense* (D), common reed *Phragmites australis* (A), perennial rye grass *Lolium perenne* (A), cock's foot (A), bramble (F), common nettle (F), vetch spp. (O), alder *Alnus glutinosa* (O), elder *Sambucus nigra* (R), common ragwort *Senecio jacobaea* (R) and pedunculate oak *Quercus robur* (R).
Marshy Grassland There is a small area of wet/marshy grassland within the larger area of tall ruderal habitat located along the western boundary. The species composition includes common reed (D), cocksfoot (F), perennial rye grass (O), great willowherb (O) and marsh thistle *Cirsium pallustre*. (R).
Broadleaved scattered trees Bordering the western boundary of the site is a discontinuous line of silver birch *Betula pendula* (D) trees. Species also present in the tree line are elder (F) and grey willow *Salix cinerea* (R). The ground flora is comprised of common nettle (D), fern sp. (A), mosses (A), bramble (F), cock's-foot (F) and perennial rye grass (F). Individual silver birch trees are also present along the northern boundary of the site.
Dry Ditch Running along the eastern boundary under the birch treeline is a dry ditch. The banks are partly bare, with eroding and exposed peat'hags' present. Species present include Himalayan balsam *Impatiens glandulifera* (A), mosses (F), bramble (O), fern sp. (O), mosses and common nettle (O).
Mesotrophic Running Water Along the western boundary is a wet ditch (Silver Lane Brook) with running water from the southern boundary to beyond the northern boundary. At the time of the survey, water levels were low with the ditch approx. 1m wide. The banks are vegetated with perennial rye grass (A), cock's-foot (A), common reed (A), great willowherb (A), common nettle (F), and vetch spp. (R).

Table 1: Phase I Habitat Descriptions
Semi-natural Broadleaved Woodland Within with north western and south western boundary are small areas of semi-natural broadleaved woodland with high coverage of leaf litter and dead wood. Tree species present include lombardy poplar *Populus nigra* (D), goat willow *Salix caprea* (F), hawthorn *Crataegus monogyna* (O) and alder (R). The ground layer is dominated with bramble (D) with stinging nettle (F), great willowherb (O), cleaver (O), yorkshire fog (F) and broad-leaved dock (O).
Hard Standing From within south western boundary of the site, running north along the western site boundary is an area of hard standing used as parking and as an access track.

2 LEGISLATION

2.1.1 The need for an assessment of impacts on Natura 2000 sites is set out within Article 6 of the EC Habitats Directive 1992 and transposed into UK law by the Conservation of Habitats and Species Regulations 2018 (as amended). The ultimate aim of the Directive is to "maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest" (Habitats Directive, Article 2(2)). This aim relates to habitats and species, not the European sites themselves, although the sites have a significant role in delivering favourable conservation status.

2.1.2 The Habitats Directive applies the precautionary principle to European sites. Plans and projects can only be permitted having ascertained that there will be no adverse effect on the integrity of the site(s) in question. Plans and projects with predicted adverse impacts on European sites may still be permitted if there are no alternatives to them and there are Imperative Reasons of Overriding Public Interest (IROPI) as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the site network.

2.1.3 In order to ascertain whether or not site integrity will be affected, an assessment should be undertaken of the plan or project in question. While the competent authority (e.g. Warrington Council) makes the formal decision as to whether adverse effects will result, they are entitled to request the applicant to produce necessary information to assist them. That is the purpose of this report.

Box 1. The legislative basis for Appropriate Assessment

Habitats Directive 1992

Article 6 (3) states that:

"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives."

Conservation of Habitats and Species Regulations 2018 (as amended)

The Regulations state that:

24.—(1) Where it appears to the appropriate nature conservation body that a notice of a proposal under section 28E(1)(a) of the WCA 1981 relates to an operation which is or forms part of a plan or project which—

(a) is likely to have a significant effect on a European site (either alone or in combination with other plans or projects), and

(b) is not directly connected with or necessary to the management of that site, it must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.

(2) In the light of the conclusions of the assessment, it may give consent for the operation only after having ascertained that the plan or project will not adversely affect the integrity of the site.

2.1.4 Over the years the phrase 'Habitats Regulations Assessment' (HRA) has come into wide currency to describe the overall process set out in the Conservation of Habitats and Species Regulations from screening through to Imperative Reasons of Overriding Public Interest (IROPI). This has arisen in order to distinguish the process from the individual stage described in the law as an 'Appropriate Assessment'. Throughout this report we use the term Habitat Regulations Assessment for the overall process and restrict the use of Appropriate Assessment to the specific stage of that name.

3 HRA METHODOLOGY

3.1.1 HRA of projects can be broken down into three discrete stages, each of which effectively culminates in a test. The stages are sequential, and it is only necessary to progress to the following stage if a test is failed. The stages are:

Stage 1 – Likely Significant Effect Test

3.1.2 This is essentially a risk assessment, typically utilising existing data, records and specialist knowledge. The purpose of the test is to decide whether 'full' Appropriate Assessment is required. The essential question is:

> *"Is the project, either alone or in combination with other relevant projects and plans, likely to result in a significant [adverse] effect upon European sites?"*

3.1.3 If it can be demonstrated that significant effects are unlikely, no further assessment is required.

Stage 2 – Appropriate Assessment

3.1.4 If it cannot be satisfactorily demonstrated that significant effects are unlikely, a full "Appropriate Assessment" will be required. In many ways this is analogous to an Ecological Impact Assessment, but is focussed entirely upon the designated interest features of the European sites in question. Bespoke survey work and original modelling and data collation are usually required. The essential question here is:

> *"Will the project, either alone or in combination with other relevant projects and plans, actually result in an adverse effect upon the integrity of any European sites, without mitigation?"*

3.1.5 If it is concluded that adverse effects will occur, measures will be required to either avoid the impact in the first place, or to mitigate the ecological effect to such an extent that it is no longer significant. Note that, unlike standard Ecological Impact Assessment, compensation for adverse effects (i.e. creation of alternative habitat) is not permitted at the Appropriate Assessment stage.

Stage 3 – Imperative Reasons of Overriding Public Interest (IROPI) Test

3.1.6 If a project will have a significant adverse effect upon a European site, and this effect cannot be either avoided or mitigated, the project cannot proceed unless it passes the IROPI test. In order to pass the test it must be objectively concluded that no alternative solutions exist. The project must be referred to Secretary of State on the

grounds that there are Imperative Reasons of Overriding Public Interest as to why the plan should nonetheless proceed.

