spawforths

Extra MSA Group

Warrington Motorway Service Area, J11 M62

Environmental Statement Part 1

Revision B 22 August 2019

This Environmental Statement is prepared in association with:

Spawforths has been accepted as a registrant to the Institute of Environmental Management and Assessment's (IEMA) EIA Quality Mark scheme. The EIA Quality Mark demonstrates Spawforths commitment to excellence when providing environmental impact assessment services.

Revision Record

Revision Reference	Date of Revision	Nature of Revision	Author	Checked By
A	13 August 2019		Jenny Ray	David Rolinson
B	23 August	Final Issue	Jenny Ray	David Rolinson

Contents

Appendices:

1. Introduction

1.1. This Environmental Statement (ES) has been prepared on behalf of Extra MSA Group (Extra) to accompany an outline planning application for a 'New Concept' Motorway Service Area (MSA) on land adjacent to Junction 11 of the M62 Motorway in Warrington.

1.2. The proposals are considered to be EIA Development and as such, in line with the Town and Country (Environmental Impact Assessment) Regulations 2017, are accompanied by an Environmental Statement (ES).

1.3. The ES is made up of three parts, this ES Part 1 Report, the ES Part 2 and the Non-Technical Summary.

1.4. This ES Part 1 Report sets out the project description, the need for development and the alternatives considered. It includes an overview of the environmental impacts of the proposals with a summary of the mitigation measures proposed. It contains the methodology for assessing the significance of the environmental effects. It also includes an assessment of the interaction of effects and a summary of the cumulative impacts assessed as part of each of the technical areas. The Part 1 Report should be read in conjunction with the ES Part 2, which contains each of the technical papers. A separately bound Non-Technical Summary is also included as part this ES.

1.5. A series of plans and illustrations are included within the text and appendices to help the reader understand the background to the proposals and the scheme. It also provides an understanding as to how the development fits within the planning framework. Part 1 is important in establishing the context for the development allowing readers to understand the objectives of the proposed development. It sets out the framework for how significance impacts have been assessed.

Summary of Planning Application

1.6. The application site (the Site) is located in the North West of England, within the local authority area of Warrington. The national regional context is shown on the plans below and in **Appendix 2**.

Figure 1.1: National Context Plan

Figure 1.2: Regional Context Plan

1.7. The Site is located to the northeast of the urban area of Warrington. The M62 Motorway corridor runs in an east/west direction to the north of Warrington. It is the west-east Trans-Pennine Motorway in Northern England, connecting the two major ports of Liverpool and Hull, via intervening conurbations including Manchester, Warrington, St Helens and Leeds, and connects the three City Regions of Liverpool, Manchester and Leeds. The Site is located to the north of the M62 Motorway at Junction 11, within its north east quadrant and has direct access to Junction 11 via a spur to the motorway junction roundabout (Birchwood Way). The Site is shown in the plan below and in **Appendix 3.**

Figure 1.3: Local Context Plan

1.8. The planning application is to be submitted as an outline application and the Proposed Development is detailed below:

> Erection of a Motorway Service Area including Facilities Building, up to 100 bedroom Hotel, service yard, Fuel Filling Station, Electric Charging Station, parking facilities for each category of vehicle, access and internal circulation roads, structured and natural landscaping with outside amenity space/picnic space and dog walking zone, pedestrian and cycle links, boundary fencing, surface water drainage areas, ecological mitigation, pumping station(s), substation(s), retaining structures and associated infrastructure and earthworks.

1.9. All matters, except for access to the Site will be reserved for consideration at a later date. The access proposals are shown on the plan in **Appendix 7**.

1.10. The Applicant, Extra MSA Group, is a leading specialist market sector developer, long term investment owner and experienced operator of high quality MSA properties across the

Strategic Road Network. They have a portfolio of predominantly 'New Concept' MSA properties with a stable, long-term income profile. They are the largest freehold investment owner in the UK, owning 18 MSA locations, including M40 Motorway Junction 2 Beaconsfield and M25 Motorway Cobham MSAs and a further MSA, Leeds Skelton Lake Services, currently being developed at Junction 45 of the M1 Motorway.

Summary of Proposals

1.11. Extra MSA Group is proposing to develop the 15ha Site for a 'New Concept' Motorway Service Area (MSA).

1.12. The planning application will comprise the following:

- Facilities Building incorporating public facilities, retail uses, food and beverage uses, business lounge and associated staff, storage and management uses within the building thermal envelope
- Hotel and associated guest facilities, front of house, staff and storage uses
- Fuel Filling Station (FFS) incorporating facilities for the public, retail uses, food and beverage uses, and associated staff and storage areas
- Parking facilities for all vehicles with access roads and pedestrian and cycle access in a landscaped setting
- Soft landscaping areas and ecological areas
- Highway access from junction 11 of the M62 Motorway

1.13. The following table summarises the development areas accommodated within the Parameter Plans (Parameter Plans are at **Appendix 5**):

Land Use	Site Area ha (acres)
Facilities Building, Hotel, FFS, Parking Facilities for all Vehicles incorporating access roads and internal circulation (buildings are within this zone)	8.97ha
Soft Landscape Areas (including proposed and existing planting and ecological habitat and SUDS basins and children's play)	6.44ha
Highway works within the redline	1.4ha
Gross Site Area (excluding highway works)	**15.41ha**
Gross Site Area	**16.81ha**

Table 1.1: Development Areas

1.14. The plans included in **Appendices 2, 3, 5, 7, 8** confirm the site location, site boundary, parameters for the proposals, access proposals and indicative masterplan.

1.15. The parameters plan with all the parameters shown on a single plan and indicative masterplan for the application site are shown in the Figures below (larger scale plans are also included in **Appendix 5 and 8** respectively).

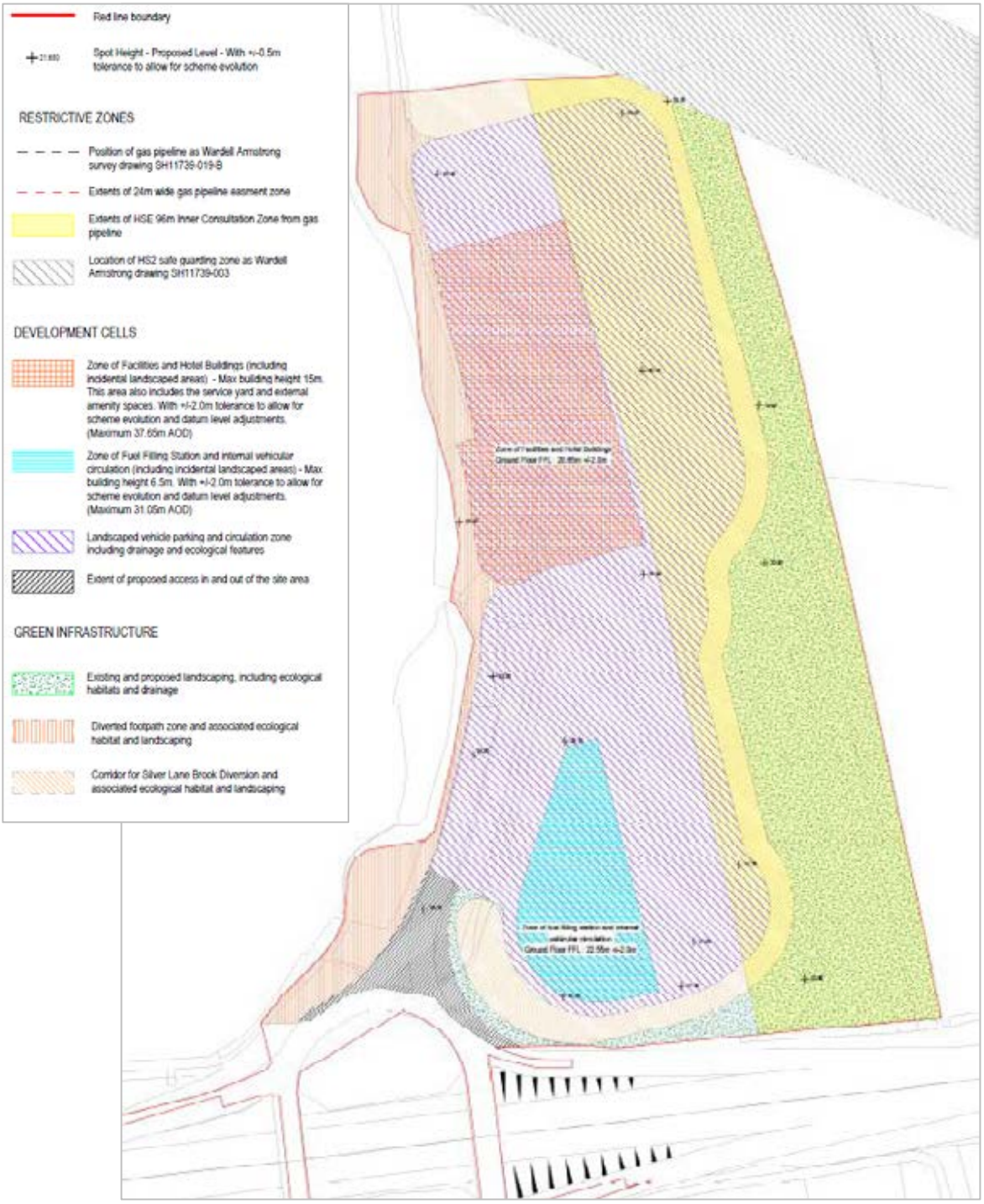

Figure 1.4: Parameter Plan showing all Parameters on a single plan

Figure 1.5: Indicative Site Layout Plan

Environmental Impact Regulations, Screening and Scoping

1.16. The proposals do not fall within Schedule 1 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (hereafter referred to as "the EIA Regulations") where an Environmental Statement (ES) is mandatory. However, the proposals do fall within Part 10(p) of Schedule 2 of the EIA Regulations as a "Motorway Service Area" in excess of 0.5 hectares.

1.17. Nevertheless, an Environmental Impact Assessment is not needed for every Schedule 2 project. The EIA Regulations and the PPG (Planning Practice Guidance) are clear that an Environmental Impact Assessment (EIA) is required for Schedule 2 projects only if they are likely to give rise to "significant effects on the environment".

1.18. Due to the scale, nature and surroundings, it is considered that there is a need to fully assess the environmental impacts of the Proposed Development. It is therefore considered that the

development falls within Schedule 2 of the Regulations and accordingly environmental assessment has been undertaken and an ES has been produced. On this basis, a Screening Opinion has not been sought from the Local Authority as the proposals are considered to be EIA development.

1.19. In accordance with Part 4, Regulation 15 (1) and (2) of the EIA Regulations, a Scoping Report was submitted to Warrington borough Council (WBC) on 20 December 2018 (**Appendix 17)**. This considered the range of environmental issues against which the Proposals should be assessed as part of the Environmental Impact Assessment process. A Scoping Opinion was issued by WBC on 13 February 2019 (**Appendix 18).**

1.20. The Scoping response from WBC included responses from the following consultees:

- Highways England
- Historic England
- Natural England
- Environment Agency
- Greater Manchester Ecological Unit (GMEU)
- Environment and Transport at WBC
- Public Protection at WBC
- Flood Risk Team at WBC
- Cheshire Archaeology
- National Grid
- United Utilities
- Croft Parish Council
- Culcheth and Glazebury Parish Council
- Salford Council
- HS2

1.21. The consultant team has continued to liaise with these and other key consultees during the evolution of the proposals and through the process of environmental assessment and, where relevant, have continued to discuss and agree the scope of the ES through these discussions. In particular, this has included ongoing discussions with Natural England, the Environment Agency and GMEU. Reference to all these discussions is included within Section 3 of each of the Technical Papers contained within Part 2 of this ES and is summarised in the tables within

this section by technical area, and where relevant expanded within the following 'Consultation' Section of this report.

1.22. In the Scoping Opinion, WBC confirmed that the information submitted "sets out the likely effects of the Proposed Development in relation to the topic headings, receptors and consideration of likely significant effects." It continued to confirm that, in general terms, the "EISR [Environmental Impact Scoping Report] adequately sets out how the EIA will assess the potential significant environmental effects." It also confirmed that with regard to table 1.1 within the submitted Scoping Request Report (see **Appendix 17**), that "*certain matters are Scoped Out in table 1.2 and the reasons for this are set out. These are generally agreed with as set out in the individual consultation responses which you should have regard to.*"

1.23. The main points of the Scoping Opinion are summarised below in the table below:

Consultee	Issue	Details of Consultation Response	Comment / Where covered in ES
Warrington Council – Planning Officer (Scoping Opinion)	Matters scoped in and out of ES – general agreement	Table 1.1 includes a summary of the matters to be scoped in to the EIA. Having regard to the matters identified in table 1.1, certain matters are Scoped Out in table 1.2 and the reasons for this are set out. These are generally agreed with as set out in the individual consultation responses which you should have regard to.	-
Highways England	Transport Assessment	HE want to see a robust Transport Statement submitted with the planning application and welcome working alongside developer to scope this out.	Traffic and Transport ES Technical Paper 2, ES Part 2
WBC Highways	Transport Assessment	A Transport Assessment (TA) will be required to accompany any planning application for the proposed development and this should address its potential implications on the transport network by means of a traffic model, capacity assessments, detailed analysis and an overview of potential impacts including accident analysis using STATS19 data and an overview of the highway design issues. The TA should also include an assessment of parking and servicing requirements and, importantly, demonstrate that the site is accessible by sustainable transport; particularly in respect of future employees. The information included within the Traffic and Transportation Section of the EIA Scoping Report provides a useful starting point for the scoping of the required TA.	Traffic and Transport ES Technical Paper 2, ES Part 2
	Transport Assessment	The EIA should consider the specific effects on all travellers (including cyclists) associated with the proposal and it is anticipated that the TA will form the basis for any issues including impacts on local traffic, change in journey times, change in travel patterns, road safety concerns and potential severance. A clear distinction will be required between the construction-related impacts, for which substantial detail will be required in terms of the import and export of material and the associated movements, and the operational impacts.	Traffic and Transport ES Technical Paper 2, ES Part 2

Consultee	Issue	Details of Consultation Response	Comment / Where covered in ES
	Traffic and Transport	Reference in the Traffic and Transportation Section is made to the IEMA Guidelines for the Environmental Assessment of Road Traffic and clarification is required as to whether this is representative of the latest advice. Clarification is also required as to how the suggested impact receptors detailed in Table 8.2 of the EIA Scoping Report have been derived.	Traffic and Transport ES Technical Paper 2, ES Part 2
Environment Agency	Flood Risk	Under the Environmental Permitting (England and Wales) Regulations 2016, a permit may be required from the Environment Agency for any proposed works or structures, in, under, over or within eight metres of the brook.	Noted and scheme evolved accordingly.
	Ecology and Biodiversity	As part of this development we do not wish to see culverting of watercourses. Engineered river channels are one of the most severe examples of the destruction of ecologically valuable habitat. Culverts cause the loss of and adversely affect natural morphology, fisheries and wildlife habitat including substrate and they can create barriers to fish passage through increased water velocities, shallow depths and eroded culvert entrances.	Noted and scheme evolved accordingly.
	Ecology and Biodiversity	As part of any development of this area we would expect to see any appropriate ecological surveys undertaken at the appropriate time of year by a suitably qualified ecologist. Dependent on the results of these surveys we would expect to see appropriate mitigation and compensation. Due to the proximity of the development to the watercourse we would expect to see ecological surveys of the watercourse and its associated species. These should include water vole surveys because we have records of water vole on Holcroft Lane Brook, a river corridor survey of any watercourses affected by the development and an extended phase one habitat survey to pick up other interest features linked to the watercourse.	Ecology and Nature Conservation ES Technical Paper 5, ES Part 2
	Water Resources	Depending on what the applicant intends to do with this site a Water Framework Directive (WFD) assessment maybe required. The work done for other parts of the environmental impact assessment will contribute to the WFD section. WFD assessment must demonstrate that the proposed scheme does not (key requirements): • Cause deterioration in the status of any water body through deterioration in the status of the Biological Quality Elements (BQEs) or • Compromise the ability of the water body to achieve its WFD status objectives And should where possible • Indicate how the proposed scheme contributes to the delivery of WFD objectives	Water Resources ES Technical Paper 3, ES Part 2
	Water Resources - Ground Water	Published geological maps show that the Site is underlain by the Helsby Sandstone Formation principal aquifer at rockhead. This is overlain by superficial deposits with peat and glacial till shown to occur close to the surface. The site also lies within a groundwater source protection zone 3 for nearby public water supply abstractions. It will be essential to ensure that the development is carried out in such a manner as to protect and prevent pollution of groundwater and surface water.	Geology and Ground ES Technical Paper 1, ES Part 2 and Water Resources ES Technical Paper 3, ES Part 2
	Water Resources - Ground Water	The scoping report has recognised the need to assess the risks posed by the development to ground conditions and water resources, including groundwater. This assessment will need to address both existing contamination that may be present and the impacts that the future ongoing operation of the facility will have on the groundwater environment.	Geology and Ground ES Technical Paper 1, ES Part 2 and Water Resources ES Technical Paper 3, ES Part 2

Consultee	Issue	Details of Consultation Response	Comment / Where covered in ES
	Water Resources - Ground Water	In order to demonstrate that the groundwater risks have been understood and appropriately addressed we recommend that the applicant provide a life-cycle feasibility assessment of the fuel storage and handling options for the location, taking account of its hydrogeological context. This should include consideration of: • fuel distribution and dispensing system designs (e.g. pressure/suction); • location and construction of proposed and/or existing fuel tanks(e.g. primary, • secondary and tertiary containment, above or below ground); • surface drainage and connections and spill retention; • associated control and monitoring systems.	Geology and Ground ES Technical Paper 1, ES Part 2 and Water Resources ES Technical Paper 3, ES Part 2
	Water Resources - Ground Water	The application should refer to our groundwater protection guidance and position statement available at https://www.gov.uk/government/collections/groundwater-protection and https://www.gov.uk/government/publications/groundwater-protectionposition-statements. Of particular relevance to this proposal are sections D and G of the position statements. In accordance with "The Environment Agency's approach to groundwater protection" we will only support a development once we have received sufficient information to demonstrate that the risks to groundwater associated with it can be satisfactorily managed.	Geology and Ground ES Technical Paper 1, ES Part 2 and Water Resources ES Technical Paper 3, ES Part 2

Consultee	Issue	Details of Consultation Response	Comment / Where covered in ES
	Ground	The proposed development lies within 250m of Risley Landfill EPR/BV7877IR a former landfill site that accepted inert waste material and there may be a potential for landfill gas to be generated. Landfill gas consists of methane and carbon dioxide is produced as the waste in the landfill site degrades. Methane can present a risk of fire and explosion. Carbon dioxide can present a risk of asphyxiation or suffocation. The trace constituents of landfill gas can be toxic and can give rise to long and short term health risks as well as odour nuisance. The risks associated with landfill gas will depend on the controls in place to prevent uncontrolled release of landfill gas from the landfill site. Older landfill sites may have poorer controls in place and the level of risk may be higher or uncertain due to a lack of historical records of waste inputs or control measures. Under the conditions of the Environmental Permit for the landfill, the operator is required to monitor for sub-surface migration of landfill gas from the site. This environmental monitoring data from the site is available on our public register. You should be aware of the potential risk to the development from landfill gas and may wish to carry out a risk assessment to ensure that the potential risk is adequately addressed. The local authority's Environmental Health and Building Control departments would wish to ensure that any threats from landfill gas have been adequately addressed in the proposed development. This may include building construction techniques that minimise the possibility of landfill gas entering any enclosed structures on the site to be incorporated into the development. The following publications provide further advice on the risks from landfill gas and ways of managing these: 1. Waste Management Paper No 27 2. Environment Agency LFTGN03 'Guidance on the Management of Landfill Gas' 3. Building Research Establishment guidance – BR 414 'Protective Measures for Housing on Gas-contaminated Land' 2001 4. Building Research Establishment guidance – BR 212 'Construction of new buildings on gas-contaminated land' 1991 5. CIRIA Guidance – C665 'Assessing risks posed by hazardous ground gases to buildings' 2007	Geology and Ground ES Technical Paper 1, ES Part 2
	Waste	If any controlled waste is to be removed off site, then the site operator must ensure a registered waste carrier is used to convey the waste material off site to a suitably permitted facility. If any waste is to be used on site, the applicant will be required to obtain the appropriate waste exemption or permit from us. We are unable to specify what exactly would be required if anything, due to the limited amount of information provided.	Not relevant. None proposed to be removed or used on site. Waste ES Technical Paper 12, ES Part 2

Consultee	Issue	Details of Consultation Response	Comment / Where covered in ES
Cheshire Archaeology Planning Advisory Service	Cultural Heritage and Archaeology	The covering letter submitted in support of the application by the applicant's agent confirms that the proposed EIA will contain a chapter which considers the effect of the development on archaeological and cultural heritage issues. This represents an appropriate approach which, if carried out by suitably-experienced organisation and informed by a consideration of the usual sources (Cheshire Historic Environment Record, historic maps, aerial photographs, readily-available secondary sources, etc.) will allow the impact of the development to be assessed. It will also assist in defining the need, if any, for further archaeological mitigation works. Such works might include evaluation trenching, watching brief, targeted excavation, and further analysis of deep, well preserved peat deposits.	Archaeology and Cultural Heritage ES Technical Paper 9, ES Part 2
		The covering letter makes reference to a separately-supplied link to further documentation, including a location map. This does not appear to be available on the Council's website but I assume that the development would be centred on the land immediately to the north-east of the Junction 11 roundabout which has previously been the subject of an application for an extension to the Risley landfill site. If this is the case, further detailed comment must await the submission of the EIA but it seems likely that any archaeological interest will focus on the eastern boundary of the medieval estate focussed on the moated site at Old Abbey Farm (fully excavated in the 1990s), the 19th-century farmstead that once occupied a plot within the proposed development area, and the potential for analysis of the surviving peat deposits (if they are of a depth to make such work worthwhile). I hope that these preliminary observations are helpful but please get in contact if you wish to discuss matters in more detail.	Archaeology and Cultural Heritage ES Technical Paper 9, ES Part 2
WBC – Environmental Protection Officer	Air Quality	Air quality is considered within the report and the suggested approach is acceptable. The applicant is proposing to consider if detailed AQ Assessment would be required using the relevant guidance documents for the planning application. This is also acceptable. The closest residential to the site has been identified as approx 300m away, therefore is unlikely to be affected by these proposals. By considering the extent of the Motorway Air Quality Management Area, a detailed air quality assessment would only be required if any relevant sensitive locations are within 50m of the site. Air quality is indicated as being fully considered within the full EIA planning application therefore no additional comments are necessary at this stage.	Air Quality, Odour and Dust ES Technical Paper 8, ES Part 2
	Ground	A preliminary risk assessment has been carried out and supplied with the application. It has identified potential sources of contamination and identified potential pathways to the end use receptors. It has also identified potential gas and groundwater issues that are associated with the onsite conditions, the peat present on site and the adjacent landfill site. The recommendations are for further detailed on site geotechnical investigation including an unexploded ordinance specialist desk study to be completed prior to redevelopment due to the proximity to the former ROF Risley site. It is considered likely that mitigation measures to protect the underlying aquifer would be required for any development on site. This information may be presented up front with any application or via a conditional route for subsequent discharge.	Geology and Ground ES Technical Paper 1, ES Part 2

Consultee	Issue	Details of Consultation Response	Comment / Where covered in ES
	Noise	The proposal is for consideration and assessment of ambient noise levels which are elevated due to the proximity to the motorway network. It is noted that the edge of the northern boundary is within the HS2 safeguarded area however reference to this has been made and consideration of effects on the proposed hotel are to be included in any noise assessment which points towards relevant standards for hotels and residential accommodation. Consideration for plant and equipment noise in the operational phase has been advised including relevant assessments to determine impacts on sensitive receptors. Consideration of construction impacts has also been detailed along with protocols to determine impacts on sensitive receptors. Construction hours are suggested which are slightly beyond our recommended limits, however, the distance to sensitive receptors is circa 300m so impacts would be lessened through natural attenuation over this distance. The proposals put forwards appear to be satisfactory. I have also had contact from acousticians to discuss these matters in more detail which I have been unable to respond to at the point of writing this memo.	Noise and Vibration ES Technical Paper 7, ES Part 2
	Lighting and Odour	Other smaller scale elements would be considered through the formal EIA application and supporting documents. These would recommend conditions relevant to specific elements of the site for consideration through the condition discharge process such as on site lighting and odour arising from catering elements of the proposal. These are not necessarily required up front with any application however these could be assessed as part of a submitted plans and drawings element to reduce conditional need.	Lighting deal with in Lighting Assessment, appended at **Appendix 16**
Ecology (GMEU)	Ecology and Biodiversity	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 will need to be Assessed.	Ecology and Nature Conservation ES Technical Paper 5, ES Part 2
	Agricultural Land and Soils – Peat matters	In terms of how the underlying substrate on the site (peat) is to be treated to facilitate the development an Assessment of potential options should be made. Excavating, storing and transporting peat carries risks of the peat drying, losing structure and losing integrity which could release carbon into the atmosphere. If it is to be translocated for use in bog and mire restoration schemes it will need to be excavated, stored and transported carefully. On the other hand retaining the peat in-situ but sealing it underneath metalled surfaces removes any potential for the peat to be restored to become 'active' and store more carbon in future.	Project Description, Section 2. Agricultural Land and Soils ES Technical Paper 10, ES Part 2

Consultee	Issue	Details of Consultation Response	Comment / Where covered in ES
	Ecology and Biodiversity	In addition to the above I would agree with the Scope of the Ecological Assessment as proposed by the applicant; that is, the following impacts need to be considered in the ES: • Direct Habitat loss and indirect lighting impacts to bats roosting, foraging and commuting habitats, • Loss of habitats of use to badgers, • Impacts to water vole foraging and burrowing habitat, • Impact on grass snake basking habitat, • Impacts on great crested newt terrestrial habitat, • Impacts on barn owl foraging habitat, • Impacts on wintering bird assemblages and • Impacts on breeding bird assemblages. • Impacts on habitat fragmentation	Ecology and Nature Conservation ES Technical Paper 5, ES Part 2
	Ecology and Biodiversity	I would encourage the applicant to consider how this development could contribute to **Biodiversity Net Gain** (NPPF para. 170).	Ecology and Nature Conservation ES Technical Paper 5, ES Part 2
WBC Flood Risk Team	Water Resources	The Asset & Flood Risk Team have assessed the Environmental Impact Scoping Report and have no issues with the proposals for this development, in relation to surface water management as outlined in section 9.	Water Resources ES Technical Paper 3, ES Part 2
Natural England	Ecology and Biodiversity	Impact Risk Zone The development site triggers the Impact Risk Zone (Water supply) for both Holcroft Moss (approximately 890m east of the Site) and Risley Moss (approximately 1,075m south of the Site) Sites of Special Scientific Interest (SSSI's). Information on the SSSIs and their special interest features can be found at www.magic.gov.uk. The above sites are also designated at international level (also known as Natura 2000 sites) as Manchester Mosses Special Areas of Conservation (SAC). Natura 2000 network site conservation objectives are available on our internet site : http://publications.naturalengland.org.uk/category/6490068894089216 Large non-residential developments can have an impact on water supply mechanisms to designated sites, therefore the Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within this site and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects.	Ecology and Nature Conservation ES Technical Paper 5, ES Part 2
	Ecology and Biodiversity	Designated sites – as identified in the above paragraph, 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.	Ecology and Nature Conservation ES Technical Paper 5, ES Part 2
	Agricultural Land and Soils – Peat matters Ground Water Resources Ecology and Biodiversity	Peat – Natural England advise that development on peat should be avoided. It is an irreplaceable habitat with a high biodiversity value but also performs an important role in carbon storage and water catchment management.	Comments noted. Project Description, Section 2. Agricultural Land and Soils ES Technical Paper 10, ES Part 2

Consultee	Issue	Details of Consultation Response	Comment / Where covered in ES
	Ecology and Biodiversity	Ecological connectivity – Manchester Mosses SAC comprises of a fragmented cluster of sites therefore, connectivity between the sites is essential for them to function well. Connectivity of the sites should be considered when assessing the impacts of the development and should be strengthened through mitigation design. Ponds are an important habitat in this ecological network and should be retained, enhanced and created. We would like to see this development strive to achieve biodiversity net gain in line with the NPPF.	Ecology and Nature Conservation ES Technical Paper 5, ES Part 2
	HS2	HS2 – HS2 is proposed in this area which will lead to further habitat fragmentation between the sites. We recommend that the in-combination effects are considered in the EIA.	Section 9, ES Part 1 – Cumulative Impact Ecology and Nature Conservation ES Technical Paper 5, ES Part 2
	Ecology and Biodiversity	Natural England has identified that this proposal may be suitable from benefitting from our pre-application advice service due to the proximity to designated sites of nature conservation, potential for green infrastructure gains and the potential for biodiversity enhancements. Through early engagement with Natural England customers will receive high-level customer service to support an efficient planning application process and achieve development which is more sustainable. We request that you pass on our details and instruct the applicant to fill out a simple 'Request Form' and email it to consultations@naturalengland.org.uk so we can register interest and assign a local Natural England consultant.	Discussions progressed through DAS. Ecology and Nature Conservation ES Technical Paper 5, ES Part 2
	Ecology and Biodiversity Agricultural Land and Soils – Peat matters	If there are European Protected Species on site, Natural England offers a separate Pre-submission Screening Service (PPS) for planning proposals that will require a mitigation licence. More about this service can be found https://www.gov.uk/pre-submission-screening-service-advice-on-planning-proposals-affecting-protected-species	Ecology and Nature Conservation ES Technical Paper 5, ES Part 2
	Ecology and Biodiversity Agricultural Land and Soils LVIA	Annex A to this letter provides Natural England's general advice on the scope of the Environmental Impact Assessment (EIA) for this development. Annex B offers additional, general planning advice, but we would like to draw your attention to the Environmental Enhancement section in particular.	Noted.
Historic England	Cultural Heritage and Archaeology	This development could, potentially, have an impact upon a number of designated heritage assets and their settings in the area around the site. In line with the advice in the National Planning Policy Framework (NPPF), we would expect the Environmental Statement (ES) to contain a thorough assessment of the likely effects which the proposed development might have upon those elements which contribute to the significance of these assets. The environmental scoping report included within the application considers how the proposed development would impact upon both designated and un-designated heritage assets and their setting as well as potential below-ground archaeology. The environmental scoping report provides a clear statement on how this impact would be appraised and potentially mitigated through consultation with the archaeological advisors at the Cheshire Archaeology Planning Advisory Service and conservation officers at Warrington Borough Council.	Archaeology and Cultural Heritage ES Technical Paper 9, ES Part 2

Consultee	Issue	Details of Consultation Response	Comment / Where covered in ES
	Cultural Heritage and Archaeology LVIA Design	The cultural heritage appraisal is restricted to a buffer of 1km around the development site, which under normal circumstances would not be acceptable to adequately appraise the direct and indirect impact of a development of this size on heritage assets. However, given the flat character of the location, this is acceptable. No designated heritage assets were found within the study area but there is the Grade II* Listed Building Holcroft Hall within 1.5km of the development site. The proposals do have the potential to impact upon this heritage asset, but we welcome the proposals to include appropriate screening to minimize any harm to the setting of the hall within the masterplan as well as restricting new building heights.	Archaeology and Cultural Heritage ES Technical Paper 9, ES Part 2
	Cultural Heritage and Archaeology LVIA	The assessment should also take account of the potential impact of associated activities such as construction, servicing and maintenance, and associated traffic that could impact upon perceptions, understanding and appreciation of the heritage assets in the area.	Archaeology and Cultural Heritage ES Technical Paper 9, ES Part 2 LVIA, ES Technical Paper 4, ES Part 2
Croft Parish Council	Green Belt	The proposal is sited in the green belt. The Parish Council opposes developments in the green belt.	Noted. Section 5: Plans and Policies and Planning Statement
	Need	The proposal is less than seven miles from an existing service station on the M62.	Noted. Section 3: Need; Section 4: alternatives Considered and **Appendix 13** Alternative Sites Assessment.
	LVIA	The photographs in the scoping document demonstrate the adverse visual impact of the development. Views over open countryside would be significantly curtailed.	LVIA, ES Technical Paper 4, ES Part 2
	Water Resources	There are concerns about the impact of this development on the water catchment / drainage area. The scoping exercise categorises the underlying sub-strata as 'principal aquifier'. Table XI, (the qualitative risk assessment) attributes a 'moderate to high' risk to property / environment against groundwater vulnerability.	Water Resources, ES Technical Paper 3, ES Part 2
	Water Resources	There are added concerns about the combined impact of HS2 and this proposal on this water catchment / drainage area.	Section 9: Cumulative Impacts Water Resources, ES Technical Paper 3, ES Part 2
Culcheth and Glazebury Parish Council	Water Resources	The proposal includes references to drainage. This is a major concern because of the run off from the landfill site and the area being a groundwater protection zone. This is currently mitigated with attenuation ponds to protect land to the North from flooding. The area in the proposal includes the Silver Lane Brook and the result of paving over an area of land next to this will impact on the Brook which flows to the North. It then flows into Willow Brook which travels Eastwards to join the Glaze Brook. Both are in a flood plain which includes extreme flood. 1. Drainage impacts should include land to the North up to and including watercourses in Culcheth	Geology and Ground, ES Technical Paper 1 and Water Resources, ES Technical Paper 3, ES Part 2
	Ecology and Biodiversity Water Resources	The land adjacent to the landfill site is shown as moss land on older maps. Moss land is an important carbon sink and has wider impacts on drainage. 2. Investigate the link to the Manchester Mosses.	Ecology and Nature Conservation ES Technical Paper 5, ES Part 2

Consultee	Issue	Details of Consultation Response	Comment / Where covered in ES
	LVIA Socio Economic	The Risley Landfill site has been restored and is now is in effect a country park including the area known as Silver Lane ponds 3. What would be the impact of the proposed development on this and the local footpaths?	LVIA, ES Technical Paper 4, ES Part 2
	HS2	Consultations on HS2 phase 2b are ongoing. The HS2 safeguarding area is shown on your plans. The problems encountered and created by HS2 will affect your proposals. 4. How will you respond to these problems?	Redline amended to remove HS2 Safeguarded area from within redline. HS" considered through Cumulative Assessment of Technical Paper and Section 9 of this ES Part 1 Report
	Traffic and Transport Noise Air Quality	5. Will the changes planned for the M62 'smart' motorway affect your proposals?	Traffic and Transport, ES Technical Paper 2, ES Part 2
United Utilities	Utilities	We would encourage potential developers to contact us at the appropriate time for pre-application discussions. Information for our pre-application services for both water and wastewater is available on our website.	Comments noted, and contact made with UU. See Utilities Statement within Climate Change ES Technical Paper 13, ES Part 2
Urban Vision Partnership Ltd (Salford City Council)	All Issues	No issues with the proposals for this development and would not request any information outside that to be proposed within the Scoping Report.	-
National Grid (received after LPA's Scoping Opinion)	Utilities Design	Reference to PADHI guidance Reference to other matters to consider when proposing development in vicinity of pipeline.	Noted and taken account of within scheme evolution. Discussions ongoing with Health and Safety Executuve
Cadent (received after LPA's Scoping Opinion)	Utilities Design	Searches based on your enquiry have identified that there is apparatus in the vicinity of your enquiry which may be affected by the activities specified. Can you please inform Plant Protection, as soon as possible, the decision your authority is likely to make regarding this application. If the application is refused for any other reason than the presence of apparatus, we will not take any further action. Please let us know whether Plant Protection can provide you with technical or other information that may be of assistance to you in the determination of the application. As your proposed activity is in close proximity to National Grid's Transmission assets we have referred your enquiry/consultation to our Asset Protection team for further detailed assessment. We request that you do not commence work or take further action with regards to your proposal until you hear from us. We will endeavour to contact you within 21 days from the date of this response. Please contact us at assetprotection@nationalgrid.com if you have not had a response within this time frame.	Noted. See Utilities Statement within Climate Change ES Technical Paper 13, ES Part 2
	Utilities Ground	Advice on requirements before any work is carried out.	Noted See Utilities Statement within Climate Change ES Technical Paper 13, ES Part 2

Consultee	Issue	Details of Consultation Response	Comment / Where covered in ES
HS2	Redline	We have identified that there is likely to be a conflict between the proposed development and Phase 2b of HS2. However, in order to determine the extent of the conflict, HS2 would require further time to understand the interface between the two schemes. In light of the above, please could we request an extension of time until 28 February before providing a formal response?	Redline amended to remove HS2 Safeguarded area from within redline. HS" considered through Cumulative Assessment of Technical Paper and Section 9 of this ES Part 1 Report. Discussions ongoing with HS2.
	HS2	I can confirm that a small part of the proposed development falls within land safeguarded for Phase 2b of HS2. It is noted that the applicant is seeking to amend the red line boundary plan prior to submission, in order to avoid land safeguarded for Phase 2b of HS2. The applicant is to be made aware that part of the proposed development falls within land identified in the working draft Environmental Statement (WDES), as land potentially required for construction and environmental purposes (see maps CT-05-327 and CT-06-327 at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/746994/HS2_Phase_2b_WDES_Volume_2_MA05_Risley_to_Bamfurlong_map_book.pdf). Given the close proximity of the site to areas of interest for HS2, we would welcome further engagement with the applicant prior to the submission of a formal planning application. As it would enable the applicant and HS2 to further understand the construction and phasing programme and the WDES in that location.	

Table 1.1: Summary of Scoping Responses

1.24. These points, along with the comments raised by each of the consultees at Scoping Stage are addressed in more detail in each of the Technical Papers included within Part Two of this ES within Section 3 of each of the Technical Papers within Part 2 of this ES. This confirms scoping discussions/liaison with the following:

- Warrington Borough Council Development Management
- Highways England
- Warrington Council Highways
- Natural England
- Environment Agency
- Greater Manchester Ecological Unit
- Warrington Council Lead Local Flood Authority
- Warrington Council Public Protection
- Warrington Council Environmental Health
- Cheshire Archaeology Planning Advisory Service
- Historic England
- United Utilities
- Croft Parish Council
- Culcheth and Glazebury Parish Council

Consultation and Stakeholder Engagement

1.25. There has been a lot of consultation with key stakeholders with interest in the Proposed Development. This is set out fully within the Statement of Community Involvement submitted with the planning application.

1.26. Public consultation is an imperative element of the planning and development process. Good pre-application engagement offers local communities the opportunity to get involved and help shape proposals so that the consequent application takes into consideration, where appropriate and possible, their opinions.

1.27. The approach taken in this consultation builds on best practice and was informed by national and local policy guidance. Extra has undertaken an extensive programme of pre-application consultation and has sought to engage with the Local Planning Authority, Local Councillors and MPs, key stakeholders, statutory consultees, other developers, local community interest groups, local businesses and local residents prior to the submission of this outline planning application.

1.28. This process has involved pre-application meetings with Warrington Borough Council and Statutory Consultees; briefing letters, emails and meetings for Local Councillors and MPs; meetings with key stakeholders and local interest groups; the creation of a website providing details of the development and the opportunity to comment online; and the provision of brochures and free post return comment cards to c11,000 homes and businesses in the surrounding area - with a follow up distribution to advertise a further event being sent to c5,000 households. In addition to this, advertorial space was purchased in the Warrington Guardian and a press release advertising the events were sent out and published in Place North West, Forecourt Trader and Business Insider. Three public consultation events were also held on i) 4th April at Croft Village Memorial Hall, ii) 6th April at Gorse Covert Primary School and on iii) 12th April at Pentahotel in Warrington. These events provided the community with the opportunity to view the proposals, discuss the scheme with Extra and their consultant team and comment on the development proposals.

1.29. Over the course of the public consultation period, a total of 374 feedback forms were received via postal forms, the online portal and the three public consultation events. This report provides a summary of the issues raised and how the scheme has responded to these.

1.30. This SCI demonstrates that Extra has involved the community and stakeholders in the development of the application proposals for the site at an early stage and in the formulation of the outline planning application proposals. Extra is keen to continue working with the Local Planning Authority, Local Councillors and MPs, key stakeholders, statutory consultees, local community interest groups, local businesses and local residents. This consultation process will therefore continue throughout the determination period of the outline planning application and beyond. Providing an opportunity to discuss the needs case and draft proposals for Warrington Services, as well getting feedback from Cllr Smith about which stakeholders and local groups would need to be engaged.

Approach to Environmental Statement

1.31. All proposals for projects that are subject to the European Environmental Impact Assessment (EIA) Directive 2014/52/EU must be accompanied by an Environmental Assessment (ES). The legislation has been transposed into UK law through the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 which are the EIA Regulations for England only (referred to hereafter as 'the EIA Regulations').