3.1.7 This report deals with the first stage of Habitat Regulations Assessment – the Likely Significant Effect Test.

3.2 Confirming Other Plans and Projects That May Act in Combination

3.2.1 It is a requirement of the Regulations that the impacts of any land use plan being assessed are not considered in isolation but in combination with other plans and projects that may also be affecting the European site(s) in question. In this case a detailed in combination assessment has not been undertaken, given the separation distance between the Application Site and the SAC, however land proposed to be safeguarded for the HS2 route lies adjacent to the Site's northern boundary. This is not a 'lodged development' is it is currently in Government consultation. The current programme is for Advanced works Q4 2022, development during Q4 2024 and commissioning in Q4 2031 – Q3 2033.

3.2.2 There is no current information regarding impacts from HS2 to either of the SAC units considered in this report however it is anticipated that should the development proceed any impacts to peatland resources would be fully mitigated given that it is a nationally significant infrastructure project.

4 IMPACT PATHWAYS

4.1.1 In carrying out an HRA it is important to determine the various ways in which the project in question can impact on European sites by following the pathways along which development can be connected with those sites, in some cases many kilometres distance. Briefly defined, pathways are routes by which a change in activity associated with a development can lead to an effect upon a European site.

4.2 Hydrological Modifications

4.2.1 There is considered to be no continuous water pathways between the Proposed Development and the SAC (Drawing ref: SH11739-070, SH11739-071, SH11739-059 and SH11739-060), this is based on a number of reasons, each of which is discussed below.

Groundwater within the Superficial Deposits

4.2.2 The Proposed Development and the SAC are underlain by Peat and low permeability till. Sand lenses are likely to be present within the till however, these will be localised and limited in areal extent and are unlikely to present a pathway between the Proposed Development and either Risley or Holcroft Moss. Glaciofluvial Sheet Deposits are mapped below Holcroft Moss however these are not present below the Proposed Development and therefore do not present a direct pathway between the Proposed Development and the Holcroft Moss.

4.2.3 The M62 is at a similar elevation as the Proposed Development and it is likely that excavation for the motorway foundations would have cut through the Peat, and possibly into the underlying superficial deposits, removing any hydrogeologic connection via the Peat between the Proposed Development and Holcroft Moss.

4.2.4 Precipitation is likely to be intercepted by the surface water drainage and SuDS system in areas of hardstanding on Proposed Development reducing direct recharge to the sand lenses (and underlying bedrock aquifer). However, the proposed drainage system discharges (onsite) to the diverted Silver Lane Brook at Greenfield runoff rates which, downstream of the Proposed Development, is likely to be in continuity with the Glaciofluvial Sheet Deposits and thus the overall runoff – recharge relationship across the catchment will remain the same.

Groundwater in Bedrock Aquifer

4.2.5 British Geological Survey (BGS) borehole records from BGS GeoRecords Plus+[2] suggest that the groundwater in the Helsby Sandstone Formation is confined below the overlying low permeability till.

4.2.6 Risley Moss and the Proposed Development are located on different aquifers. The Proposed Development is located entirely on Helsby Sandstone Formation (Sandstone, Pebbly (gravelly)) which is designated as a Principal Aquifer. Risley Moss is predominantly located on the Bollin Mudstone Member (Mudstone) and partly (along the northern boundary) on the Tarporley Siltstone Formation (Siltstone, Mudstone and Sandstone), both designated as a Secondary B Aquifers. The Bollin Mudstone Member and the Tarporley Siltstone Formation overlie the Helsby Sandstone Formation. There is unlikely to be hydraulic continuity between the Helsby Sandstone Formation and the overlying lower permeability mudstones/siltstones. Groundwater flow within the sandstone is recorded to be towards the west/south-west whereas Risley Moss is located to the south of the Proposed Development, across hydraulic gradient.

4.2.7 Holcroft Moss and the Proposed Development are both located on the same aquifer, Helsby Sandstone Formation, which is designated as a Principal Aquifer. A Hydrogeological Risk Assessment (HRA) Review prepared by Sirius Environmental on behalf of Biffa Waste Services for the Risley Landfill Site found that "the [Helsby Sandstone Formation] groundwater in the vicinity of the [Risley Landfill] site flows in a south westerly/westerly direction." Holcroft Moss is located to the east the Proposed Development therefore, this Moss is located across/up hydraulic gradient from the Proposed Development.

4.2.8 As such there will be no hydraulic connection between the Proposed Development and the Risley or Holcroft Moss via the bedrock aquifer.

4.3 Air Quality Effects

4.3.1 The potential for adverse air quality effects at the Manchester Mosses SAC has been considered as part of this report. One particular component of the wider Manchester Mosses SAC is Holcroft Moss; which is of particular relevance to the assessment because it lies adjacent to the M62 and because the habitats and plant

[2] British Geological Survey. 2019. Geoindex. [online] available at: http://mapapps2.bgs.ac.uk/geoindex/home.html

communities include peatland with bryophyte components and are of particular sensitivity to air quality effects, especially N (Nitrogen oxides and ammonia) deposition.

4.3.2 Many plant groups are known to be negatively associated with N pollution: within bogs the relationship is strongest in forbs including round leaved sundew *Drosera rotundifolia* and bog asphodel *Narthcium ossifragum* and lichens; in acid grasslands flowering plants typically show a reduction in both richness and diversity (Stevens et al., 2006).

4.3.3 Natural England's commissioned report (Natural England NECR210 2016)[3] on the effects of small increments of atmospheric nitrogen deposition states that *the decline in species richness commences at the low end of the N deposition range and by upper end of the critical load range a substantial loss has already occurred. This reduces the inherent biodiversity of habitats through the loss of more sensitive and rare species. At higher loads of long-term N deposition beyond the critical load range, the integrity of sites may be threatened by graminoid domination and structural change to the habitat*. It is possible therefore that sites such as Holcroft Moss which are exposed to an exceedance of critical load in N deposition may have developed bog communities which are now more resilient to minor incremental changes in N deposition. This effect at the site itself is not fully understood however as the current vegetation communities have developed under levels of N deposition in exceedance of critical loads; it can reasonably be assumed that such communities may have acquired a degree of tolerance to such N deposition, given the location of the site.

Construction Phase: Road Traffic Emissions

4.3.4 Recent guidance published by Natural England (NE)[4], confirms that the appropriate distance criterion to be applied for road traffic emission assessments is 200m (i.e. 200m from a considered road source).

[3] 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.

[4] Natural England 2018. Internal Guidance – Approach to Advising Competent Authorities on Road Traffic Emissions and HRAs V1.4 Final - June 2018

4.3.5 The final number and routing of construction phase vehicles is yet to be confirmed. However, calculations have been undertaken by i-Transport, the appointed transport consultant, to estimate the number of vehicles that may be expected to access the site during the construction phase. A worst-case approach has been adopted in these calculations.