1.32. The ES has been undertaken to allow a robust and transparent assessment of the proposals. It has been prepared in the context of the EIA Regulations and accompanying legislation. The aim is to enable an objective assessment of the environmental impacts of the development.

1.33. The consultant team has followed the approach outlined in Schedule 4 of the EIA Regulations for the assessment:

- Description of development
- Description of the reasonable alternatives studied
- Description of the relevant aspects of the current state of the environment and likely evolution without the development
- Description of the aspects of the environment likely to be significantly affected by the development
- Description of the likely significant effects of the development on the environment
- Description of the forecasting methods or evidence, including details of any difficulties in compiling the required information
- Description of mitigation measures and any monitoring

- Where relevant a description of the expected adverse effects of the development on the environment from the vulnerability of development or risks of major accidents and/or disasters
- A non-technical summary

1.34. The ES is presented in two Parts. Part 1 (this report) as described above, provides the background and the summary analysis of environmental effects relating to the project and Part 2 contains the technical reports and the assessment of significant impacts. A separately bound non-technical summary is also provided.

Environmental Statement Part 1

1.35. Part 1 of the ES sets out the project description, the need for development and alternatives considered. It includes an overview of the environmental impacts of the proposals with a summary of the mitigation measures proposed and any monitoring that will be necessary. It contains the methodology for assessing significant environmental impacts as set out and agreed with WBC during the Scoping stage. This Part 1 will also include an assessment of the interaction of effects and a summary of the cumulative impacts assessed as part of each of the technical areas.

1.36. This Part 1 contains a series of plans and illustrations to help the reader understand the background to the proposals and the scheme. It also provides an understanding as to how the development fits within the planning framework. Part 1 is important in establishing the context for the development allowing readers to understand the objectives of Extra MSA Group. It also sets out the framework for how significant impacts have been assessed.

1.37. A Glossary and Abbreviations list is included at **Appendix 1**.

Environmental Statement Part 2

1.38. The second part to the ES sets out the individual technical reports. Using the methodology outlined in Part 1, these reports have been compiled over many months and will describe the environmental impacts of the development. The EIA Regulations state these reports only need focus on the significant impacts, however they will also briefly assess the issues which are not considered significant and have been 'Scoped Out'. Importantly, this part of the ES

will outline the mitigation measures required to offset the environmental impacts. The technical chapters included within Part 2 are:

- Geology and Ground Conditions
- Traffic and Transportation
- Water Resources
- Landscape
- Ecology and Nature Conservation
- Socio Economic
- Noise and Vibration
- Air Quality, Odour and Dust
- Archaeology and Cultural Heritage
- Agricultural Land and Soils
- Waste
- Climate Change (Energy and Sustainability)

Non-Technical Summary

1.39. A separately bound Non-Technical Summary of the ES is provided. This document is provided so that the public can understand the ES and its main findings.

1.40. As required by the EIA Regulations, it includes a description of development, an outline of the main alternatives studied, a description of the aspects of the environment likely to be significantly affected by the development and the likely significance of the effects, and the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.

Consultant Team

1.41. The applicants have taken professional advice from a competent development team and supplementary information has been prepared in support of this scoping request by the following consultants:

- Environmental Assessment Co-ordination - Spawforths
- Planning - Spawforths

- Architects – Architecture 519
- Landscape Masterplanning - SLR
- Geology and Ground Conditions – Wardell Armstrong
- Traffic and Transportation – I-Transport
- Water Resources (Flood Risk and Drainage) – Wardell Armstrong
- Landscape and Visual Impact – Spawforths
- Ecology and Nature Conservation – Wardell Armstrong
- Agricultural Lane and Soils (including Peat) - Wardell Armstrong
- Socio Economic – Spawforths
- Noise and Vibration - Wardell Armstrong
- Air Quality and Dust – Wardell Armstrong
- Cultural Heritage and Archaeology – Wardell Armstrong
- Utilities – Wardell Armstrong
- Climate Change, Energy and Sustainability – Wardell Armstrong
- Waste – Wardell Armstrong

1.42. A statement confirming the relevant experience and qualifications of the development team that has produced the ES is provided at **Appendix 20** in line with the EIA Regulations (Part 5, Regulation 18(5b)).

2. Project Description

2.1. This section identifies the Site's location and context and describes the Proposed Development.

Site Location and Context

2.2. The Site is located in the North West of England, within the local authority area of Warrington. The national regional context is shown on the plans below and in **Appendix 2**.

Figure 2.1: National Context Plan

Figure 2.2: Regional Context Plan

2.3. The Site is located to the northeast of the urban area of Warrington, approximately 8.5km (5 miles) from the centre of Warrington. The centre of Manchester is located approximately 17.5km (11 miles) to the east of the Site and the centre of Liverpool, approximately 32 km (20 miles) to the west.

2.4. The M62 Motorway corridor runs in an east/west direction to the north of Warrington. It is the west-east Trans-Pennine Motorway in Northern England, connecting the two major ports of Liverpool and Hull, via intervening conurbations including Manchester, Warrington, St Helens and Leeds, and connects the three City Regions of Liverpool, Manchester and Leeds.

2.5. The Site is located to the north of the M62 Motorway at Junction 11, within its north east quadrant and has direct access to Junction 11 via a spur to the motorway junction roundabout (Birchwood Way). The M62 Motorway also provides access to the wider Strategic Road Network, with the M6 Motorway running north/south, approximately 4km (2.5 miles) to the west of the Site, and the M60 Motorway, which runs around Manchester, approximately 10km (6.1 miles) to the east of the Site.

2.6. Junction 11 of the M62 Motorway also provides access to the A574 Birchwood Way and the Birchwood area of Warrington, which is located to the south of the M62 Motorway corridor and consists of Birchwood Park (a business park) and beyond this, residential areas of Gorse Covert and Oakwood, which are suburbs to Warrington.

2.7. Immediately to the west of the Site is a former landfill site (Risley Landfill), where landfilling began in 1979, but which has now ceased, and the site restored and planted. There are a series of permissive footpath routes across the restored landfill site. To the east and north is arable farmland. A disused railway line crosses the farmland that is beyond the Site boundary, and arches to the east and north approximately 0.6km (0.4 miles) from the Site boundary.

2.8. To the east and north of the Application Site are agricultural fields. The settlement of Culcheth lies to the north west of the Site, with its centre approximately 2 km (1.2 miles) from the Site.

2.9. The local context is shown in the plans below and in **Appendix 3**

Figure 2.3: Local Context Plan

Figure 2.4: Redline Site Boundary Plan

2.10. The planning application redline encompasses the M62 J11 Motorway Roundabout, spur from the roundabout and the main part of the Site. The main part of the Site relates to an area of land of approximately 15.41ha in extent, whilst the total land within the redline and therefore including highway works to M62 J11 Motorway Roundabout is 16.81ha. The Site is greenfield and located within the Green Belt. It comprises agricultural land and rough grassland. The agricultural land within the Site comprises a large arable field (11.58 ha). A small triangular area of rough grassland is present to the west of the Site (approximately 1.0 ha), this land previously formed part of a larger agricultural field, the majority of which was incorporated into the Risley Landfill Site. The remnant field area was removed from agricultural use by the operation of the landfill site and is therefore considered to be non-agricultural. All other land within the Site is also non-agricultural comprising areas of restored landfill and hardstanding. The agricultural land is partially located over peat deposits, which are located predominantly to the south western section of the Site.

2.11. The M62 J11 Motorway roundabout and the spur from the roundabout junction into the Site is at a higher level to the rest of the Site. The roundabout is vegetated to its edges with grass, shrubs and trees. The M62 Motorway Corridor and Junction 11 is lit in the vicinity of the Site.

2.12. The Site is set at a lower level than the M62 Motorway Junction 11 and its associated slip roads, but is higher than the M62 Motorway itself. From the Motorway Junction and the spur from this, the land falls away sharply into the main part of the Site, which is set at a lower level and is relatively level across the remainder of the Site. The topography of the Site falls from 25m AOD in the southwest to approximately 19m AOD in the north east of the Site. The Topographical Survey is included at **Appendix 11**.

2.13. There are trees to the eastern, and part of the southern and south western boundaries. A post and rail fence marks the southern boundary. The Site is bounded to the east, north and part of the western boundary by a water course, which is a dry ditch and classed as a non-main river. To the western boundary is another water course, known as Silver Lane Brook that extends into part of the Site as a 'dog leg'. It is identified by the Environment Agency as a main river. The Site is within Flood Risk Zone 1 and as such at low risk of flooding.

2.14. A Public Right of Way (Footpath number 13) runs along the western boundary of the Site and leads north to Silver Lane Pools, and west around the adjacent restored landfill site, before heading north to Culcheth and east to Holcroft Lane. Footpath number 28 continues around the north of the restored landfill site, connecting to Footpath 14a to the western boundary, which connects to Footpath 25 to the southern boundary, before reconnecting with Footpath 13 adjacent to the Application Site. This also links to a footpath at the spur of the Junction 11 roundabout and around the roundabout, before linking to footpath 25 to the south eastern quadrant of the Junction 11 roundabout in Birchwood.

2.15. The HS2 Safeguarded Land corridor arcs around the north eastern corner of the Site and is located outside the Redline Site Boundary. See the Constraints Plan below and at **Appendix 4**.

2.16. A 50m Buffer Motorway Air Quality Management Area (MAQMA) runs along the Motorway corridor.

2.17. There is a high pressure gas main that runs north to south through the eastern extent of the Site and comprises an inner, middle and outer PADHI Zone. Consultation has been undertaken with the HSE (Health and Safety Executive) to discuss the proposals and the extent of development that is acceptable within each of these zones. The exact location of the gas main has been confirmed by National Grid. See the Constraints Plan below and at **Appendix 4**.

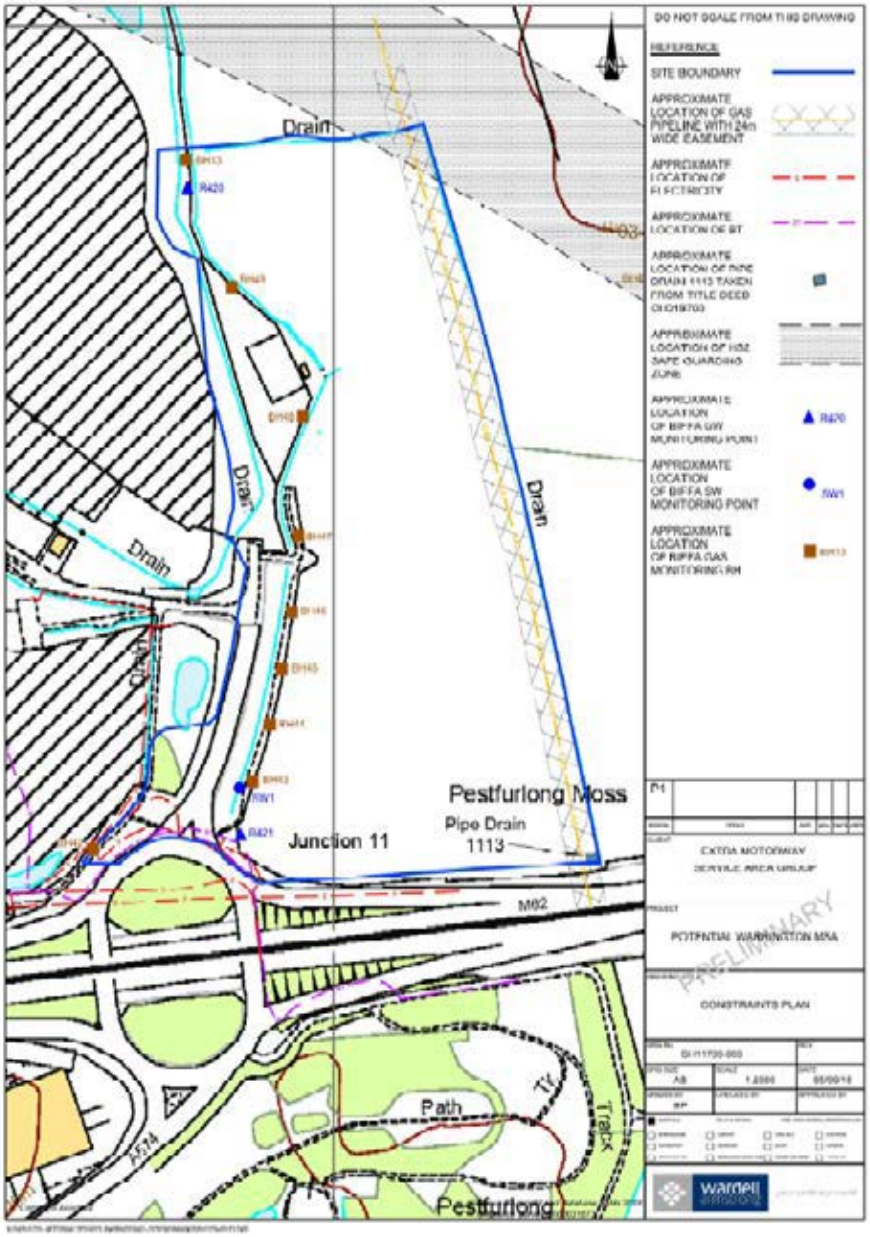

Figure 2.5: Constraints Plan

2.18. The Site lies within 5km of Manchester Mosses SAC and within 2km of Risley Moss SSSI and LNR and Holcroft Moss SSSI. Beyond the M62 Motorway, to the south of the Site is Pestfurlong Moss, a Local Wildlife Site. To the north west of the Site is Silver Lane Risley, which is also a Local Wildlife Site and incorporates the ponds to the north of the restored landfill site.

2.19. The Glazebrook Timberland Trail (located to the east of the Holcroft Moss SSSI) is a linear signposted recreation route following footpaths close to the Pennington and Glaze Brooks from Pennington Flash Country Par in Leigh, to the Manchester Ship Canal at Cadishead. The route passes the remnant mosslands of Chat Moss, an area of relict and active peat bogs some of which are of notable wildlife value and extends through areas rich in history including Little and Great Woolden Halls, the Liverpool to Manchester railway, Hope Carr Nature Reserve and Pennington Flash Country Park.

Development Description

The Development

2.20. The application will be an outline planning application as described below:

> Erection of a Motorway Service Area including Facilities Building, up to 100 bedroom Hotel, service yard, Fuel Filling Station, Electric Charging Station, parking facilities for each category of vehicle, access and internal circulation roads, structured and natural landscaping with outside amenity space/picnic space and dog walking zone, pedestrian and cycle links, boundary fencing, surface water drainage areas, ecological mitigation, pumping station(s), substation(s), retaining structures and associated infrastructure and earthworks.

2.21. All matters, except for access to the Site will be reserved for consideration at a later date. The access proposals are shown on the plan in **Appendix 7**.

Parameters and Scheme Design

2.22. During the evolution of the proposals for the outline element of the scheme, a number of parameters have been fixed and these have formed the basis of the environmental assessment.

2.23. The following table summarises the details of the Site proposals to be accommodated within the parameters:

Land Use	**Site Area ha (acres)** (rounded to the nearest two decimal place)	**Maximum Floor Area (m^2)**	**Maximum building height (m)**
Facilities Building (Incorporating public facilities, retail uses, food and beverage uses, business lounge and associated staff, storage and management uses within the building thermal envelope)	NA	Max 5,000m^2 GIA	15m Max 37.65m AOD Max
Hotel Building (Incorporating guest facilities including front of house, associated staff and storage uses)	NA	Max 100 Bedrooms	15m Max 37.65m AOD Max
Fuel Filling Station (FFS) (Incorporating public facilities, retail uses, food and beverage uses, and associated staff and storage uses)	NA	Max 500sqm GIA	6.5m Max 31.15m AOD Max
Parking Facilities for all Vehicles incorporating access roads and internal circulation (buildings are within this zone)	8.97ha	-	-
Soft Landscape Areas (including proposed and existing planting and ecological habitat and SUDS basins and children's play)	6.44ha	-	-
Highway works within the redline	1.4ha		
Gross Site Area (excluding highway works)	**15.41ha**	**-**	**-**
Gross site Area	**16.81ha**	**-**	**-**

Table 2.1: Proposed Land Use and Areas on Site

2.24. The parameters have been fixed to include the following details:

- Development Cells Parameter – area of built development, distribution of land uses, Site access, maximum building heights* and spot height levels**
- Green Infrastructure Parameter – existing and proposed landscaping, including ecological habitats, drainage areas, corridor to accommodate the diverted Silver Lane Brook, zone for public right of way and diversion of this and spot height levels**

- Restrictive Zones Parameter – gas pipeline location and associated zone of easement required by HSE guidance and, whilst outside the Site boundary, the HS2 Safeguarded zone is also identified

* Finished ground floor levels for buildings and building heights are tested with a +2m tolerance to allow for scheme evolution at detailed design stage

** Spot heights through the Site have a +/-0.5m tolerance

2.25. These are all combined into a single plan and shown on the following Parameters Plan below and separately on a series of Parameters Plans within each sub heading below. Larger scale plans can also be found at **Appendix 5**.

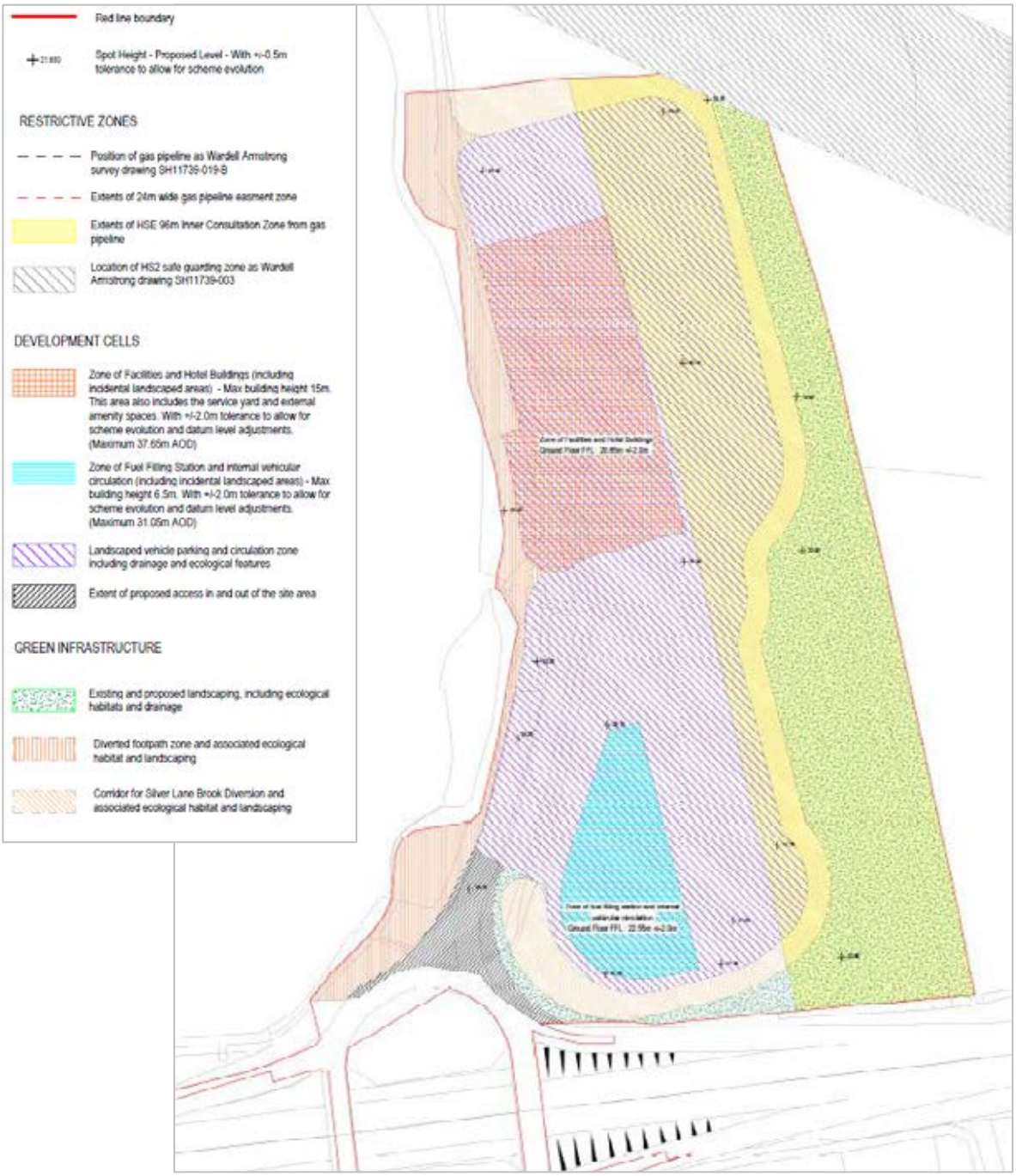

Figure 2.6: Parameters Plan showing all Parameters combined on a single plan

2.26. These Parameters are described in turn below:

Development Cells

2.27. The Development Cells Parameter Plan below shows the zones for the built development. This includes the Facilities Building, the FFS and the vehicle parking with associated proposed building heights and finished ground levels. These are located within the body of the Site and surrounded by the Green Infrastructure (shown on a separate Parameter Plan).

The Development Cell Parameters incorporate the following detail:

- Zone of Facilities Building and Hotel, including incidental landscape areas, service yard and external amenity spaces. Max building height 15m with +2m tolerance to allow for scheme evolution (maximum 37.15m AOD).
- Zone of Fuel Filling Station and internal vehicular circulation, including incidental landscape areas. Max building height 6.5m with +2m tolerance (maximum AOD 31.15m AOD).
- Landscaped vehicle parking and circulation zone, including ecological and drainage features. The vehicle parking includes for parking for all types of vehicles and will be located around the Facilities Building and FFS. The parking areas will be landscaped to soften the expanse of hard surfaced areas. Surface water drainage will be provided and surface water storage will be accommodated within a mix of underground tanks/crates, small discrete basins and swales/filter drains split throughout the development area.
- Finished ground levels with +/-0.5m tolerance shown as a series of spot heights across the Site
- The extent of the proposed access to and from the Site. Access is from the roundabout junction for Junction 11 of the M62 Motorway and will replace the existing spur head from the roundabout with two lanes into and out of the Site. The access road will link to the internal circulate routes that will be accommodated within the zone for vehicle parking and internal vehicular circulation as shown on the Development Cells Parameter Plan.

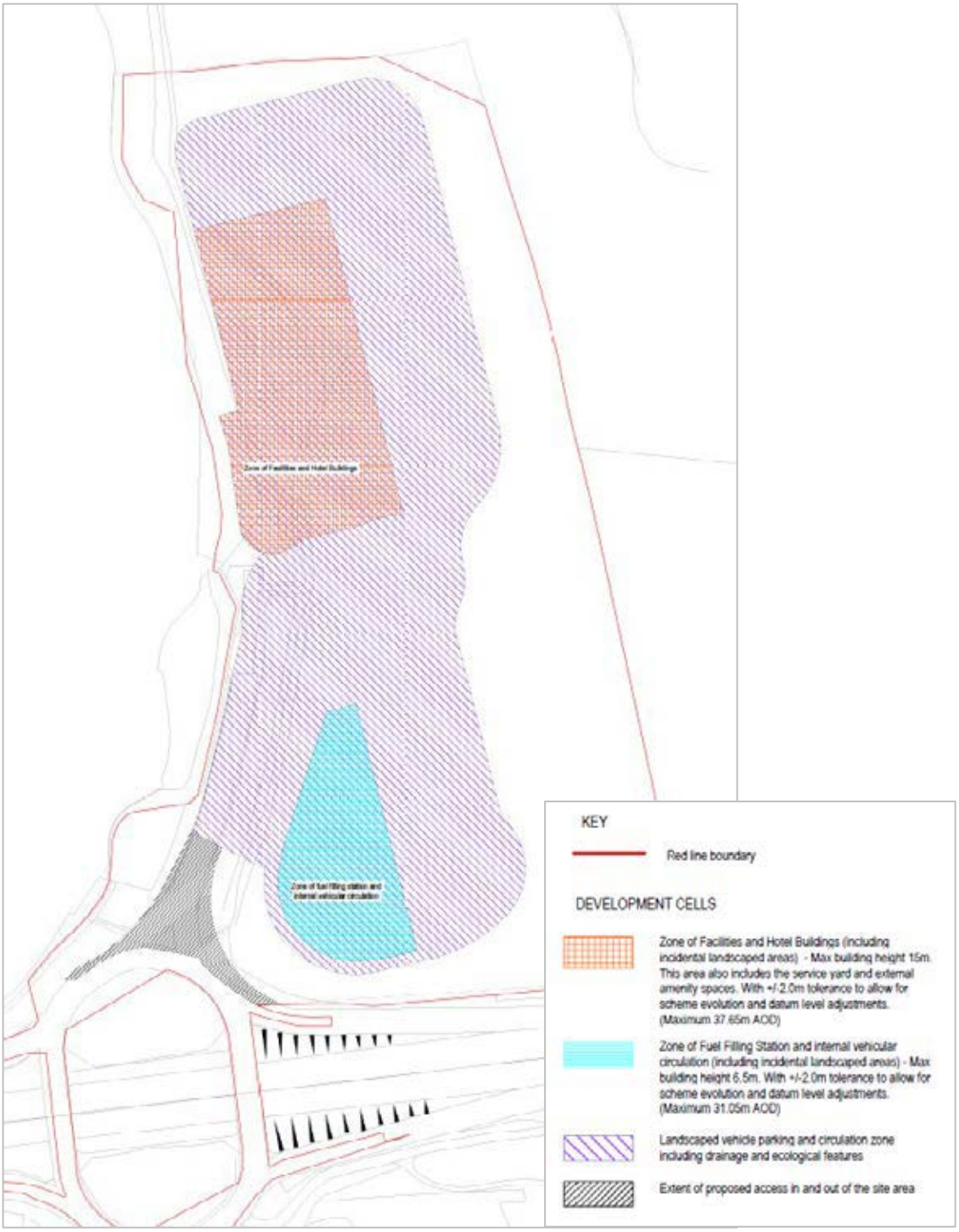

Figure 2.7: Parameter Plan – Development Cells

Green Infrastructure

2.28. Green Infrastructure refers to the landscaping works outside the Development Cells area, with a purpose to maximize biodiversity enhancement.

2.29. The Green Infrastructure Parameter Plan below shows the zones for the Green Infrastructure within the Site. This includes existing and proposed landscaped areas, ecological habitats, drainage, corridor for the diversion of the brook and zone for the footpath diversion. These areas are located to the perimeters of the Site and are located to enclose the built development shown within the Development Cells Parameter.

2.30. The ecological habitats include the creation of a peat habitat area (as described in the section below). Landscape and ecological habitat areas within the area of existing and proposed landscaping zone will include all of the peatland type habitats which will develop within the peat habitat area as well as vegetation covering the bunds surrounding this and the habitats to the west along the easement corridor of the high pressure gas main. These habitats will include areas of new species rich grassland and gorse scrub mosaic – islands of gorse being located principally on the bunds rather than within the easement. In addition, the current line of mature birch trees which run along the length of the eastern and northern boundaries of the Site will be strengthened by new planting of silver birch if necessary or by allowing natural regeneration (depending on extent of grazing pressure from rabbits/deer). Older and decaying silver birch will be left in situ to provide nesting habitat for willow tit, a high value species known within the locality, which requires decaying willow/birch stems to excavate nesting chambers.

2.31. A new woodland will be planted at the southern end of this proposed landscaping zone. Tree species will be native, dominated by oak, birch and alder with Scot's pine. At the margins a gradation in vegetation height will be achieved by planting lower growing woody species such as hazel, rowan and gorse. Alder will be planted where the woodland abuts the proposed Brook diversion. A surrounding fringe of tall species rich grassland will also be seeded around the margins of the new woodland plantings.

2.32. Landscape and ecological habitat areas within the area of the diverted footpath zone will include the creation of new species rich neutral grassland habitat which will complement the habitats which are establishing on the restored landfill to the west. Additionally, new native broadleaved tree plantings and a woodland copse will be created, linking with the copse described at the southern end of the landscaping zone (above). The species rich grassland will

be flower rich and will be allowed to grow tall to set seed following a late summer/autumn cut. Areas of grassland adjacent to the new woodland copse will be left unmown for at least 3 years to allow for the development of a more 'tussocky' sward with encroaching scrub. This will enable a natural gradation of vegetation height from woodland, scrub to grassland. Grassland on either side of the footpath will be mown short.

2.33. As part of ecological enhancement, the Silver Lane Brook that currently runs south to north along the western boundary of the Site, is to be diverted within a corridor through the Site. This corridor runs between the existing/proposed landscape areas (including ecological habitat and drainage areas) and landscaped vehicle parking zones (included within the Development Cells Parameters). Whilst illustrative details for the brook diversion are included at Appendix 10, the exact location of the diverted brook within the corridor is to be determined at detailed design stage. The route of the diverted brook will be designed to maximize ecological gain, achieve a variety of ecological habitats and incorporate landscaping along its length. This will be achieved by designing the channel profile with varied bank treatments and angles to provide a diversity of aquatic habitats including shallow berms of dense marginal planting. There will be varied flow rates along the length of the Brook, in places faster flowing areas with gravel beds will be created as well as areas of sluggish flow with deep peaty sediments. The course of the re-aligned Brook will also take a more 'sinuous' route to maximize edge habitats and hence ecological benefit.

2.34. Although the detail of the diverted brook is subject to detail design, the corridor provided has been sized to meet the capacity requirements of the estimated upstream flow for a 1 in 100 year event with a 30% climate change allowance and including a 300mm freeboard.

2.35. The zone in which the Public Right of Way allows for diversion of this footpath within the Site, ensures the PROW does not deviate significantly from the location of the existing route.

Figure 2.8: Parameter Plan – Green Infrastructure

Restrictive Zone

2.36. The exact location of the gas pipe has been determined by National Grid, as shown on the Parameter Plan. A 96m easement (The Health and Safety Executive (HSE) Inner Consultation Zone) from the location of the gas pipeline is provided in line with HSE Policy. This restricts buildings and uses with a sensitive end-use within this zone such as the Facilities Building and overnight HGV parking areas.

2.37. Whilst the Safeguarded area for HS2 is outside of the Site area, this is included within the Parameter Plan for completeness and to indicate its relationship to the Proposed Development.

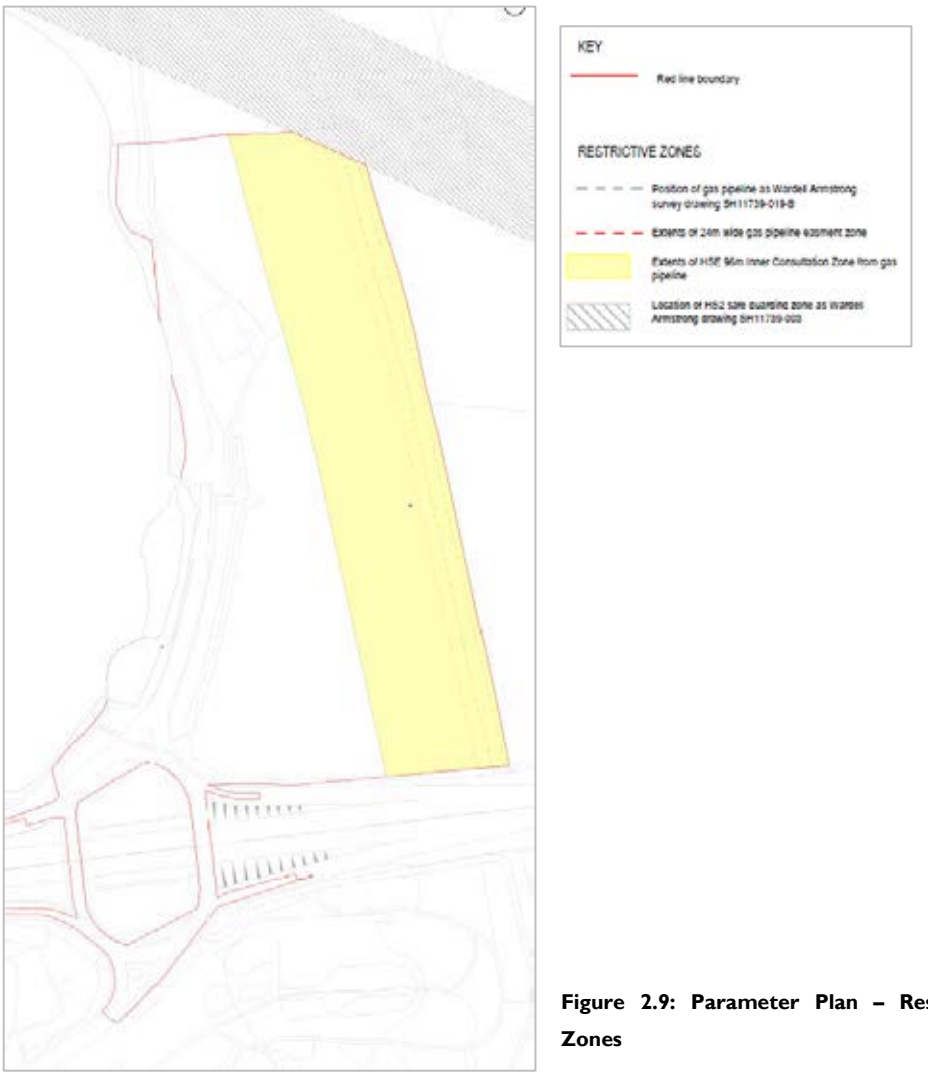

Figure 2.9: Parameter Plan – Restrictive Zones

Peat Mitigation

2.38. Excluding the peaty (organic-rich clay loam) agricultural topsoils, there are approximately 45,300 m^3 of deeper Peat resources within the Site. The presence of this peat presents geotechnical constraints to the placement of structures sensitive to settlement, such as buildings, roads and car parks. Therefore, the development layout has been designed to take account of this and has been evolved through discussions with key consultees such as Natural England, the Greater Manchester Ecological Unit (GMEU) and the Environment Agency. Reference has also been made to the Peat Reuse hierarchy (as fully described in Agricultural Land and Soils Technical Paper, ES Part 2, and summarised in Table 2.2 below).

	Rank	Description
Most Preferred	1	**Avoidance** of (disturbance to) the peat resource.
	2	**Re-use onsite** for beneficial / ecological uses (e.g. peatland type habitat creation, site reinstatement).
	3	**Re-use off-site** for beneficial / ecological uses (habitat creation, restoration of existing peatland, erosion control).
Least Preferred	4	**Recycling (also referred to as 'other reuse off Site')** includes mixing with other materials to form a soil substitute or use in other relevant works (e.g. use as a horticultural medium, agricultural land improvement, blending).
	5	**Stabilisation.** Mixing with 'concrete' to form a solid / stable development platform
	6	**Disposal** (only to be considered after all other options have been explored and discounted).

Table 2.2: Peat Reuse Hierarchy

(Source: Scottish environmental Protection Agency (SEPA) Guidance document 'Developments on Peat and Off Site Uses of Waste Peat' with the addition of Rank 5 Option, stabilization and this is a technique of combining peat with 'concrete' to create a stable development platform has been successfully used on a range of developments.)

2.39. As can be seen, the hierarchy prioritises the avoidance of peat resources where possible, and then ranks options for the re-use of disturbed peat in terms of most to least beneficial. Through the iterative design and consultation process the Proposed Development has been designed to maximise the area of undisturbed (avoided) peat, with disturbed peat to be

retained within the Site for beneficial reuse in the creation of peatland type habitat. Therefore, all peat resources within the Site will be addressed through the Rank 1 and Rank 2 options of the hierarchy.

2.40. The area of undisturbed peat equates to approximately 51.1% (22,700 m^3) of the peat on Site, including the deepest areas of peat to the south east as illustrated in Drawing SH11739/034: Peat Depth and Site Layout as shown below and at **Appendix 10** (also included at Appendix 10.5 of the Agricultural Land and Soils Technical Paper, ES Part 2).

2.41. The remaining 49.9% m^3 (22,600 m^3) of peat lies within the development area. It is proposed to remove this resource and directly place it within the retained peat areas (Peat Habitat Zone, as shown in the Indicative Site Layout at Appendix 9 and Figure 2.10 and 2.13 below) to create a peatland type habitat. The agricultural topsoils would be removed prior to the peat removal / placement.

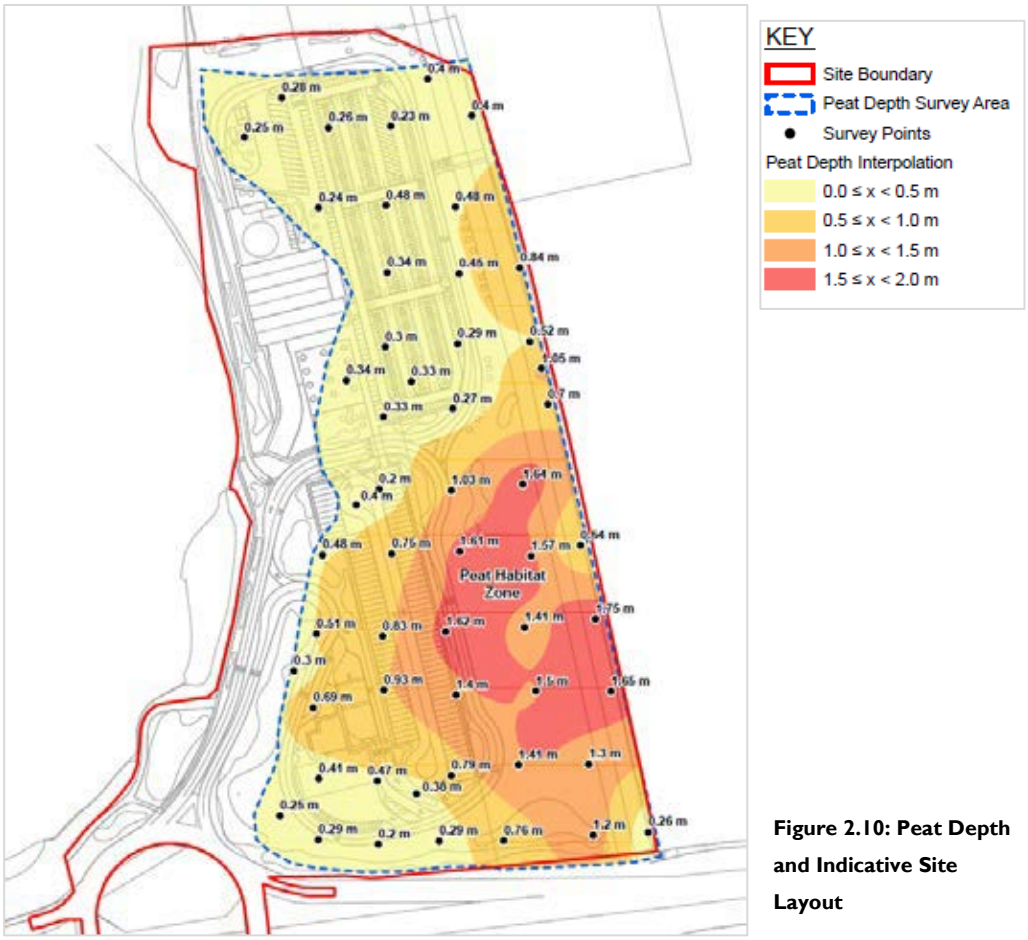

Figure 2.10: Peat Depth and Indicative Site Layout

2.42. Although the surface topography of the Peat Habitat Zone would be undulating, creating a range of habitat conditions (as described below), it can be thought of as a plateau at a constant height of 22.9 m AOD. Due to the sloping nature of the natural ground this would mean the layer of placed peat would vary in thickness being shallower to the south. The resulting total peat depths within the Peat Habitat Zone are illustrated in Drawing SH11739/006: Peat Depth within the Peat Habitat Area (see **Appendix 10** and also Appendix 10.9 of the Agricultural Land and Soils Technical Paper, ES Part 2). The maximum and minimum total peat depths would be approximately 3.15m and 1.14m respectively. The average depth across the peat Habitat Zone would be approximately 1.9m.

2.43. As the placement of the peat would raise the surface of the Peat Habitat Zone above the height of the surrounding land a bund would be required to retain the upper (placed) layers of Peat within it.

2.44. Prior to the installation of the bund, the eastern and southern edge of the Peat Habitat Zone would be continuous with the wider peat basin to the south and east of Site. However, the retaining bund cannot be placed directly over the peat, as these soft deposits would be unable to support the weight of the structure. Therefore, a suitable foundation for any bund would be constructed by the excavation of a trench to the base of the peat deposits which would then be backfilled with a suitable material to allow the loads from the bund to be transferred to the underlying clay strata. The bund would be constructed from clay at a batter of 1 in 2.5; and would be impermeable to prevent the loss of water from the Peat Habitat Zone.