4.3.6 The vehicles accessing the site during the construction phase relate to muck shifting and the export of material, the import of material for construction, general construction deliveries and the labour force.

4.3.7 The volume of material expected to be exported from the site (42,000m^3) and imported to the site (45,700m^3) has been used to calculate the total number of Heavy Duty Vehicles (HDVs) that will need to access the site during the construction phase. The following assumptions have been made:

- Each HDV will carry 15m^3 of material;
- Vehicle movements will take place over a six-month period; and
- Vehicle movements will be spread out evenly through the working day, between the hours of 0700 and 1800.

4.3.8 The export of materials will result in a total of 2,800 one-way HDV movements and the import of materials will result in a total of 3,047 one-way HDV movements over the entire construction period. This equates to an average of 4 HDVs in and 4 HDVs out of the site per hour, during the working day.

4.3.9 In addition, 20 HDV movements are expected per day as a result of general construction deliveries, which relates to an average of 2 HDVs in and 2 HDVs out per hour, during the working day. Information on the likely deliveries is based on the experience of Extra MSA Group of developing other MSA sites.

4.3.10 Finally, the construction staff volume is expected to be up to 300 personnel and, with an LDV occupancy rate of 2.0, this results in 75 car/van arrivals in the AM peak hour and 75 car/van departures in the PM peak hour (assuming that half arrive and half depart during peak hours) during the working day.

4.3.11 Based on this information, the estimated total number of vehicles accessing the site in an average working day is calculated to be 300 Light Duty Vehicles (LDVs) and 130 Heavy Duty Vehicles (HDVs) during the construction phase.

4.3.12 With regard to routing, assumptions have been made by i-Transport on where vehicles will travel to/from the site. It is expected that vehicles carrying both export and import material will access the site from the M62 motorway, with 50% originating from both the east and west. The distribution pattern derived from 2011 census journey to work data has been adopted for the labour force, with 27% expected to travel to the site from the east along the M62 Motorway. Taking into account these assumptions on routing, this results in a daily average of 82 LDVs and 65 HDVs travelling along the M62 Motorway to the east of Junction 11, during the construction phase.

4.3.13 Natural England's (2018) guidance refers to a distance criterion for road traffic emission assessments of 200m (i.e. where a European Site is located within 200m from a considered road source). The Holcroft Moss SAC is located approximately 0.8km to the east of the proposed development site and is the only component of the Manchester Mosses SAC which is located within 200m of a road that may be affected by the proposed development (i.e. the M62 Motorway, to the east of Junction 11).

4.3.14 The NE (2018) guidance provides screening thresholds for road traffic from a development which are a change of more than 1,000 AADT for total vehicles, and a change of more than 200 AADT for HDVs. The estimated change in vehicle numbers on the relevant section of road during the construction phase (as detailed above) lies below these screening thresholds, and therefore there are no likely significant effects during the construction phase of the Proposed Development to the Manchester Mosses SAC.

<u>In Combination Effects: Construction Phase Road Traffic Emissions</u>

4.3.15 Any minor increase in the number of vehicles on the M62 Motorway to the east of Junction 11 and hence potentially within influencing distance of Holcroft Moss will be temporary in nature, as the construction phase is expected to be completed within 12 months. Once the construction of the proposed development is complete, these vehicles will no longer have the requirement to travel to and from the site along the M62 Motorway to the east of Junction 11.

4.3.16 As a result of the temporary nature of this change in vehicle numbers, significant air quality impacts would not be expected at Holcroft Moss. This assessment is based on both the minor contribution of change in emissions arising from the slight increase in potential vehicle movements along the M62 during construction, and the

temporary nature of such vehicle movements. Consequently, no likely significant effects are predicted to the Manchester Mosses SAC in respect of vehicle emissions associated with the construction of the Proposed Development, both alone and in-combination.

Operational Phase: Road Traffic Emission

4.3.17 The development proposals include a range of facilities that are typical of those found at MSAs elsewhere on the motorway network. These facilities include a Fuel Filling Station, a food court with ancillary retail floorspace, a hotel and a business lounge.

4.3.18 The scale of the proposals adheres to the principles of the Department for Transport (Dft) Circular 02/2013, in that the proposed development will meet the needs of the travelling public rather than being a destination in its own right. The proposed MSA will provide opportunities and facilities for motorists and commercial drivers, and their passengers, to take breaks, refresh and relax in a safe and convenient location on the Strategic Road Network. The absence of such facilities in areas where there is a need places the safety and welfare of the travelling public at risk and increases the chance of accidents.

4.3.19 Further information on the expected trip generation is provided in the Transport Assessment prepared by i-Transport. The main facilities building within the MSA are not anticipated to attract any trips, as the facilities provided within it (i.e. convenience stores, etc) are readily available at other locations nearby. These existing facilities have good accessibility from the surrounding area by all modes of transport and are already used both by local residents and employees of the Birchwood Technology Park. It is not expected that a significant number of these users will choose to drive to the MSA in preference over their current arrangements for carrying out a convenience or lunch break shop.

4.3.20 The hotel may attract trips from road users on longer distance journeys, but the facility is aimed, in particular, at business travellers who would pass by anyway. Given the nature of the proposals, the proposed development is not expected to result in newly generated trips, other than perhaps a small number associated with deliveries and staff travel. Rather, the vast majority of trips to/from the proposed MSA will be transferred trips that are already on the highway network.

4.3.21 The operational phase will therefore result in the redirection of a proportion of existing traffic on the M62 Motorway along the off-slip roads at Junction 11, onto

the site access road and then back onto the motorway using the on-slip roads. On this basis, the vast majority of additional vehicle trips generated by the proposed development will be focused on the roads directly servicing the proposed development, including the Junction 11 slip roads and the A574 Birchwood Way roundabout. These links are situated well over 200m from any designated habitat sites, including the Manchester Mosses SAC as a whole and specifically the Holcroft Moss component of the SAC.

4.3.22 With regard to movements on the M62 Motorway, it has been confirmed by i-Transport that the expected change on the section to the east of Junction 11 will be in the region of 84 total trips in an average day. This small number of trips relates to deliveries and staff only and represents an extremely small increase in comparison to existing flows on the motorway. As with construction phase flows, this falls significantly below the screening threshold in NE guidance when considered in isolation. Hence this assessment concludes that no likely significant effects are predicted to the Manchester Mosses SAC in respect of vehicle emissions associated with the operation of the Proposed Development, when considered in isolation.