2.45. The foundation design and the nature of the fill is to be determined at detailed stage subject to consultation with Natural England. The fill may include a single compacted aggregate founded unit (which would be slowly permeable and allow the continued movement of water between the Peat Habitat Zone and the wider peat basin); a single impermeable clay founded unit (which would contain all water within the Peat Habitat Zone); or a combination of aggregate and clay founded units (to create variable hydrological regimes).

2.46. The northern and western edges of the Peat Habitat Zone would be created by sheet piling (required to stabilise the retained peat whilst the peat within the development area is removed). The sheet piling would stand proud of the retained peat to 22.9 m AOD (the top of the placed peat) and would be designed / installed to be as watertight possible to prevent the loss of water from the Peat Habitat Zone during the construction phase.

2.47. Once the southern and eastern sections of the bund and the sheet piling are installed, the peat from the development area would be dug out and placed directly within the Peat Habitat Zone. The direct transfer of the peat from the development area to the specially prepared Peat Habitat Zone would ensure no double handling of the resource and minimise the potential for damage to the peat, peat drying or carbon loss. The incorrect management of Peat during construction could result in damage through the impairment of function, quality and resilience, therefore the handling and placement of the peat would be undertaken in line with a Site specific Management Plan to be produced by a qualified soil scientist prior to construction. This will ensure that the quality of the peat is maintained and it remains in a condition suitable for reuse on Site to create peatland type habitat. All topsoil would be stripped in advance of these works so that peat is placed directly over peat with no mixing of mineral / agricultural soils.

2.48. The void created by the excavation of the development area peat would then be backfilled using suitable materials to create the development platform and the brook diversion. A retaining embankment to the Peat Habitat Zone (bund) would be created to northern and western sides of the sheet piling, this would have a batter of 1 in 2.5 and like the eastern and northern bunds this would be constructed from clay and would be finished with a layer of site-won organic-rich topsoil.

2.49. The recreation of an impermeable / low permeability barrier to the northern and western edges of the Peat Habitat Zone, as naturally occurs at the western edge of the existing peat basin, would ensure that water continues to be contained within the basin and that the peats within the Peat Habitat Zone were maintained in a wettened state.

2.50. Within the Peat Habitat Zone, a mosaic of habitats such as regenerating scrub, dry and wet heathland areas and bog pools, will be created as a peatland type habitat. This will be achieved through the creation of wet surface hollows and drier mounded areas which will become largely dry heath vegetation. By creating a diversity of topography and habitats, the area will be more resistant to seasonal change as well as climate change.

2.51. The Chat Moss Project are in the process of restoring Mosslands nearby and this provides an opportunity to source vegetation locally to aid restoration. Bare peat is vulnerable to wind and solar ablation and erosion and so quick revegetation will be imperative to stabilising the

surface layers of the placed peat. This can be achieved through plug planting, hydroseeding, or pre-planted coir matting and rolls.

2.52. Plant species and choice of planting process would be influenced by the finalised topography of the Peat Habitat Zone. Pre-planted coir matting and rolls establish most effectively when partially submerged whereas hydroseeding and plug planting are likely to be more effective in drier areas. The type of peatland like habitats likely to develop are:

- Scrub woodland (usually birch Betula spp.)
- Bare peat
- Impoverished vegetation dominated by species including purple moor grass Molinia caerulea, hare's-tail cottongrass Eriophorum vaginatum and heather Calluna vulgaris, and lacking significant cover of bog-mosses Sphagnum species

2.53. Other key species that can be targeted for re-introduction as part of the revegetation work include; cross-leaved heath Erica tetralix, round-leaved sundew Drosera rotundifolia, cranberry Vaccinium oxycoccos, bog asphodel Narthecium ossifragum and bog-rosemary Andromeda polifolia.

2.54. During the management phase, parts of the Peat Habitat Zone would be permitted to develop natural tree and scrub regeneration, with species such as birch Betula spp., willow Salix spp., and alder Alnus glutinosa likely to self-seed from surrounding habitat. This would attract species such as willow warbler Phylloscopus trochillus, stonechat Saxicola rubicola and reed bunting Emberiza schoeniculus.

2.55. In other areas, trees and scrub could be prevented from establishing, such as parts of the developing floristically diverse heathland and near to the proposed bog pools. This would benefit species of invertebrate that are reliant on open water.

2.56. The figure below provides an impression of the peatland type habitat which would be created.

Figure 2.11: Example of Peatland Type Habitat

Scheme Design and Design Philosophy

2.57. The Parameters are fixed and set the context for the environmental assessment and the context in which the detailed design will be developed. At this stage, indicative details are provided to show how the scheme could be developed within the Parameters set. The indicative details are included at **Appendix 9** and a landscape masterplan at **Appendix 8**. The Site layout has been developed to provide the necessary services in a compact form to maximise soft landscape areas and ecological enhancement, and to assimilate the development into the landscape.

2.58. The location of different elements of the Proposed Development has been determined to minimise their visual impact from key vantage points. The Facilities Building is located at the base of the restored landfill slope so that it does not break the skyline when viewed from the east. The parking is to be located around these buildings in a landscaped setting so as to reduce their visual impact.

2.59. Whilst Indicative at this stage, it can be seen that the circulation has been developed to offer a logical and legible arrangement that separates HGV and car users at the earliest opportunity

and has been designed to maximise safety for Site users both in their vehicles and as pedestrians.

2.60. The location of the Facilities Building reduces the distance users will need to walk from their vehicles to the building to a minimum.

2.61. The indicative Facilities Building design has been developed in a way that references the local area. A sinuous wall, constructed in a manner reminiscent of peat stacks is a reference to the local peat moss land and the historic peat cutting that took place in the area. This wall guides people to the main entrance and the Hotel entrance and forms a key feature within the central space of the Facilities Building and the Hotel reception. Above this wall sit a series of simple linear pitched roof elements that as a cluster reflect the form and grouping of local farm buildings. Their fragmented form reduces the visual impact of the building at a distance. The selection of materials will also reference the local vernacular. The interaction of these linear forms and the sinuous wall beneath provides an interesting series of internal spaces that provide an efficient and commercial layout alongside a series of interesting views and protective and expansive spaces to provide for the various needs of the travelling public.

2.62. The design is based on the development of the 'new concept' Motorway Service Area, which offers travelers a break from their journey in a warm and welcoming environment. The building will be designed to create links with external amenity spaces and the wider area, particularly the adjacent Restored Risley landfill site.

2.63. The development will include a Facilities Building of up to 5,000m^2 GIA, with tenant units located around a central space. There will be a Hotel with up to 100 bedrooms, which will integrate with the Facilities Building. Car parking, HGV parking, Electric Charging Station (ECS) and a Fuel Filling Station are also located on-Site, with layouts developed to make the most of the on-Site opportunities. Integrating the building design with the landscaping proposals will be key. Landscaping buffers will be created to the extents of the Site and in key locations on-Site to screen elements where necessary.

2.64. Access to the Site will be taken from the existing Junction 11 of the M62 Motorway, via the existing spur from the roundabout at Junction 11.

2.65. The Facilities Building will be a maximum of 5,000m^2 and principally provide:

- A food court and ancillary retail, incorporating facilities for the sale and consumption of hot and cold food and beverages on and off the premises.
- Free toilet, hand washing facilities for all drivers and disabled visitors.
- Free showers and washing facilities for all HGV drivers.
- Staff areas including kitchen, catering storage, staff rooms, retail storage, refuse areas and office space. Some of these areas will be accommodated at first floor level.

2.66. Other complementary uses will include:

- Fuel Filling Station which will include a domestic forecourt and a HGV forecourt and a forecourt shop of a maximum of 500m^2. Alternative new technology fuels will be considered (subject to availability and market demand, such as hydrogen to contribute to Low Carbon targets).
- Electric Charging Station (ECS)

2.67. Parking facilities for:

- 536 light vehicles
- 105 HGV spaces
- 1 abnormal load HGV space
- 16 coach spaces
- 15 car plus caravan / motorhome / vehicle plus trailer spaces
- 15 motorcycle spaces

2.68. Hotel:

- Up to 100 bedrooms with supporting ancillary uses.

2.69. Access and circulation roads and footpaths will be provided between the various on-Site facilities. Street lighting will be provided to ensure vehicular and pedestrian safety in-line with Highway Standards. The street lighting within the MSA development will conform to the obtrusive light limitations commensurate with the surrounding environmental zone.

2.70. Due to the presence of local skyglow, existing artificial urban and highway lighting bordering the Proposed Development, as prescribed by the Institutes of Lighting Professionals Guidance

Notes for the Reduction of Obtrusive Light 2011, it is professionally judged that this area is typical of an E2 / partial E3 zone. However, due to the rural nature of the location and areas of natural conditions, on a precautionary approach, the assessment threshold limits are based on E2 Zone classification (Low district brightness). The Lighting Assessment is included at **Appendix 16**.

2.71. Non-vehicular forms of connectivity will be provided within the Site, with links also being provided to the Public Rights of Way network that currently exists within the Site, thereby allowing linkages to the wider non-definitive and definitive footpath network and the permissive footpaths across the adjacent restored landfill site.

2.72. There will be amenity areas within the landscaping areas, providing picnic and a dog walking zone.

2.73. The Indicative Landscape Masterplan shows how the proposals could be developed within the context of the Parameters and how this sits within the wider context of the Site. A copy of the Wider Landscape Concept Masterplan and the Indicative Landscape Masterplan are shown below and attached at **Appendix 8.**

Figure 2.12: Indicative wider Context Masterplan

Figure 2.13: Indicative Landscape Masterplan

2.74. Other indicative details include an Indicative Site Plan (shown in the figure below), Floor Plans and Elevations, which are all included at **Appendix 9** and show how the proposals could be developed within the context of the Parameters:

Figure 2.14: Indicative Site Plan

Infrastructure Arrangements and Ground Conditions

2.75. This section details service arrangements, drainage and flood risk, access and highways and ground conditions.

Existing Services Arrangements

2.76. Plans have been requested from the relevant incumbent utility companies, to identify existing services in the vicinity of the Site. The results of this search are outlined below.

Electricity – Electricity North West

2.77. 11kV underground cables are located within the south east of the Site, adjacent to the motorway junction. 11kV underground cables are also located adjacent to the Site's southern boundary and to the east of the Site, adjacent to the former landfill.

2.78. An electricity substation is located approximately 60m south west of the Site.

Gas – National Grid Transmission

2.79. A National Gas Transmission pipeline is present within the east of the Site, on a north-south alignment. This pipeline has a total easement of 80ft in width. This is shown on the Parameter Plans at **Appendix 4**.

2.80. The pipeline is classified by HSE as a "major accident hazard pipeline", with current consultation zones of 96m for the inner zone, 190m for the middle zone and 335m for the outer zone.

2.81. A medium pressure gas main is located approximately 200m south west of the Site, serving the commercial units in Birchwood Technology Park. Low pressure mains are located approximately 300m south of the Site, serving the existing residential properties. Both the Medium and Low Pressure gas mains are located on the opposite side of the M62 to the proposed development.

Potable Water – United Utilities

2.82. There is no United Utilities potable water apparatus within the Site boundary.

2.83. A 160mm Ductile Iron (DI) potable water main is located approximately 250m south west of the Site, serving the commercial units in Birchwood Technology Park. A water main is also present approximately 300m south of the Site, serving the existing residential properties.

Foul Sewerage – United Utilities

2.84. There are no United Utilities foul or surface water sewers located within the Site boundary.

2.85. Foul and surface water sewers are located approximately 300m south west of the Site, serving the commercial units in Birchwood Technology Park.

Telecoms – BT and Virgin Media

2.86. BT apparatus is located in the south west of the Site, adjacent to Junction 11 of the M62.

2.87. There are no Virgin Media assets located within the Site, or in the vicinity.

Proposed Services Arrangements

2.88. The utility load requirements for the Site have been provided by the client and are understood to be based on other Motorway Service Areas operated by the Applicant. These loads are summarised in the table below:

Load Schedule				
Building type	**Electricity (kVA)**	**Gas Peak Hourly (kWh)**	**Potable Water Peak (l/s)**	**Peak Foul Discharge Rate (l/s)**
Motorway Service Area comprising of food outlets, fuel filling station and 100-bed Hotel	2,000	2,700	20	20.4

N.B.: According to the 'National Guidance Document on the Provision of Water for Firefighting – 3rd Edition (January 2007)', developments of this type should have a water supply capable of delivering a minimum of 20 to 35 litres per second through any single hydrant on the development. Further liaison with local statutory portable water suppliers and the local fire authority will be required in order to confirm the specific requirements for this Site.

Electricity – Electricity North West

2.89. Electricity North West Limited have provided an indicative cost for the provision of the new/modified connection, including any diversion/reinforcement works.

2.90. 11kV underground cables are located within the highway of the motorway junction in the South of the Site. Any diversion requirements for this apparatus will be established at the detailed design stage, following highways and access design for the proposed development.

Potable Water – United Utilities

2.91. United Utilities have confirmed the proposed development can connect to the 8inch water main located along Warrington Road approximately 1,800m east of the site boundary.

2.92. No potable water mains are located within the Site boundary, therefore it is not anticipated that there will be any diversion requirements.

Foul Water – United Utilities

2.93. United Utilities has confirmed the foul water flow from the proposed development will be allowed to drain freely into the nearest available public foul combined sewerage system located within a public highway, south of the M62.

2.94. Further network analyzing by United Utilities will be undertaken at the detailed design stage, when detailed information on discharge calculations is produced.

2.95. No foul sewers are located within the Site boundary, therefore it is not anticipated that there will be any diversion requirements.

Gas – Cadent Gas

2.96. Cadent Gas has confirmed that there is sufficient capacity in the medium pressure (LP) network to the east of the Site boundary. CG has suggested a point of connection from the 180mm medium pressure main located east of the Site in Warrington Road.

2.97. It is recommended to avoid diverting the Cadent High-Pressure gas apparatus that runs through the east of the Site. Further consultation with utilities providers will be required at the detailed design stage to confirm requirements once a masterplan is available.

Telecoms – BT Openreach

2.98. Further information received from BT Openreach indicates that BT Openreach is "working with government and industry to bring Superfast fibre to as many people as possible but don't yet have a plan in this area yet".

2.99. Existing underground BT infrastructure is located within the vicinity of the motorway junction/Site entrance. Any diversion requirements for this apparatus will be established at the detailed design stage.

Drainage and Flood Risk

2.100. The Government's Flood Map for Planning and Long Term Flood Risk online map, shows the Site is within Flood Zone 1 (i.e. low probability of fluvial flooding).

2.101. The eastern and northern boundaries of the Site is defined by relatively straight drains. In the west of the Site there is a drain and a statutory main river. Although the Site is relatively flat, the predominant flow direction of the watercourse on-Site is towards the north. Other

surface water features in the vicinity of the Site comprise of an attenuation balancing pond and a series of drains associated with the Risley Landfill Site to the west of the Site.

2.102. The existing surface water runoff from the Site drains primarily through ground infiltration and overland flow to both the Silver Lane Brook to the west and the unnamed watercourse to the east. The Silver Lane Brook, after passing the north-west corner of the Site, runs north into Willow Brook which in turn runs eastward to Glaze Brook, which is approximately 1.4km east of the Site. The unnamed watercourse to the east discharges into the Silver Lane Brook.

2.103. Some agricultural land drainage has been installed but this is limited. There are no surface or foul water sewers crossing the site.

2.104. The greenfield flow from the existing Site has been estimated as 4.35 litres/second/hectare (l/s/ha) which equates to a discharge of 42.2 l/s.

2.105. A diversion of the Silver Lane Brook to the east of the development area is proposed. This offers opportunity to retain the open flow and create a more variable channel profile, and, as outlined in the 'Green Infrastructure' section above it also allows a distinct wildlife corridor, linking habitats within a biodiverse landscape to be created which will not restrict potential flood flows.

2.106. The proposed layout for the Site and the associated brook diversion have been developed to take account of flood risk and to include sufficient land to allow a robust surface water management strategy to be incorporated.

2.107. Following a review of suitable surface water drainage discharge options for the Site, it was concluded that an infiltration discharge was not suitable, and no surface water sewers exist near the Site. On this basis the surface water drainage strategy is based on a discharge to the diverted Silver Lane Brook at a greenfield runoff rate with surface water storage being provided for storm events that exceed this discharge rate. This controlled discharge will ensure the development's discharge replicates and reduces the greenfield peak discharge from the Site.

2.108. The surface water storage is sized to contain all storm events up to and including a 1 in 100 year storm event including an allowance of 20% for climate change. This storage is estimated to be 3900m^3.

2.109. Due to the Silver Lane Brook being relatively flat and very shallow in depth, a pumped discharge to the Silver Lane Brook has been selected to serve the Site. The pumped outfall and surface water storage is through the development. The pump station design includes a standby pump and high-level overflow to take account of potential pump failure.

2.110. A gravity surface water drainage network throughout the development will transfer all surface water to storage systems and pumped outfall.

2.111. Good management procedures will be used to ensure good surface water quality is maintained and this will reduce any potential risks from fuel and oil spillages and the use of on-Site de-icing materials.

2.112. Surface water flows will be taken through on-Site treatment prior to discharge to the diverted Silver Lane Brook. This treatment consists of a mix of pre-treatment, using swales, channel drainage and gullies, followed by pavement treatment through petrol interceptors/forecourt interceptors. Surface water storage will be provided in below ground crate and tank systems which will be provided across the development. To reduce the risk to the surrounding water environment from a major on-Site incident, the drainage outfall to the brook will include a discharge shut down system. This will allow flows to be contained on Site should water quality be an issue and will allow treatment as appropriate.

2.113. Installed below ground tanks and interceptors will be appropriate constructed to minimise the potential risk of tank leakage. These will be below the car parking areas.

2.114. The MSA facility's operation and maintenance management team, will ensure all drainage systems are fully maintained and managed in accordance with best practice/guidance.

2.115. Foul water will be pumped to the nearest United Utility's foul drainage system. Foul flows will be collected from the development and discharge to the pump station. The pump station location will be confirmed at the next stage but will be located a minimum of 15m from any public areas.

2.116. A plan of the Key Receptors is included in **Appendix 6.**

Access Arrangement and Highway Works

2.117. The Site is located to the north of the existing roundabout of Junction 11 of the M62 – a five arm roundabout which forms a junction between the M62 Motorway (off-slip roads) running east-west and the A574 Birchwood Way to the south. The northern arm of the roundabout is currently restricted to providing access to the former landfill site only. Silver Lane, a minor unadopted road, forms the fifth arm of the junction.

2.118. Access to the Site will be taken from a new connection to this northern arm of the roundabout. Vehicular access to the Site is proposed via a direct signal-controlled connection to the M62 Motorway Junction 11. It is proposed to signalise the motorway junction as part of the scheme.

2.119. The Site access arrangements and signalisation scheme are shown on Drawings ITM12377-SK-024 and ITM12377-SK-025 contained within Appendix 7.B of the Transport Assessment.

2.120. The proposed access arrangements have been designed taking account of a preliminary feasibility design (suitable for the purposes of planning) and cognisant of committed improvements at M62J11 and Birchwood Way which are being implemented by WBC and are due to be completed by January 2020 as part of its Warrington East Phase 3 scheme. They also take account of the changes resulting from the Smart Motorway Scheme which is due to be completed by Spring 2020.

2.121. The Site access arm will consist of two lanes in each direction. As the access road continues into the Site, the traffic will be carefully managed to allow safe and efficient circulation and ease of access to the relevant parking areas and FFS, whilst also considering non-vehicular access and circulation. A central reserve is proposed between the inbound and outbound carriageways.

2.122. At present no public transport services pass the Site. A number of public transport routes serve the Birchwood area to the south-west, with frequent peak and day-time bus services passing through the local area and around Birchwood Park, although there are limited evening and weekend services. Currently the nearest bus stops to the Site are c.1.5km away, located on Gorse Covert Road in the residential area to the south, with further stops located on Faraday Street, off Birchwood Way. Birchwood rail station is located c.3.5km to the south-west of the Site and provides direct services to Warrington town centre and Liverpool to the west, and Manchester to the east (serving a number of intermediate stops).

2.123. Existing cycle and pedestrian routes to the south of the motorway are largely segregated off-road routes, in keeping with the character of Birchwood. From the Site to the south, pedestrian and cycle connectivity are via a segregated path which runs parallel to Birchwood Way, which branches off through the wider area. To the north-west and west of the Site, a number of Public Rights of Way (PRoWs) are present, including footpath routes that run through the restored landfill site towards Culcheth. The PRoW to the western extent of the Site will, in part, be diverted within the zone indicated on the Parameter Plans (See **Appendix 5**)

2.124. A comprehensive Transport Assessment is appended to the Traffic and Transport Paper in the ES Part 2.

2.125. A plan of the Key Receptors is included in **Appendix 6.**

2.126. A Means of Access Plan is included in **Appendix 7**.

Ground Conditions

2.127. Information relating to Ground Conditions and Contamination is taken from a Phase I Environmental Assessment (November 2018) and a Preliminary Site Investigation (2018), which are appended to the Ground Conditions and Contamination Technical Paper in Part 2 of this ES. Additionally, information on peat depth and peat characteristics is taken from a peat depth and soil survey undertaken in January 2019 on an approximate 50m grid. The resulting peat depth plan is contained as Drawing SH11739/018 (Peat Depth, see **Appendix 10** and also Appendix 10.4, Agricultural Land and Soils Technical Paper, ES Part 2); and a description of peat characteristics is presented in the Agricultural Land and Soils Technical Paper, ES Part 2; and briefly summarised below in Agricultural Land and Soils.

2.128. The Site is currently in agricultural use with some scrub grassland. Historical plans indicate this land use since prior to 1849. Farm buildings were previously located in the south central part of the Site (Pestfurlong Moss Farm, 1880s) but were relocated to the north in the 1960s.

2.129. The Site is located adjacent to Risley Landfill and the western edge of the Site was previously included within the Permit boundary. A sliver of land forming the western edge has been subject to a Partial Permit surrender by consolidated notice (ref: EPR/BV7877IR/S009) and the area within the original Permit boundary is now excluded. The surrender was effective from 7th August 2018.

2.130. It is considered that the Site may potentially have areas of made ground associated with the demolition of former farm buildings however, this was not identified within the preliminary site investigation carried out. The Site is underlain by peat deposits in the south and east and Glacial Till in the west and north. The peat deposits were found in varying thicknesses (0.30m to 1.75m bgl) with increasing thickness toward the south east. The Till deposits were observed in the north west of the Site to comprise cohesive deposits comprising sandy clay with a minor component of fine to coarse gravel with a generally rounded angularity. Lithologies were variable from igneous granite to sedimentary mudstone, shale and red sandstone. Solid strata comprise the Helsby Sandstone which is a Principal Aquifer.

2.131. It is not anticipated that there will be significant contamination on the Site based on historical and current use. Contamination risks may be presented by gas generation in the peat or through migration of Landfill gas and/or leachate from the adjacent landfill.

2.132. Sheet piled support will be installed to prevent the risk of movement of the pipeline. The installation of the piles will be carried out using methods agreed with the pipeline owner.

2.133. Cut and fill earthworks will be required at the Site to achieve the proposed ground levels. It has been estimated that up to 42,000m^3 of material will be exported from Site. This equates to 2,800 one-way HGV movements undertaken within a 6 month period, resulting in approximately 2 HGVs per hour.

2.134. It is anticipated that the importation of fill materials will be required to achieve the proposed levels and will largely be engineering fill. This equates to approximately 45,700m^3, and as such approximately 3,047 HGVs in each direction over a 6 month period, results in approximately 2 HGVs per hour.

2.135. Other material brought to the Site associated with general construction deliveries will result in approximately 2 HGVs per hour.

2.136. Up to 300 staff will be on-Site during the construction phase. Assuming an average vehicle occupancy of 2.0 with no access by non-car modes (and as such a worst case assessment), this would result in 150 arrivals and departures per day and therefore 75 car/van arrivals in the AM peak hour and 75 car/van departures in the PM peak hour as a worst case.

2.137. The vehicle movements associated with the construction phases are assessed within the Traffic and Transport, Noise and Air Quality ES Technical Papers within Part 2 of this ES.

2.138. A plan of the Key Receptors is included in **Appendix 6.**

Agricultural Land and Soils

2.139. The agricultural land within the Site comprises a large, roughly rectangular, field which available aerial imagery shows to have been in continuous arable use since at least 2005. Additionally, there is a small triangular area of rough grassland to the west of Silver Lane Brook, which is a remnant of a larger agricultural field which was removed by the development of the Risley Landfill Site. This remnant land was removed from agricultural use by the operation of the landfill site and is therefore considered to be non-agricultural. All other land within the Site is considered to be non-agricultural, being either hardstanding or areas of restored landfill, which are to be developed for amenity use.

2.140. It is noted from the historic mapping (Drawing SH11739/021 in Appendix 9.1 (Archaeological Desk Based Assessment) of the Archaeology and Cultural Heritage Technical Paper, ES Part 2) that the fields to the north and far west of the Site, where soils are underlain by clay, are evident on the earliest available mapping (Tithe map of 1838). Whereas field boundaries to the south and east of the Site are first evident in the 1894 Ordnance Survey mapping when Pestfurlong Moss Farm is also first identified. As fields in this area are also not identified in the 1849 OS mapping, this indicates that the drainage of the peat and conversion from moss habitat to agricultural land within the Site occurred sometime between 1849 and 1894. The land has therefore been in agricultural use for at least 125 years.

2.141. The most current and detailed published land quality data covering the Site and the wider WBC is the Provisional Agricultural Land Classification (ALC) mapping provided by Defra (1:250,000 scale). Drawing SH11739/14 Provisional Agricultural Land Classification (see Appendix 10.2, Agricultural Land and Soils Technical Paper, ES Part 2). The Provisional mapping is intended for strategic use as it does not identify variations in ALC grade of less than approximately 80ha and hence is not accurate at the field scale. It therefore cannot be used to accurately define the ALC grading of the Site, but instead provides a general indication of the predominant ALC grading within the wider area. The Provisional mapping identifies all agricultural land within the Site as Grade 1 (excellent quality). The Site is shown as being immediately bordered by units of Provisional Grade 3 (good to moderate quality) land to the east; Grade 5 (very poor quality) land to the west; and Grade 2 (very good quality) land to the north and therefore can be considered to be in an area of transition between ALC Grades.

2.142. Therefore, to accurately define the ALC grading of the Application Site, a detailed soil survey was undertaken on the 8th and 9th January 2019 using a combination of augered soil cores and soil profile pits. Auger cores were taken using a 70 mm diameter hand-held Edelman auger, capable of sampling to a maximum depth of 120 cm; the soil profile pits were excavated, using a spade, to a depth sufficient to evaluate the full soil profile. Survey density was approximately one point per hectare of agricultural land, as per recommendations set out in standard survey and ALC guidance and methodology. A peat depth survey was also undertaken to determine the full depth of the peat profile across the Site.

2.143. The only limitation to agricultural land quality was identified as being soil wetness. The soil properties indicated that the Wetness Class would sit between Wetness Class II and IV, with a lower class assigned to soils with a higher water table, i.e. an increased proportion of the soil profile remains below the water table. Due to the fluctuating nature of the water table beneath peats, it is difficult to accurately determine the Wetness Class without long-term monitoring via permanent piezometers; and even where these data are available it is often inconclusive. Therefore, the entire Site was assigned a Wetness Class IV based on the high rainfall experienced in the area, coupled with the Site observations of ground conditions and vegetation growth; including small areas of standing water at the field margins, wet soil profiles and a notably wet area with rush-dominated vegetation growth in the centre of the Site.

2.144. Wetness predominantly limits the land quality to Grade 3a (10.11 ha), with a small area to the north, over mineral substrate (clays) limited to Subgrade 3b (1.47 ha), as shown in Drawing SH11739/031 (Agricultural Land Classification, see Appendix 10.3, Agricultural Land and Soils Technical Paper, ES Part 2).

2.145. Data from the Soil Survey of England and Wales Drawing SH11739/015 (Soil Associations, see Appendix 10.1, Agricultural Land and Soils Technical Paper, ES Part 2), show that Site is characterised by soils in the Turbary Moor association which are described as being found on lowland raised bog peats, variously modified from their original condition by drainage, peat cutting and reclamation for agriculture. This was confirmed by the soil survey which identified peat topsoils (defined as organic-rich clay loams) across the entire Site. The topsoil depth averaged 0.36 m across the Site. Although identified as a peat, the lack of an active living (peat forming) layer means this topsoil can be treated as an organic-rich soil resource as opposed to a peat resource.

2.146. The organic-rich clay loams are either developed over deeper peat deposits or over clays. The peat is deepest (1.75 m bgl) towards the southeast of the Site, but thins out towards the north.

2.147. Where the peat extends below the topsoil, it is characterised by an increasing water content with depth together with an increasing content of fibres and wood remains, highlighting the reduced degradation of the deeper peat. The laboratory data also indicates the deeper peat has a high organic carbon content. As the peat is buried at depth beneath agricultural land it is not an actively forming peat bog nor does it support sensitive habitats or species.

2.148. The Site has undergone drainage, which has historically lowered the water table across the Site enabling the land to be cultivated, however its current efficiency is questionable due to the wet surface ground conditions in areas. This drainage and cultivation of the Site has resulted in the drying, shrinkage and wastage of the peat along with increased wind erosion. The peat erosion coupled with the continued cultivation of the Site, continually incorporates the deeper organic-rich peat into the plough layer, enabling the accelerated degradation (loss) of the peat and continued loss of carbon to the atmosphere.

2.149. Where present (towards the north of the Site), the mineral subsoil is characterised by a slowly permeable clay, which has a strongly developed, coarse prismatic structure of very firm consistence, and evidence of gleying (periodic waterlogging).

2.150. It is anticipated that approximately 42,000m^3 of peat topsoil will be stripped (a full topsoil strip to a depth of 360mm will be undertaken across the full development area, including Peat Habitat Zone) to create the development area. This will minimise the possibility of peat and soil mixing and subsequently degradation and loss of these resources. The soils which lie beyond the development area (i.e. those solid beyond the pipeline easement, to the east of the Site, will remain in situ).

2.151. Soil management measures implemented through a Site Specific Soil Management Plan (or similar) to be produced by a qualified soil scientist prior to construction, will ensure that the quality of these soils is maintained and they remain in a condition suitable for reuse, either on or off Site. Maintenance of soil quality will also ensure that the soils are able to continue to effectively deliver a range of Ecosytem Services on replacement. The reuse of these soils within the Site will be maximised as far as is practicable.

2.152. The reuse of peat resources with reference to the Peat Reuse Hierarchy and peat management measures are discussed in the Peat Mitigation section above.

2.153. A more detailed description of the soils and agricultural land within the Site along with management measures is presented in the Agricultural Land and Soils Technical Paper, ES Part 2.

2.154. A plan of the Key Receptors is included in **Appendix 6.**

Ecology and Landscape

Ecology and Nature Conservation

2.155. A Site walkover was initially undertaken by two suitably qualified ecologists in January 2018 to consider likely constraints and survey requirements. Following this, a series of Wintering Birds Surveys were undertaken during the period January – March 2018. A single Bat Activity Survey (including transect and automated sampling) was undertaken during October 2018, with an additional survey being undertaken in May 2019 and a final survey planned for June 2019. The Extended Phase I Habitat Survey was undertaken during November 2018 and the Preliminary Ecological Appraisal (PEA) has now been compiled. Other protected species surveys have been undertaken as follows:

- Bat Roost Survey (Trees assessed April/May 2019)
- Badger Survey (April 2019)
- Great Crested Newt Survey (April and May 2019)
- Water vole and Otter survey (April and May with final visit in June 2019)
- Breeding Birds Survey (Surveys during April, May and June 2019)
- Reptile Survey (May and June 2019)
- Invertebrate Survey (May 2019)

2.156. The presence of the Manchester Mosses SAC is considered to be the key ecological receptor at this stage. However, the closest part of the conservation area lies >1 Km from the development area. Consequently, it is not considered that the treatment of peat and resultant effects on-Site hydrology would lead to adverse effects to neighbouring peatland habitat and hence the qualifying features of the SAC, however this will be confirmed via liaison with Natural England and potentially as part of a Habitats Regulations Assessment.

2.157. In terms of protected species, the Site is dominated by arable farmland with little semi-natural habitat presence and consequently is of limited value to protected species. The observed bat and bird assemblages are of no higher than Local value with a relatively low species diversity recorded for both groups. Furthermore, no bat roosts are present. There are no badger setts or signs of activity, no reptiles have been recorded to date and eDNA surveys for GCN have confirmed likely absence of breeding GCN from all ponds within 500m of the Application Site where these lie to the north of the M62.

2.158. The design proposals will include the development of a Landscape and Biodiversity Management Plan which will seek to complement the measures being developed for the adjacent Restored Risley landfill site. Habitat compensation, if required for ecological receptors to be impacted by the Proposed Development, will be included within the Site boundary and include a peatland type habitat with undulating topography comprising waterlogged hollows and dryer areas above the water table with heathland and acid grassland vegetation as well as marginal riverine habitats, tree lines, and woodland corpses which are reflective of the landscape context of the Site. Much of this will be newly created habitat along realigned Silver Lane Brook to the east of the development and within the Peat Habitat Zone. In addition to the terrestrial habitats the river channel will include areas of variable flow, variable margins with areas of dense emergent aquatic vegetation and lines of alder and willow. Habitats will be designed to be suitable for water vole, kingfisher and fish as well as for foraging bats as well as providing a habitat corridor for birds such as willow tit, which are known to breed in the locality.

2.159. A plan of the Key Receptors is included in **Appendix 6**.

Landscape and Visual Impact

2.160. The Site lies within the Mersey Valley National Character Area (NCA), as defined by Natural England, described as low-lying river valley landscape. The Site consists of a single agricultural field, rectangular in shape. The restored Risley Landfill rises immediately to the west, consisting of a single hill covered in rough grass and establishing trees. Natural pools valued for wildlife form part of a Local Wildlife Site to the north of the landfill site. There are agricultural fields immediately to the north and east, and to the southeast, south of the M62 Motorway. Culcheth village lies to the northwest, beyond an elevated section of disused railway line. To the south of the M62 Motorway are Birchwood Technology Park and the village of Gorse Covert. The motorway corridor is in-cut as it passes the Site, having wooded

embankments. Risley Moss to the south of Gorse Covert and Holcroft Moss to the southeast are Sites of Special Scientific Interest (SSSI) and Special Areas of Conservation (SAC). Risley Moss is also a European Site of International Importance and a Local Nature Reserve. There is a Site of Importance for Nature Conservation immediately to the south of Junction 11. Public Rights of Way to the west of the Site, and crossing fields to the north are part of the Local Authority's Active Travel Greenway Network.

2.161. The Site is bounded by mixed species hedgerows of varying heights to the east and west, by a line of trees to the north and by vegetation bounding the M62 Motorway Junction 11 to the south. A drainage ditch borders the western Site edge.

2.162. The Landscape Masterplan (**Appendix 8**) shows the proposed MSA set within a landscape framework. Boundary hedgerows will be retained and managed, and planting including native tree and scrub planting will be established to the perimeter of car parking and amenity areas, within the car park areas and along the public right of way through the Site, reducing the visual impact of the scheme for walkers along this route. Native trees and scrub will also be established in groups along the brook, re-routed through flower-rich acid grassland, creating a substantial green infrastructure across the scheme which will mature to reduce visual impacts arising.

2.163. The overall concept for the landscape masterplan of the proposed MSA is to provide a safe and accessible environment which relates sympathetically to the adjacent Restored Risley landfill site and provides a degree of visual integration with its Green Belt setting.

2.164. The after uses and habitats within the landscape masterplan will aim to set the new buildings (Facilities Building, Hotel, service yard and Fuel filling Station), open parking areas and internal roadways, within a framework of mainly native woodland, trees and shrubs. There would be provision for cars and HGVs, caravans and other visitors, such as pedestrian and cycle links, with informal woodland walks and facilities for dog walkers, possible children's play area, seating and access to the PRoW and permissive footpaths.

2.165. A plan of the Key Receptors is included in **Appendix 6.**

Air Quality, Dust and Odour

2.166. Warrington Borough Council (WBC) has declared an Air Quality Management Area (AQMA) for an area extending 50m from the roadside along the M62 Motorway. The southern boundary of the Site is therefore located just within the existing AQMA.

2.167. The main points to consider with the Proposed Development relate to nitrogen dioxide (NO_2), dust and fine particulate matter (PM_{10}) arising during the construction phase, and NO_2 and fine particulate matter (PM_{10} and $PM_{2.5}$) during the operational phase. In addition, there is the potential for odour impacts at the most sensitive parts of the Proposed Development (i.e. the Hotel and amenity space/picnic space) as a result of the restored Risley Landfill Site to the west.

2.168. Once operational, 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 majority of trips to/from the Proposed Development will be transferred trips that are already on the highway network. This will lead to a redirection of traffic flows from the existing M62 Motorway carriageway along a new access road from Junction 11.

2.169. There are few existing sensitive receptors located in the vicinity of the Proposed Development or Junction 11 of the M62 Motorway. The closest sensitive receptor locations are the residential properties located approximately 0.3km to the south of the Site along Inglewood Close. The impact of vehicle emissions (NO_2, and PM_{10}) is considered at these areas. There are also industrial/commercial premises located less than 0.25km to the south west of the Site, however these are considered to be of a low sensitivity. It is not expected that there will be any impacts further afield, including within the Manchester Mosses Special Area of Conservation (SAC) and Holcroft Mosses Site of Special Scientific Interest (SSSI) which are located approximately 1km to the east.

2.170. A plan of the Motorway Air Quality Management Area (AQMA) is shown on the plan below.

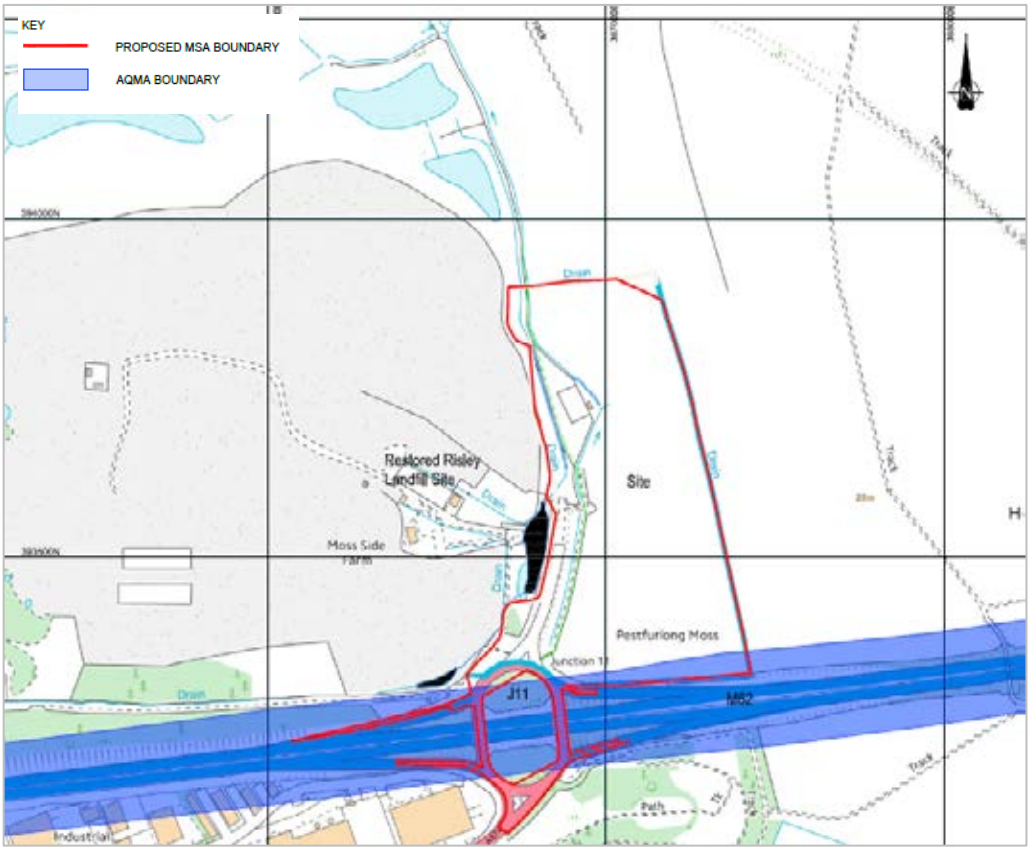

Figure 2.15: Air Quality Management Area (AQMA) Plan

2.171. A plan of the Key Receptor Plan is included in **Appendix 6**.

Noise and Vibration

2.172. The Proposed Development Site is located at the north-eastern side of junction 11 of the M62, therefore, the existing baseline noise environment is dominated by road traffic noise. Existing sensitive receptors are Franks Farm, located approximately 500m to the north of the Site, and dwellings off Inglewood Close, approximately 300m to the south of the Site. Noise at these receptors is considered through the ES assessment (see Noise and Vibration Technical Paper within the ES Part 2).