<u>In Combination Effects: Operational Phase Road Traffic Emissions</u>

4.3.23 The NE (2018) guidance states that the screening thresholds should be applied in-combination with emissions from other road traffic plans and projects. The traffic flow information used in the air quality assessment has been provided by i-Transport and is based upon both a series of traffic counts and data from Highway England's MiDAS database.

4.3.24 The following specific committed developments have been identified which contribute to the traffic joining the M62 Motorway at Junction 11, and their consideration has been agreed with both Warrington Borough Council (WBC) and Highways England (HE). These developments are listed in the Transport Assessment (prepared by i-Transport) as

- Former Bayleaf Public House, Harpers Road, Warrington (PA Ref: 2016/27896);
- The Quadrant, Birchwood, Warrington (PA Ref: 2014/23358); and
- Redevelopment of Birchwood Park, Birchwood, Warrington (PA Ref: 2015/26044).

4.3.25 The development at Harpers Road is an extra care facility located approximately three miles from the site. From the Transport Assessment, it is understood that the

accompanying Transport Statement for the development sets out a peak hour trip generation of 12 two-way trips. This is therefore considered unlikely to have a discernible effect on the highway network in the vicinity of the site.

4.3.26 The developments in Birchwood Business Park relate to an update to a previous planning consent to amend the quantum of different land uses, and the future implementation of floorspace in a major development, respectively. The predicted level of traffic associated with Birchwood Business Park (i.e. in future assessment years) has been discussed and agreed with Warrington Borough Council (WBC).

4.3.27 Taking into account the specific committed developments detailed above, the expected increase in vehicles on the M62 Motorway to the east of Junction 11 is 511 movements in an average day. Taking into account the predicted vehicle movements associated with the proposed development, this results in a total of 595 trips on the M62 Motorway to the east of Junction 11.

4.3.28 It should be noted that, based on historic implementation of floorspace in the Birchwood Business Park, it could take several years for the remaining floorspace to be implemented. However, in the interests of simplicity (and in the absence of any more detailed information), the Transport Assessment has applied the full committed development flows to the future years baseline flows. As a result, it is considered within the Transport Assessment that this represents a worst case for the traffic impact assessment.

4.3.29 Furthermore, mitigation will be implemented at the proposed development in the form of a Framework Staff Travel Plan which has been prepared by i-Transport and discussed with WBC's Smarter Choices team. This has been prepared with reference to prevailing best practice guidance and Extra's experience of operating MSAs across the Strategic Road Network. It includes a range of proven measures which will be promoted to encourage sustainable staff travel patterns and the reduction of emissions.

4.3.30 These measures include infrastructure improvements to off-site pedestrian and cycle networks including improved access to across Junction 11 of the M62 Motorway, various measures to promote cycling (including secure cycle parking and BikeRight! Training), car sharing and personalised travel planning. The Applicant has proposed that a staff minibus operates between the development and Birchwood Station and this is supplemented by developing preferential relationships with local taxi operators to negotiate reduced rates for staff working very late or early shifts. In

addition, an Electric Charging Station will be located within the parking areas and in close proximity to the facilities building.

4.3.31 In conclusion, the in combination assessment of the air quality impact of development generated vehicles and other vehicles associated with the committed developments considered in the Transport Assessment, during the operational phase (as detailed above) is minor and there are no likely significant effects during the operational phase of the Proposed Development to the Manchester Mosses SAC.

4.4 Recreational impacts from visitors to the MSA

4.4.1 The purpose of the MSA is to meet the needs of the travelling public, using the M62 and associated road network. The vast majority of visitors to the MSA will use the facilities on a temporary basis before returning to their cars and continuing their planned journey. This means that most users of the MSA are extremely unlikely to break from their journey for an extended period in order to visit a SAC or SSSI conservation site such as Holcroft Moss or Risley Moss, which are located approximately 1km and 1.4km, respectively. Similarly, for uses of the planned Hotel, these sites are unlikely to be utilised as a recreational resource given that the majority of travellers are short term visitors and are not resident for any significant period of time.

5 CONCLUSIONS

5.1.1 Given the separation distance between the Application Site and the two main conservation sites within proximity of the site, adverse effects are considered to be minimal for all potential pathways of impact. This HRA screening assessment therefore concludes that there are no likely significant (adverse) effects to Holcroft Moss or Risley Moss and hence the Manchester Mosses SACs as a result of the Proposed Development acting either alone or in-combination with other relevant plans or projects. Consequently, no mitigation need be applied, and the assessment can be concluded at screening (Stage1).

6 REFERENCES

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Appendix 1

Legislation and Policy Summary

Appendix 1 – Legislation and Policy Summary

Legislation for Habitats/Sites

Designated Site/Habitat	Status
Ramsar Sites	Ramsar Sites are wetlands of international importance designated following The Ramsar Convention. RAMSAR sites have the same level of protection as SSSIs under the Wildlife and Countryside Act 1981 (as amended).
SPA (Special Protection Areas)	SPAs are classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC), the Birds Directive. They are they seek to protect the habitats of rare and vulnerable birds, listed in Annex I of the Birds Directive, and for regularly occurring migratory species. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 implement the Birds Directive in the UK.
SAC (Special Areas for Conservation)	SACs are strictly protected areas which represent typical European Union of habitats and (non-bird) species listed in Annexes I and II of the EC Habitats Directive. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 implement the Habitats Directive in the UK.
SSSI (Sites of Special Scientific Interest)	SSSIs protect the best examples of the UK's flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were renotified under the Wildlife and Countryside Act 1981 (as amended). Modified provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000.
NNR (National Nature Reserves)	NNRs are examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. NNRs are declared by the statutory country conservation agencies under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981 (as amended). Legal protection of NNRs is provided under The Wildlife and Countryside Act 1981 (as amended).
Hedgerows	All hedgerows are protected by the Hedgerows Regulations 1997, under which it is an offence to remove or destroy certain hedgerows without planning consent or permission from the Local Planning Authority. These regulations do not apply to any hedgerow within the curtilage of, or marking the boundary of the curtilage of, a dwelling house.
LNR (Local Nature Reserves)	Designated by the National Parks and Access to the Countryside Act 1949, LNRs may be declared for nature conservation by local authorities after consultation with the relevant statutory nature conservation agency. Legal protection of LNRs is provided under The Wildlife and Countryside Act 1981 (as amended).