2.173. Land to the north of the Site boundary is allocated for the proposed HS2 line. Therefore, noise from HS2, and the M62 Motorway has been considered at proposed sensitive uses at the MSA (i.e. the Hotel, and some areas of the Facilities Building).

2.174. Vibration from the M62 Motorway is considered to be very unlikely to affect the Proposed Development Site. However, vibration from the future HS2 north of the Development Site boundary may affect proposed sensitive receptors (i.e. Hotel and Facilities Building) and this is considered within the Noise and Vibration Technical Paper in Part 2 of this ES.

2.175. A plan of the Key Receptors is included in **Appendix 6.**

Cultural Heritage/Archaeology

2.176. The Cheshire Historic Environment Record (HER) has been consulted for non-designated heritage assets within the search area (taken as an area of approximately 1km radius from the Site boundary). The consultation revealed that there are two non-designated heritage assets recorded within the boundary of the Site. These comprise the findspot of a Roman coin (HER reference 14458) and the findspot of a copper alloy stud and a lead gaming piece (HER reference 14457). The finds appear to have been recovered through metal detecting.

2.177. The British Geological Survey records the solid geology of the Site as sandstone of the Helsby Sandstone Formation. Superficial geology is recorded as peat. This appears to have been referenced as moss land within historic documents and maps; the land within the Site, is located within an area known as Pestfurlong Moss which was gradually reclaimed for agricultural use from the at least the mid eighteenth century onwards. This saw a farmstead established within the boundary of the Site in 1849-1893. Now demolished, there remains a potential for the presence of below ground remains. The geology of the Site is also of archaeological potential in its own right, peat having the potential to include organic remains and evidence of a palaeoenvironmental nature which could inform on past environments. The findspots recorded by the HER are not receptors, having been removed from the Site but they are illustrative of the potential for other similar finds to remain within the Site.

2.178. On discussions with the Local Planning Authority Archaeologist, it has been highlighted that any necessary further fieldwork could be undertaken as a condition to consent. The further works may comprise a sectioning of the historic boundary between the Pestfurlong and Holcroft estates (WA1); a programme of boreholes/sampling suitable to collect deposits of a

palaeoenviromental potential; and an archaeological watching brief or strip and record (whichever is appropriate) of Pestfurlong Moss farmstead (WA2). The scope and extent of such fieldwork would need to be agreed with the Local Planning Authority Archaeologist.

2.179. Historic England GIS datasets have been searched for designated heritage assets within 1km of the Site boundary, discretion informed by professional judgement being applied to this search area accordingly. There are no designated heritage assets within the boundary of the Site or within the 1km search area. The Grade II* Listed Holcroft Hall is located 1.54km north-east of the Site which was included for assessment due to its Grade II* status. With regards to impacts caused as a consequence of changes to a designated heritage asset's setting, it is considered that there would be no harm to Holcroft Hall from the Proposed Development.

2.180. A plan of the Key Receptors is included in **Appendix 6.**

Construction

2.181. Construction working hours will be 07.00 hours to 18.00 hours Monday to Friday and 07.00 hours to 15.00 hours on Saturday with no working on Sundays or Bank Holidays, unless first agreed with the Local Planning Authority.

2.182. Construction access will be via the Site's access to the roundabout at Junction 11 of the M62 Motorway.

2.183. Initial phases of work will be Enabling Works across the Site. This work will include installation of the retaining structure required for gas pipe line (driven steel sheet piling). Access to the Site and the associated embankments and a development platform for the future development will be created. The Enabling works will therefore also include works associated with soil stripping, removal of peat to the Peat Habitat Zone to create a peatland type habitat area, cut and fill works, drainage and creation of the Silver Lane Brook Corridor to enable the diversion of this brook.

2.184. Associated ecological mitigation and landscape along the diverted brook's corridor will be undertaken. This will be the subject of a Landscape and Habitat Management Plan both for planting and longer term management and maintenance. Once created, this area will have restricted access, while the remainder of the Site is developed in order to allow its establishment and to manage any likely disturbance of this area.

2.185. The footpath diversion will also take place at this Enabling stage to ensure the continued route for users of the PROW.

2.186. The Site will be subject to earthworks to provide the development platforms. Cut and fill will be required as part of the work. As part of this work, the top soil will be stripped and stockpiled, avoiding unnecessary double-handling, ready for re-used in landscaped areas. Drainage during construction will be carefully managed and controlled across the Site.

2.187. It has been estimated that up to 42,000m^3 of material will be exported from Site. This equates to 2,800 one-way HGV movements undertaken within a 6 month period, resulting in approximately 2 HGVs per hour. It is anticipated that the importation of fill materials will be required to achieve the proposed levels and will largely be engineering fill. This equates to approximately 45,700m^3, and as such approximately 3,047 HGVs in each direction over a 6 month period, results in approximately 2 HGVs per hour. Other material brought to the Site associated with general construction deliveries will result in approximately 2 HGVs per hour.

2.188. Up to 300 staff will be on-Site during the construction phase. Assuming an average vehicle occupancy of 2.0 with no access by non-car modes (and as such a worst case assessment), this would result in 150 arrivals and departures per day and therefore 75 car/van arrivals in the AM peak hour and 75 car/van departures in the PM peak hour as a worst case. Extra commits with its trading partners (Construction Companies) to make arrangement for the employment and training of staff learning their trade or profession.

2.189. The vehicle movements associated with the construction phases are assessed within the Traffic and Transport, Noise and Air Quality ES Technical Papers within Part 2 of this ES.

2.190. The approach with peat and the creation of the peatland type habitat area is set out within the Peat Mitigation, and Agricultural Land and Soils Sections above. There will be a strategy in place for managing imported and any exported material on-Site as well as a strategy for the movement of peat and creation of a peat habitat.

2.191. The buildings associated with the MSA (Facilities Building and Fuel Filling Station) will be constructed ahead of the parking areas, although some of the hard surfaced areas will be developed concurrently with the buildings. The proposed car parking areas will accommodate the stock piling of soils for re-use on Site, the storage of materials and the Site compounds. Initially a site compound may also be required at the Site entrance. The car parking areas will

be constructed as these areas become available and, as such, there will be a phased release of these areas for construction.

2.192. The remaining landscaping will be implemented across the Site towards the end of the construction phase. This will be the subject of a Landscape and Habitat Management Plan both for planting and longer term management and maintenance.

2.193. Standard construction plant and machinery will be utilized during construction, which is expected to include (but not limited to) the following:

- long-reach excavators
- bulldozers
- tippers
- front-end loaders
- scrapers
- hydraulic excavators
- backhoe loaders
- craneage

2.194. A Construction Management Plan (CMP) will be produced prior to construction to set out the details for managing the construction phases of the development. A Framework for this is to be included within the Environmental Statement and will set out the statement of intent for the CMP.

Operation

2.195. The MSA will be in 24 hour operation in accordance with the DFT Circular 02/2013 mandatory requirements. The Employees will work on a shift pattern to be determined by the Tenant Operators.

2.196. Extra commits with its trading partners (Tenant Operators) to make arrangement for the employment and training of staff learning their trade or profession. It is anticipated that the MSA will provide 228 gross FTE jobs, which is estimated could provide opportunities for in the order of 300 employees (on a full and part time basis).

2.197. The Site will be lit during the operational hours of darkness however, there will be careful consideration of areas to be lit, position of lighting, light distribution, with an appropriate control strategy for the operational lighting so that, when not required and subject to Health and Safety assessment, non-essential lighting is switched off at a pre-determined curfew time (suggested as 23:00 in accordance with ILP Guidance Notes) in order to further reduce the impact. A Lighting Assessment is included as part of the Environmental Statement to inform the ecology and landscape and visual impact assessments (**Appendix 16**).

2.198. During operational phase, the main potential for the generation of both noise and emissions (associated with air quality) will likely be associated with road traffic accessing the Site. The main pollutants of interest are nitrogen dioxide (NO2) and fine particulate matter (PM10).

2.199. The proposed development will comprise a complementary range of restaurant, fast food, ancillary retail, leisure and other ancillary commercial uses, within respective Units of the Facilities Building, together with the Fuel Filling Station and Hotel that will generate commercial waste. The operational commercial wastes would comprise of non-hazardous waste and small quantities of hazardous waste. Within the service yard for the Facilities Building and Hotel, there will be a Waste Compactor and appropriate separation of difference waste materials for recycling.

2.200. There will be a system for monitoring the use of the Fuel Filling Station forecourt. The interceptors will be linked back to a control point to warn of any issues associated with spillage immediately.

2.201. Average annual water usage at other similar Extra MSA sites is in the region of 17,000m^3 and it is anticipated that the annual water usage at the Warrington MSA would be similar.

2.202. Benchmark data suggests that the main Facilities Building and Hotel within the development will consume a total of approximately 3,722MWh of energy every year, resulting in approximately 777tCO^2 of emissions. The energy hierarchy will be followed to reduce these figures as far as is practical. Energy use will be reduced through passive design and system efficiencies will be maximised to further reduce consumption. Low and zero carbon technologies are currently being investigated with a view to providing 10% of the building's energy needs if practical solutions are available (see Climate Change ES Technical Paper 13, ES Part 2). Overall, the development is targeting a significant reduction in energy consumption beyond what is required by national Building Regulations.

Decommissioning

2.203. Decommissioning of the Proposed Development is not relevant to this project, given the proposed end use.

Phasing

2.204. Following submission of an outline application, its determination and subsequent approval of reserved matters and condition discharge submissions, it is anticipated that development could commence on Site in Quarter 4 2021, taking 12 months or so, before the opening of the MSA in Q4 2022.

2.205. As set out within the Construction Section above, initial phases of work will be Enabling Works across the site, to create the access to the Site and a development platform for the future development. The Enabling works will include works associated with soil stripping, removal of peat to the Peat Habitat Zone to create a peatland type habitat area, cut and fill works, drainage and creation of the Silver Lane Brook Corridor to enable the diversion of this brook. The footpath diversion will also take place at this stage to ensure the continued route for users of the PROW.

2.206. Strategic landscape planting and establishment of ecological areas will be early works within the Site.

2.207. Works associated with the vehicle parking, internal access roads, Facilities Building, Hotel and FFS will follow, with soft landscaping around these areas.

3. The Need for Development

3.1. The need for the Development of the Site can be categorized into needs in respect of safety on the strategic highway network, regeneration and economic. Together these needs justify the Site's redevelopment as an MSA. These are detailed further below.

Highway Safety Need

Background and Policy Context

3.2. The Alternative Sites Assessment (**Appendix 13**) sets out the 'Need' for the Proposed Development, however it is summarised below.

3.3. The Strategic Road Network plays a key role in the safe and efficient movement of goods, supplies and people around the United Kingdom; it is critical to the performance of the economy and is essential in helping to facilitate planned economic growth.

3.4. The need to keep the Strategic Road Network flowing, supporting economic connectivity and mitigating the cost of delay is fundamental to national economic performance. The impact and costs of delays resulting from accidents on the Strategic Road Network can be significant and widespread. The social impact of accidents on the Strategic Road Network is also substantial.

3.5. Driver fatigue is a recognised cause of road accidents and it is estimated that 20% of accidents on the Strategic Road Network are fatigue related. Rule 91 of the Highway Code advises that in order to minimise risks, journeys should be planned to incorporate sufficient breaks. The Rule advises that the most effective ways to counter tiredness are to stop in a safe place, drink caffeinated coffee and take a short nap. Government advice is that motorists should stop and take a break of at least 15 minutes every two hours. Drivers of many commercial and public service vehicles are also subject to a regime of statutory breaks and other vehicle time restrictions.

3.6. The UK's network of Motorway Service Areas therefore perform an essential road safety function in ensuring the safety and welfare of drivers and their passengers and underpin the safe and efficient operation of the M6, M62 and M60 in the North West of England and other Motorways throughout the country. MSAs create opportunities and facilities for motorists

and commercial drivers and their passengers to take breaks, refresh and relax in safe and convenient locations on the Strategic Road Network.

Department for Transport (DfT) Circular 02/2013

3.7. Government Policy relating to the Strategic Road Network is contained within Department for Transport (DfT) Circular 02/2013 'The Strategic Road Network and the Delivery of Sustainable Development'. This re-enforces that a well-functioning Strategic Road Network enables growth by providing for safe and reliable journeys. It recognises that it has a key role in enabling and sustaining economic prosperity and productivity, whilst also helping to support environmental and social aims and contributing to wider sustainability objectives and improved accessibility to key economic and social services.

3.8. Annex B sets out policy on the provision, standards and signage for roadside facilities on the Strategic Road Network. It is clear that the purpose of an MSA is to ensure the safety of drivers on the strategic road network.

3.9. Highways England's objective and clear recommendation set out at paragraphs B5 and B6 is that the maximum distance between motorway services areas should be no more than 28 miles which is typically 30 minutes travelling time. This distance can also be shorter, subject to compliance with the design requirements of the Design Manual for Roads and Bridges. This requirement or "need", to ensure driver safety through the provision of an MSA at maximum intervals of 30mins leads directly to the recommendation of the Highways Agency that there should not be a gap of more than 28 miles between MSAs.

3.10. In order to meet the Government's objective of ensuring the safety and welfare of road users, there is a need to provide an MSA on those stretches of the strategic road network where there is an existing gap between MSAs of more than 28 miles. Paragraph B8 confirms that in determining applications for new MSAs, Local Planning Authorities should not need to consider the merits of spacing of sites beyond conformity with the maximum and minimum spacing criteria established for safety reasons. Nor should they seek to prevent competition between operators; rather they should determine applications on their own specific merits.

3.11. The Circular does not include provision for traffic flows to form part of a weighting process to evaluate the importance of a gap. A gap either exists or it does not; flows and route choices are irrelevant.

National Planning Policy Framework (NPPF 2019)

3.12. Paragraph 82 of the NPPF (2019) relates to "building a strong, competitive economy". It notes that that planning decisions should "*recognise and address the specific locational requirements of different sectors*".

3.13. In relation to "promoting sustainable transport", Paragraph 102 requires that "*transport issues should be considered from the earliest stages of development proposals*", including the environmental impacts of traffic and transport infrastructure, and opportunities to promote walking, cycling and public transport use. Paragraph 103 notes that "*significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes*".

3.14. The NPPF (2019) states in paragraph 104(e) that "*Planning policies should:-*

> *e) Provide for any large-scale transport facilities that need to be located in the area (42), and the infrastructure and wider development required to support their operation, expansion, and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a national significant infrastructure project and any relevant national policy standards*".

3.15. Footnote 42 states that "*Policies for large scale facilities should, where necessary, be developed through collaboration between strategic policy-making authorities and other relevant bodies. Examples of such facilities include ports, airports, interchanges for rail freight, public transport projects and roadside services. The primary function of roadside services should be to support the safety and welfare of the road user (and most such proposals are unlikely to be national significant infrastructure projects)*".

3.16. Paragraph 107 requires that planning decisions "*should recognise the importance of providing adequate overnight lorry parking facilities, taking into account any local shortages, to reduce the risk of parking in locations that lack proper facilities or could cause a nuisance*".

3.17. It is clear that within the NPPF (2019), the starting point for the consideration of an MSA is paragraph 104(e) footnote 42 which provides that "The primary function of roadside services should be to support the safety and welfare of the road user" and that this point is reinforced in Annex B of Circular 02/2013. The Circular guidance is a material consideration in the determination of MSA applications by virtue of paragraph 6 of the NPPF (2019): "*other*

statements of government policy may be material when preparing plans or deciding applications". In establishing the need for an MSA above, it is also clear that such an MSA should contribute towards sustainable development (paragraph 7) but that planning decisions should recognise the "*specific locational requirements*" of sectors such as MSA (paragraph 82); and that operational issues such as lorry parking are also important (paragraph 107).

Leading Counsel Opinion

3.18. Extra MSA Group has obtained Leading Counsel's Opinion on the interpretation of need based on the NPPF (2019) and Circular 02/2013. Counsel advised (14th May 2019 – paragraph 11) that *"The 2013 Circular was a deliberate departure from previous policy in that the Government decided to make clear that once a gap of more than 28 miles has been identified, the need for an MSA will be established (i.e. the absence of an MSA in such a situation frustrates the Government's objective of supporting the safety and welfare of the road user). The local planning authority in such a situation should not concern itself with the merits of spacing beyond asking itself whether (a) the proposed MSA will help ensure that the maximum distance of 28 miles is not breached, and (b) that the new facility will not breach the requirements set out in the Design Manual for Roads and Bridges. For the purposes of applying the policy on "need" as set out in the Circular, it is not permissible to take a graduated approach to need by reference to the number of drivers using a particular stretch of the strategic road network or any other considerations such as route choice or the nature of the journeys. The existence of the requisite gap is conclusive evidence of need, and in the particular circumstances of this case it removes any necessity to debate how many drivers will choose a particular route (for example M6 South – M62 East, in preference to any other route."* A copy of the full advice is included in **Appendix 19**.

Highways England: The strategic road network Planning for the future (September 2015)

3.19. The Highways England: The strategic road network: Planning for the future (September 2015) document confirms the approach that Highways England takes to engaging in the planning system in relation to the whole Strategic Road Network, comprising of motorways and all-purpose trunk roads in England. It confirms that the Document is written in the context of the NPPF and Circular 02/2013. The Document confirms that *"the Strategic Road Network (SRN) is arguably the biggest and single most important piece of infrastructure in the country and is the core of our national transport system"*. It also confirms that *"operating an effective and efficient SRN makes a significant contribution to the delivery of sustainable economic growth. Efficient and reliable connections enhance the UK's image and reputation as a good place to invest. By enabling*

the efficient movement of people and goods the SRN helps create the conditions for growth through enabling businesses to:-

- *Access the skills and ideas they need to perform and grow;*
- *Access their suppliers and control their costs;*
- *Serve the customers and reach out to new markets; and*
- *Create effective collaborations and partnerships.*

The SRN is therefore essential to the growth, well-being and balance of the county's economy".

3.20. The Document has a section relating to "Roadside facilities, including Motorway Service Areas". It confirms that *"new and existing roadside facilities are subject to the provisions of relevant planning legislation and regulation, which together set the framework within which local planning authorities should consider the planning proposals for such developments"*. As confirmed earlier, this legislation and regulation relates to the NPPF and Circular 02/2013 (as well as the Town and Country Planning Development Management (Procedure) Order (England) 2015). In light of the above the Highways England 2015 Document supports the importance of public safety considerations and the contribution of the SRN to the national economy and re-affirms the role and relevance of both the NPPF and Circular 02/2013.

Establishing the Need

3.21. The Highways Agency produced a national report in January 2010 titled: "Spatial Planning Framework Review of Strategic Road Network Service Areas". The 2010 Study was commissioned to assess the provision of service areas on the Strategic Road Network in England (paragraph 1.1). The purpose of the Study was to "encapsulate the results of the MSA study which provides a gap study of those MSAs located in each region". Paragraph 1.3 confirmed that this Study comprised the following:--

"*Identification of the location of MSAs along the Motorway Network;*

Determination of the separation of MSAs;

Identification of any gaps in provision; and

Recommendations to address provision issues along the Motorway Network".

3.22. It is recognised that this Study pre-dated Circular 02/2013 as it used a requirement of 40 miles or greater to identify a "gap". This distance has now been superseded by the Circular 02/2013 requirement that "the maximum distance between motorway service areas should be no more than 28 miles". The conclusions of the 2010 Study can therefore be considered extremely robust as the maximum size of the gap has subsequently been reduced.

3.23. Figure 4.1 of the Alternative Sites Assessment (**Appendix 13**) provides the National map identifying the MSA gaps on the strategic highway network. Paragraph 5.4 of the Study confirmed that "*in the North West, Charnock Richard and the terminus of the M58 to the terminus of the M67 are both routes further than 40 miles long with no MSA provision. There are a further nine routes above the 28 miles threshold*".

3.24. These gaps still remain on the network in the North West and as such the public safety need identified in 2010 has not been met. Given the more recent publication of Circular Guidance 02/2013, which reduced the maximum gap requirement, the further nine routes mentioned as being above the 28 mile threshold now also display a public safety need that must be met.

3.25. The M6 / M62 / M60 Motorways are amongst the busiest and most important in the UK. The M62 has daily traffic flows of circa 115,000 vehicles in the vicinity of Junction 11 (24 hours AADT 2016). It is the west-east trans-Pennine Motorway in Northern England, connecting the two major ports of Liverpool and Hull, via intervening conurbations including Manchester, Warrington, St Helens and Leeds, and it also connects the two City Regions of Liverpool and Manchester. The area around Greater Manchester, Warrington and St Helens accommodates a convergence of other significant Motorway and major road networks (M6 / M58 / M60 / M62) that also make connections from the east to the west; north to south; and to the orbital around Manchester.

3.26. There are six existing MSAs located on the Strategic Road Network in and around the North West of England. These are listed in the table below:

Motorway	MSA	Location
M6	Charnock Richard	On-line between J27 and J28
M62	Birch Services	On-line between J18 and J19
M62	Burtonwood Services	Off line at J8

Motorway	MSA	Location
M61	Rivington Services	On-line between J6 and J8
M6	Knutsford Services	On-line between J18 and J19
M56	Chester Services	Off line at J14

Table 3.1: Existing MSA locations in and around the North West Region

3.27. Based upon the gapping parameters contained within Circular 02/2013, **FOUR** defined policy gaps exist in the provision of MSA facilities on the Strategic Road Network within the North West Region where spacing between existing MSAs is greater than the maximum limit of 28 miles or a maximum travelling time of 30 minutes. These gaps are set out in the table below:

From	To	Current Route	Current Distance
M58 Terminus (Switch Island)	Birch Services	M58/M6/M62/M60/M62	40 miles
Charnock Richard Services	Birch Services	M6/M62/M60/M62	35 miles
M58 Terminus (Switch Island)	M67 Terminus (Hattersley Roundabout)	M58/M6/M62/M60/M67	52 miles
Charnock Richard Services	M67 Terminus (Hattersley Roundabout)	M6/M62/M60/M67	47 miles

Table 3.2: Existing gaps of greater than 28 miles between MSAs in the North West Region

3.28. The distances set out above are clearly in excess of the 28 mile maximum distance and importantly the travelling time over these distances is significantly in excess of the 30 minute maximum time (given the often congested nature of the M6, M62 and M60 Motorways) set out in Circular 02/2013 'The Strategic Road Network and the Delivery of Sustainable Development'.

3.29. Therefore in accordance with Circular 02/2013, there is a need fully supported by Policy, for an additional MSA to serve this identified gapping.

3.30. The nature of the specific need within the North West region has been considered by Leading Counsel, instructed by Extra MSA Group. Counsel advised in paragraph 10 that *"It can be seen from the above that the existence of Burtonwood Services and Lymm Services do not address the identified gaps, for the simple reason that some drivers will take a journey whereby despite the existence of these two MSAs they will drive for more than 28 miles (and significantly longer than 30 minutes) before they encounter an MSA. How many such drivers there will be is irrelevant for the purposes of applying the Government policy on need – as paragraph B8 of the Circular makes explicit,*

once such a gap is shown to exist, it is not necessary to have regard to other considerations in determining whether a need exists (i.e. the existence of the gap is in and of itself conclusive evidence of need for planning purposes." A copy of the full advice is included in **Appendix 19**.

3.31. As part of their pre application discussions, Extra MSA Group has consulted with Highways England. Highways England confirmed at this time that based upon current distances between existing MSA facilities, it would have "no objection in principle to the proposed development of a new MSA at M62 J11 ("Warrington Services") on the grounds of spacing". A letter dated 11th June 2019 from Julie Prince (Senior Policy Advisor) at Highways England to Warrington Borough Council confirming this gapping conclusion is enclosed at Appendix 2 of the Alternative Sites Assessment included at **Appendix 13**.

Summary

3.32. In summary, there is a strategic need fully supported by policy, for a new MSA to serve the identified gapping between M58 Terminus and M62 Birch Services; M6 Charnock Richard and M62 Birch Services; M58 Terminus and M67 Terminus; and M6 Charnock Richard and M67 Terminus. This is based on Government policy in Circular 02/2013 which sets out the maximum acceptable distances between facilities. The need has also been supported as recently as 11th June 2019 by Highways England.

Economic and Regeneration Need

3.33. Extra MSA Group are investing circa £75 million to deliver the development, which will create a significant number of short-term jobs in the economy. This is all private sector investment and equates to approximately £8 million per annum into the Warrington local economy.

3.34. The MSA will also bring approximately £1.05 million in annual Business Rate Revenue. Under the Business Rate Retention Scheme, up to 50% of rates collected can be retained by the Council, thereby helping to ensure ongoing public services are maintained. It is also estimated that the construction phase of the development has the potential to generate £28.4 million in cumulative GVA (Gross Value Added) for Warrington and the North West economy. With the operation phase generating £39 million in cumulative GVA for Warrington and the North West economy over a ten year period. This will have a substantial positive impact on Warrington and the Regional economy.

3.35. There will also be substantial job creation. There will be 300 construction workers on the Site over the phased build period. This equates to 97 Full Time Equivalent (FTE) jobs during the construction stage. In addition to this, there will be 15 FTE job opportunities for supply chain network and maintenance sectors within Warrington and 32 FTEs within a wider catchment area.

3.36. Once operational, the M62 J11 MSA will support 228 FTE employees and a further 75 FTE employees supported through the supply chain. Whilst some of these new jobs may be filled by people outside of Warrington, it is estimated that there will be at least 137 (net) new jobs within Warrington.

3.37. In reality, these positions will be filled by a mix of "full time" and part time" roles, meaning that the actual number of individuals receiving the benefits of employment at the development may be significantly higher than these estimates. These jobs will be working on shifts on a 24/7 basis. Based on evidence from other MSAs operated by the MSA Extra Group, leading national and popular tenant operating companies will be accommodated on long-term leases; this will ensure that the operational jobs will be roles that will persist for at least 50 years, providing a longer-term major benefit to the local labour market within the Area and Warrington.

3.38. Extra MSA are fully committed to supporting apprenticeships. Independent research by Consultants along with experience from Extra MSA indicates that the development will generate 16 – 17 new apprenticeships. Extra MSA also fully support local school / educational visits and engagement as part of both the construction and operational phases of the development and are engaging with various Bodies such as Warrington & Co to facilitate this.

3.39. Extra MSA Group have produced an Employment and Training Charter (Appendix 6.3 of Socio Economic ES Technical Paper, ES Part 2) to ensure that construction of the development delivers real and lasting positive social and economic benefits, such as promoting employment and training opportunities which are readily accessible to the local communities within the Area and Warrington. Extra MSA Group will expect the main contractor to endorse this commitment to support local employment opportunities by signing up to the Charters which are outlined in more detail in the Employment and Training Charter report.

3.40. Businesses within the supply chain and their employees will generate spend within the local economy which has a multiplier effect as further rounds of additional spend occur. The

development will form part of a strategic 'gateway' for the Borough. When operational the development will act as a catalyst for the wider regeneration and economic development contributing to the area achieving its economic potential by attracting new investors and occupiers to Warrington.

3.41. Motorway Service Areas are a key component of this national infrastructure network and are essential for the welfare and safety of users. The Warrington MSA Junction 11 M62 development will help address the 'need' for a Motorway Service Area on this section of the M58, M6, M62, M60, M62 and M67 Motorway Network.

3.42. The availability of attractive, easy to access and convenient opportunities to stop on the motorway network can contribute to combating driver fatigue ("falling asleep at the wheel") which, according to research by The Royal Society for the Prevention of Accidents (2001), "is a major cause of road accidents, accounting for up to 20% of accidents on motorways and monotonous roads in Britain." The development will encourage road users to take breaks more frequently and therefore reduce opportunities for road traffic accidents to take place as a result of fatigue and tiredness and keep traffic flowing.

3.43. Accidents on the motorway network result in congestion and delay which in turn has an economic impact on all 'users' of the motorway. Whilst delays are primarily a result of demand exceeding capacity, accidents on the network are also a contributing factor and can take many hours to resolve, depending upon their severity. A recent government report 'Review of Investigation and Closure Procedures for Motorway Incidents – preliminary Report' (May 2011) found that the economic costs of disruption caused by incidents is high and the study estimated that for a "three lane carriageway closure, on a busy motorway, the economic impact can be more than £500,000".

3.44. The provision of convenient and accessible Motorway Service Areas, where drivers can take a rest break when needed, plays a key role in the efficient and safe running of the national road network. Drivers of commercial vehicles are subject to strict working hours requirements. Rest breaks must be taken regularly. The logistics industry is therefore heavily reliant on MSAs as places where drivers can take a rest break, have a shower, and a meal. MSAs are the 'ultimate refuge' for many drivers, who struggling with mechanical problems will try to reach the next MSA where they can safely stop and call for help.

3.45. The development will assist in the safe and efficient use of the Region's Strategic Road Network. The development will encourage road users to take breaks more frequently and therefore reduce opportunities for road traffic accidents to take place as a result of fatigue and tiredness and keep traffic flowing whilst reducing journey times and therefore has the potential to increase regional and local economic activity and efficiency. The scheme can deliver improvement to the national economy and more jobs may become available, which would increase economic activity.

Summary

3.46. The site lies within the area of identified highway safety need in respect of the provision of an MSA.

3.47. The site adjoins the M62 Motorway and has safe and convenient access from M62 Junction 11. Provision of an MSA in this location can be designed to be compatible with neighbouring land uses.

3.48. Junction 11 has been shown, through the Alternative Sites Assessment (**Appendix 13**), to be the optimal location in which to provide a bespoke MSA to meet the needs of motorists in a sustainable and accessible location that is central to the identified gaps in provision.

3.49. The MSA will also bring significant investment to the area, as well as result in significant job creation and a significant increase in GVA.

3.50. A safe Motorway network will also in turn help facilitate economic growth and as such by addressing the highway safety need for an MSA in this location, economic growth will ensue.

4. Alternative Development Options

4.1. Paragraph 2, Schedule 4 of the EIA Regulations states the need for inclusion of the following details:

> *"A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects."*

4.2. Section 3 has explained why a 'need', fully supported by policy, exists for a new MSA to serve the identified gapping on the Strategic Highway Network in the North West. As such, the most appropriate location for the MSA needs to be identified. This is addressed fully within the Alternative Site Assessment attached at **Appendix 13** and summarised below.

4.3. The applicant is a successful and experienced motorway service area operator. As such the consideration of alternative development options for the preferred site are limited. The following development options have however been considered in formulating the proposals for the application site and are considered in more detail in the sub sections below:

- Do Nothing
- Compliance with the Development Plan
- Preferred Option – Motorway Service Area
- Preferred Option – Motorway Service Area Design Evolution

4.4. These are described in more detail below:

Alternative Sites Assessment

Meeting the Need for a New MSA

4.5. As identified in Section 3, a 'need' has been established for an MSA in the locality to meet four identified gaps on the Strategic Highway Network in the North West. Therefore, the most appropriate location for the MSA has to be identified. In respect of this, paragraph B8 of Circular 02/2013 states that "In determining applications for new or improved sites, local

planning authorities should not need to consider the merits of spacing of sites beyond conformity with the maximum and minimum spacing criteria established for safety reasons".

4.6. The Alternative Sites Assessment (**Appendix 13**) therefore considers the general locations where the identified need could be best met. It first identifies an area of search. The Figure below shows the current gaps on the network:

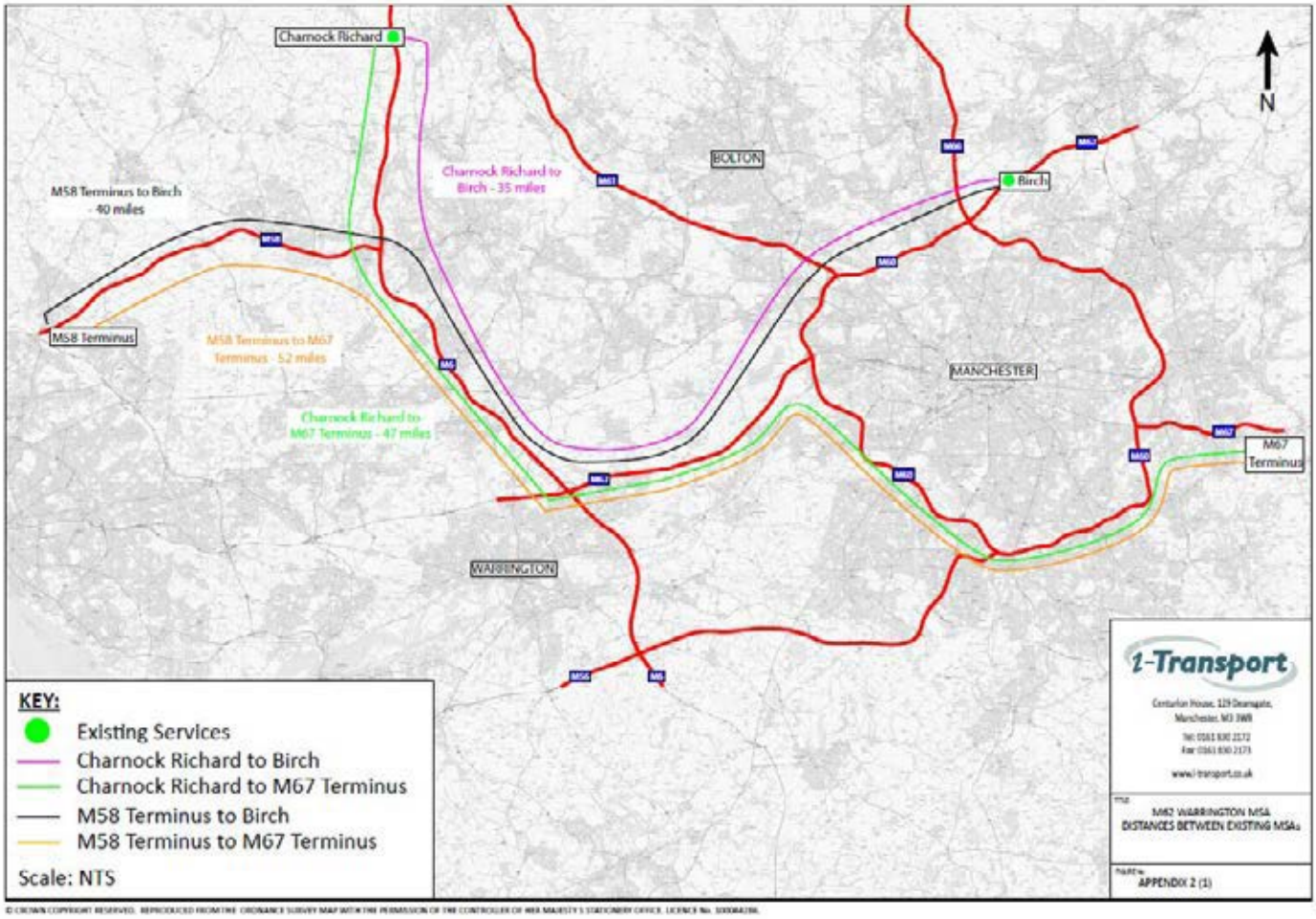

Figure 4.1: Distances between Existing MSA

4.7. The Figure below illustrates that the introduction of a new MSA at either Junction 11 of the M62 or on line to the east of the junction (defined as the Optimal Search Area) would reduce all **FOUR** of the established gaps on the corridors of the Strategic Road Network to policy compliant distances.

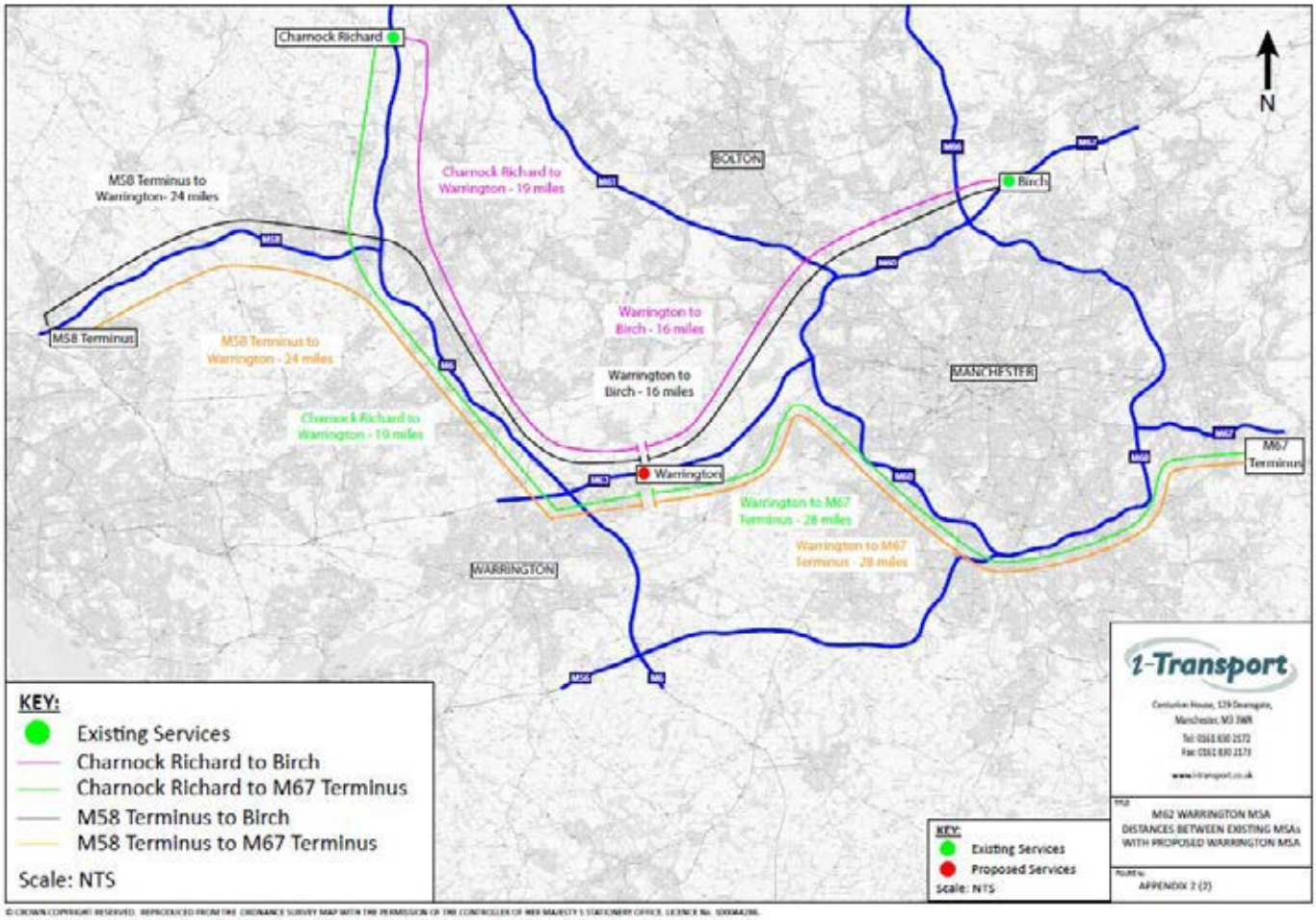

Figure 4.2: Distances between existing MSA and the Optimal Search Area

4.8. The table below shows that the introduction of a new MSA at either Junction 11 of the M62 or on line to the east of the junction (defined as the Optimal Search Area) would reduce all **FOUR** of the established gaps on the corridors of the Strategic Road Network to policy compliant distances. An MSA within the area identified at and to the east of Junction 11 of the M62 would achieve the following:

From	To	Current Route	Current Distance	New Route	Proposed Distance (range)
M58 Terminus (Switch Island)	Birch Services	M58/M6/M62/M60/M62	40 miles	M58/M6/M62	24 – 28 miles
Charnock Richard Services	Birch Services	M6/M62/M60/M62	35 miles	M6/M62	19 – 23 miles
M58 Terminus (Switch Island)	M67 Terminus (Hattersley Roundabout)	M58/M6/M62/M60/M67	52 miles	M62/M60/M62	25 - 28 miles
Charnock Richard Services	M67 Terminus (Hattersley Roundabout)	M6/M62/M60/M67	47 miles	M62/M60/M67	25 - 28 miles

Table 4.1: Existing gaps of greater than 28 miles between MSAs in the North West Region

4.9. The ASA shows that **outside** of this Optimal Search Area, all **FOUR** gaps could not be satisfied. As such the ASA focuses its assessment upon the Optimal Search Area and hence other areas within the M62 / M6 corridors to the west; M62 corridor to the east; and the M60 corridor to the north and south of M62 Junction 12 have been excluded from the initial area of search for the purposes of this Alternative Sites Assessment.

4.10. In undertaking this Alternative Sites Assessment, the advantages and constraints of both on-line and off-line (Junction) locations within the Optimal Search Area have been considered in order to robustly identify the most appropriate location in which to site an MSA to meet the acknowledged need. This Assessment has been undertaken within the context of both paragraphs B13 to B15 of Circular 02/2013 which gives preference to on-line locations subject to all other factors being equal, and the requirements of NPPF (2019) in relation to sustainable development principles.

4.11. In order to assess the potential alternative sites, the following four stage methodology was adopted:

> **Stage 1** considers the ability of the identified locations to meet the policy defined need having regard to the maximum distances between MSAs set out in Circular 02/2013.

Stage 2 considers whether there are any key planning or environmental constraints that could prevent the development of any of these sites unless no other sites are available.

Stage 3 considers whether there are any other planning, highways, engineering safety, operational or environmental constraints that would preclude development on any of these sites having regard to the list of criteria set out in Circular 02/2013.

Stage 4 draws together all of the above information and identifies a preferred location for a new MSA to meet the identified policy need. This is the site that best meets the need with the least development constraints.

4.12. Based upon the analysis undertaken in Sections 6 and 7 of the ASA, the following sites have been considered as part of this assessment:

On-Line Locations:

- Section of the M62 east of Junction 11 (Site 1).

Existing Junction Locations:

- Junction 11 North East Quadrant (Site 2)
- Junction 11 North West Quadrant (Site 3)
- Junction 11 South East Quadrant (Site 4)

Potential new Junction locations:-

- Junction 11A Northern Quadrant (Site 5)
- Junction 11A South East Quadrant (Site 6)
- Junction 11A South West Quadrant (Site 7)

4.13. These sites are shown on the map below:

Figure 4.3: Sites Considered within the Alternative Sites Assessment

4.14. The ASA (**Appendix 13**) sets out the conclusions of the stage 2 and 3 Assessment in full with those highlighted in green being the best to meet the criteria. This is summarised below.

4.15. All the Sites (Sites 1 – 7) are within the Green Belt in the currently adopted Local Plans (Warrington and Salford). In this regard all the Sites are subject to the same "very special circumstances" test and there are no non-Green Belt alternatives that could meet the identified need. It is therefore clear that to meet the need for an MSA in the Optimum Search Area, a Green Belt site will need to be developed.

4.16. Site 1 is the only on-line opportunity for an MSA within the Optimal Search Area. Whilst it has the potential to accommodate an MSA, there is no evidence that it is capable of being brought forward to meet the currently identified need. It is within multiple ownerships and is not backed by a MSA Developer, and hence it is unlikely to be deliverable in the short term.

4.17. All other sites are off-line opportunities. Sites 3 and 4 are ruled out due to environmental constraints and hence cannot accommodate an MSA.

4.18. Sites 5, 6 and 7 have the potential to accommodate an MSA but a new M62 Junction 11A will be required to facilitate their delivery. There is considerable uncertainty associated with the delivery of such a new motorway junction, the potential for which has been identified in the Greater Manchester Spatial Framework (GMSF) and within the North West Quadrant Study, but which is unlikely to be open for public use until the medium term. There is no evidence that these sites can come forward any earlier to meet the currently identified need. In addition Site 6 is further constrained by also being in the draft Salford Local Plan and GMSF as an employment allocation as a strategic extension to Port Salford.

4.19. In this context, the Assessment identifies the application site (land within the NE Quadrant of Junction 11 (Site 2)) is the most sequentially preferable location upon which to site a new MSA having regard to the specific locational requirements to meet the identified need along with the consideration of planning, engineering, safety, operational and environmental factors. The Assessment also shows that of the Sites identified, it has the least Green Belt impact, being classified as having a "weak" contribution with the emerging Warrington Local Plan evidence base.

4.20. Given that a suitable site (Site 2) has been identified, it is not necessary at this stage to revisit any of the sites that were provisionally set aside as part of the Stage 2 assessment. It is also unnecessary to undertake a further search for locations outside of the Optimal Search Area.

4.21. The plan below incorporates a new MSA strategically and optimally located at M62 Junction 11 and demonstrates beyond doubt that the FOUR unmet gaps on the M6 / M62 / M60 / M67 / M58 within the North West Region will be fully addressed by a new MSA at M62 J11.

4.22. As is shown in the table below, the 40 mile non-compliant gap between M58 Terminus and Birch Services will be reduced to 24 miles; the 35 mile non-compliant gap from Charnock Richards Services to Birch Services will be reduced to 19 miles; the 52 mile non-compliant gap between M58 Terminus and M67 Terminus will be reduced to 16 miles; the 47 mile non-compliant gap from Charnock Richards Services to M67 Terminus will be reduced to 28 miles. All of these distances are below or comply with the 28 mile maximum.

From	To	Current Route	Current Distance	New Route	Proposed Distance
M58 Terminus (Switch Island)	Birch Services	M58/M6/M62/M60/M62	40 miles	M58/M6/M62	24 miles
Charnock Richard Services	Birch Services	M6/M62/M60/M62	35 miles	M6/M62	19 miles
M58 Terminus (Switch Island)	M67 Terminus (Hattersley Roundabout)	M58/M6/M62/M60/M67	52 miles	M62/M60/M62	16 miles
Charnock Richard Services	M67 Terminus (Hattersley Roundabout)	M6/M62/M60/M67	47 miles	M62/M60/M67	28 miles

Table 4.2: Policy compliant MSA Provision in the North West Region

4.23. Following the identification of a 'preferred site', MSA Extra have now progressed site investigations and detailed design works in order to inform the layout, scale, form and boundaries of any future scheme, along with any necessary mitigation measures. Viability and land ownerships issues are key factors that may prevent the preferred site from coming forward. The Developer has secured an option from the landowner to bring the preferred site forward. Following design work, the Developer considers that a commercially and operationally viable MSA can be delivered on the preferred site. Should it ultimately prove not to be the case, then it would be necessary to revisit alternative options as the public safety 'need' would still remain unmet.

Do Nothing

4.24. Having identified the preferred site for the MSA, alternative uses of the Site were also considered. To do nothing with the Site would mean the Site was retained as existing and therefore as an agricultural field.

4.25. The new development would provide significant inward investment to an area identified as a strategic economic and regeneration area (approximately £75 million capital investment). There would be substantial job creation (97 FTE at construction stage, with an anticipated 300 workers on Site; 228 FTE operation jobs with a further 75 FTE jobs supported through the supply chain). It would also bring substantial cumulative GVA for construction and operational

phases of around £28.4m and £39m (for a 10 year period) into the Region. The Development would also generate £1.05 million in annual Business Rates.

4.26. In addition to this, Highways Agency guidance points to a deficiency in MSA facilities within this area and the existing planning policy context is supportive of a scheme. As set out in Section 3 (The Need for Development) above and more fully in the Alternative Sites Assessment at **Appendix 13** there is a strategic need fully supported by policy, for a new MSA to serve the gapping between M58 Terminus and M62 Birch Services; M6 Charnock Richard and M62 Birch Services; M58 Terminus and M67 Terminus; and M6 Charnock Richard and M67 Terminus. This is based on Government policy in Circular 02/2013 which sets out the maximum acceptable distances between facilities. The Site adjoins the M62 Motorway and has safe and convenient access from M62 J11 and lies within this area of identified need. It has been shown that this is the best option to address the four gaps on the strategic highway network. To do nothing would not enable this deficiency to be addressed in this suitable location.

4.27. There are also a series of other benefits resulting from the Proposed Development that would not be realised without the Proposed Development. These are detailed below.

4.28. There is currently significant construction work underway on Birchwood Way to improve vehicle movements between Birchwood and the motorway and to provide greater capacity for local business park users and local residents. The M62 J11 MSA will deliver improvements to Junction 11 of the M62 in the form of signalisation of the junction to deliver greater capacity for vehicles on the junction to ensure that there is no net impact from the MSA on the local road network. These works will complement the current Birchwood Way improvements (Phases 2 and 3) to support current public sector funding in the form of Growth Deal initiatives.

4.29. As part of the Junction 11 signalisation improvements, pedestrian improvements will be delivered to provide controlled pedestrian crossings and enhanced footways through this junction. In addition to these controlled crossings, the existing footway on the overbridge is proposed to be extended northwards to provide a footway connection from the MSA to the existing walking and cycling network to the south of the M62 motorway.

4.30. Extra MSA support the opportunities for employees to walk or cycle to work and hence Extra MSA will make a financial contribution towards the upgrading of the existing Public Right of Way network to the north of the site (connecting to Culcheth) and also to existing pedestrian links along Silver Lane south of the motorway. The improvements both at the motorway

junction and on the Public Rights of Way north and south of the motorway will benefit local residents from Culcheth seeking to access Birchwood Employment Park and also those from Gorse Covet seeking to access the Risley 4 restoration site.

4.31. Extra MSA will deliver upgrades to the current public footpath that runs through the site, as part of the site development scheme. The surface treatment of the footpath will be enhanced and way marking and signing will be upgraded. This on site upgrade will complement the financial contributions made to enhance the linked off-site footpaths to the north and south.

4.32. Extra MSA are committed to operating a bespoke staff minibus service between the site and Birchwood Station which will help reduce private car journeys by staff and widen the opportunities for potential employees who do not have access to a private car. Additional Travel Plan measures will include encouragement for employees to cycle to work through secure cycle parking at the MSA; participation in the Cycle 2 Work scheme; implementation of a Bicycle User group; support for the Bikeright! Cycle training scheme; and provision of lights, helmets, and hi visibility bibs for staff who commit to cycling to work.

4.33. Birchwood Park is a thriving employment hub. It will benefit from the current road improvements to Birchwood Way and also from the Junction 11 improvements delivered as part of the MSA scheme. The MSA will also deliver dedicated HGV parking areas as an integral part of the MSA proposal. The MSA is however delivering additional lorry parking beyond the level required within the Circular guidance (Circular 02/2013) to help to address a current lorry parking issue. Birchwood Park Forum indicated that some areas of Birchwood Park suffer from inconsiderate lorry parking which adversely affects access and circulation within the Employment Park. The emerging draft Local Plan also indicates that additional lorry parking may be required in the Warrington area to address existing problems. Extra MSA are therefore providing additional lorry parking at the MSA (beyond that required by the Circular guidance) to provide an opportunity for lorry drivers to wait in a dedicated area and to benefit from the MSA facilities rather than to clog up existing roads within Birchwood Park and at other facilities.

4.34. Extra MSA will deliver upgrades to the current public footpath that runs through the site, as part of the site development scheme. The surface treatment of the footpath will be enhanced and way marking and signing will be upgraded. This on site upgrade will complement the financial contributions made to enhance the linked off-site footpaths to the north and south.

4.35. There will be other environmental benefits of the proposals, including a diversion to the Silver Lane Brook, providing ecological enhancement to this brook and its corridor. Creation of a peatland type habitat. There will be landscape planting enhancement, including woodland planting, which in turn creates and enhances ecological habitats. These will be subject to long term management.

4.36. To do nothing would not enable these benefits to be realized, which also have benefits for the wider community and Warrington.

Compliance with the Development Plan

4.37. The Planning Statement submitted in support of the Planning Application fully considers the Proposed Development in the context of planning policy and sets out the justification for the Proposed Development.

4.38. With regards to compliance with the Development Plan, the Planning Statement concludes that, it is considered that whilst there is a need to assess compliance with individual policies (set out in full in the Planning Statement and summarised in Section 5 'Plans and Policies' of this ES Part 1 Report), case law identifies that the test of compliance should be in the context of whether the application proposals are in accordance with the development plan "as a whole". The Judgement (CO/774/2015 EWHC 2489 (Admin) (2015)) sets out in paragraph 30, the basis on which a decision maker may consider the issue, stating "that is not just in relation to one policy but against the development plan as a whole". This is reconfirmed in paragraph 31 "to determine whether a proposal is in accordance with the plan the decision maker needs to have regard to all of the relevant policies and not just one".

4.39. In considering the compliance of the Proposed Development with the Policy requirements of the Core Strategy it is concluded that the only non-compliance is in respect of one aspect of Policy CC2. In this regard however, it is considered that this non-compliance does not render the application proposals non-compliant as a whole with the Development Plan as the application proposals support the general thrust of the Policy requirements to support employment development.

4.40. Whilst the site is in Green Belt, the policies state that development proposals within the Green Belt will be approved / supported where they accord with national policy i.e. for 'appropriate development' or where 'very special circumstances' are demonstrated for 'inappropriate'

development. The 'very special circumstances' case, as set out in Section 9 of the Planning Statement, concludes that the Proposed Development does meet this test. As indicated above, when taken as a whole, the proposals will deliver economic development in a sustainable location which is the principle tenet that underpins the Core Strategy. The Application proposals therefore comply with the Development Plan "as a whole" and hence there is a Section 38(6) presumption in their favour and also, they benefit from support from NPPF (19) paragraph 11(c) relating to approving development proposals that accord with the Development Plan without delay.

4.41. Section 38 provides that development that accords with the Development Plan should go ahead unless material considerations indicate otherwise. The Applicant considers that the application proposals comply with the Development Plan for the reasons set out above.

Preferred Option – Motorway Service Area

4.42. As identified through Section 3, the need for an MSA in this location has been identified. As identified throughout Section 4, the Site is the preferred location for an MSA to meet the need and that, with the "very special circumstances" shown, the development is considered to comply with the Development Plan "as a whole". The Developer has therefore progressed site investigations, environmental assessment and detailed design works in order to inform the layout, scale, form and boundaries of the proposed MSA scheme on the application site, along with any necessary mitigation measures required to minimise and manage any likely environmental impacts.

The Section below (Preferred Option - Design Evolution) identifies the evolution of the proposals and how environmental matters were considered in respect of the Preferred Option of an MSA.

Preferred Option – Design Evolution

4.43. Following the confirmation of the preferred use for the Site, the proposals have evolved, with consideration of the technical constraints and environmental impacts being key to the design evolution. This has been heavily influenced by the environmental assessment as well as key consultee, community and stakeholder engagement as detailed within the Introductory Section of this report.

4.44. A number of physical site constraints have also influenced the scheme design. A Constraints Plan at **Appendix 4** identifies the constraints that have influenced the design layout. These influences have included a high pressure gas main to the eastern extent of the Site, which has associated inner, middle and outer PADHI Zones; Silver Lane Brook; peat beneath part of the Site; PROW; access to the Site and associated existing ground levels.

4.45. A number of opportunities have also influenced the scheme design. These include a relatively level main Site area; opportunity to create a peatland type habitat within the Site; adjacent restored landfill site with ability to screen views of the Proposed Development; opportunities to divert Silver Lane Brook to create an enhanced ecological habitat along its new corridor; existing tree belts to sections of the Site boundary and opportunities to enhance these; opportunity to connect to the wider PROW network and permissive footpaths on adjacent sites and enhance these connections.

4.46. These opportunities and constraints are shown on the diagram below:

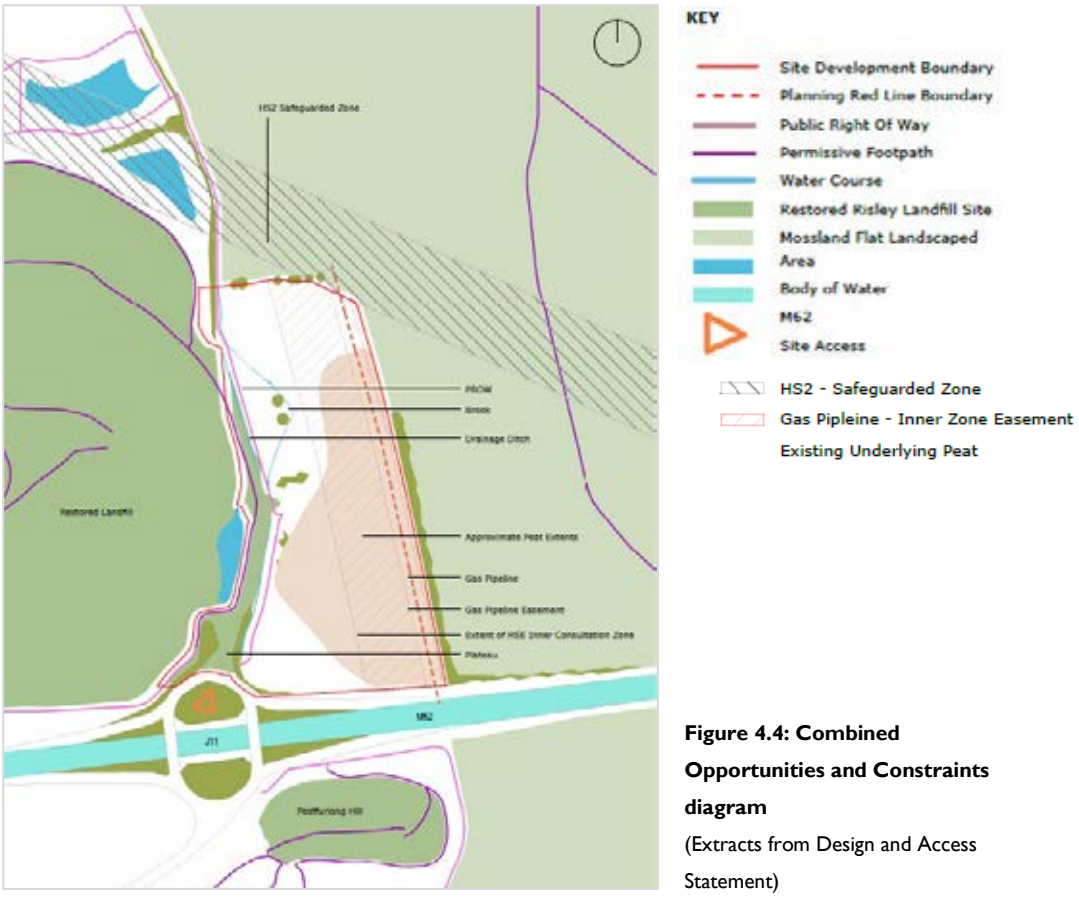

Figure 4.4: Combined Opportunities and Constraints diagram
(Extracts from Design and Access Statement)

4.47. In considering these opportunities and constraints, the outcome of discussions with key consultees (in particular NE, EA and GMEU), along with the operational requirements of the MSA, a series of design principles were established for the design of the Site (as set out within the Design and Access Statement submitted to support the Planning Application).

- Embrace all viable opportunities to enhance the ecological value of the site.
- Enhance Silver Lane Brook as an ecological habitat as part of a site wide strategy to enhance biodiversity
- Retain peat on site and create peat a peat habitat zone
- Enhance the pedestrian linkages across the site improving the local PROW network, in particular strengthening the green link between Birchwood Country Park and Culcheth Linear Park.
- Enhance the planting across the whole site
- Avoid adverse impact on the existing drainage arrangements and supporting slope of the restored landfill site
- Comply with the easements related to the gas pipeline
- Allow for a clear view of the facility building entrance from the site entrance plateau to aid user orientation
- Position the Facilities Building to minimise the impact of noise from the M62 and HS2 on users of linked external amenity areas.
- Minimise visibility of the HGV parking and service yard from general users
- Minimise visibility of the MSA, in particular the HGV parking and service yard from Pestfurlong Hill and the restored landfill site
- Prioritise pedestrian safety by minimising road crossing
- Provide varied amenity spaces for users including south facing sheltered areas for sitting, play areas and space for exercise and dog walking.
- Minimise the distance that both car and HGV users need to walk to reach the Facilities Building

4.48. The Proposed Development is in outline, with only means of access being detailed at this stage, and all other matters reserved for consideration at a later date. As set out within Section 2 (Project Description), there are however a series of Parameters that have been influenced through scheme evolution that set the context of the proposals, the environmental assessment

and future development of the Site. Whilst the details of the Proposals are indicative they have been heavily influenced through scheme evolution. This is set out below.

4.49. As such considerations for Site access were considered as shown on the diagrams below. To gain access to the main development plateau, a graded approach is required from the roundabout at Junction 11. Attempting to access the plateau at the southern end of the Site would require a steep route, the loss of significant trees adjacent to the roundabout. To maintain consistent access in all conditions a gradient of less than 1 in 50 / 2% is required. By bringing the access route to the middle of the western boundary of the Site a shallower gradient can be achieved and two distinct areas of the Site can be immediately accessed. This access route is the preferred option chosen for development.

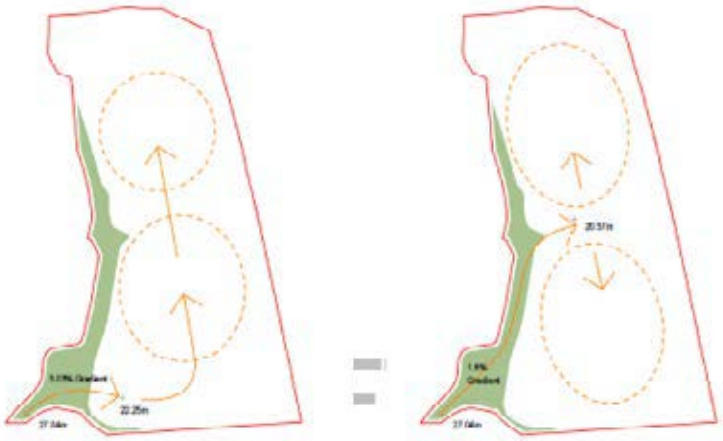

Figure 4.5: Site access options – southern access option and central access option
(Extracts from Design and Access Statement)

4.50. Disposition of functions was also considered. The MSA has four main components: The facilities building, car parking, HGV parking and a fuel filling station. The location of these components on the site has been influenced by the presence of the gas main. The fuel filling station, facilities building and HGV parking all must fall outside of the 96m 'inner zone'.

4.51. Three site arrangement options have been considered:

- Option A places the facilities building centrally, with parking for HGV's to the north and cars to the south, meaning that access to the facilities is enhanced for the HGV drivers. However the car park extends across a significant portion of the peat on site. Following consultation with natural England it was concluded

that with this arrangement the peat would need to be moved off site which was not desirable instead solutions were sought that would enable all of the peat to be retained on site within a peat habitat zone.

- Option B places the facilities building and parking at the northern end of the site with the fuel filling station located centrally. This arrangement minimises the volume of peat affected by the development. It also places the facilities building in the quietest location on site but leaves the HGV drivers a considerable distance from the facility building.
- Option C places the facilities building further south, making it more visible on entry to the site, and the HGV parking further north, reducing the distance between the HGV parking and the facilities building. It also minimises the volume of peat affected by the development. This approach is preferred providing the best solution for the retention of all of the peat on site and a functional arrangement for all MSA users.

4.52. These are shown on the diagrams below:

Figure 4.6: Functional Disposition – Options A, B and C
(Extracts from Design and Access Statement)

4.53. In terms of vehicular circulation, three circulation options have been considered for the site:

- Option A has a single entry and exit point to the HGV parking at its southern end meaning that the HGV parking can be most effectively screened from the amenity building and car parking. However the route for HGV's is circuitous.

- Option B provides access to HGV parking at its northern end reducing the distance driven by parking HGV's and removing them from a portion of the primary loop road.
- Option C provides egress from the HGV parking via a bypass to the HGV fuel filling area enabling it to link up to the main loop road beyond the Fuel Filling Stations minimising HGV use of the loop road and potential conflict with cars.

4.54. These are illustrated on the diagrams below:

Figure 4.7: Circulation – Option A, B and C
(Extracts from Design and Access Statement)

4.55. The requirement to locate the facilities building, HGV parking and Fuel Filling Station to the west of the site, outside of the gas pipeline 'inner zone' and the need to construct access routes from the motorway junction to the main development plateau will impact the Silver Lane Brook. Currently channelised, the brook flows northward mainly following the base of the landfill slope diverting into the heart of the Site following the edge of a now half buried field.

4.56. Two options for the diversion of the brook were considered, one maintained most of its present course along the base of the slope, requiring significant elements of culverting. The second diverted the brook around the edge of the Site. The latter option has been selected as it provides an opportunity to create a significantly enhanced habitat. The new course will enable a wider channel to be created with varying flows, and in combination with the area set aside for the gas pipeline, will create a wide habitat belt encircling the Site enhancing biodiversity and creating an attractive feature.

4.57. These are shown on the diagrams below.

Figure 4.8: Brook diversion Options – Existing Location; Culverted; Diverted
(Extracts from Design and Access Statement)

4.58. The present Public Right of Way along the western edge of the Site drops into the Site at its south west corner via a set of steps. It then proceeds north along the base of the landfill slope until it exits the Site at the north east corner. A number of broad options were considered for the PROW:

- Option A - If the PROW position was to be retained in its present position users would have to cross the vehicular circulation numerous times.
- Option B - An option to divert the path along the brook diversion corridor was considered. This would mean that pedestrians approaching from the south heading toward Culcheth would not have to cross any of the site circulation, but they would still have to use the steps and then have a longer route than at present.
- Option C - An alternative option routing the PROW along the western edge of the site would mean pedestrians approaching from the east, looking to turn North would not have to cross traffic. Those from the south would only cross the road once, at a lighted crossing point and the new route could be graded to remove the need for steps thereby enhancing access for all.

4.59. These are shown on the diagrams below.

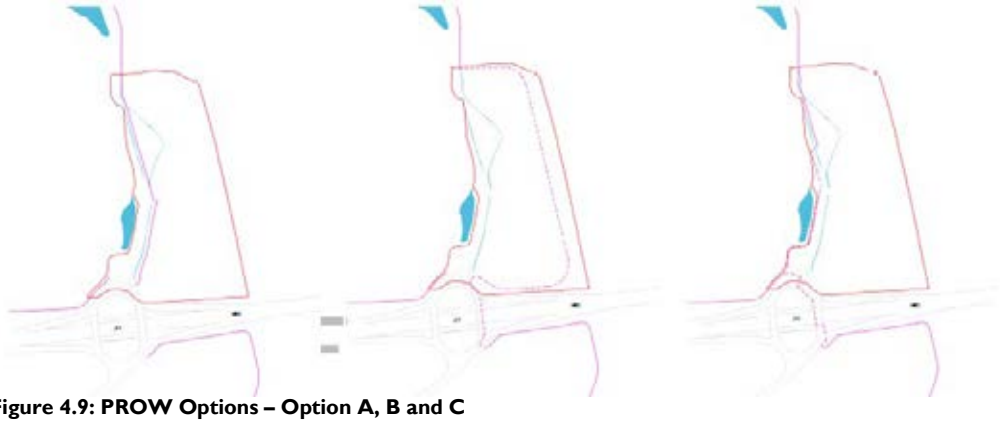

Figure 4.9: PROW Options – Option A, B and C
(Extracts from Design and Access Statement)

4.60. The concept Masterplan therefore evolved to incorporate the following key elements:

- Vehicular access into the site is via the existing access point from the north of the Junction 11 roundabout.
- Existing public rights of way through the site are enhanced through footpath improvements and the creation of an accessible route opening up the footpath links to a wider range of users. This is achieved through an on-site diversion of the footpath creating a more direct link from Silver Lane to the footpaths north of the site with a high quality path removing the current steps, at the south-west corner of the site.
- The strategic green link, which connects Culcheth, Birchwood and Pestfurlong Hill is strengthened. This is to be achieved through the footpath improvements alongside the creation of safe signalised crossing points at Junction 11.
- The impact of the High Pressure Gas Pipleine is taken into account. A 12m Easement zone is retained to provide for maintenance and repair of the pipeline with an access route constructed across the diverted brook to provide access when required for statutory undertakers. This clear area will form part of a wildlife corridor running around the site and offers the potential for creating an element of grassland habitat.
- The Facilities Building, HGV parking, fuel filling station and play areas are all located outside the 96m inner zone.
- The facilities building is visible on site entry and the entrance clearly apparent to visitors.

- The external amenity space responds to the orientation of the site. The external amenity space is located to the south of the facilities building. Here it will receive maximum sunshine whilst being shielded from service areas to the north.
- The HGV parking is to be screened from view as far as possible.
- Dense planting to the edges of the area will screen it from all directions.
- Pedestrian safety is prioritised. Clear pedestrian routes with defined crossing points are located to minimize crossing of the busier elements of the internal vehicular network. All accessible parking bays are located so that there is no crossing required to reach the facilities building for these users.
- Landscaping is to be used to break down areas of parking and circulation. Parking areas and roads have been designed to allow for significant planting between them to soften their impact and create an attractive environment for users.
- The Silver Lane Brook is to be enhanced. The diversion of the brook allows for the creation of varying habitat areas and the creation of a substantial wildlife corridor around the edge of the site.
- A peat habitat zone is to be created at the south east corner of the site - leaving the deepest areas of peat in situ, removing the topsoil above it and augmenting the peat with other peat from the site to establish a sustainable peat habitat.
- The service yard is screened from view as far as possible. By placing the service yard to the north of the facilities building it is screened from Pestfurlong Hill. Dense planting to the edges of the area will screen it from other directions.
- A vehicular access point is retained to the former landfill site to allow for occasional maintenance access. This is provided via a spur from the HGV loop road on the western edge of the site.
- The design will embrace all viable opportunities to enhance the ecological value of the site.

4.61. This is illustrated on the diagram below and is reflected through the Parameter Plans (detailed in Section 2 – Project Description and included at **Appendix 5**):

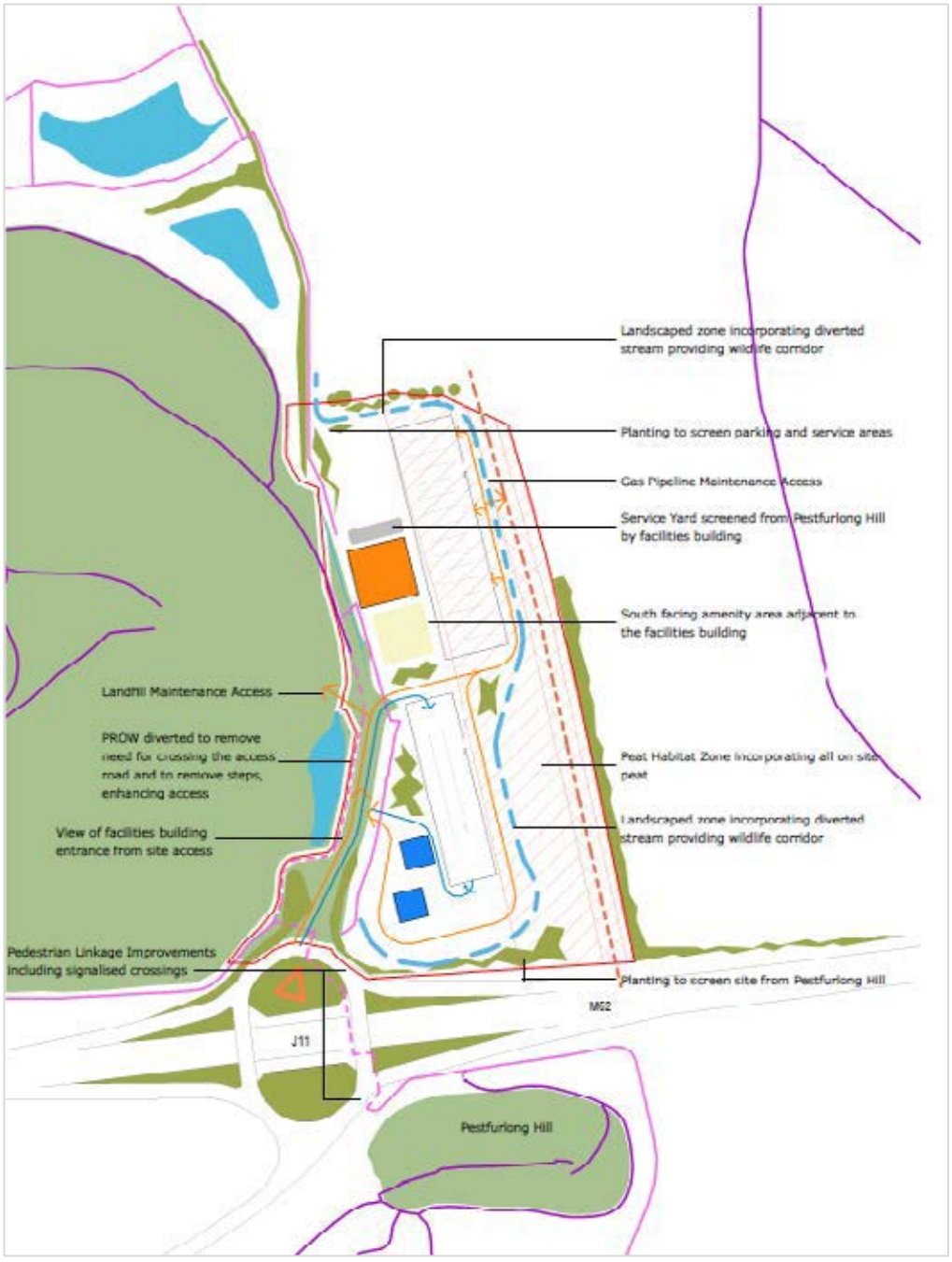

Figure 4.10: Site Concept Masterplan
(Extract from Design and Access Statement)

4.62. The following sub sections summarise the environmental matters and considerations that have influenced the scheme design to date:

Agricultural Land and Soils (including Peat Matters)

4.63. The soil survey identified the presence of 45,300 m^3 of peat on Site. As described previously, the upper topsoil layer is considered to be an organic-rich topsoil resource as opposed to a peat resource; and will be managed as a soil resource. However, the deeper peat (below the topsoil layer), which is currently stable and therefore a carbon store; should be considered a valuable and irreplaceable resource. (It is noted that these deep peats are not an irreplaceable habitat, as defined in the NPPF (2019), as the site does not support any peatland habitats and the arable farmland and smaller areas of neutral grassland and riparian habitat within the Site are widespread, common and typical of lowland farmland). Therefore, specific handling of this peat, in order to prevent the degradation and subsequent loss of carbon is required.

4.64. As described in the Project Description, the management of peat in a construction site is usually considered by means of a Peat Reuse hierarchy. The hierarchy prioritises the avoidance of peat resources where possible, and then ranks options for the re-use of disturbed peat in terms of most to least beneficial, Table 2.2. The hierarchy used for the Proposed Development is based upon that presented in Scottish Environmental Protection Agency (SEPA) guidance document 'Developments on Peat and Off-Site Uses of Waste Peat', with the addition of the Rank 5 option, stabilisation, as this technique of combining peat with 'concrete' to create a stable development platform has been successfully used on a range of developments.

4.65. As shown in Table 3-1, the consideration of alternative options for the reuse of peat has been undertaken in consultation with Natural England (NE), Greater Manchester Ecological Unit (GMEU) and the Environment Agency (EA).

4.66. The various alternatives considered for the reuse of peat within the site are discussed by rank.

4.67. As explained in Table 6-1, the Rank 6 option (disposal) should only be considered once all other options have been explored and discounted; the disposal of the peat resources present within the Site has therefore never been considered as a viable option.

4.68. During the early stages of the iterative design process the use of stabilisation techniques (Rank 5 option) was considered for a portion of the peat resource. Preliminary geotechnical trials using peat samples from the Site in a range of mixes using a variety of cement binder percentages from 5% to 20% with other additives such as pulverized fuel ash or sand; showed that this technique could be successfully used to create a stable development platform within the Site.

However, as the stabilisation (mixing of peat with other materials) could not be reversed, it was considered that this option was not suitable.

4.69. Early stages of the iterative design process also considered that the Rank 4 option, recycling would from part of the peat reuse strategy for the Site and would be fully investigated at reserved matters. To this end, initial discussions regarding the potential use of the peat as a soil improver on the adjacent former landfill site were undertaken, however this is discounted as the current nutrient poor status of the soils within the landfill site is resulting in the development of a desirable species rich flora, which would be hindered by the introduction of nutrient rich peats. The recycling option was also considered not desirable by NE.

4.70. The Rank 3 option, beneficial reuse off-Site, was discussed with GMEU in March 2019 and information regarding known peatland restoration sites within the locale, in which peat could be beneficially re-used (i.e. potential receptor sites) was exchanged. However, in June 2019 (Table 3-1) Natural England advised that relocating the peat would be undesirable and that in their opinion there were no local peatland sites where it would feasible or desirable to relocate peat. The option of working with local peatland sites was therefore also discounted. But, as Natural England had stated that the most desirable mitigation (if the development was to go ahead) would be wetland creation on a neighbouring parcel of land, this option was investigated at some length. An options appraisal of six parcels of land close to the Site was undertaken; including land within the neighbouring former landfill site; two similar areas of agricultural land over deep peat to the east and south east of the Site which could potentially be suitable for peat habitat restoration; and three areas to the north, north east and west of the Site which could potentially be underlain by clay deposits allowing for the creation / excavation of specially prepared peat receptor areas (water retentive peat basins within clays).

4.71. The options appraisal and further work on the nature of the superficial geology of the potential sites, showed that none of the six identified options was suitable. The landfill was discounted due to issues such as potential disturbance to the landfill cap, surcharging issues and the accentuation of landfill settlement. It was determined that the restoration of peat areas would be hindered by the presence of HS2 if this came forward, and that the impacts to local hydrology of blocking drainage could not be determined. Finally, from British Geological Survey (BGS) survey records the superficial geology is highly variable across short distances with significant deposits of sands and gravels interbedded with the clays, and from the desk based data, the three identified 'peat basin' sites appeared to be unsuitable for this purpose.

4.72. Therefore, through the iterative design and consultation process the Proposed Development was reviewed and redesigned such that all peat resources would be retained within the Site. An initial design to place a proportion of the excavated peat into the base of a SuDS pond (whilst allowing sufficient freeboard for SuDS capacity) was discussed with Natural England, but discounted due to NE's concern over the potential effects of runoff from the Proposed Development (potential contamination *etc.*).

4.73. Consequently, the layout was redesigned, shifting all built development further to the west and creating a Peat Habitat Zone (Appendix 10.5: Drawing SH11739/034: Peat Depth and Site Layout). This design change maximised the area of undisturbed (avoided) Peat, whist allowing for all disturbed Peat to be retained within the Site for beneficial reuse in the creation of peatland type habitat (Project Description; ES Part One Report, Section 2). Therefore, all Peat resources within the Site will be addressed through the Rank 1 and Rank 2 options of the hierarchy.

Ecology and Nature Conservation

4.74. The final layout of the Proposed Development has been heavily influenced by the location of several areas of sub-surface peat deposits this is due to engineering considerations, as well as to minimize the extent of required peat movements to ensure that the capacity of the subsurface deposits to store sequestered carbon is not compromised by exposure to the air.

4.75. The location and characteristics of the peat deposits are discussed in Paper 10 Agricultural Land and Soils. The final design sought to avoid much of the sub surface areas of deep peat deposits to the east and southeast of the Site and in total an estimated 22,700m³ will be retained, undisturbed. Despite this it is estimated that approximately 22,600m³ of peat will require excavation to allow the creation of a stable development platform.

4.76. Several options have been considered during scheme evolution to maximise the beneficial use of the excavated peat These have included:

- Relocating the majority of disturbed peat into the base of SuDS ponds and at selected locations along the re-aligned Brook corridor.
- Donation of peat to a range of nearby degraded peatland sites within the Manchester Mosses Special Area of Conservation (SAC) or other sites requiring
- reinstatement / restoration

- Export of surplus peat for reuse (recycling) elsewhere through an appropriate soil recycling contractor; and
- Identifying a Peatland Habitat Zone (PHZ) on site to relocate excavated peat into, to be managed as a peatland type habitat.

4.77. Given the apparent lack of availability of conservation sites involved in peatland restoration projects, the option of retaining the majority of the peat into a PHZ has been selected. This is considered preferable to export of peat for recycling given that a use is available on site, where a conservation benefit can be derived. The retention of peat in situ and development of a biodiverse peatland type habitat accords with the recommendations provided by Natural England in the preliminary DAS discussions.

4.78. The proposals for developing the PHZ are fully described within the Agricultural land and Soils (Paper 10), however, in summary the peat will be excavated and retained within a bunded area to the south and east of the main development platform. The horizons of peaty agricultural soil will be removed so that the relocated peat will form a continuous layer with retained deep peat deposits beneath the PHZ. At all times during relocation, the peat will be maintained in a wetted state, and water levels maintained at or close to peat surface, which will both prevent drying and oxidation leading to carbon release.

4.79. The construction of the bunds retaining the PHZ is further discussed in Technical Paper 1 Geology and Ground Conditions, however the exact design will be finalized following further consultation with Natural England and other relevant consultees during detailed design stages. Rather than creating a single bunded PHZ, it may be preferable to create a number of smaller bunded areas, each with slightly differing hydrological regimes and peat depths relative to subsurface water accessibility; however all will be rainwater fed and will have varied surface topography. The raised sections will be drier in general terms and are expected to support a heath/acid grassland community with boggier hollows perhaps supporting sphagnum mosses around open pools. A full description of the objectives for the establishment of vegetation in the PHZ areas is provided as Appendix 5.10 Framework Habitat Management Plan.