Legislation for Species

Species	**Legal Status**
European Legislation	
Creeping Marshwort, Early Gentian, Fen Orchid, Floating-leaved Water Plantain, Killaney Fern, Lady's Slipper, Shore Dock, Slender Naiad, Yellow Marsh Saxifrage	Under the Conservation of Habitats and Species Regulations 2010 (and as amended), it is illegal to deliberately pick, collect, uproot or destroy any such species.
Bats, Dormouse, Otter, Wild Cat, Great Crested Newt, Natterjack Toad, Sand Lizard, Smooth Snake, Large Blue Butterfly	These animals and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species Regulations 2010 (and as amended), which makes it illegal to: • Deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs; • Deliberately disturb such an animal; and • Damage or destroy a breeding site or resting place of such an animal. European Protected Species (EPS) licenses can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed, namely: • The development is for reasons of overriding public interest; • There is no satisfactory alternative; and • The favourable conservation status of the species concerned will be maintained and/or enhanced. Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a duty to 'have regard to the requirements of the EC Habitats Directive' i.e. LPA's must consider the above 3 'tests' when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations.

Species	Legal Status
Domestic (UK) Legislations	
Bats, Dormouse, Great Crested Newt, Heath FriTillary, High Brown FriTillary, Large Blue, Marsh FriTillary, Natterjack Toad, Pine Martin, Otter, Red Squirrel, Sand Lizard, Smooth Snake, Swallowtail, Water Vole, Wildcat	These animals receive full protection under the Wildlife and Countryside Act 1981 (and as amended), which makes it illegal (subject to certain exceptions) to: • Intentionally kill, injure or take any such animal; • Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and • Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.
Adder, Common Lizard, Grass Snake, Slow Worm, White-clawed Crayfish	These animals receive partial protection under The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which provide protection against intentional killing or injury of any such animal.
Nesting Birds	All wild birds (as defined by the act) are protected under the Wildlife and Countryside Act 1981 (and as amended), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any wild bird; • Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.
WCA Schedule 1 listed Birds	Additional protection is provided to birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (and as amended). In addition to the offences detailed above relating to all wild birds, it is illegal to: • Intentionally or recklessly disturb any bird listed on Schedule 1, or their dependent young while nesting.
Badgers	The Protection of Badgers Act 1992 makes it illegal to wilfully kill or injure a Badger, or attempt to do so and to intentionally or recklessly interfere with a Badger sett. This includes: • damaging or destroying an active sett; • obstructing access to a sett; and • disturbing a Badger while it is occupying a sett. Licences can be granted to permit sett closure and/or disturbance between July and November inclusive (i.e. outside the sow pregnancy/birth period).

Species	**Legal Status**
Wild Mammals	The Wild Mammals (Protection) Act 1996 provides legal protection to all wild mammals (as defined by the act) against the following actions: mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, drown, crush, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.
Invasive Species	
WCA Schedule 9 listed animals (Part 1) and plants (part 2)	Certain species of plants and animals that do not naturally occur in Great Britain have become established in the wild and represent a threat to the natural fauna and flora. Section 14 of the Wildlife & Countryside Act prohibits the release of any animal species that are: "*not ordinarily resident in and is not a regular visitor to Great Britain in a wild state*"

Policy Summary

Section 40 of the Natural Environment and Rural Communities (NERC) Act imposes a legal duty on Planning Authorities to 'have regard' to the conservation of biodiversity when considering planning applications.

Section 41 of the NERC Act requires the Secretary of State to publish a list of species and habitats of principal importance for conserving biodiversity in the UK. Such Biodiversity Action Plan (BAP) Habitats and Species (2007) do not offer the species any specific protection but help to highlight the species importance at a national level. This list is used by Local Planning Authorities to identify the species and habitats that should be afforded priority when applying the requirements of the National Planning Policy Framework (NPPF).

The NPPF underpins the Government's planning policies for England and how these are to be applied. The central theme of the NPPF is a presumption in favour of sustainable development. This presumption does not apply where development requiring Appropriate Assessment under the Birds or Habitats Directives is being considered, planned or determined.

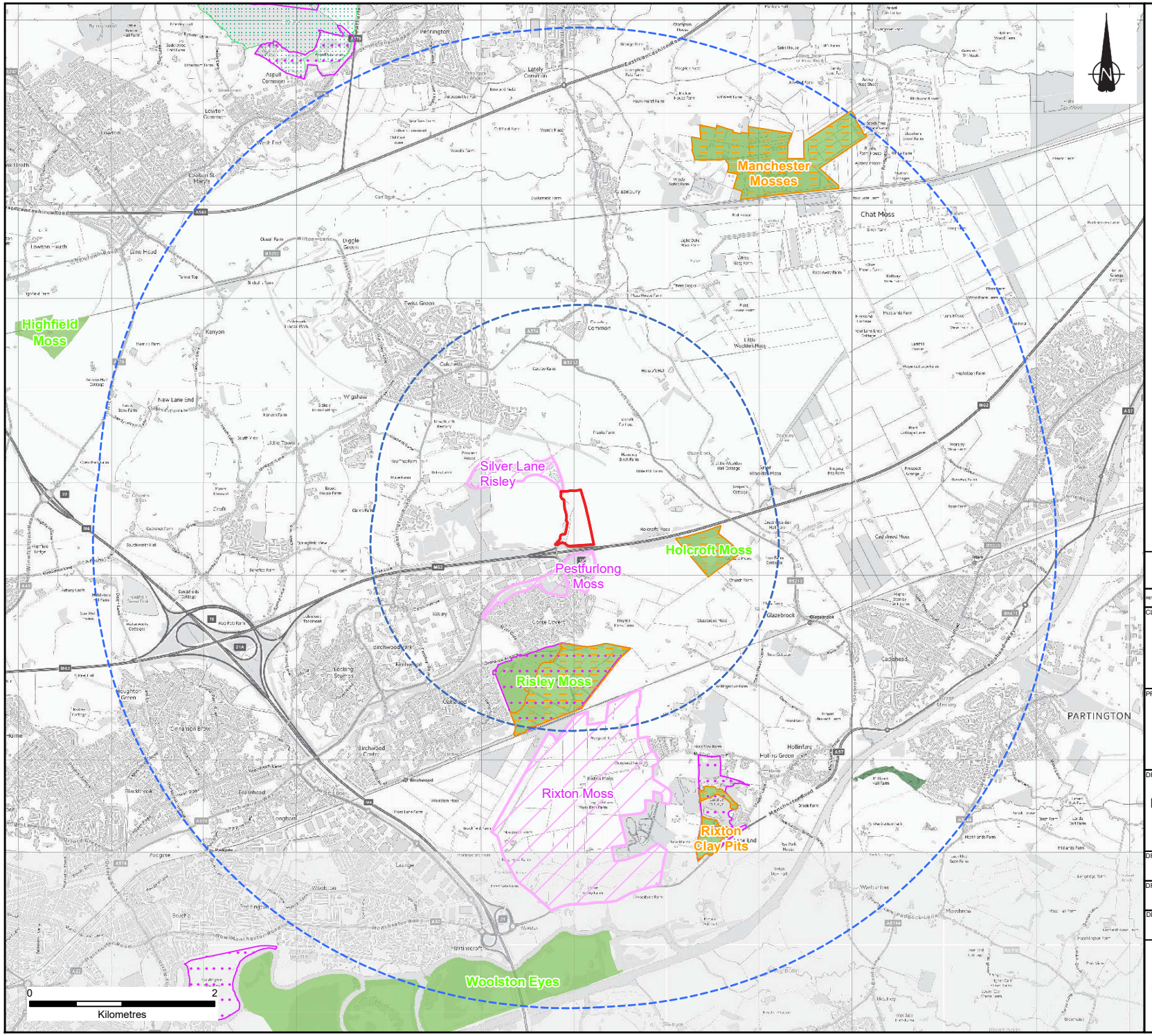
The NPPF states:

> *'When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:*
>
> - *if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
> - *proposed development on land within or outside a Site of Special Scientific Interest (SSSI) likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs;*
> - *development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
> - *opportunities to incorporate biodiversity in and around developments should be encouraged;*

- *planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and*
- *the following wildlife sites should be given the same protection as European sites: potential Special Protection Areas (SPA) and possible Special Areas of Conservation (SAC); listed or proposed Ramsar sites; and sites identified, or required, as compensatory measures for adverse effects on European sites, potential SPAs, possible SACs, and listed or proposed Ramsar sites.'*

The NPPF requires the Planning Authority to have a responsibility to promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan. In addition, the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

DRAWINGS



KEY

- Site Boundary
- 2km and 5km Distance Buffer
- Special Areas of Conservation
- Local Nature Reserves
- Country Parks
- Sites of Special Scientific Interest
- Ancient Woodland
- Local Wildlife Sites

REVISION	DETAILS	DATE	DRAWN	CHKD	APPD

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EXTRA MSA GROUP

PROJECT

MOTORWAY SERVICES, WARRINGTON

DRAWING TITLE

LOCATION OF STATUTORY AND NON-STATUTORY CONSERVATION SITES

DRG No.	REV
SH11739/016	A

DRG SIZE	SCALE	DATE
A3	1:40,000	December 2018

DRAWN BY	CHECKED BY	APPROVED BY
SW	TP	MB

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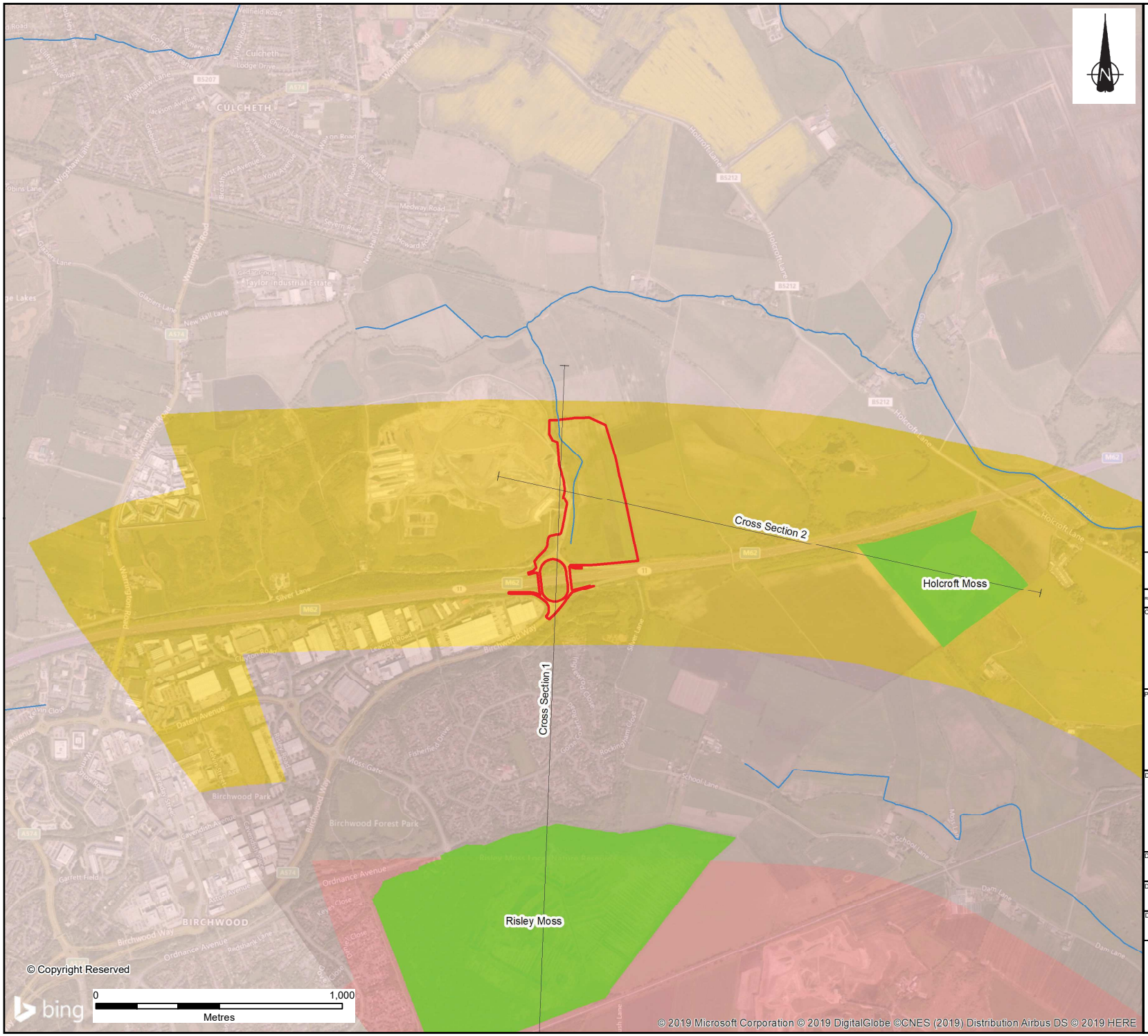

KEY

- Site Boundary 20190718
- Site of Special Scientific Interest
- Main Rivers
- Cross Section
- WILMSLOW SANDSTONE FORMATION
- HELSBY SANDSTONE FORMATION
- TARPORLEY SILTSTONE FORMATION
- BOLLIN MUDSTONE MEMBER

Notes:
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Please see drawing SH11739-070 and drawing SH11739-071.