4.80. The Development will necessitate the diversion of the Silver Lane Brook, which currently follows a fairly straight path along the western boundary of the Site, various options regarding the design and location of the realigned Brook have been considered, and these are outlined in detail in the Water Resources Technical Paper (3). The following objectives and final design has

been selected in order to maximise the ecological benefits and hence contributing towards net biodiversity gain as required by NPPF19:

- Design the channel profile with varied bank treatments and angles to provide a greater diversity of aquatic habitats, to include shallow berms, areas of dense marginal planting, alder and willow tree plantings.
- Design the realigned section with range of features of conservation benefit including in channel features and diverse marginal habitats. These will include riffles, areas of slow/static flow, deep peaty sediment;
- Design the route the realigned section of Brook to follow a more natural 'sinuous' form (where possible);
- Include specific mitigation features for aquatic and terrestrial invertebrates (including dragonflies and damselflies), as well as enhancements for fish, kingfisher and other 'Priority' species such as water vole;
- Create a wildlife corridor - linking habitats within the biodiverse landscaped areas on Site and Silver Lane Local Wildlife Site to the north and west;
- Marshy (acid) grassland: habitats will be established especially in the margins of the brook and within the easement of the HPGM.

4.81. The realigned corridor of the Brook will lie immediately adjacent to the PHZ and will therefore in time develop a complimentary habitat system along the entire length of the eastern side of the Development. This will contribute significantly towards Natural England's Wetland Network Model, a developing project seeking to map potential wetland linkages and 'stepping stones' across the Cheshire and Greater Manchester region.

Geology and Ground Conditions

4.82. Following completion of the Phase 1 Environmental Assessment and Preliminary Site investigation, a constraints plan was produced to inform the layout.

4.83. The location and depth of the Peat deposits was considered during the layout options for the development and wherever possible the location of the buildings were kept outside of the areas of deeper Peat deposits. The Peat deposits were identified during the preliminary geotechnical work as being not suitable for supporting foundations and issues relating to differential settlement were also highlighted.

4.84. Throughout the design process a series of iterations and proposed levels and layouts were tested through modeling to determine the optimum layout resulting in minimal import/export of material (See Agricultural Land and soils Paper 10). At scoping stage, it was expected that a cut/fill balance would be achieved but this has not been possible and there will be a deficit of material on Site to achieve the development platform. Some import of material will be necessary.

Water Resources

River Diversion

4.85. To facilitate the development while ensuring required environmental and sustainable opportunities for the Site were achieved, consideration of how the development fitted into the Site constraints was undertaken.

4.86. Due to a National Grid high pressure gas main running along the eastern boundary, creating a development exclusion zone, the Silver Lane Brook meandering into the northwestern part of the Site and the aim of minimising removal of the southeastern peat area, the available area for development was significantly constrained.

4.87. To allow the development to fit around these constraints, a number of options were considered and these included looking at diverting the gas main away from the development, culverting the brook to the western boundary and diverting the brook to the eastern side of the Site.

4.88. The diversion of the gas main was discounted due to limited land available to move the gas main to and the extensive work that would be required to move a high pressure gas main.

4.89. Culverting of the brook was investigated but considered to have a negative effect on ecology and biodiversity due to direct loss of aquatic and marginal habitats and the potential to increase flood risk upstream by constraining flows.

4.90. Treatment and removal of the extensive area of peat to the southeastern end of the Site was investigated but discounted from a sustainable and environmental perspective benefit (see Technical Paper 10 Agricultural Land and Soils).

4.91. On the basis that the gas main could not be feasibly moved, culverting of the brook was not favoured due to the adverse environmental effects and retaining of the peat to the south-

eastern end of the Site was preferred, the alternative option considered was to divert the brook through the Proposed Development.

4.92. Diversion of the brook to the east of the development was investigated and it was considered that it did allow the opportunity to retain an open flowing channel which could be designed to have a more variable channel profile than the existing brook, thereby allowing a greater diversity of aquatic habitats and areas of dense marginal planting to be incorporated. The diversion also allowed the potential opportunity to vary the flow using riffles, areas of slow/static flow, gravel beds and deep peaty sediment to be included. These variations and enhancements were seen as a means of creating a wildlife corridor, linking habitats within a biodiverse landscape.

4.93. On the above basis the diversion of the brook was taken forward into the development layout design.

Discharge Options

4.94. As detailed in Appendix 9.1 (Flood Risk and Drainage Strategy) of the Water Resources ES Technical Paper, ES Part 2, the Site drains, via infiltration and surface flow, to the Silver Lane Brook to the west and an unnamed watercourse to the east, which also connects to the brook. Flows from the Site are unrestricted and drain freely into the surrounding water environment.

4.95. A review of the drainage discharge options to serve the Proposed Development was completed.

4.96. The use of an infiltration discharge was discounted due to groundwater protection requirements and the ground conditions not being considered suitable for a reliable long-term infiltration capacity.

4.97. There were no surface water sewers in the area and therefore, this option of discharge was also discounted.

4.98. As the Site naturally drains to the two watercourses, to the east and west boundaries, it was considered that a surface water discharge to these would be feasible. Following discussions with Warrington Borough Council as Lead Local Flood Authority, it was agreed that the surface water runoff from the Proposed Development could be discharged at greenfield runoff rate, Q_{bar}, to the diverted Silver Lane Brook.

4.99. The general fall of the Site is from south to north and the brook is relatively flat and very shallow in depth.

4.100. An initial gravity discharge design of the surface water drainage system to serve the Development Proposals identified that the Site would require significant raising to allow the drainage to function with sufficient pipe cover. On this basis an alternative option of pumping the surface water drainage to the brook was considered. By using a pumped discharge, it was identified that the Site could be significantly lowered thereby significantly reducing the Site raising requirements. The pumped discharge option was still based on discharging at greenfield, Q_{bar}, runoff rate and providing the same level of surface water storage as required by the gravity discharge option.

4.101. The comparison of the two options identified that the pumped discharge option provided significant environmental benefits in terms of reducing material import and earthworks requirements compared to the gravity option. On this basis, the pumped surface water discharge option was selected as the preferred option. This discharge would be to the diverted Silver Lane Brook.

Drainage Design Evolution

4.102. As detailed above and within Appendix 9.1 (Flood Risk and Drainage Strategy) Water Resources ES Technical Paper, ES Part 2, the Proposed Development's surface water drainage design aims to mimic and reduce this existing runoff characteristic by restricting discharge to the existing greenfield runoff rate, Q_{bar}, for all storm events up to and including the 1 in 100 year storm event with a 20% climate change allowance. To mitigate for storm events that are above the greenfield runoff rate, surface water storage is provided in the development proposals.

4.103. Initial drainage designs looked at providing the surface water storage in the form of a dry basin to the northeast end of the Proposed Development. However, to allow the environmental and sustainable approach of retaining the peat to the southeast, this area of land was now required to be used as part of the parking area to serve the Development Proposals. To compensate for the loss of the dry basin, it was agreed that the surface water storage requirements would be provided using a mix of tank/crate storage, smaller discrete dry basins and swales.

4.104. Within the proposed surface water drainage design, water treatment is being provided. This would consist of using a mix of swales, channel drainage (rills), gullies, filter drains/catchpits and

discrete dry basins as well as using Class 1 petrol interceptors. These would ensure water quality to the brook is maintained to a high level. To ensure groundwater protection, consideration of lining/sealing of the drainage systems to minimise infiltration where required would be given.

4.105. Appropriate management and maintenance of the surface water drainage systems will be undertaken to ensure that the drainage systems operate and mitigate on and off site flood risk and water quality requirements satisfactorily and in accordance with UK Legislation.

Landscape and Visual Impact

4.106. Consistent features during indicative scheme evolution have been as follows:

- The Indicative Landscape Masterplan (Figure 4.14) shows the proposed MSA set within a landscape framework. Boundary vegetation will be retained and managed where feasible, and planting including native tree and scrub planting will be established to the perimeter of parking and amenity areas.
- The overall concept for the Indicative Landscape Masterplan of the proposed MSA is to provide a safe and accessible environment which relates sympathetically to the adjacent Restored Risley landfill site and provides a degree of visual integration with its Green Belt setting.
- The Indicative Site Plan has been developed to provide the necessary services in a compact form to maximise soft landscape areas and ecological enhancement, and to assimilate the development into the landscape.
- The location of different elements has been determined to minimise their visual impact from key vantage points. The indicative Facilities Building is located at the base of the restored landfill slope so that it does not break the skyline when viewed from the east. The HGV parking has been located to the south of the Facilities Building.
- Perimeter vegetation will establish to screen the HGV parking from the external amenity areas located to the south and east of the indicative Facilities Building.
- The indicative Facilities Building design has been developed in a way that references the local area. A sinuous wall is a reference to the local peat moss land and the historic peat cutting that took place in the area. A series of simple linear pitched roof elements as a cluster reflect the form and grouping of local farm buildings.

Their fragmented form reduces the visual impact of the building at a distance. The selection of materials will also reference the local vernacular.

- The indicative Facilities Building will be designed to create strong links with external amenity spaces and the wider area, particularly the adjacent Restored Risley landfill site.
- Links will be provided to the Public Rights of Way network that currently exists within the Site, thereby allowing linkages to the wider non-definitive and definitive footpath network and the permissive footpaths across the adjacent restored landfill site.
- Tree and scrub vegetation buffers will be planted to the perimeters of the Site and within the Site to screen elements where necessary. New mainly native woodland, trees and scrub planting to enhance the existing green infrastructure, both within and on the perimeters of the Site has also been a constant feature for reasons of biodiversity, screening and amenity.
- Retention of established and establishing vegetation (tall hedgerows and woodland belts) to the Site perimeters and within the Site has been a constant feature as the scheme has evolved to maintain linear wildlife corridors which also have a screening function.
- The Framework Ecological Management Plan (see Ecology Technical Paper, Appendix 15, ES Part 1) proposes a formal programme of management of existing and newly-created habitats to be set out within an Ecological Management and Mitigation Plan.
- There will be amenity areas within the landscaping areas. It was decided at an early stage to create an open green space along the eastern Site edge, incorporating the gas main easement and re-routed brook. Discussion with the project ecologist has led to proposals for new habitats for wildlife within this corridor and other green open spaces, including species rich grassland, mixed native species hedgerows to act as linear corridors for wildlife, ecological ponds and SUDs features.
- It was decided at an early stage to create a channel for the diverted Silver Lane Brook and the associated ecological mitigation and landscape along the diverted brook's corridor. This will be the subject of an Ecological Management and Mitigation Plan for longer term management and maintenance.

- Tree and hedgerow planting to the proposed MSA Site circulation areas to aid integration of the development into the landscape and reduce visual impact features within the Indicative Landscape Masterplan.
- It was proposed at an early stage that the entrance to the Site take the form of combined ingress and exit lanes within a wooded corridor with grass verges.
- The proposed MSA will be operational 24-hours of the day and night. The lighting designers have proposed design and specification of lighting to circulation areas which will reduce visual impact on longer distance receptors. The Lighting Assessment states "Due to the presence of local skyglow, existing artificial urban and highway lighting bordering the Proposed Development, it is considered that this area is typical of an E2 / partial E3 zone. However, due to the rural nature of the location and areas of natural conditions, on a precautionary approach the thresholds are based on E2 Zone classification (Low district brightness)."
- As part of cut and fill earthworks to provide development platforms, top soil will be stripped and stockpiled, avoiding unnecessary double-handling, ready for re-use in landscaped areas.

Traffic and Transport

4.107. Alternative Locations for the proposed MSA are considered in the 'Alternative Sites Assessment' which is included within the suite of planning application documents and Appendix 13 of the ES Part 1 Report.

4.108. Various alternative arrangements to the proposed signalisation of M62J11 have been considered and these are detailed within Section 7.0 of the Transport Assessment (Appendix 2.1 to this Technical Paper).

4.109. Option 1 – provision of two lanes from A574 Birchwood Way to M62 (west) – assumed the capacity of the Birchwood Way arm would be improved by retaining the give-way control at the junction, and amending the lane destination markings such that the left turn to the westbound on-slip would be possible from both the nearside and offside lanes. Currently the westbound on-slip can only be accessed from the nearside lane, with the offside lane being used by vehicles turning right (onto the eastbound on-slip) or ahead (to the northern Birchwood Way cul-de-sac). The restriction of left-turners to use only the nearside lane is shown to lead to capacity issues during the PM peak hours in the future year scenarios. However, preliminary

modelling has shown that if the offside lane were to be allocated to be used for all turning movements (i.e. left, ahead and right), this would enable the junction to operate within capacity with the Proposed Development in place. There are two lanes on the westbound on-slip on exit from the roundabout, and under this potential alternative arrangement, two lanes could be used by left-turners, leading to the improvement in capacity. The nearside lane would retain its designation as left-turn only, meaning that no conflicting traffic movements would be introduced.

4.110. Option 1 has however been discounted on road safety grounds following without prejudice discussions with a road safety auditor. Those discussions highlighted concerns that conflicts may occur on the circulatory carriageway under this arrangement as a consequence of unfamiliar lane markings.

4.111. Option 2 considered widening A574 Birchwood Way to provide three lanes on entry to M62J11. The results of preliminary modelling show a worsening in operational performance in the AM peak hours. This option has therefore not been progressed.

4.112. Option 3 considered providing a left-turn bypass lane from A574 Birchwood Way to M62 (west). In terms of deliverability, this option requires land beyond the highway boundary not in the applicant's control. It is also considered that a Departure from Standard(s) would be needed, either in respect of the achievable exit taper length or the reduction taper length (or both), irrespective of whether land outside the highway boundary could be acquired. The process to agree necessary Departures from Standard with Highways England cannot be guaranteed. The currently proposed signal-controlled arrangement does not require any Departures from Standard. Option 3 was therefore discounted.

4.113. Option 4 – a variation to the proposed signal-controlled arrangement, whereby the A574 Birchwood Way provides a three lane approach to the junction – has also been considered. The results of preliminary capacity testing do not however compare favourably to the proposed signal arrangement and as such, Option 4 has been discounted.

4.114. Option 5 considered providing a left-turn bypass lane from A574 Birchwood Way to M62 (west) as part of the signal-controlled arrangement. This option suffers the same deliverability issues as Option 3 above and has been discounted.

4.115. Option 6 – implementing signal control at the Birchwood Way entry to the roundabout only has the potential to reduce queuing on the critical Birchwood Way arm of the junction. It does not however achieve an improved environment for pedestrians to cross M62J11 which WBC has indicated is a key issue as part of pre-application discussions. Option 6 has also therefore been discounted.

4.116. On balance, it is considered that the introduction of traffic signal control at Junction 11 is the preferred arrangement. Signalising the junction would lead to an improved appreciation by drivers that both lanes of the Birchwood Way approach can be used to turn left to the westbound on-slip, whilst also enabling the provision of controlled pedestrian crossing points that will improve the environment for non-motorised users passing through the junction, including staff travelling to/from the Proposed Development. This will, in turn, increase the attractiveness of journeys to/from the Proposed Development by non-car modes for staff.

5. Plans and Policies

5.1. Section 38 of the Planning and Compulsory Act 2004, states that applications should be determined in accordance with the development plan unless material considerations indicate otherwise.

5.2. Consideration will also be necessary to the appropriate weight to be afforded to the development plan following the publication of the National Planning Policy Framework (hereafter referred to as 'The Framework' or NPPF19). This is also considered in the context of the National Planning Practice Guidance (hereafter referred to as 'PPG').

5.3. This section identifies the planning policies and other material considerations which are relevant to this proposal and have been considered alongside each of the technical areas in Part 2 of this ES.

5.4. This section identifies the planning policies and other material considerations which are relevant to this proposal.

National Transport Policy

Department for Transport Circular 02/2013: The Strategic Road Network and the Delivery of Sustainable Development, September 2013

5.5. National Transport Policy relating to the Strategic Road Network is contained within Department for Transport (DfT) Circular 02/2013 'The Strategic Road Network and the Delivery of Sustainable Development'. The document was published on 10th September 2013 and replaces the previous DfT circulars on the issue (02/2007 and 01/2008).

5.6. Paragraph 8 of this document confirms that a well-functioning strategic road network enables growth by providing for safe and reliable journeys. Paragraph 7 also outlines that the Strategic Road Network plays a key role in enabling and sustaining economic prosperity and productivity, while also helping to support environmental and social aims and contributing to wider sustainability objectives and improved accessibility to key economic and social services.

5.7. Annex B of the Circular specifically relates to roadside facilities for road users on Motorways in England and sets out policy on the provision, standards and signage of roadside facilities on

the Strategic Road Network. The Circular confirms that all such proposals will be considered in the context of the National Planning Policy Framework and, in particular, the statement that it includes regarding the primary function of roadside facilities being to support the safety and welfare of the road user.

5.8. In relation to spacing, paragraph B4 outlines that MSAs perform an important road safety function by providing opportunities for the travelling public to stop and take a break in the course of their journey. Paragraph B4 also confirms that motorists should stop and take a break of at least 15 minutes every two hours. Commercial and public service drivers are also required to take statutory breaks and are subject to working time limits and these MSA facilities assist in compliance with such requirements.

5.9. Paragraphs B5 and B6 set out that MSAs should be located at a maximum of 30 minutes travelling time. This can typically be a maximum distance of 28 miles, but on similarly busy and congested sections of the Strategic Road Network, is an average of 15 to 20 miles. This distance can also be shorter, subject to compliance with the design requirements of the Design Manual for Roads and Bridges.

5.10. Paragraph B8 confirms that in determining applications for new MSAs, Local Planning Authorities should not need to consider the merits of spacing of sites beyond conformity with the maximum and minimum spacing criteria established for safety reasons. Nor should they seek to prevent competition between operators; rather they should determine applications on their own specific merits.

5.11. In terms of location, Paragraph B13 sets out that locations between junctions (On-line) should be considered first, followed by sites sharing a common boundary with the highway at a junction with the Strategic Road Network.

5.12. The Circular also contains detailed guidance on signing, parking charges, picnic areas, parking provision, access to the Strategic Road Network, retail activities, hotels, conference centres and business centres, coach interchanges, park and ride and park and share, facilities for low emission vehicles, driver and tourist information and on site power generation and other sustainability measures. Schedule 1 sets out parking requirements.

5.13. Circular 02/2013 is discussed in further detail within the supporting Transport Assessment and Alternative Sites Assessment.

National Policy Statement for the National Networks, December 2014

5.14. Paragraph 1.4 of the National Planning Statement (NPS) confirms that *"this NPS may also be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 or any successor legislation. Whether, and to what extent, this NPS is a material consideration, will be judged on a case by case basis."*

5.15. The NPS sets out the Government's decision making framework for delivering nationally significant infrastructure projects (NSIPs) on the national road, rail and strategic rail freight networks in England. The NPS establishes the need for the development of our national networks at a strategic level to support economic growth and regeneration, and to improve the user experience. It also provides the policy framework by which proposals will be decided. It includes policies on safety, environmental protections and design quality, amongst other things. The NPS sets out a strong and compelling case for development of the national strategic road network to sustain and drive economic growth, improve quality of life and crucially safety, and deliver better environmental performance

5.16. The NPS makes no specific mention of MSAs, which is expected given that they are not generally considered to be national significant infrastructure projects (Footnote 42 of the NPPF (19)). However it does illustrate the importance of the strategic road network to the economy and the need to improve safety and the efficiency of the network.

Planning Policy Context

5.17. Section 38 of the Planning and Compulsory Purchase Act 2004, states that applications should be determined with the Development Plan unless material considerations indicate otherwise.

5.18. The National Planning Policy Framework (NPPF (19)) is a material consideration in the determination of applications and this establishes at paragraph 213, that weight should be given to relevant policies in existing Development Plans according to their degree of consistency with The Framework (the closer the policies in the plan to the policies in NPPF (19), the greater the weight that may be given).

Statutory Development Plan

5.19. The statutory Development Plan for the consideration of this application comprises:

- Adopted Local Plan Core Strategy (July 2014) (CS)

5.20. The High Court Challenge to the adoption of parts of the Warrington Local Plan Core Strategy was heard on 3 and 4 February 2015 with judgement given on 19 February by Mr Justice Stewart. The Judge ruled in favour of the Council on six of the nine issues that the claimant challenged on. The outcome resulted in the removal of elements of the housing policies from the Local Plan

5.21. The parts of the Plan which have been overturned are:

- The housing target of 10,500 new homes (equating to 500 per year) between 2006 and 2027; and
- References to 1,100 new homes at the Omega Strategic Proposal.

5.22. Not all of the Local Plan Core Strategy has been overturned. All other policies within the plan remain unaltered.

Site Specific Allocation

5.23. The adopted Core Strategy (2014) Proposals Map currently identifies the Site as Green Belt land.

Figure 5.1 – Extract from the Warrington Local Plan: Core Strategy Proposals Map

5.24. The adopted Proposals Map identifies that the Site is located within the Green Belt, which is illustrated by the green wash. It also identifies that there is a public right of way (PROW) running along the western edge of the site, which is shown by the dark green dashed line. Further to the south of the site and on the opposite side of the M62 is Gorse Green Mounds Local Wildlife Site, which is identified by the light green hatching.

The Warrington Local Plan Core Strategy

5.25. The Warrington Local Plan Core Strategy was adopted in July 2014 and provides the spatial context from which more detailed policies and site allocations should follow. Nevertheless, it should be noted that in October 2016 Warrington Council agreed to carry out a comprehensive review of the Local Plan Core Strategy in response to results of the High Court Challenge and the emerging evidence which set out the Borough's growth ambitions as well as its housing and employment needs to reflect these aspirations. The revised evidence base and the commitment of the Council to review their Core Strategy are material considerations in the context of this application, but the Core Strategy remains the statutory development plan in the context of Section 38 of the Act until such time as it is replaced.

5.26. The Core Strategy sets out the problems, issues and challenges facing Warrington in particular the high levels of deprivation in some parts of the borough. The Core Strategy highlights that the 2010 Indices of Multiple Deprivation (IMD) identifies that there are 11 Warrington Super Output Areas (SOAs) which fall into the 10% most deprived nationally - a figure which has not changed from 2007.

5.27. The Core Strategy also recognises that Warrington has a strong and resilient economy and it is a highly performing location on a national basis. The Vision states:

"The town continues to be a key economic driver for the surrounding area and its pivotal location within the 'Atlantic Gateway' is an advantage to residents and businesses and gives them unrivalled access to both the Manchester and Liverpool conurbations and national transport infrastructure…

Those who live and work within the borough enjoy access to an extensive network of Green Infrastructure, which is effective in fulfilling a wide range of functions at the heart of which is supporting a diverse range of flora and fauna and protecting against the impacts of climate change…

&

The borough is home to a highly skilled workforce that serves the local economy well and the town continues to be a focus for employment for a wide area - reinforced by the development of significant sites in and immediately surrounding the borough."

5.28. The Core Strategy's Key Diagram identifies that the Site is located on the edge of the urban area and within close proximity to an 'Existing Employment Location' (Birchwood) (illustrated by the light purple).

Figure 5.2 – Extract from the Warrington Local Plan: Core Strategy Key Diagram

5.23. In line with the Strategic Vision, the strategic objectives include supporting growth in the local and sub-regional economy, maintaining the permanence of the Green Belt, securing high quality design and minimizing the impact on the environment.

5.24. **Policy CS1: Overall Spatial Strategy – Delivering Sustainable Development** sets out that development proposals that are sustainable will be welcomed and approved without delay. It goes on to say that in order to be sustainable, a development must accord with national and local planning policy, taking into account other material considerations, and must have regard to a number of principles. These principles include providing for recognised and identified development needs, the protection of the Green Belt and the character of the countryside, the need to sustain and enhance the borough's built heritage, biodiversity and geodiversity, the need to safeguard environmental standards, public safety, residential amenity, the delivery of high standards of design and construction, and the need to improve equality of access and opportunity.

5.25. **Policy CS2: Overall Spatial Strategy - Quantity and Distribution of Development** set outs the principles behind the distribution of development within the borough. The policy is principally concerned with the distribution of housing and employment uses (principally Use Classes B1, B2 & B8). However the policy raises a number of principles that are applicable to the current proposal. This includes the acknowledgment that development within the Green Belt will only be allowed where it is considered to be appropriate in accordance with national policy. The policy goes onto stress that the re-use of previously developed land within defined settlements will be prioritised and the defined centres, primarily Warrington Town Centre, will maintain their role and status by being the focus for further office, retail and leisure development investment, and by strictly controlling inappropriate out of centre retail developments. Nevertheless, it seeks to focus major warehousing and distribution developments away from areas sensitive to heavy vehicle movements, with direct access to the Primary Road Network.

5.26. **Policy CS 4: Overall Spatial Strategy – Transport** importantly recognises Warrington's role as a regional transport gateway/interchange. It goes on to state that the Council will support improvements to Warrington's Transport Network that look to integrate with transport networks both within and outside Warrington to enhance the sustainability of cross boundary travel; strengthen public and sustainable transport links between recognised areas for business, general industrial and storage/distribution uses; reduce the impact of traffic on air quality and reduce carbon emissions to help tackle climate change. It goes on to state that early consultation with the Highways Agency will be necessary for any proposal that may affect the Strategic Road Network and efforts should be concentrated on tackling the most congested parts of the Strategic Road Network, notably the M6, M56, and M62.

5.27. **Policy CS 5: Overall Spatial Strategy – Green Belt** seeks to maintain the general extent of the Green Belt to at least 2032, in recognition of four of its purposes. Nevertheless, it goes on to state that development proposals within the Green Belt will be approved where they accord with relevant national policy.

5.28. **Policy CS 6: Overall Spatial Strategy – Strategic Green Links** seeks to maximise the environmental and socio-economic benefits from those Strategic Green Links which connect the borough to the wider sub-region. It goes on to state that the Council is committed to supporting wider initiatives which seek to connect the Borough's Strategic Green Links with employment areas, residential communities, and Green Infrastructure Assets.

5.29. The Core Strategy also contains various general policies that relate to a range of planning issues, these include:

Policy	Summary
Policy PV 1 Development in Existing Employment Areas	The policy states that sustainable development within other areas (outside of existing employment areas) will be supported.
Policy PV 3 Strengthening the Borough's Workforce	The policy states that Council will support developments which assist in strengthening the boroughs workforce and enhancing training opportunities for its residents by maximising the social benefits from proposals which contribute to the Council's "Closing the Gap" agenda by securing local employment opportunities associated with the construction and subsequent operation of new development (amongst other things).
Policy PV 4 Retail Development within the Town Centre and Primary Shopping Area	The policy confirms that the focus of new retail development in the borough is the Primary Shopping Area within Warrington Town Centre as defined on the Policies Map. For retail development outside of the centre, it is necessary to demonstrate that no suitable sites are available in more sequentially preferable locations to that proposed and there would be no adverse impacts on the Primary Shopping Area and wider Town Centre.
Policy PV 5 Enhancing the Town Centre Economy	The policy states that proposals for all main town centre uses which are proposed outside the Town Centre will need to provide justification in the form of sequential and impact tests.
Policy PV 7 - Promoting the Visitor Economy	The policy states that the Council will support proposals which sustain and enhance Warrington's visitor and tourism economy.
Policy SN 4 Hierarchy of Centres	The policy states that the provision for retailing within the borough will be based on the need to safeguard and enhance the vitality and viability of the hierarchy of centres.

Policy SN 5 New Retail and Leisure Development Within Defined Centres	The policy requires that where retail or leisure uses are proposed outside of a defined centre, it is necessary to demonstrate that there are no suitable sites available within the centre or in edge of centre locations through applying a sequential approach. Where there are no suitable, available or viable sites within a defined centre, the proposal must demonstrate that there are no significant adverse impacts on that centre(s).
Policy SN 7 Enhancing Health and Well-being	The policy requires that all proposals in North Warrington address health and wellbeing inequalities through a number of different initiatives such as employment and training, maximizing opportunities for exercise and active lifestyles and deterring crime and increasing resilience to climate change.
Policy QE 1 Decentralised Energy Networks and Low Carbon Development	The policy seeks to encourage proposals that maximise opportunities for the use of decentralised renewable and low carbon energy.
Policy QE 3 Green Infrastructure	The policy seeks to develop and adopt an integrated approach to the provision, care and management of the borough's Green Infrastructure. This will involve protecting and enhancing the functionality and quality of existing provision and securing new provision where possible.
Policy QE 4 Flood Risk	The policy states that the Council will only support development proposals where the risk of flooding has been fully assessed and justified by an agreed Flood Risk Assessment. The policy goes on to state a preference for the use of Sustainable Drainage Systems.
Policy QE 5 Biodiversity and Geodiversity	The policy seeks to protect and where possible enhance sites of recognised nature and geological value. It goes on to say that development proposals affecting protected sites, wildlife corridors, key habitats or priority species (as identified in Local Biodiversity Action Plans) should be accompanied by information proportionate to their nature conservation value.
Policy QE 6 Environment and Amenity Protection	The policy states that the Council will only support development which would not lead to an adverse impact on the environment or amenity of future occupiers or those currently occupying adjoining or nearby properties, or does not have an unacceptable impact on the surrounding area. It goes on to state the consideration will be given to a number of matters including quality

	of water bodies, groundwater resources, land quality, air quality, noise and vibration levels, light pollution, amongst other matters.
Policy QE 7 Ensuring a High Quality Place	The policy states that the Council will look positively upon proposals that are designed to be sustainable, durable, and adaptable and energy efficient; create inclusive, accessible and safe environments; and are visually attractive as a result of good architecture and the inclusion of appropriate public space, amongst other things.
Policy QE 8 Historic Environment	The policy seeks to protect the fabric and setting of heritage assets.
Policy MP 1 General Transport Principles	The policy states that the Council will support proposals where they mitigate the impact of development or improve the performance of Warrington's Transport Network, including the Strategic Road Network, by delivering site specific infrastructure which will support the proposed level of development.
Policy MP 3 Active Travel	The policy requires high priority to be given to the needs and safety of pedestrians and cyclists in new development. It goes on to state that new development should contribute to enhancing and developing integrated networks of continuous, attractive and safe routes for walking and cycling including improvements to roads, Rights of Way and the Greenway Network.
Policy MP 4 Public Transport	The policy states that the Council will aim to secure improvements to public transport infrastructure and services (including bus, rail and taxi / private hire) in partnership with operators and delivery partners.
Policy MP 5 Freight Transport	The policy states that proposals for freight related development will be supported where they achieve a reduction in road traffic kilometres through their location and/or where they reduce the impact of freight traffic on local or inappropriate route. It goes on to state that proposals should demonstrate that they would not have an adverse impact in terms of heavy goods vehicles using local or residential roads or congested central areas as well as unacceptable problems of noise, vibration, lighting, emissions, or other pollution for neighbouring occupiers.

Policy MP 6 Transport Infrastructure	The policy states that the Council will support priorities and improvements set out in the Local Transport Plan and other delivery documents by ensuring development will not prejudice the implementation of proposed transport schemes and projects that require land beyond the limits of the public highway.
Policy MP 7 Transport Assessments and Travel Plans	The policy requires that all developments demonstrate they will not harm highway safety and identify any significant effects on the transport network. It goes onto state that proposals which would prejudice the primary function of the Strategic Road Network will not be allowed unless improvements are designed and carried out. Finally it says that all major developments need to be accompanied by a Transport Assessment and Travel Plan.
Policy MP8 – Waste	The policy states that the Council will promote sustainable waste management in accordance with the waste hierarchy and encourage waste minimisation in new developments, the use of recycled materials, the sustainable transportation of waste and the preparation of site waste management plans
Policy MP 10 Infrastructure	The policy seeks to ensure that Warrington's future growth is supported and enhanced through the timely delivery of necessary transport, utility, social and environmental infrastructure. It will seek to ensure that development maximises the benefits of existing infrastructure and minimises the need for new provision.
Policy CC 2 Protecting the Countryside	The policy states that development proposals in the countryside which accord with Green Belt policies set out in national planning policy subject to a number of considerations.

Table 5.1: Core Strategy Planning Policy

National Planning Policy Framework (NPPF 19), February 2019

5.29. The new National Planning Policy Framework was adopted in February 2019, superseding the previous version published in July 2018. The National Planning Policy Framework (NPPF 19) is a key material consideration as the statement of national policy and should therefore be taken into account and given appropriate weight when assessing this application.

5.30. Adopted as an expression of national planning policy, The Framework sets out the presumption in favour of sustainable development and the Government's key objective to help build a strong, responsive and competitive economy. Where relevant policies are out of date, it states planning permission should be granted.

5.31. In summary, the key elements of the NPPF (19) relevant to the proposals are:

Section 2: Achieving sustainable development
Section 4: Decision-making
Section 6: Building a strong, competitive economy
Section 9: Promoting sustainable transport
Section 13: Protecting Green Belt land.

5.32. **Section 2: Achieving Sustainable Development** sets out the three dimensions of sustainable development: economic, social, and environmental:

*"**an economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*

***an social objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being;*

***an environmental objective** – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."*

5.36. Paragraph 8 explains that the planning system should play an active role in guiding development to sustainable solutions and in doing so should take local circumstances into account, to reflect the character, needs, and opportunities of each area. Paragraph 10 states that "*at the heart of the Framework is a presumption in favour of sustainable development",* while Paragraph 11 sets out what this means in relation to decision taking:

> *Approving development proposals that accord with an up-to-date development plan without delay; and*
>
> *Where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:*
>
> *the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
>
> *any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole*

5.29. Footnote 6 sets out specific policies which indicate where development should be restricted, including Green Belt and therefore prevents the operation of the titled balance.

5.30. **Section 4: Decision** states in paragraph 38 that "*Local planning authorities should approach decisions on proposed development in a positive and creative way", and that "decision makers at every level should seek to approve applications for sustainable development where possible*". This includes working proactively with Applicants to "*secure developments that improve the economic, social, and environmental conditions of the area".*

5.31. In determining applications, paragraph 47 requires that *"applications for planning permission be determined in accordance with the development plan, unless material considerations indicate otherwise".* Paragraph 11 confirms that in assessing and determining development proposals, "*Plans and decisions should apply a presumption in favour of sustainable development*".

5.32. **Section 6: Building a Strong, Competitive Economy** stresses that planning decisions should help create the conditions in which businesses can invest, expand and adapt. It also places significant weight at paragraph 80 on the need to support economic growth and

productivity. Paragraph 80 states that "*this is particularly the case in areas with high levels of productivity, which should be able to capitalise on their performance and potential".*

5.33. Paragraph 82 also notes that planning decisions should "*recognise and address the specific locational requirements of different sectors*".

5.34. **Section 9: Promoting Sustainable Transport** requires in Paragraph 102 that *"transport issues should be considered from the earliest stages of development proposals*", including the environmental impacts of traffic and transport infrastructure, and opportunities to promote walking, cycling and public transport use.

5.35. Paragraph 104 (e) requires planning policies to "*provide for any large scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion, and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements".* Specifically, paragraph 107 requires that planning decisions "*should recognise the importance of providing adequate overnight lorry parking facilities, taking into account any local shortages, to reduce the risk of parking in locations that lack proper facilities or could cause a nuisance*".

5.36. Footnote 108 confirms that the primary function of roadside facilities for motorists should be to support the safety and welfare of the road user and *"most such proposals are unlikely to be nationally significant infrastructure projects".*

5.37. In relation to development in general, safe and suitable access should be achieved and opportunities for sustainable modes of transport should be explored. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

5.38. **Section 13: Protecting Green Belt Land** notes that the fundamental aim of Green Belt policy is "*to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence*".

5.39. Paragraph 134 outlines the five purposes which the Green Belt serves. These are:

- to check the unrestricted sprawl of large built-up areas;
- to prevent neighbouring towns merging into one another;

- to assist in safeguarding the countryside from encroachment;
- to preserve the setting and special character of historic towns; and
- to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

5.25. Paragraph 143 states that by definition, inappropriate development is harmful to the Green Belt and should "*not be approved except in very special circumstances*". Paragraph 144 advises that local planning authorities should give substantial weight to any harm to the Green Belt. It notes that *"very special circumstances*" will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations".

5.26. **Section 15: Conserving and Enhancing the Natural Environment** seeks to protect and enhance "*valued landscapes"*; minimise impacts upon biodiversity; prevent new development from contributing to unacceptable levels of pollution; and remediate despoiled, degraded, derelict and contaminated land.

5.27. Paragraph 174 seeks to promote the conservation, restoration, and re-creation of priority habitats and, and identify and pursue measurable net gains for biodiversity. Paragraphs 175-182 set out the principles that should be applied when determining planning applications, including biodiversity, noise, and land stability.

5.28. **Section 16 Conserving and enhancing the historic environment** set out the position with regard to heritage assets. Paragraph 189 outlines that the applicant should sufficiently describe the significance of any heritage asset affected, including any contribution made by their setting as part of a planning application. It notes that the heritage assets should be assessed using heritage expertise where necessary. Paragraph 190 and paragraph 192 relate to the approach local planning authorities should take when identifying and assessing the significance of heritage assets and the contribution of new development to the local character and distinctiveness of the heritage asset. Paragraph 193 attaches great weight to the asset's conservation when considering the impact of development on the significance of the designated heritage asset. It notes the "*more important the asset, the greater the weight should be*". Paragraph 194 indicates that any harm to, or loss of, the significance of a designated heritage asset should require clear and convincing justification. Substantial harm to or loss of Grade II listed Buildings should be exceptional and to registered battlefields, wholly exceptional. Paragraph 195 outlines the approach to take where harm is considered to be substantial. Paragraph 196 states, *"Where a development proposal will lead to less than substantial harm to the significance of a designated*

heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use."

5.29. **Annex 1: Implementation** sets out weight should be attached to Local Authorities' Local Plans since the publication of the new NPPF (19). Paragraph 213 of the Framework states that "*Existing policies should not be considered out-of-date simply because they were adopted or made prior to the publication of this Framework. Due weight should be given to them, according to their degree of consistency with this Framework (the closer the policies in the plan to the policies in the Framework, the greater the weight that may be given).*"

5.30. Other elements of the NPPF (19) relevant to the proposals are:

Section 7: Ensuring the vitality of town centres
Section 8: Promoting healthy and safe communities
Section 11: Making effective use of land
Section 12: Achieving well-designed places
Section 14: Meeting the challenge of climate change, flooding and coastal change

5.31. The NPPF (19) is a key material consideration as the statement of national policy and should be taken into account and given appropriate weight when assessing this application.

National Planning Practice Guidance (PPG)

5.40. The National Planning Practice Guidance (PPG) provides guidance to support the policies within NPPF (19), and in that sense does not provide additional policy but rather more detailed consideration of how policies within The Framework should be approached and met. The guidance covers all relevant planning policy areas under separate topics and will be updated online as and when required.

Other Relevant Policies

Written Ministerial Statement – Road Haulage Update, May 2018

5.41. The Transport Minister Jesse Norman in the Ministerial Statement states that the government is focused on "*improving the situation for business-as-usual lorry parking*". In the Statement he confirmed that he has "*written with Planning Minister Dominic Raab to local planning authorities to*

draw their attention to the survey results, which show a strategic national need for more lorry parking and highlight shortages in specific areas".

Emerging Local Policy – Preferred Development Option Consultation. September 2017

5.42. Warrington Council consulted on their Local Plan Preferred Development Option Regulation 18 documents in September 2017.

5.43. This preferred development option sets out the Borough's growth ambitions as well as the housing and employment needs to reflect this aspiration. To achieve the growth ambitions and meet the need over the 20 year plan, the Council recognises that land will need to be released from the Green Belt to deliver at least 9,000 homes and 252 ha of new employment space. This is underpinned by a range of evidence which provides a robust case for housing need and economic growth to be aligned. The Council believes planning for this level of growth provides a unique opportunity for Warrington to make the transition from a New Town into a New City.

5.44. The Preferred Development Options Document confirms that Warrington has significant ambitions for economic growth, as reflected in the Warrington Means Business regeneration programme, updated in December 2016 and in the scale of development proposed as part of the Cheshire and Warrington Devolution bid. The devolution bid figure has now been embedded in the Cheshire and Warrington Local Enterprise Partnership's (LEP) Strategic Economic Plan (SEP). The LEP has undertaken further work in preparing the SEP, working closely with the Council, to analyse the job growth figures across Cheshire and Warrington as a whole and specifically in respect of Warrington. The LEP and the Council are confident the level of growth proposed is achievable with the interventions set out in the SEP and the scale of public and private sector investment the LEP is seeking to secure. The Council is therefore making the positive decision to plan for this level of growth.

Proposed Submission Version Local Plan, April 2019

5.45. The Council consulted on their next stage of their Local Plan, the Proposed Submission Version Local Plan from April 2019, for a period of 8 weeks. The Council will then review all of the representations made during the consultation prior to submitting the Plan for 'Examination in Public' to be carried out by an independent Inspector.

5.46. The Council anticipate the earliest date for the Examination in Public will be early 2020. Following the Examination in Public, the Inspector will issue a report setting out their recommendations, including any required modifications to the Plan. The Council must carry out a final consultation on any Main Modifications before formally adopting the Plan. It is anticipated the Local Plan will be adopted during 2020.

5.47. The Local Plan and its supporting evidence base confirms the following:

- The Council has updated its evidence base relating to housing, employment and retail needs to ensure the Plan is based on up to date evidence, meets the requirements of the NPPF (2019) and associated Planning Policy Guidance;

- The Council's updated Economic Development Needs Assessment (2019) has re-confirmed the scale of employment land that the Council needs to plan for. The Plan makes provision to meet the full requirement of 362ha of employment land between 2017 and 2037. This means there is a requirement for provision of around 213ha of employment land through Green Belt release;

- The Proposed Submission Version Local Plan proposes a minimum housing requirement of 945 homes per annum, which equates to 18,900 new homes. Around 7,000 of these homes through release of Green Belt land.

- Draft Policy INF1 sets out the Council's objective of improving the safety and efficiency of the transport network including the Strategic Road Network, by delivering site specific infrastructure which will support the proposed level of development.

5.48. The adopted Core Strategy remains the statutory development plan until such time as the new Local Plan is adopted.

Local Plan Evidence Base & Other Material Information

Atlantic Gateway – Strategic Plan, January 2018

5.49. The Atlantic Gateway (AG) is seeking to create a growth corridor within the North of England, which would cover the areas of Cheshire and Warrington, Greater Manchester and the Liverpool City Region. It broadly follows the Manchester Ship Canal and the M62/M56

Corridor which serve to connect the three LEP areas within the Atlantic Gateway. As such, Warrington is clearly both geographically and strategically at the heart of the initiative.

5.50. The AG is focused on infrastructure and the two high growth sectors of science and innovation and logistics. The aim is to accelerate growth by investment in infrastructure, especially transport. Fundamentally, Atlantic Gateway can be defined as a series of projects across the North West area that have regional, national and international significance

5.51. The AG identifies that the transport network in Cheshire and Warrington is strategically important to the growth of the North and the Atlantic Gateway.

5.52. One of the key areas that the Atlantic Gateway is focused on is the logistics sector, which it identifies as being world-class and a major driver of success for many of the area's key sectors. It acknowledges that an increasing number of businesses are choosing to locate in the Atlantic Gateway area due to its global and local connectivity, its skilled workforce and access to consumer markets. It identifies that Liverpool2 is a game-changer for the North's logistics sector and the surrounding rail and road links will provide UK-wide access.

5.53. It is considered that the proposed MSA would complement these proposals, especially in light of the potential increase in use of M62 for the transportation of freight associated with the Liverpool2 and Superport proposals.

Cheshire and Warrington Local Enterprise Partnership Strategic Economic Plan, July 2017

5.54. The Cheshire and Warrington Local Enterprise Partnership's (LEP) refreshed Strategic Economic Plan confirms the revised growth ambitions for the Cheshire and Warrington sub-region, which is to grow the economy's GVA by £50 billion per annum by 2040 and create 120,000 jobs (net additional). The Strategic Economic Plan sets a target of 31,000 jobs to be created in Warrington between 2015 and 2040.

Northern Powerhouse, November 2016

5.55. The Northern Powerhouse strategy explains how the Government will work with local stakeholders to address key barriers to productivity in the region. The Government will invest in transport infrastructure to improve connections between and within the North's towns, cities and counties; work with local areas to raise education and skills levels across the North;

ensure the North is an excellent place to start and grow a business; and ensure the Northern Powerhouse is recognised worldwide as an excellent opportunity for trade and investment.

The Northern Powerhouse Independent Economic Review, June 2016

5.56. The Independent Economic Review (IER) focused on five clearly defined but interrelated work-streams which sought to understand the scale, nature and causes of the Northern England's 'performance gap', distinctive sectoral strengths and capabilities, and future growth prospects.

5.57. The IER identified that the 5 factors driving the 'productivity gap' were the skills gap; technology gap; investment gap, poor connectivity and transport, lack of agglomeration; and low enterprise rates. In contrast, it also identifies Northern England's four 'prime capabilities' are advanced manufacturing, health innovation, energy and digital. Crucially these 'prime capabilities' are supported by three 'enabling' capabilities which will play a critical role in supporting the growth and development of the 'Prime' capabilities. Together, the 'prime' and 'enabling' capabilities combine to create a complementary and distinctive offer for the North of England. The 'enabling capabilities' are:

- Financial and professional services;
- Logistics
- Education (primary higher education).

5.58. Clearly, Freight and Logistics are a key enabling capability to achieving transformational economic growth within Northern England and therefore the proposed MSA by providing lorry parking has an important role in supporting the objectives of IER.

Warrington Borough Council Green Belt Assessment Final Report (2016) & Additional Site Assessments of Call for Sites Responses and SHLAA Green Belt Sites, May 2017

5.59. The Green Belt Review has been produced to inform the findings of the Local Plan Review. The study was made in the context of the significant employment and housing land need identified within the new local evidence base.

5.60. The Review identified that the Application Site as falling within General Area 2, which encompassed as a much larger piece of land stretching from the northern boundary of the M62 to the southern and eastern edge of Culcheth. The General Area 2 was identified as making a 'Moderate' contribution towards the purposes of the Green Belt.

5.61. The Assessment went on to split the General Areas into a number of potential development parcels based on their proximity to built-up areas. The Application Site was identified as falling within Parcel WR14, which was identified as making a 'Weak' contribution to the Green Belt purposes.

Figure 5.3: Extract from Warrington Green Belt Review

5.62. The Green Belt Assessment made the following comments in respect to Parcel WR14:

Green Belt Purpose	Green Belt Review Commentary in respect to Parcel WR14
a) to check the unrestricted sprawl of large built-up areas	*"**Weak contribution**: The M62 forms a durable boundary between the parcel and the built up area. This is a permanent boundary that is durable enough to prevent sprawl into the parcel in the long term. The parcel is only connected to the urban area along this southern boundary and therefore the parcel is poorly connected to the built up area. Overall the parcel makes a weaker contribution to checking unrestricted sprawl."*
b) to prevent neighbouring towns merging into one another	*"**Weak contribution**: The parcel forms a less essential gap between the Warrington urban area and Culcheth. Development of the parcel would result in both the actual and perceived gap being reduced although it would not result in the towns merging. Overall, the parcel makes a weak contribution to preventing towns from merging."*
c) to assist in safeguarding the countryside from encroachment	*"**Moderate contribution**: The boundary between the parcel and the settlement is durable. The boundary is the M62 which could prevent encroachment into the parcel in the long term. The boundaries between the parcel and the countryside are less durable. To the west is Birchwood Way which is durable however the northern and eastern boundaries are tree lined which are natural, non-durable boundaries that would not prevent encroachment beyond the parcel if the parcel were developed. The existing land use is agricultural. The parcel is well connected to the countryside along three boundaries. The parcel is flat with no built form and no vegetation and there are open long line views thus it supports a strong degree of openness. The parcel has beneficial uses as it provides access to the countryside. Overall, the parcel makes a moderate contribution to safeguarding from encroachment."*
d) to preserve the setting and special character of historic towns	***"No contribution**: Warrington is a historic town however the parcel is not within 250m of the Warrington Town Centre Conservation Areas. The parcel does not cross an important viewpoint of the Parish Church."*

Green Belt Purpose	Green Belt Review Commentary in respect to Parcel WR14
e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land	*"**Moderate contribution**: The Mid Mersey Housing Market Area has 2.08% brownfield urban capacity for potential development, therefore the parcel makes a moderate contribution to this purpose."*
Overall Conclusions	*"The parcel makes a moderate contribution to two purposes, a weak contribution to two purposes and no contribution to one purpose. **In line with the methodology, the parcel has been judged to make a weak overall contribution.** The parcel makes a moderate contribution to safeguarding from encroachment as it supports a strong degree of openness and has non-durable boundaries between the parcel and the countryside but has durable boundaries between the parcel and the settlement. The parcel performs weakly in terms of preventing sprawl and preventing neighbouring towns from merging."*

Table 5.2: Green Belt Assessment

The UK Industrial Strategy, November 2017

5.63. The UK Government has produced an Industrial Strategy that focusses on five foundations of productivity. These five foundations "*Ideas, People, Infrastructure, Business Environment and Places*". It promotes Local Industrial Strategies to meet local economic needs and priorities. It identifies the need to build on the strengths of the economy for longer term growth with shorter term benefits. It stresses the importance of logistics in positioning the UK at the forefront in the world economy. It also highlights the north-south divide with educational attainment in the northwest well below that of the south-east.

Relevant Local Supplementary Planning Documents

5.64. Warrington Borough Council has produced a number of Supplementary Planning Documents some of which are considered relevant to this application:

- Standards for Parking in New Development SPD (March 2015) – this SPD sets out the Council's parking standards policy.

- Environmental Protection SPD (May 2013) – this SPD sets out the approach in respect to environmental protection including, amongst other things, contaminated land, air quality, light pollution, noise and vibration.

- Design and Construction SPD (October 2010 – amended February 2016) – this SPD sets out the approach to design and construction.

- Planning Obligations SPD (January 2017)

6. Methodology and Approach

Introduction

6.1. This section sets out the approach and methodology for assessing the environmental effects of this development. The ES has been undertaken to facilitate the assessment of the proposed development by identifying existing baseline conditions and comparing the significant environmental effects of the proposal with appropriate legislative limits and guidelines.

Relevant Legislation and Guidance for Preparing and ES

6.2. All proposals for projects that are subject to the European Environmental Impact Assessment (EIA) Directive 2014/52/EU must be accompanied by an Environmental Assessment (ES). The legislation has been transposed into UK law through the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 which are the EIA Regulations for England only (hereafter referred to as 'the EIA Regulations').

6.3. The ES has been prepared in the context of relevant legislation and guidance. Under the EIA Regulations, a planning application must be accompanied by an ES in certain circumstances. The proposals fall under Schedule 2 of the Regulations where an ES is required to be prepared where a development may have significant effects on the environment due to:-

- Size/scale of the environmental effects
- Sensitivity/vulnerability of the site/location concerned
- Nature/complexity of the environmental effects

6.4. In preparing the ES, the Study Team have taken account of guidance in the Town and Country Planning Act 1990 (Section 62), the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 and Planning Practice Guidance.

Study Team's Approach

6.5. The Study Team is aware of the legislative and guidance framework above. The Team has undertaken the approach outlined in Schedule 4 of the EIA Regulations for the assessment of the environmental effects of the proposal. This comprises:-

- Description of development
- Description of the reasonable alternatives studied
- Description of the relevant aspects of the current state of the environment and likely evolution without the development
- Description of the aspects of the environment likely to be significantly affected by the development
- Description of the likely significant effects of the development on the environment
- Description of the forecasting methods or evidence, including details of any difficulties in compiling the required information
- Description of mitigation measures and any monitoring
- Where relevant a description of the expected adverse effects of the development on the environment from the vulnerability of development or risks of major accidents and/or disasters
- A non-technical summary

6.6. As far as possible a common methodology was used as the basis for all technical papers; the importance of the receptor; the significance of effect; and confidence level. All technical papers conclude with an assessment of impacts and mitigation measures summarising the significance of effects in a tabular format.

Study Area

6.7. The Study Area, unless otherwise defined in the Technical Chapters, has comprised the application site. In several cases, however, there has been a need to look at wider areas, e.g. the immediate locality, or the District as a whole when considering certain impacts.

Difficulties in Compilation and Assessment

6.8. In line with Paragraph 8 of Schedule 4 of EIA Regulations this section identifies the difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information for the environmental assessment.

6.9. This relates to the cumulative assessment of HS2, due to the limited information that is available, the cumulative assessment is limited and as such high level and qualitative. This is detailed within Section 9: Cumulative Assessment.

Study Process

6.10. The Scoping Report set out the methodology that will be applied to the assessment within all the technical reports. The EIA Regulations stipulate that an ES should, where possible, identify, describe and assess the likely significant effects of the development on the environment. The methodology has three stages to identify the significant effects:

- Receptors
- Environmental Impacts
- Significant Effects

Receptors

6.11. The significance of an effect is relative to the sensitivity or quantity of a receptor. Receptors are set out in accordance with the magnitude of their importance. Some receptors are given relatively high levels of importance through legislation, such as designated conservation sites or world heritage sites. Determining the importance of other receptors can be more subjective. To maintain consistency in how receptors are considered, this Environmental Statement assesses each one in relation to the following hierarchy:

- International
- National
- Regional
- County
- Borough/District
- Local/Neighbourhood

6.12. Each environmental topic area within this Environmental Statement has outlined the relevant receptors and how they fit within the above hierarchy. The Environmental Statement provides an opportunity for consultees to have an input into the designation of each receptor. A plan of the Key Receptors is included as **Appendix 6**.

Environmental Impacts

6.13. This Environmental Statement adopts the standard approach of assessing the impacts of the relevant area of the proposals. These impacts have been developed giving due regard to the following, taking account of the environmental protection objectives established at Union or Member state level which are relevant to the project (including 92/43/EEC (Habitats Directive) and 2009/147/EC (Birds Directive)):

- Beneficial and adverse effects
- Short, medium and long term effects
- Direct and indirect effects
- Secondary effects
- Permanent and temporary impacts
- Cumulative impacts

6.14. Each of the impacts assessed is categorised as being:

- Neutral
- Negligible
- Minor
- Moderate
- High
- Substantial

6.15. These impacts are classified as being either positive or negative.

Significant Effects

6.16. Once the receptors and impacts have been established they need to be assessed against each other to provide the likely significant effects. Each of these will be considered in relation to the following:

- Extent and magnitude of the effect
- Effect duration (whether short, medium or long term)
- Effect nature (whether direct or indirect, reversible or irreversible)
- Whether the effect occurs in isolation, is cumulative or interactive

- Performance against environmental quality standards or other relevant pollution control thresholds
- Sensitivity of the receptor
- Compatibility with environmental policies

6.17. In order to define the magnitude of the effect the matrix below (table 6.1) has been developed. An effect will be categorised as being either:

- Substantial — This **will** have a **significant** influence on decision making
- High — This **may** have a **significant** influence on decision making
- Moderate — This **will** have a **slight** influence on decision making
- Minor — This **may** have a **slight** influence on decision making
- Negligible — This **will not** have an influence on decision making
- Neutral — This **will not** have **any** influence on the environment.

6.18. The interaction or cumulative impact or nature of these effects is also important. In isolation the lower categories may not have a significant influence on decision making however in combination with a number of other effects, the significance may be increased.

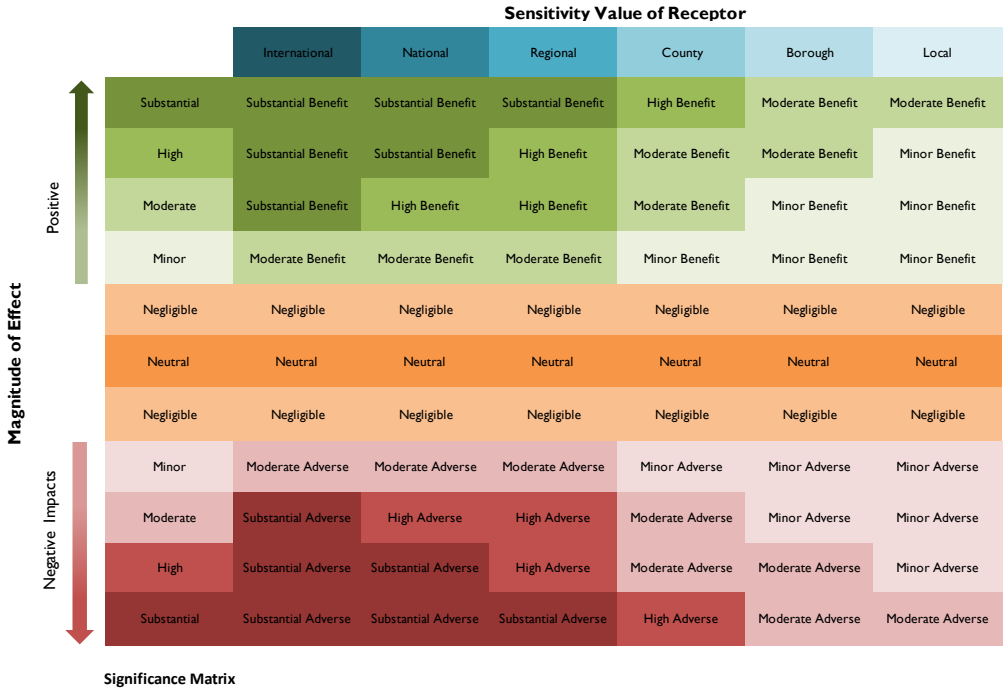

Table 6.1 Significance Matrix

Impact Prediction Confidence

6.19. It is also of value to attribute a level of confidence by which the predicted impact has been assessed. The criteria for these definitions are set out below:

Confidence Level	Description
High	The predicted impact is either certain i.e. a direct impact, or believed to be very likely to occur, based on reliable information or previous experience.
Low	The predicted impact and its levels are best estimates, generally derived from first principles of relevant theory and experience of the assessor. More information may be needed to improve confidence levels.

Table 6.2: Confidence Levels for Assessment

7. Summary of Environmental Impacts

7.1. This section provides a summary of the environmental impact of the proposals. As highlighted in the earlier parts of this ES there are a series of Part 2 technical reports which accompany this Part 1 document which have been produced across a range of topics and should be referenced to understand the impact of the proposals. Providing all the necessary ES information in one composite document was considered to be too lengthy and as a result this Part 1 document provides a summary of the environmental impact, key mitigation measures and an appraisal of cumulative and interaction of effects.

7.2. All key receptors associated with each of the technical areas are identified on the plan within **Appendix 6.**

7.3. **Table 7.1** below provides a summary of the environmental impact across all of the topic areas. The table is structured to consider the nature of the impact, the mitigation measures to be employed where appropriate and the resulting residual impact. It should be noted however that the ES should be read as a whole and the Part 2 of the ES should be consulted for a detailed review of specific environmental effects.

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Geology and Ground Conditions			
Construction Phase			
Introduction of additional contamination into soil, during construction phase as a result of accidental spillages ie. fuels.	Minor Adverse	Good practice during construction, bunded storage and spill control.	Negligible
Impacts on site and/or adjacent properties and infrastructure (including HP gas main) from unstable ground, slopes and/or excavations during construction.	Moderate Adverse	Good construction practice and design	Negligible
Impacts on construction workers as a result of ground gas on site.	Minor Adverse	Further SI and gas assessment. Good site practice and toolbox talk if necessary.	Negligible
Impacts on the site, surrounding area and/or construction workers as a result of the treatment of peat on site. Impacts dependent on method selected	Moderate Adverse	Good construction practice and design	Negligible

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Geology and Ground Conditions			
Operational Phase			
Potential impact on soil/ground as a result of leakage from proposed fuel tanks and associated pipework or accidental spillage/leakage from vehicles (site users and delivery vehicles) during the operational phase.	Minor Adverse	Installation in accordance with guidance, on site monitoring, investigation in the event of an issue. Hardstanding cover. Fuel interceptors.	Negligible
Impacts both on site and on adjacent sites (including HP gas main) as a result of unstable ground or instability created from Peat Treatment or potential changes to topography	Moderate Adverse	Good construction practice and design	Negligible
Impacts on future users of the site as a result of ground gas.	Minor Adverse	Protection measures will be incorporated where necessary	Negligible

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Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Traffic and Transportation Technical Paper			
Construction Phase			
Driver Delay	Negligible	None Required	Negligible
Pedestrian Delay	Negligible	None Required	Negligible
Pedestrian Amenity	Negligible	None Required	Negligible
Fear and Intimidation	Negligible	None Required	Negligible
Severance	Negligible	None Required	Negligible
Accidents and Road Safety	Negligible	None Required	Negligible
Public Transport Users	Negligible	None Required	Negligible

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Traffic and Transportation Technical Paper			
Operational Phase			
Driver Delay	Negligible	None Required	Negligible
Pedestrian Delay	Negligible	None Required	Negligible
Pedestrian Amenity	Negligible	None Required	Negligible
Fear and Intimidation	Negligible	None Required	Negligible
Severance	Negligible	None Required	Negligible
Accidents and Road Safety at M62 JII	High Adverse*	None Required	High Adverse*
Accidents and Road Safety at Birchwood Way/Daten Avenue/Moss Gate junction	Negligible	None Required	Negligible
Accidents and Road Safety on M6 Motorway and M62 Motorway between existing services	Minor to Moderate Positive	None Required	Minor to Moderate Positive
Public Transport Users	Negligible	None Required	Negligible

*** two of the observed accidents informing this significance of effect involved drivers under the influence of alcohol. When these accidents are excluded from this analysis, this gives an accident rate of 1.00 accident per annum which is lower than the DMRB default of 1.23. In these circumstances the impact of the MSA on Accidents and Road Safety will be negligible based on Table 2.5.**

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Water Resources			
Construction Phase			
Earthworks including excavations: Excavation and sequential removal of the l topsoil and superficial deposits has the potential to reduce the pathway to the underlying groundwater (perched in peat and Till) and finally the bedrock aquifers therefore increasing the vulnerability of the aquifer groundwater to potential contamination/oil spills during construction.	Minor, Negative	Good practice: measures in a CMP.	Minor, Adverse
Earthworks including excavations: Mobilisation of sediment, which could enter watercourse and waterbodies causing increased erosion altering deposition. This may also result in harm to aquatic flora and fauna.	Minor, Negative	Good practice: measures in a CMP.	Minor, Adverse
Dewatering of excavations: Release of sediment and silt laden water from the discharge of water removed from excavations to watercourse and / or ground, which could cause a degradation in water quality.	Negligible	Good practice: measures in a CMP.	Negligible
Dewatering of excavations: Pumping of groundwater may cause a localised drawdown of the watertable and cause water in the surrounding area to be drawn into the excavations. May cause offsite contaminated groundwater to be draw into the Site	Minor, Negative	Good practise: measures in a CMP.	Minor, Adverse
Use of machinery and storage of chemicals onsite: Accidental spills or leakage of fuel and oil from machinery and storage onsite during the construction phase could affect the underlying groundwater and enter surface water watercourses and waterbodies and lead to a degradation of water quality.	Minor, Negative	Good practice: measures in a CMP.	Minor, Adverse
Soil stripping and vegetation removal: Soil stripping reduces soil moisture storage capacity and may increases runoff and may lead to flooding.	Negligible	Good practice: measures in a CMP.	Negligible
Soil compaction: Compaction due to use of heavy machinery reduces infiltration, increases runoff and shortens the rainfall–runoff response and may lead to flooding.	Negligible	Good practice: measures in a CMP.	Negligible
Construction of impermeable surfaces such as roads/pavements: Reduction in recharge to the underlying aquifers therefore locally reducing groundwater levels. This will also increase runoff to surface water drains/ponds and may lead to flooding.	Minor, Negative	Good practice: good drainage design and SuDS.	Minor, Adverse
Construction of subsurface infrastructure such as foundations: Impede shallow groundwater flow which can cause groundwater mounding on the upgradient side and reducing groundwater levels on the downgradient side.	Minor, Negative	Good practice: measures in a CMP.	Minor, Adverse
Use of cement and concrete: Accidental spills or leakage of fuel and oil from machinery and storage onsite during the construction phase could affect the underlying groundwater and enter surface water watercourses and waterbodies and lead to a degradation of water quality.	Minor, Negative	Good practice: measures in a CMP.	Minor, Adverse
Use of cement and concrete: Leaching of cement / concrete into groundwater causing a degradation of water quality	Minor, Negative	Good practice: measures in a CMP.	Minor, Adverse
Removal of peat: The removal of peat could disrupt the hydraulic connection of adjacent peat leading to the remaining peat drying out.	Minor, Negative	Good practice: measures in a CMP.	Minor, Adverse
Gas pipeline – retaining wall in peat: The retaining wall within the peat could disrupt the hydraulic connection of adjacent peat leading to the peat to the east of the Site drying out.	Minor, Negative	Good practice: measures in a CMP.	Minor, Adverse
Working in proximity to the water environment associated with the river diversion: Temporary disruptions and restriction to the watercourse channel to surface water flows, which may lead to flooding during periods high and prolonged rainfall.	Minor, Negative	Good practice: good design.	Minor, Adverse
Working in proximity to the water environment associated with watercourse crossing: Disruption/blockage of watercourse flow from watercourse crossing, which may lead to flooding.	Negligible	Good practice: good design.	Negligible

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Water Resources			
Operational Phase			
Use of Motorised Vehicles and the storage of fuel and chemicals: Pollution from leaks or spills, which may cause a degradation in water quality	Minor, Negative	Good practise: petrol interceptors, maintenance schedule and emergency response plan.	Minor, Adverse
De-Icing of roads, walkways and parking areas: The use of de-icing salts may cause the release of sodium chloride and anti-caking agents into the water environment may cause changes to water chemistry such as salination.	Minor, Negative	Good practise: follow measures for the use of de-icing and storage of salts onsite in British Standard: BS 3247:2011+A1:2016 Specification for salt for spreading on highways for winter maintenance and Highways Agency Trunk Road Maintenance Manual: Volume 2 – Routine and Winter Maintenance Code.	Minor, Adverse
Proximity to the water environment associated with watercourse crossing: Disruption/blockage of watercourse flow from watercourse crossing, which may lead to flooding	Negligible	Good practice: good design and maintenance schedule.	Negligible
Proximity to the water environment associated with river diversion: Changes to water flow speeds and water depth, may causes changes to the river upstream and downstream of the diversion, such as flooding and erosion.	Negligible	Good practice: good design.	Negligible
Peat used in habitat enhancement: The peat that is used on the Silver Lane Brook river diversion may encourage biodiversity in aquatic flora and fauna.	Minor, Positive	Consideration of planting of peatland flora in areas where natural regeneration may fail to establish.	Minor, Benefit
Creation of new drainage regime in developed areas of the Site: The creation of a new drainage regime may alter the amount of runoff within the surface water catchments, thereby altering the flow rates and volumes within the watercourses in these catchments. An increase in flow rates may lead to a corresponding increase in flood risk.	Negligible	Good practice: good drainage design and SuDS.	Negligible

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
ES Landscape Technical Paper			
Construction Phase			
Landscape Receptors:			
National Character Area NCA 60. Mersey Valley	Negligible	No further mitigation proposed	Remains Negligible
LCT 2: Mossland Landscape 2B - Holcroft & Glazebrook Moss	Negligible to Minor Adverse	No further mitigation proposed	Remains Negligible to Minor Adverse
Salford Rural Mosslands Sub Area 2 LCA	Minor Adverse	No further mitigation proposed	Remains Minor Adverse
The Application Site	Minor Adverse	Retention and enhancement of existing vegetation where feasible and early establishment of proposed vegetation. Security fencing rather than hoardings is also proposed to these more rural boundaries.	Remains Minor Adverse
Existing Built Form – Settlements	Negligible to Minor Adverse	No further mitigation proposed	Remains Negligible to Minor Adverse
Existing Built Form – Other Types of Development	Negligible	No further mitigation proposed	Remains Negligible
Landform/Topography	Negligible	Timely completion of excavations and early removal of stock piles for re-use to complete development platforms. Where possible the construction works will avoid placing stockpiled materials, equipment etc. on areas of the site which are at a higher elevation as well as those areas close to sensitive visual receptors	Remains Negligible
Vegetation including grassland, woodland and hedgerows	Minor Adverse	Appropriate protection (to BS5837: 2005 - Trees in relation to construction) is to be afforded to the trees and hedgerows to be retained within the site (and at any other points where existing trees and hedgerows are in close proximity to the development). Planting of proposed new trees, woodland and hedgerows within the scheme.	Remains Minor Adverse
Access	Minor Adverse	PRoW Footpath No. 13 will require appropriate segregation from construction areas and activities.	Remains Minor Adverse
Communication	Negligible	No further mitigation proposed	Remains Negligible
Land Use Pattern	Minor Adverse	No further mitigation proposed	Remains Minor Adverse
Surrounding farmland	Minor Adverse	No further mitigation proposed	Remains Minor Adverse
Water Bodies and Drainage Systems	Minor Adverse	Early management and maintenance of all new water bodies, in accordance with Landscape and Ecological Management Plan	Remains Minor Adverse
Recreation and The Wider Green Space Network	Minor Adverse	Early management and maintenance of all new landscape, in accordance with Landscape and Ecological Management Plan	Remains Minor Adverse
Lighting	Minor Adverse	No further mitigation proposed	Remains Minor Adverse
Landscape Condition	Minor Adverse	No further mitigation proposed	Remains Minor Adverse
Cultural Heritage/Historic Designations	Moderate Adverse	No further mitigation proposed	The author deems that significance is reduced to Negligible. This is supported following assessment of photomontage Photoviewpoint VPD.
Environmental Designations	Moderate Adverse	Regular and ongoing monitoring of positive and negative effects on surrounding areas. Liaison and agreement with relevant authorities.	Remains Moderate Adverse
Key Representative Visual Receptors:			
VP1 (R1 Residential) (R5 Recreational)	Minor Adverse	Construction stage planting of screening vegetation both within Site and on boundary with PRoW.	Remains Minor Adverse
VP4 (R2 Recreational)	Moderate Adverse	Construction stage planting of screening vegetation both within Site and on Site perimeters.	Remains Moderate Adverse
VP6 (R3 Recreational)	Moderate Adverse	Construction stage planting of screening vegetation both within Site and on Site perimeters.	Remains Minor Adverse
VP7 (R4 Recreational)	Moderate Adverse	Construction stage planting of screening vegetation both within Site and on Site perimeters.	Remains Minor Adverse
VP10 (R6 Recreational)	Moderate Adverse	Construction stage planting of screening vegetation both within Site and on Site perimeters.	Remains Moderate Adverse
VP14 (R7 Recreational)	Moderate Adverse	Construction stage planting of screening vegetation both within Site and on Site perimeters.	Remains Moderate Adverse
VP16 (R8 Places of Work)	Minor Adverse	Construction stage planting of screening vegetation both within Site and on Site perimeters.	Remains Minor Adverse
VP17 (R10 Transport)	Negligible	No further mitigation proposed	Remains Negligible
Construction Related Impacts:			

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Temporary Visual Impact of HGV movements during Construction	Minor Adverse	Construction stage planting of screening vegetation both within Site and on boundary with PRoW.	Remains Minor Adverse
Temporary Visual Impact of Storage of Site Materials, Equipment, Temporary Site Structures during Construction	Minor Adverse	Construction stage planting of screening vegetation both within Site and on boundary with PRoW.	Remains Minor Adverse
Temporary Visual Impact of Topsoil and Subsoil Heaps	Minor Adverse	Construction stage planting of screening vegetation both within Site and on boundary with PRoW.	Remains Minor Adverse
Temporary Visual Impact of General Building Works during Construction	Minor Adverse	Construction stage planting of screening vegetation both within Site and on boundary with PRoW.	Remains Minor Adverse
Temporary Visual Effect of Hoardings at Street Level during Construction	Minor Adverse	Construction stage planting of screening vegetation both within Site and on boundary with PRoW.	Remains Minor Adverse
Temporary Visual Impact of Site Lighting during Construction	Minor Adverse	Construction stage planting of screening vegetation both within Site and on boundary with PRoW.	Remains Minor Adverse

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
ES Landscape Technical Paper Title			
Operational Phase			
Landscape Receptors:			
National Character Area NCA 60. Mersey Valley	Negligible	Appropriate maintenance and management of new and existing woodland, tree groups, individual trees, hedgerows and groundcover planting.	Remains Negligible
LCT 2: Mossland Landscape 2B - Holcroft & Glazebrook Moss	Minor Adverse to Negligible	Appropriate maintenance and management of new and existing woodland, tree groups, individual trees, hedgerows and groundcover planting.	Remains Minor Adverse to Negligible
Salford Rural Mosslands Sub Area 2 LCA	Minor Adverse	Appropriate maintenance and management of new and existing woodland, tree groups, individual trees, hedgerows and groundcover planting.	Remains Minor Adverse
The Application Site	Minor Adverse	Appropriate maintenance and management of new and existing woodland, tree groups, individual trees, hedgerows and groundcover planting.	Reduces further as vegetation, particularly woodland, within the Site establishes to increase screening of views into the Site.
Existing Built Form – Settlements	Minor Adverse to Negligible	No further mitigation proposed	Minor Adverse to Negligible
Existing Built Form – Other Types of Development	Minor Adverse	No further mitigation proposed	Remains Minor Adverse
Landform/Topography	Minor Adverse	Appropriate maintenance and management of new and existing woodland, tree groups, individual trees, hedgerows and groundcover planting to integrate new landform into the surrounding landscape character	Reduces further as vegetation, particularly woodland within the Site establishes
Vegetation including grassland, woodland and hedgerows	Minor Adverse	Appropriate maintenance and management of new and existing woodland, tree groups, individual trees, hedgerows and groundcover planting.	Reduces further as vegetation, particularly woodland within the Site establishes.
Access	Minor Adverse	No further mitigation proposed	Remains Minor Adverse
Communication	Negligible	No further mitigation proposed	The new road layout will be assimilated into the existing Communication network.
Land Use Pattern	Minor Adverse	Appropriate maintenance and management of new and existing woodland, tree groups, individual trees, hedgerows and groundcover planting.	Remains Minor Adverse
Surrounding farmland	Minor Adverse	Appropriate maintenance and management of new and existing woodland, tree groups, individual trees, hedgerows and groundcover planting.	The adverse effect will reduce further as woodland on the perimeter and within the Site establishes.
Water Bodies and Drainage Systems	Minor Benefit	Continuing management and maintenance of all new water bodies, in accordance with Landscape and Ecological Management Plan	Remains Minor Benefit
Recreation and The Wider Green Space Network	Minor Benefit	Continuing management and maintenance of all new landscape, in accordance with Landscape and Ecological Management Plan	Remains Minor Benefit
Lighting	Minor Adverse	Detailed design of lighting scheme to avoid excessive light spill into adjacent areas	Remains Minor Adverse
Landscape Condition	Minor Adverse	Continuing management and maintenance of all new landscape, in accordance with Landscape and Ecological Management Plan	The adverse effect will reduce further with continuing establishment and management of all new landscape.
Cultural Heritage/Historic Designations	Negligible to Moderate Adverse	Appropriate maintenance and management of new and existing woodland, tree groups, individual trees, hedgerows and groundcover planting.	The author deems that significance is reduced to Negligible. This is supported following assessment of photomontage Photoviewpoint VPD.
Environmental Designations	Negligible to Minor Adverse	Regular and ongoing monitoring of positive and negative effects on surrounding areas. Continuing liaison with relevant authorities.	Remains Negligible to Minor Adverse

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Key Representative Visual Receptors:			
VP1 (R1 Residential) (R5 Recreational)	Minor Adverse	Continuing management and maintenance of all new vegetation, in accordance with Landscape and Ecological Management Plan	The adverse effect will reduce further as vegetation establishes to the eastern site perimeter.
VP4 (R2 Recreational)	Moderate Adverse	Continuing management and maintenance of all new vegetation, in accordance with Landscape and Ecological Management Plan	Reduction to Minor Adverse effect as proposed tree planting to the west of the Facilities Building establishes to screen view of the building from this PRoW into the Site (see Photomontage Photoviewpoint VP4 (15 Years)).
VP6 (R3 Recreational)	Minor Adverse	Continuing management and maintenance of all new vegetation, in accordance with Landscape and Ecological Management Plan	Reduction of adverse effect as proposed woodland vegetation planted to the southern Site boundary establishes to screen views from this PRoW into the Site (see Photomontage Photoviewpoint VP6 (15 Years)).
VP7 (R4 Recreational)	Minor Adverse	Continuing management and maintenance of all new vegetation, in accordance with Landscape and Ecological Management Plan	Reduction of adverse effect as proposed woodland vegetation planted to the northern Site edge establishes to screen views from this PRoW into the Site (see Photomontage Photoviewpoint VP7 (15 Years)).
VP10 (R6 Recreational)	Moderate Adverse	Continuing management and maintenance of all new vegetation, in accordance with Landscape and Ecological Management Plan	Reduction to Minor Adverse effect as proposed woodland vegetation planted to the west of the Facilities Building, Service Yard and northern car park establishes to screen views from this PRoW into the Site (see Photomontage Photoviewpoint VP10 (15 Years)).
VP14 (R7 Recreational)	Moderate Adverse	Continuing management and maintenance of all new vegetation, in accordance with Landscape and Ecological Management Plan	Reduction to Minor Adverse effect as proposed woodland vegetation planted to the southern site perimeter establishes to screen views from this PRoW into the Site (see Photomontage Photoviewpoint VP4 (15 Years)).
VP16 (R8 Places of Work)	Minor Adverse	Continuing management and maintenance of all new vegetation, in accordance with Landscape and Ecological Management Plan	The adverse effect will reduce further as vegetation establishes to the northern site perimeter.
VP17 (R10 Transport)	Negligible	Continuing management and maintenance of all new vegetation, in accordance with Landscape and Ecological Management Plan	The adverse effect will reduce further as vegetation establishes to the southern site perimeter.