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D
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EXTRA MOTORWAY SERVICE AREA GROUP

PROJECT

WARRINGTON MOTORWAY SERVICE AREA, J11 M62

DRAWING TITLE

BEDROCK GEOLOGY

DRG No.	REV
SH117319-059	P01

DRG SIZE	SCALE	DATE
A3	1:15,000	03/12/2019

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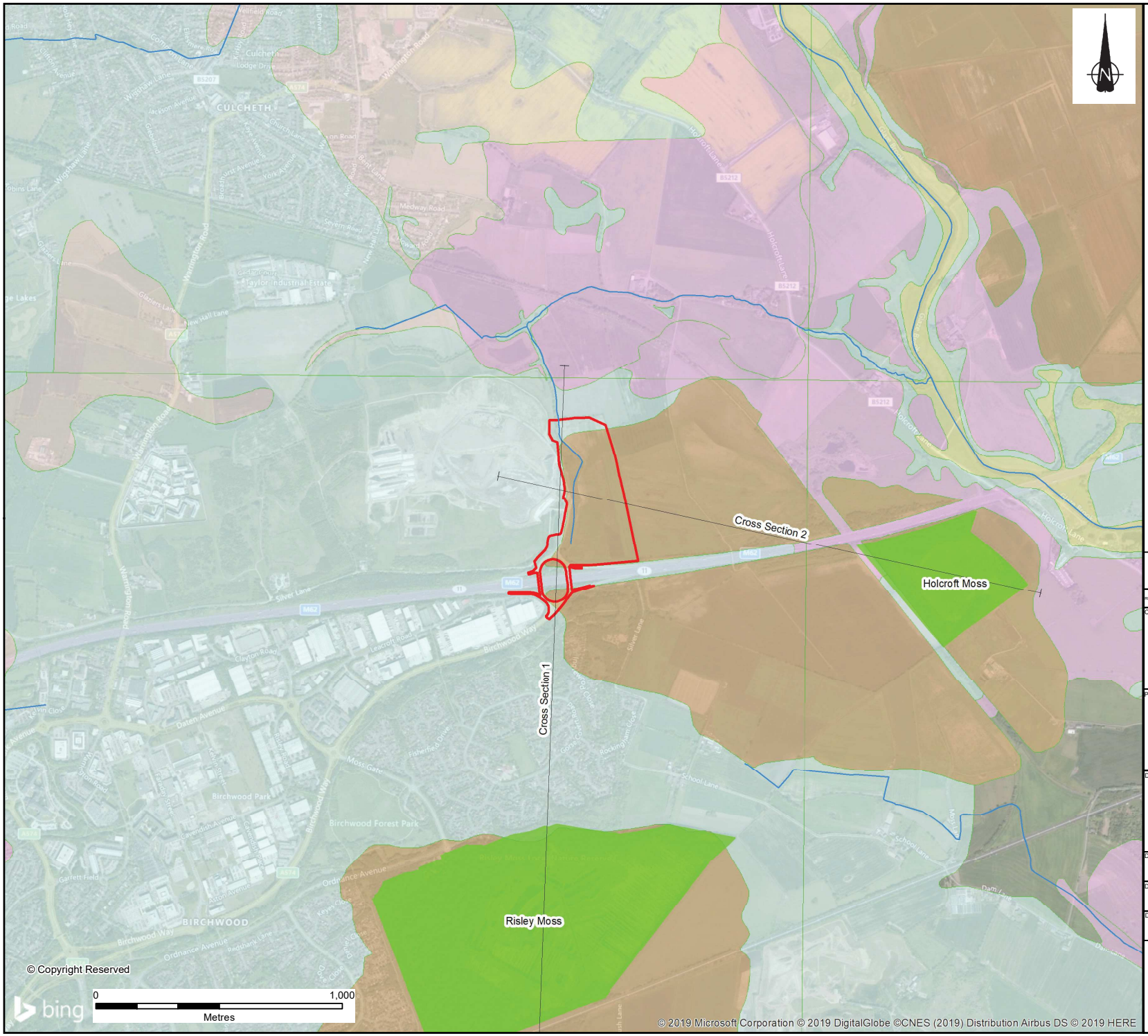

KEY

- Site Boundary 20190718
- Site of Special Scientific Interest
- Main Rivers
- Cross Section
- PEAT
- GLACIOFLUVIAL SHEET DEPOSITS
- ALLUVIUM
- TILL
- GLACIOLACUSTRINE DEPOSITS

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EXTRA MOTORWAY SERVICE AREA GROUP

PROJECT

WARRINGTON MOTORWAY SERVICE AREA, J11 M62

DRAWING TITLE

SUPERFICIAL GEOLOGY

DRG No.	REV
SH117319-060	P01

DRG SIZE	SCALE	DATE
A3	1:15,000	03/12/2019

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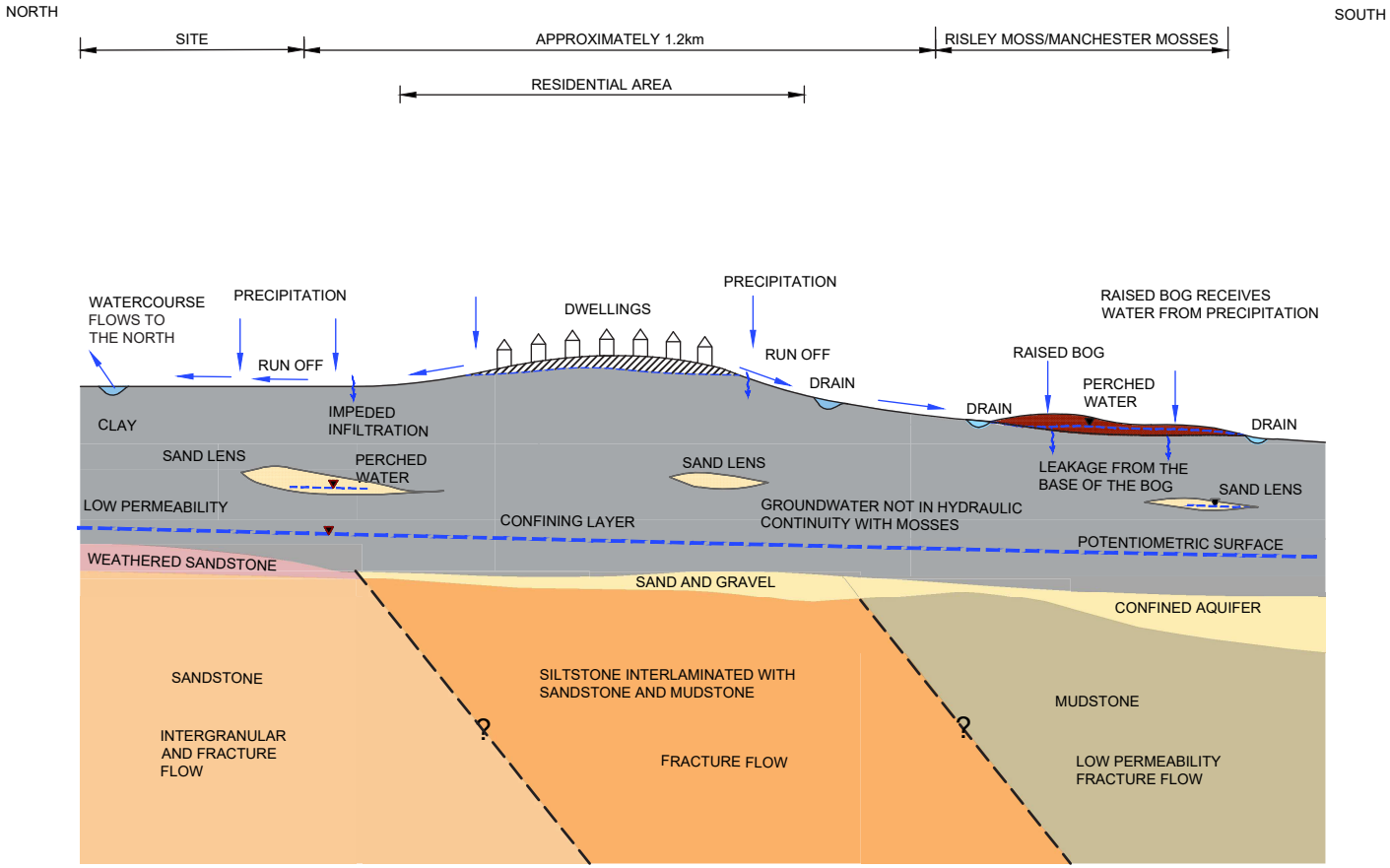
KEY

WATER TABLE

WATER MOVEMENT



REVISION	DETAILS	DATE	DR'N	CHK'D	APP'D
A	FIRST ISSUE	03-12-19	DR	TM	LB

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EXTRA MSA GROUP

PROJECT

MOTORWAY SERVICES. WARRINGTON

DRAWING TITLE

CROSS SECTION 1: NORTH-SOUTH

DRG No.	REV
SH11739-070	A

DRG SIZE	SCALE	DATE
A3	NTS	26-11-19

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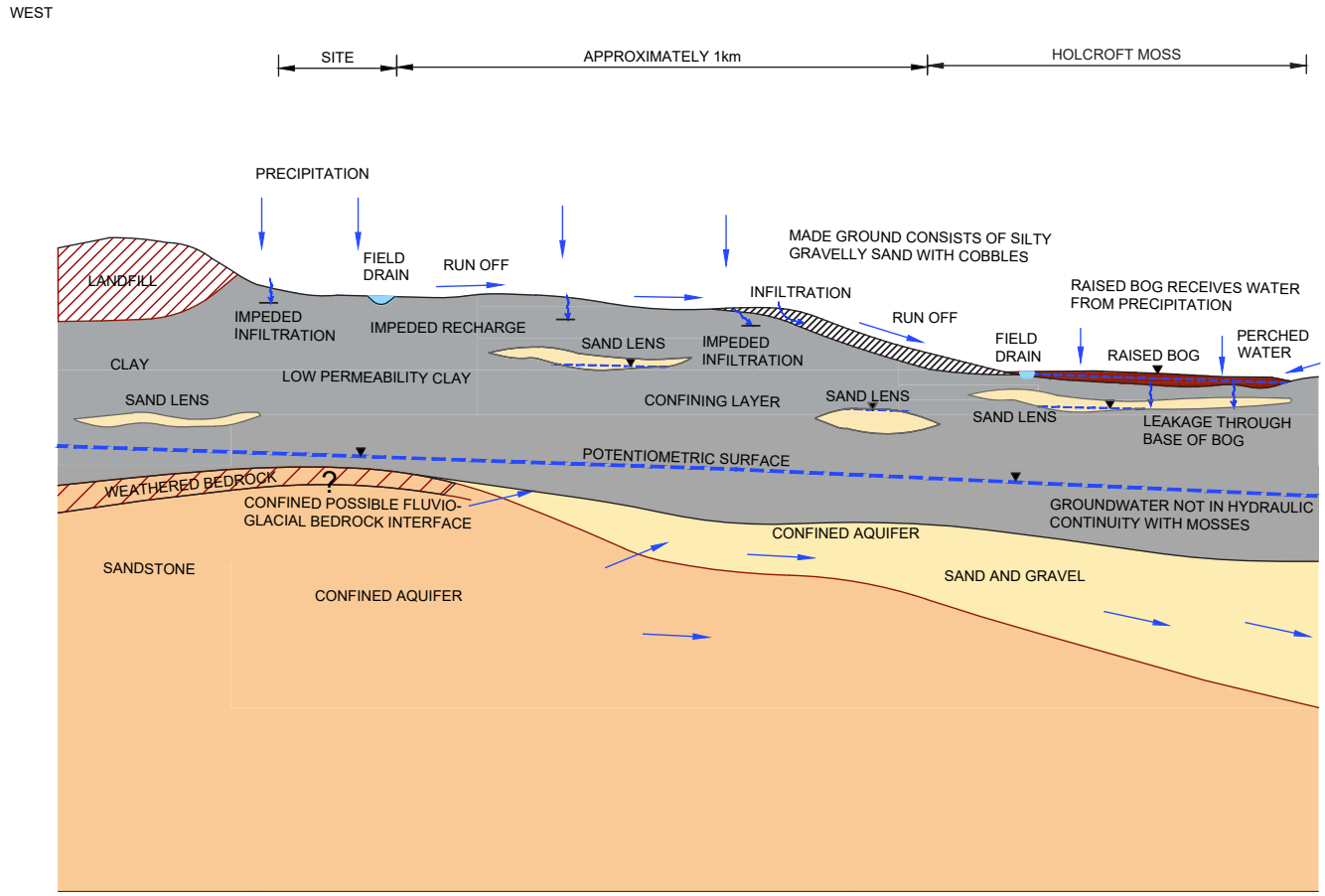
WATER MOVEMENT



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A	FIRST ISSUE	03-12-19	DR	TM	LB

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PROJECT

MOTORWAY SERVICES. WARRINGTON

DRAWING TITLE

CROSS SECTION 2:
WEST - EAST

DRG No.	REV
SH11739-071	A

DRG SIZE	SCALE	DATE
A3	NTS	26-11-19

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