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
ES Part 2 – Ecology and Nature Conservation – Warrington MSA, J11 M62			
Construction Phase			
Indirect localised hydrological modifications to Manchester Mosses (Astley and Bedford Mosses, Risley Moss and Holcroft Moss) SAC	Neutral	None	Neutral
Indirect localised hydrological modifications to Silver Lane LWS	Negligible	None	Neutral
Loss of vegetated Habitat (including section of Silver Lane Brook)	Minor Adverse	Creation of a wildlife corridor and re-alignment of Silver Lane Brook	Minor Benefit
Loss of trees and impacts to adjacent RPA's	Minor Adverse	Use of geocell/cell web and no dig methods to prevent damage within the RPA's of adjacent trees.	Minor Adverse
Loss and disturbance of bird breeding habitat	Minor Adverse	Time initial site clearance operations outside bird breeding season.	Minor Adverse
Loss and disturbance of wintering bird habitat	Minor Adverse	ECoW will monitor site works for to ensure no critical disturbance to wintering birds	Minor Adverse
Disturbance of Bat foraging habitat	Minor Adverse	CEMP controls regarding working times – no nigh time working allowed.	Neutral
Terrestrial and aquatic invertebrates	Minor Adverse	None	Minor Adverse
Incidental spread of Himalayan balsam	Minor Adverse	Removal measures to be included in CEMP	Neutral

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
ES Part 2 – Ecology and Nature Conservation – Warrington MSA, J11 M62			
Operational Phase			
Air quality impacts leading to increased Nitrogen deposition to Manchester Mosses SAC	Negligible	None	Neutral
Accidental pollution and /or sediment transfer to Silver Lane LWS.	Minor	Measures included in drainage design for Development including fuel interceptors and SuDS	Neutral
Inundation and exceedance of surface water drainage network during extreme rainfall event, leading to erosion damage to habitats	Minor	Measures included in drainage design for Development including SuDS	Neutral
Disturbance to habitats including Silver Lane LWS by recreational users.	Minor	Signage improvements and clearly defined path network.	Neutral
Disturbance, of breeding and wintering bird assemblages on habitats adjacent to site.	Minor	Screening provided by landscape plantings	Neutral
Disturbance/displacement of foraging and commuting bats via vehicle movements and site lighting.	Minor	Screening provided by landscape plantings	Neutral
Loss of invertebrate populations through accidental pollution and / or sediment transfer	Minor Adverse (TBC)	Sediment and pollutant transfer controls in CEMP	Minor Adverse

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Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Socio-Economic			
Construction Phase			
Population – Permanent increase in population within the Study Area.	Negligible	None Required	**Negligible**
Population - Future changes	Negligible	None Required	**Negligible**
Migration - Less out migration and more temporary in migration for employment opportunities in the Study Area	Minor Beneficial	None Required	**Minor Beneficial**
Economy - Creation of £28.4 m net additional GVA within Warrington Area and the North West through construction of the scheme	High - Moderate Beneficial	None Required	**High - Moderate Beneficial**
Employment - Creation of 97 gross direct full-time-equivalent jobs – temporary construction within the Study Area and Warrington	Minor Beneficial	None Required	**Minor Beneficial**
Employment - Creation of 15 FTE indirect / induced jobs – temporary construction within the Study Area and Warrington	Minor Beneficial	None Required	**Minor Beneficial**
Employment – Direct employee training and skills development opportunities through Employment and Training Charters	Minor Beneficial	None Required	**Minor Beneficial**
Employment - Creation of 8 construction apprentices within the Study Area	Minor Beneficial	None Required	**Minor Beneficial**
Employment - Creation of 4 professional services apprentices within the Study Area	Minor Beneficial	None Required	**Minor Beneficial**
Employment - Increase of the general employment provision and opportunities within the Study Area and Warrington	Minor Beneficial	None Required	**Minor Beneficial**
Economy - Increased expenditure on local services and facilities within the Study Area and Warrington (impact on existing facilities)	Minor Beneficial	None Required	**Minor Beneficial**
Increased opportunities to use sustainable transport methods across the Study Area and Warrington	Minor Beneficial	None Required	Minor Beneficial
Increased demand for retail and leisure services within the Study Area and Warrington	Minor Beneficial	None Required	Minor Beneficial
Disruption on definitive public bridleways and public rights of way	**Minor Adverse**	Provision of a Construction Environmental Management Plan	**Negligible**
Education – Increased demand on education services	Negligible	None Required	**Negligible**
Education, Skills & Training – Employment and Training Charters	Minor Beneficial	None Required	**Minor Beneficial**
Education, Skills & Training – Employee training, increased skills training, mentoring	Minor Beneficial	None Required	**Minor Beneficial**

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
and employability programmes and apprenticeships within the Study Area and Warrington			
Health & Wellbeing – Increased demand on health services	Negligible	None Required	**Negligible**
Health & Wellbeing - Impact on members of the public during the construction period – Noise	Minor Adverse	Provision of a Construction Environmental Management Plan	**Negligible**
Health & Wellbeing- Impact on workers during the construction period – Noise	Minor Adverse	Provision of a Construction Environmental Management Plan	**Negligible**
Health & Wellbeing - Impact on members of the public during the construction period – Air Quality	Minor Adverse	Series of mitigation measures as identified within the Air Quality Paper – Wheel washing etc	**Negligible**
Health & Wellbeing - Impact on workers during the construction period – Air Quality	Minor Adverse	Provision of a Construction Environmental Management Plan	**Negligible**
Crime - Increased opportunity for vandalism, crime and anti-social behaviour	Minor Adverse	Construction Management Strategy to include on site management and security	**Negligible**
Deprivation – local economic growth, increased employment opportunities and jobs, training, mentoring and apprenticeships opportunities within the Study Area and Warrington	Minor Beneficial	None Required	**Minor Beneficial**
Image - Impact on members of the public during construction – visual	Minor Negative	Provision of a Construction Environmental Management Plan.	**Negligible**
Image - development seen as positive for the local economy and attract potential future investors and occupiers to the Study Area and Warrington	High Positive	None Required	**Moderate / Minor Beneficial**

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Socio-Economic			
Operational Phase			
Population – Permanent increase in population within the Study Area.	Negligible	None Required	Negligible
Population - Future changes	Negligible	None Required	Negligible

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Migration – Increase in temporary migration within the Study Area	Moderate Beneficial	None Required	Moderate Beneficial
Migration – Increase in temporary migration within Warrington	Minor Beneficial	None Required	Minor Beneficial
Migration – Increase in temporary migration within Cheshire	Minor Beneficial	None Required	Minor Beneficial
Increased opportunities to use sustainable transport methods across the Study Area and Warrington	Minor Beneficial	None Required	Minor Beneficial
Address need for an MSA on Region Strategic Road Network	Substantial - High Beneficial	None Required	Substantial - High Beneficial
Improve road safety and help reduce road accidents on Region Strategic Road Network	Substantial – High Beneficial	None Required	Substantial - High Beneficial
Economy – Increased economic activity through safe and efficient Region's Strategic Road Network	High - Moderate Beneficial	None Required	High - Moderate Beneficial
Economy – The development will generate approximately £1.05m in Annual Business Rates with 50% to be retained.	Moderate Beneficial	None Required	Moderate Beneficial
Economy - Enhance the locational appeal and attractiveness of the Study Area to investors and future occupiers.	Minor Beneficial	None Required	Minor Beneficial
Economy - Enhance the locational appeal and attractiveness of Warrington	Moderate Beneficial	None Required	Moderate Beneficial
Economy - Creation of £39m net additional GVA within Warrington and Cheshire through operation of scheme	High - Moderate Beneficial	None Required	High - Moderate Beneficial
Employment - Creation of 228 gross direct long-term accessible FTE jobs –within the Study Area and Warrington	Minor Beneficial	None Required	Minor Beneficial
Employment – Direct employee training and skills development opportunities through Employment and Training Charters	Local / Borough	None Required	Minor Beneficial
Employment – Creation of 4 - 5 hospitality apprentices within the Study Area	Local / Neighbourhood	None Required	Minor Beneficial
Employment - Creation of 45 indirect /induced long term accessible FTE jobs – within the Study Area and Warrington	Local / Borough	None Required	Minor Beneficial
Employment - Increase of the general employment provision and opportunities within the Study Area and Warrington	Local / Borough	None Required	Minor Beneficial
Economy - Increased additional spend on local services and facilities within the Study Area and Warrington (impact on existing facilities)	Local / Neighbourhood	None Required	Minor Beneficial

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Provision of landscaped amenity spaces and pedestrian and cycle links in the Study Area	Minor Beneficial	None Required	Minor Beneficial
Provision of links and enhance connections to wider local green network in the Study Area	Minor Beneficial	None Required	Minor Beneficial
Education – Increased demand on education services	Negligible	None Required	Negligible
Education, Skills & Training – Employment and Training Charters	Minor Beneficial	None Required	Minor Beneficial
Education, Skills & Training – Employee training, increased skills training, mentoring and employability programmes and apprenticeships within the Study Area and Warrington	Minor Beneficial	None Required	Minor Beneficial
Health & Wellbeing – Increased demand on health services in the Study Area	Negligible	None Required	Negligible
Health & Wellbeing - Provision of walking and cycling routes and enhancing green infrastructure links for members of the local community reducing health deprivation in the Study Area and Warrington	Minor Beneficial	None Required	Minor Beneficial
Crime – Reduced crime rates and crime related deprivation in the Study Area and Warrington	Minor Beneficial	None Required	Minor Beneficial
Crime - Potential increase in crime on the site	Minor Adverse	The scheme has been designed to ensure maximum overlooking of users of the development, those using the walking and cycling routes and outdoor landscaped amenity areas, thus reducing opportunities for anti-social behaviour and criminal activity. The development will be monitored by a CCTV system combined with 24-hour on-site security.	Negligible
Deprivation – Improved levels of income and employment deprivation domain, education, skills and training deprivation domain, health deprivation and disability, and crime domain indices in the Study Area and Warrington	Minor Beneficial	None Required	Minor Beneficial
Image - Improved image of the Study Area and Warrington	Moderate Beneficial	None Required	Moderate Beneficial
Image - Improved image of Warrington	Moderate Beneficial	None Required	Moderate Beneficial
Image - Improved image of Cheshire	Moderate Beneficial	None Required	Moderate Beneficial

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Noise and Vibration			
Construction Phase			
Change in baseline noise levels at existing sensitive receptor locations due to construction phase traffic	Negligible	None required	Negligible
Noise levels at existing sensitive receptor location due to construction phase activities	Minor Adverse	Best working practices	Negligible to Minor Adverse
Vibration at existing sensitive receptor location due to construction phase activities	Minor Adverse	Best working practices	Negligible to Minor Adverse

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Noise and Vibration			
Operational Phase			
Change in noise at existing sensitive receptor locations due to operational phase traffic	Negligible	None required	Negligible
Noise from the operational phase of the proposed development from proposed sources of noise	Minor adverse to Negligible (brief periods of Moderate Adverse)	None required	Minor adverse to Negligible (brief periods of Moderate Adverse)
Noise from operational phase at Hotel	Moderate Adverse	Hotel glazing and ventilation	Negligible

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Air Quality, Dust and Odour			
Construction Phase			
Change in baseline air quality at existing sensitive receptor locations due to construction phase traffic	Negligible	Ensure all vehicles switch off engines when stationary	Negligible
Change in baseline dust levels at existing sensitive receptor location due to construction phase activities	Minor Adverse	Various construction site management measures as part of the DMP	Negligible
Odour at locations where construction workers will be present, due to Restored Risley Landfill Site	Negligible	None required	Negligible

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Air Quality, Dust and Odour			
Operational Phase			
Air quality at existing sensitive receptor locations due to operational phase traffic	Negligible	Various measures within the Travel Plan	Negligible
Odour at proposed sensitive receptor locations due to Restored Risley Landfill Site	Negligible	None required	Negligible

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Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Technical Paper 9: Archaeology and Cultural Heritage			
Construction Phase			
Construction impacts to Palaeoenvironmental deposits	Minor - Moderate Adverse	Palaeoenvironmental sampling to evaluate and characterise deposits, if present	Moderate Adverse
Construction impacts to stone revetted bank along Silver Lane Brook (potential historic boundary between Holcroft and Pestfurlong estates) (WA1)	Minor Adverse	Sectioning to evaluate and record the potential for and state of preservation of remains, if any	Minor Adverse
Construction impacts to buried remains of Pesfurlong Moss Farm (WA2)	Minor Adverse	Archaeological watching brief or strip and record (whichever is appropriate and agreed) potentially after a trial trench evaluation to evaluate the presence/ absence and condition	Minor Adverse
Construction impacts to buried remains of field boundaries relating to the Tithe map of 1838	Minor Adverse	None required*	Minor Adverse
Construction impacts to enclosure (LiDAR)	Minor Adverse	None required*	Minor Adverse
Construction impacts to unknown buried remains	Minor Adverse	Palaeoenvironmental sampling to evaluate and characterise deposits, if present	Minor Adverse
Construction impacts to Historic Landscape (19th century fieldscapes)	Minor Adverse	None required*	Minor Adverse

*These impacts would not be mitigated. This is either due to the lack of importance of the receptor and/ or as a consequence of the targeting of archaeological mitigation on other assets as highlighted by discussions with Mark Leah, Development Management Archaeologist for Cheshire.

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Technical Paper 9: Archaeology and Cultural Heritage			
Operational Phase			
Effect to the setting of Holcroft Hall which would affect its heritage significance	Neutral	None required *	Neutral

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Agricultural Land and Soils			
Construction Phase			
1i) Loss of all agricultural land within the Site either to built development or permanent change of land use to non-agricultural	Minor Adverse	Not applicable	Minor Adverse
1ii) Creation of a high value ecosystem	Minor Benefit	Not applicable	Minor Benefit
2) Loss of soil resource	High to Moderate Adverse	Implementation of standard industry practice soil management measures such as those outlined in Defra's 2009 Guidance document "Construction Code of Practice for the Sustainable Use of Soils on Construction Sites".	Negligible
2) Loss of peat resource	Moderate Adverse	Implementation of standard industry practice soil management measures such as those outlined in SEPA's 2011 guidance "Restoration Techniques Using Peat Spoil from Construction Works", and the IUCN UK Peatland Programme and Yorkshire Peat Partnership's 2019, "Conserving Bogs: The Management Handbook" (2nd Edition).	Negligible
3) Damage to soil resource resulting in impairment of function, quality and resilience	High to Moderate Adverse	Implementation of standard industry practice soil management measures such as those outlined in Defra's 2009 Guidance document "Construction Code of Practice for the Sustainable Use of Soils on Construction Sites".	Negligible
4) Damage to peat resource resulting in impairment of function, quality and resilience	Moderate Adverse	Implementation of standard industry practice soil management measures such as those outlined in SEPA's 2011 guidance "Restoration Techniques Using Peat Spoil from Construction Works", and the IUCN UK Peatland Programme and Yorkshire Peat Partnership's 2019, "Conserving Bogs: The Management Handbook" (2nd Edition).	Negligible

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Agricultural Land and Soils			
Operational Phase			
Not applicable			

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Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Waste			
Construction Phase			
Construction waste requiring removal off-site for recycling and recovery	Negligible	A SMWP will be adopted to manage construction wastes. Good practice measures will be applied to minimise waste generation, including: to avoid wasteful working practices; designing out waste; effective material management; hazardous waste management; modern construction methods; sustainable procurement; and, utilising supply chain partners. Implement opportunities to minimise construction waste generation. Strive to reuse/recycle excavation and construction materials onsite. Where this is not feasible reuse/recycle on other local construction projects.	Negligible
Construction waste requiring disposal at landfill	Negligible	A SMWP will be adopted to manage construction wastes. Good practice measures will be applied to minimise waste generation, including: to avoid wasteful working practices; designing out waste; effective material management; hazardous waste management; modern construction methods; sustainable procurement; and, utilising supply chain partners. Employ measures to recycle and recover construction wastes.	Negligible
Operational Phase			
Operational waste requiring removal off-site for recycling	Negligible	A SMWP will be adopted to manage operational wastes. A commercial partner will be appointed to manage all waste and recycling disposal. Good practice measures will be employed to achieve local targets and deliver services consistent with the waste hierarchy and proximity principles, promoting re-use, recycling and composting. Minimisation of operational waste arisings.	Negligible
Operational waste requiring removal off-site for EfW or disposal to landfill	Negligible	A SMWP will be adopted to manage operational wastes. A commercial partner will be appointed to manage all waste and recycling disposal. Good practice measures will be employed to achieve local targets and deliver services consistent with the waste hierarchy and proximity principles, promoting re-use, recycling and composting. Segregation of commercial waste arisings for recycling. Appropriate internal and external storage provision to achieve 50% recycling rate.	Negligible

Nature of Impact	Significance of Impact	Mitigation / Enhancement Measures	Residual Impact
Climate Change			
Operational Phase			
The release of greenhouse gas emissions associated with the use of fuel and electricity, that will contribute to the effects of climate change.	Minor Adverse (High Negative)	Various measures outlined in the Energy Statement (Appendix 13.2). This covers aspects of building design to reduce demand, energy efficiency measures to reduce consumption and an assessment of potential viable renewable technologies that could be integrated into the building design. It was found that the size and proposed use of the site make it a feasible location to install a ground source heat pump system, either loop array or vertical borehole depending on geology and ground installation capacity, which has the potential to meet up to 48% of the site energy demand and offset 24.7% of site emissions. The implementation of renewable technology at this deployment would significantly exceed the local planning requirements set out in Policy QE1. It should be noted that these are recommendations and do not represent a formal commitment at this time.	Minor Adverse (Moderate Negative) - please see Technical Paper 13, section 9 for further explanation.

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8. Key Mitigation Measures

8.1. The evolution of the scheme has taken account of the following mitigation and as such this is inherent in the design of the proposals:

- Optimum site layout and consideration of construction phasing has resulted in minimal import and export of material during site construction and retention of material on site for re-use in construction.
- The indicative site layout (**Appendix 9**) shows that the Fuel Filling Station can be accessed close to the site entrance without having to navigate the entire site. HGV parking is located in the least obtrusive location. Car parking is to the front of the Facility Building creating a direct route towards the main entrance and the commercial units can be accessed without impacting on external amenity space. The arrangement of these elements reduces the potential for vehicular conflicts within the development site.
- Physical connections via foot and cycle paths are to be incorporated into the proposals, linking the site to the adjacent public right of way network
- Retention of existing vegetation (hedgerows and woodland belts) to the site perimeters as far as possible.
- New landscape planting throughout the Site and enhancement to the Site perimeter planting. Early establishment of this planting and habitats including native tree planting, species-rich grassland and scrub mosaic
- The Indicative Landscape Masterplan and the Biodiversity Offsetting Report indicate that approximately 0.57 hectares of woodland vegetation will be retained within the Site to be enhanced through additional planting, maintenance and management for both habitat and screening purposes.
- The Indicative Landscape Masterplan indicates that in excess of 2 hectares of tree and scrub vegetation will be planted within the Site. This will include the 1.61 hectares of mixed plantation woodland indicated within the Biodiversity Offsetting Report, smaller tree and scrub groups within and on the perimeter of car park areas. These will be maintained and managed for both habitat and screening purposes.
- Tree Protection Plans will be required to be prepared prior to construction works commencing in accordance with BS5837:2012. During the construction phase it is

important that specific responsibility for protecting and maintaining existing vegetation is identified.

- Easements provided to the high pressure gas main in line with PADHI Zone Guidance and discussions with the Health and Safety Executive.
- Silver Lane Brook diversion to enhance ecological habitats
- Peatland type habitat created to retain peat on Site and create an ecological habitat (see Section 4: Project Description for full details)
- Surface water drainage strategy to manage surface water within the Site
- Footpath diversion within the Site, within the Footpath Diversion Zone shown on the Parameter Plans (**Appendix 5**)
- Signalisation of the M62 J11 roundabout junction
- Opening of existing 'stub' to the north of the Site access junction to accommodate the Site access arm.
- Provision of pedestrian crossing and footways on eastern side of the M62 J11 roundabout, incorporated with the proposed signalisation of the junction.
- Provision of sufficient parking within the development to meet guidance in Circular 02/2013 'The Strategic Road Network and the Delivery of Sustainable Development'.
- Additional lorry parking
- The heights and scale of the development have been established by the Parameters Plan), and are 'typical' for an MSA development.
- The Indicative Site Plan takes into account topography, and considers appropriate orientation of the proposed buildings.
- The indicative scheme has sought to reflect local design characteristics through urban form and materials.
- The indicative scheme has also sought to use existing public footpaths and local footpaths to connect the Application Site to the surrounding area.
- Sensitive lighting scheme

8.2. Management Plans will be required for habitats and peat and soil handling/relocation. The objectives of these are as follows:

Habitats:

- Design the channel profile with varied bank treatments and angles to provide a greater diversity of aquatic habitats, to include shallow berms, areas of dense marginal planting, alder and willow tree plantings.
- Design the realigned section with range of features of conservation benefit including in channel features and diverse marginal habitats. These will include riffles, areas of slow/static flow, deep peaty sediment;
- Design the route the realigned section of Brook to follow a more natural 'sinuous' form (where possible);
- Include specific mitigation features for aquatic and terrestrial invertebrates (including dragonflies and damselflies) as well as enhancements for fish, kingfisher and other 'Priority' species such as water vole;
- Create a wildlife corridor - linking habitats within the biodiverse landscaped areas on Site and Silver Lane Local Wildlife Site to the north and west;
- Marshy (acid) grassland: habitats will be established especially in the margins of the brook and within the easement of the HPGM.

Creation of Peat Habitat Zone:

- The translocated peat will be subject to a different and likely variable hydrological regime and a peatland type habitat will be created with variable peat depth and topography, providing a range of micro-habitats from dry to permanently wet; creating varied habitats for a range of flora and fauna.
- Plant material from 'high quality' peatland vegetation from nearby designated sites will be sourced where possible or existing established nurseries supplying those sites where re-vegetation is taking place, to ensure plants of local provenance establish on site.
- It is expected that the peatland habitat zone will receive water both from rain and from groundwater, given that the external bunds will be semi-permeable and hence allow a degree of continuity with external hydrology. It will therefore be possible to create hollows around groundwater level and to mound areas which will become largely dry heath vegetation. By creating a diversity of topography and habitats, the area will be more resistant to seasonal change as well as climate change.

- During the management phase, parts of the peatland habitat zone would be permitted to develop natural tree and scrub regeneration, with species such as birch willow and alder likely to self-seed from surrounding habitat. This would attract species such as willow warbler, willow tit, and reed bunting. In other areas, trees and scrub may be prevented from establishing, such as parts of the developing floristically diverse heathland and near to the proposed bog pools. This would benefit species of invertebrate that are reliant on open water.

8.3. **Table 8.1** below provides an overview of the key mitigation measures to be included as part of the proposals. Full details of mitigation measures can be found within the detailed Technical Papers which form Part 2 of the ES. These mitigation measures will form part of the development proposal and can be secured by planning condition or legal agreement where appropriate.

8.4. Many of the construction effects will be managed and reduced through the implementation of a Construction Environmental Management Plan (CEMP), a framework for which is attached at **Appendix 12**. There will be a need to carefully manage the handling and movement of peat and soil within the Site. This will be controlled through a Soil and Peat Management Plan (SPMP).

Table 8.1 – Summary list of Mitigation Measures - Construction

ES Topic Area	Mitigation Measure - Construction	Implementation and Timing of Mitigation
Geology and Ground Conditions	CEMP to include: - Good practice measures - Bunded compound for fuels, oils and chemicals - Spill control and clean up measures	CEMP to be secured by planning condition and approved by WBC prior to the commencement of construction. CEMP to be implemented during construction.
	SPMP to: - Maintain the quality of peat - Engineering measures to retain peat in a stable condition	SPMP to be secured by planning condition and approved by WBC prior to the commencement of works associated with soil or peat handling on Site. SPMP to be implemented during construction.
	Further Site Investigation works	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site.
	Ground Gas Assessment	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site.

ES Topic Area	Mitigation Measure - Construction	Implementation and Timing of Mitigation
	Details and method statement for sheet piled walls for preventing movement around high pressure gas main	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.
Traffic and Transportation	CEMP to minimize the level of disruption caused during construction.	CEMP to be secured by planning condition and approved by WBC prior to the commencement of construction. CEMP to be implemented during construction.
Water Resources	SuDs or similar techniques and surface water storage to be provided as appropriate to balance storm events up to 1 in 100 year event with an allowance for climate change to be contained and managed on site	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.
	Construction in line with good practice and CEMP to: - control surface water drainage during construction - protect watercourses, groundwater and attenuation features - control release of sediment - ensure compliance with environmental permits and licenses - secure storage of fuels, oils and chemicals - integral drip trays for any static machinery/plant where practicable - Refuelling in designated areas - Pollution incident response plans - Update of water abstractions and private water supply data searches - Preparation of de-watering management plan - Management of concrete/cement mixes to prevent disposal	CEMP to be secured by planning condition and approved by WBC prior to the commencement of construction. CEMP to be implemented during construction.
	SPMP	SPMP to be secured by planning condition and approved by WBC prior to the commencement of works associated with soil or peat handling on Site. SPMP to be implemented during construction.
	Further Site Investigation works to determine if any further general pollution prevention measures and best practice design is required at detailed design stage	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site.
Landscape and Visual Impact	Maintenance and management of landscape planting (existing and proposed) – During construction	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.

ES Topic Area	Mitigation Measure - Construction	Implementation and Timing of Mitigation
	Ecological Management Plan - management of the new peatland habitat zone, brook realignment zone, existing tree lines, new woodlands and new meadows	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site associated with brook diversion and creation of Peat Habitat Zone. Details approved to be implemented as agreed.
	CEMP: - Location of material storage, cabins, vehicle storage and plant storage - Avoidance of solid hoarding - Restriction on lighting where this is practicable - Good public relations and timely notification of specific construction events	CEMP to be secured by planning condition and approved by WBC prior to the commencement of construction. CEMP to be implemented during construction.
Ecology and Nature Conservation	CEMP: - Pollution/sediment prevention measures - Updated survey of species, as required. Any change to baseline described and precautionary measures put in place - Invasive species control - Control of dust through suppression measures such as dampening down of roads and covering of storage areas - No access areas to minimize disturbance to habitats - Control of Himalayan balsam and Japanese rose, including monitoring of any regrowth and remediation action	CEMP to be secured by planning condition and approved by WBC prior to the commencement of construction. CEMP to be implemented during construction.
	Habitat Management Plan to include habitat creation and management including for the realigned Silver Lane Brook corridor. Objectives of this Plan are included above within paragraph 8.2.	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site associated with brook diversion and creation of Peat Habitat Zone. Details approved to be implemented as agreed.
	Ecological Clerk of Works (ECoW) (suitably qualified ecologist) to oversee all activities during construction	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.
	Site clearance works to be undertaken outside of usual bird breeding season (March to July inclusive) where possible. If such timescales cannot be accommodated, a check for the presence of active nests, and nesting birds would be undertaken by a suitably qualified ecologist prior to the commencement of works. Any active nests would be identified and protected subject to the relevant legal provisions until the nesting attempt is complete.	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.

ES Topic Area	Mitigation Measure - Construction	Implementation and Timing of Mitigation
	Pre-construction surveys of proposed culverted section of Silver Lane Brook (water vole)	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.
	Root protection measures, covering Root Protection Area, together with barrier protection	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.
Socio-Economic	CEMP: - To minimize disruption to PROW - Measures to manage dust - Wheel wash facilities - Measure to control noise - On site management and security	CEMP to be secured by planning condition and approved by WBC prior to the commencement of construction. CEMP to be implemented during construction.

ES Topic Area	Mitigation Measure - Construction	Implementation and Timing of Mitigation
Noise and Vibration	CEMP: - Best working practices - When works are taking place within close proximity to those sensitive receptors identified, screening of noise sources by temporary screens may be employed - All machinery should be regularly maintained to control noise emissions, with particular emphasis on lubrication of bearings and the integrity of silencers - Site staff should be aware that they are working adjacent to a sensitive area and avoid all unnecessary noise due to misuse of tools and equipment, unnecessary shouting and radios - As far as possible, the avoidance of two noisy operations occurring simultaneously in close proximity to the same sensitive receptor - Adherence to any time limits imposed on noisy works by the local authority - Implement set working hours during the week and at weekends - Ensure engines are turned off when possible - Notification to LPA of works overnight time, should these become necessary - Measures within BS5228-2 to manage vibration from piling, including: • Keeping ground borne vibration to a minimum • Substitution: Where reasonably practicable, plant and or methods of work likely to cause significant levels of vibration at the receptors identified, should be replaced by less intrusive plant/methods of working • Isolation of plant at source: This may prove a viable option where the plant is stationary (e.g. a compressor, generator) and located close to a receptor.	CEMP to be secured by planning condition and approved by WBC prior to the commencement of construction. CEMP to be implemented during construction.
Air Quality and Dust	CEMP: - Dust mitigation Plan (DMP) - Best working practice including recommendations in the IAQM Guidance for dust such as dry materials and aggregates are handled and stored appropriately and use of wheel wash - Ensure vehicles switch off engines when stationary	CEMP to be secured by planning condition and approved by WBC prior to the commencement of construction. CEMP to be implemented during construction.
Archaeology and Cultural Heritage	Palaeoenvironmental sampling to evaluate and characterize deposits if present.	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.

ES Topic Area	Mitigation Measure - Construction	Implementation and Timing of Mitigation
	Sectioning to evaluate and record the boundary between Holcroft and Pestfurlong estates.	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.
	Archaeological watching brief or strip and record (whichever is appropriate and agreed) potentially after a trial trench evaluation to evaluate the presence/ absence and condition	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.
Agricultural Land and Soils	Standard industry practice for handling of soils (Defra 2009) including: - The handling of topsoil resources only when sufficiently dry to prevent compaction and damage to soil structure; or implementing strict procedures for the wethandling of soils incorporating amelioration and restoration measures to reverse any damage which may occur for example through compaction. - The handling and maintenance of deeper peats in a wet state to prevent drying and oxidation. - The separate stripping, handling, storage and transportation of different soil layers (topsoils, subsoils and peat) and soil types if there is variation across the Site. - Appropriate seeding of soil storage mounds if required for a period longer than six months, to prevent erosion and to maintain soil structure, nutrient content and biological activity; - De-compacting of the subsoil before topsoil re-instatement; and - Minimising the number of machine movements across topsoil and defining haul routes to reduce compaction and retain soil structure.	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.
	Site specific SPMP produced by a qualified scientist: - Re-use soil where possible with any surplus topsoil removed from site and made available for beneficial reuse elsewhere - Maintain quality of peat and remains in condition suitable for re-use on Site to create a peatland type habitat	SPMP to be secured by planning condition and approved by WBC prior to the commencement of works associated with soil or peat handling on Site. SPMP to be implemented during construction.
	Standard industrial practice for handling of peat (SEPA 2011)	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works on Site. Details approved to be implemented as agreed.

ES Topic Area	Mitigation Measure - Construction	Implementation and Timing of Mitigation
	Detailed design of Peat Habitat Zone (PHZ)	Requirement to be secured by planning condition and approved by WBC prior to the commencement of works associated with handling/movement of peat on Site. Details approved to be implemented as agreed.
Climate Change (energy and sustainability)	-	
Waste	CEMP: - Implementation of measures to reduce construction waste - Strive to re-use/recycle construction materials on Site and where not feasible re-use/recycle on other local projects - Employ measures to recycle and recover waste	CEMP to be secured by planning condition and approved by WBC prior to the commencement of construction. CEMP to be implemented during construction.

Table 8.2 – Summary list of Mitigation Measures - Operation

ES Topic Area	Mitigation Measure - Operation	Timing of Mitigation
Geology and Ground Conditions	In order to mitigate the risks from leakage of fuel tanks, the installation of the tanks will be in accordance with guidance provided by the Association for Petroleum & Explosives Administration (The Blue Book). To include good site practice and the following: - The new tanks will have secondary containment measures (i.e. double skin) and will be fitted with an interstitial monitoring device with automatic alarm; - The new tanks will be fitted with overfill prevention; and - Pipework will be installed with a minimum number of joints.	Requirement to be secured by planning condition and approved by WBC prior to the construction of each phase of development. Details approved to be implemented as agreed.
	As part of the drainage system, all surface water run-off will be intercepted via surface water drains and stored temporarily in order to release to the watercourse at a slower rate (agreed greenfield rate). To mitigate the risk of substances being carried within the run-off, fuel interceptors will be incorporated within the drainage design to remove any hazardous substances which might be present. The interceptors will be subject to regular maintenance and inspections to ensure they are functioning correctly.	Requirement to be secured by planning condition and approved by WBC prior to the construction of each phase of development. Details approved to be implemented as agreed.

ES Topic Area	Mitigation Measure - Operation	Timing of Mitigation
	Gas protection measures will be incorporated into the detailed design to mitigate any risk to future occupiers.	Requirement to be secured by planning condition and approved by WBC prior to the occupation of the development. Details approved to be implemented as agreed.
Traffic and Transportation	Travel Plan. To be designed to minimize the level of vehicle trips associated with staff trips to the Development. To include: - appointment of a travel plan co-ordinator - Travel details via the Site's website, notice boards and dedicated Travel Packs for staff - Staff mini bus service between the Site and Birchwood Railway Station - Contribution towards the PROW network to the north of the M62 connecting the Site to Culcheth, as well as along Silver Lane south of the M62 Motorway and/or links that run adjacent to Birchwood Way to the south of the M62	Requirement to be secured by planning condition and approved by WBC prior to the occupation of each phase of development. Details approved to be implemented as agreed. Contributions towards off Site PROW enhancements to be secured through a S106 Legal Agreement
Water Resources	Surface water drainage details to be designed at detailed design stage to control surface water runoff and provide treatment of runoff during operation as detailed within Section 9 of the Water Resource ES Technical Paper, ES Part 2.	Requirement to be secured by planning condition and approved by WBC prior to the construction of each phase of development. Details approved to be implemented as agreed.
	Maintenance and management of all drainage systems in accordance with best practice/guidance	Extra operational and maintenance management team
	Maintenance and management plan (or equivalent) for watercourse crossing; river direction pump; SuDS pond; road condition including potholes; and drains, sewage pipes and petrol interceptors.	Requirement to be secured by planning condition and approved by WBC prior to construction. Details approved to be implemented as agreed.
	The British Standard: BS 3247:2011+A1:2016 Specification for salt for spreading on highways for winter maintenance and Highways Agency Trunk Road Maintenance Manual: Volume 2 – Routine and Winter Maintenance Code, should be following for the use of de-icing and storage of salts onsite.	Requirement to be secured by planning condition and approved by WBC prior to the occupation of each phase of development. Details approved to be implemented as agreed.
Landscape	Maintenance and management of landscape planting (existing and proposed) – Landscape and Habitat Management Plan outlining works for a 15 year period	Requirement to be secured by planning condition and approved by WBC prior to the occupation of each phase of development. Details approved to be implemented as agreed.

ES Topic Area	Mitigation Measure - Operation	Timing of Mitigation
	Ecological Management Plan - management of the new peatland habitat zone, brook realignment zone, existing tree lines, new woodlands and new meadows	Requirement to be secured by planning condition and approved by WBC prior to the commencement of construction on Site. Details approved to be implemented as agreed.
Ecology and Nature Conservation	Sensitive lighting scheme along the diverted brook corridor	Requirement to be secured by planning condition and approved by WBC prior to the installation of lighting for each phase of development. Details approved to be implemented as agreed.
	Habitat Management Plan to include - Programme of vegetation monitoring to consider any remedial action to ensure the development of wildlife corridor habitats along the route of the diverted Silver Lane Brook corridor. Including checks to hrydrological conditions o relocated peat deposits, to ensure they remain wet, and develop a typical peatland flora. Species composition of newly created habitats will be monitored by vegetation survey.	Requirement to be secured by planning condition and approved by WBC prior to the commencement of construction on Site. Details approved to be implemented as agreed.
Socio-Economic	On site security	Implemented by Applicant during operational phase.
	Local Employment Agreement	Requirement to be secured by planning condition and approved by WBC prior to occupation. Details approved to be implemented as agreed.
Noise and Vibration	Standard thermal double glazing to hotel bedrooms with acoustic ventilation to comply with Building Regulations	Requirement to be secured by planning condition and approved by WBC prior to the occupation of the hotel. Details approved to be implemented as agreed.
Air Quality and Dust	Travel Plan to minimize level of vehicular use associated with staff trips. Appointment of a Travel Plan Co-ordinator. Promote travel details via Site's website, on notice boards and in dedicated Travel Packs for staff.	Requirement to be secured by planning condition and approved by WBC prior to the occupation of each phase of development. Details approved to be implemented as agreed.
Archaeology and Cultural Heritage	Detailed design considerations associated with: - landscape planting to eastern boundary - retention of existing trees and vegetation to the eastern boundary - building design to reflect local building typologies e.g. agricultural building typology with mass broken down through form - lighting to conform to best practice	Requirement to be secured by planning condition and approved by WBC prior to construction of each phase. Details approved to be implemented as agreed.

ES Topic Area	Mitigation Measure - Operation	Timing of Mitigation
Agricultural Land and Soils	See Ecology and Nature Conservation (Landscape and Habitat Management Plan)	See Ecology and Nature Conservation (Landscape and Habitat Management Plan)
Climate Change (energy and sustainability)	Measures implemented to meet policy requirement of 10% of site energy demand from renewable technology, e.g. ground source heat pumps operating on grid electricity	Requirement to be secured by planning condition and approved by WBC prior to construction of Facilities Building. Details approved to be implemented as agreed.
Waste	Minimisation of operational waste and segregation of commercial waste arising from recycling. Provide appropriate internal and external storage provision to achieve 50% recycling rate	Requirement to be secured by planning condition and approved by WBC prior to occupation. Details approved to be implemented as agreed.

8.5. Monitoring of elements of mitigation will be as follows:

- Ecology – vegetation and habitat – Measures and Monitoring requirements will be set out within the Landscape and Habitat Management Plan
- Ground gas – monitoring will take place as part of detailed design proposals to inform gas protection measures

9. Interaction of Effects and Cumulative Impact

9.1. In respect of the assessment of cumulative effects, Schedule 4 of the EIA Regulations states that an Environmental Statement must include a description of the likely significant effects of the development on the environment resulting from '*the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources*' (Schedule 4 (5)(e)).

9.2. In respect of the assessment of the interaction of effects, Regulation 4 (2) of the EIA Regulations requires a description and assessment in an appropriate manner, of the direct and indirect significant effects of the proposed development on the interaction of the factors assessed within the ES (i.e. population and human health; biodiversity; land, soil, water and climate; and material assets, cultural heritage and the landscape).

9.3. For the purposes of this ES we define the cumulative and the interaction of effects as:

> ***'Those that result from additive impacts (cumulative) caused by other existing and/or approved projects together with the project itself and the synergistic effects (in-combination) which arise from the reaction between impacts of the project on different aspects of the environment.'***

9.4. The additive impacts and their effects and the synergistic effects are considered in turn below.

Additive Impacts (Cumulative Impacts and their Effects)

9.5. The developments that are likely to have a cumulative impact when considered with the proposed development have been scoped with the Local Authority and Key Consultees during the preparation of this ES in order to produce a list of agreed projects to be considered cumulatively.

9.6. The following table includes the list of cumulative developments that are to be assessed in this ES. As per the EIA Regulations, these include other existing and/or approved projects and as such, those with planning permission that are not yet built, in the vicinity of the Application Site. The exception to this is the consideration of HS2. Ordinarily, projects that are not committed development (i.e. those that do not have the benefit of planning permission), or not reasonably

foreseeable, would not be included within the cumulative assessment. However, in this instance, given the national significance of the HS2 proposals, and the location of the potential future HS2 railway line proposed to the land immediately to the north, but outside of, the Proposed Development, HS2 will form part of the cumulative assessment, based on the information that is available to date. However, it should be noted that the Proposed Development would be constructed and operational at a similar time to the current identified advanced works for HS2, which are programmed ahead of HS2 construction works. It should also be noted that there is limited information available for the HS2 project and as such any assessment undertaken is based on the information that is available to date and, in many instances, can therefore only be a high level qualitative assessment. Where there is not sufficient information available or the proposals are not relevant to the other technical areas, a cumulative assessment has not been undertaken.

9.7. The Traffic data utilised in the Traffic and Transport, Noise and Air Quality Assessments as part of the main environmental assessment of the Proposed Development has assumed a number of committed developments as part of the future baseline traffic flows. This includes the Birchwood Park developments (numbers 1 and 2 in the table below). Whilst no background growth was applied for the turning movements at Junction 11 of the M62 Motorway, due to consideration of the Birchwood Development; the traffic data assumed traffic growth for more distant developments by applying factors calculated from Tempro to the M62 Motorway mainline traffic. This therefore takes account of any influence on growth resulting from improved network capacity (for example, in the North West this includes the Smart Motorway scheme on the M6 Motorway and M62 Motorway). This assessment does not therefore need repeating for the cumulative assessment, as it already features in the environmental assessment for the Development Proposals.

9.8. The agreed list of cumulative development is shown in the table below These are also shown geographically on the plans included at **Appendix 14:**

	Cumulative Development	Status	Technical Areas to consider cumulative development	Technical Areas where cumulative development is not relevant
1	The Quadrant, Cavendish Avenue, Birchwood Park, Warrington, WA3 6AE Application Ref: 2014/23358	Seven units for general industry and/or warehouse/distribution (Use Class B2 and/or B8) Area 7 of 3.64ha site area 12,225m^2 of development Within area 7 of original outline permission g Planning Permission Granted 12-08-2014	- Socio Economic - Waste - Air Quality (dust and PM_{10} during construction) - Noise (during construction)	Traffic and Transport, Noise and Air Quality consider the impacts of traffic associated with the committed development within the main assessment, so it is not reconsidered as part of the cumulative assessment. Given the distance from the site, its detachment from the site and context set within an industrial estate, it is not relevant to the following technical areas: - Ground Conditions and Contamination - Water Resources - LVIA - Ecology and Nature Conservation - Cultural Heritage and Archaeology - Agricultural Land and Soils - Climate Change
2	Eastern Edge of Birchwood Park Plots 107, 300, 501-502, 611-612, 701-702 and Quadrant, Birchwood Park, Warrington, WA3 6AE Application Ref: 2015/26044	Part developed. Outline Planning Permission Granted 29-10-2015 (10 year permission) Demolition of existing buildings and erection of new buildings for a combination of offices (B1); light and general industrial (B1/B2); warehousing development (B8) and ancillary retail/ financial & professional services/ non-residential institutions/ assembly and leisure (A1/A2/D1/D2) floor space.		
3	HS2 (adjacent to the Site)	Land safeguarded for the HS2 route Government consultation. Current programme: Advanced works Q4 2022 Development Q4 2024 Commissioning Q4 2031 – Q3 2033	- Water Resources - Ecology and Nature Conservation - Agricultural Land and Soils (construction) - LVIA - Cultural Heritage (construction) - Socio Economic - Air Quality (construction)	- Traffic and Transport (construction – lack of available information for traffic movements) - Air Quality and Noise (in respect of traffic movements associated with construction due to the lack of information available) - Noise (HS2 is considered in main assessment, so not reconsidered as part of the cumulative) - Waste - Geology and Ground Conditions - Climate Change

Table 9.1: List of Potential Cumulative Development

Description of Cumulative Activities

9.9. This Statement has sought to consider cumulative effects in a number of ways. The Technical Papers in Part 2 of the ES have considered the cumulative effects relating to the particular topic being discussed. The cumulative assessments are therefore set out in greater detail in Section 10 of each of the technical papers in Part 2 of the ES. This section however provides an

overview of the cumulative assessments undertaken as part of the environmental assessment work.

Construction

9.10. The socio economic cumulative effects of the Proposed Development with the development at Birchwood Park (numbers 1 and 2 on the above table), should they come forward in the same timescales, will result in an overlap in temporary short term construction employment and an increase in economic output. There are also additional training and apprenticeship opportunities. These are all positive cumulative effects.

9.11. The developments at Birchwood Park would directly increase the waste generated at construction phase and it is reasonable to expect a percentage to go to off-site recycling and a percentage for disposal at off-site landfill. However this is not considered to be significant and as such would have a minor adverse cumulative effect as a worst case, as not all the developments would come forward at the same time as the Proposed Development.

9.12. Construction effects associated with dust and PM_{10} are considered unlikely to have a cumulative effect with the proposed development due to the distance of receptors from the Birchwood Park sites, HS2 and the Proposed Development Site. With appropriate mitigation in place for each development, any cumulative effects are considered to be no more than negligible and as such not significant. Construction effects associated with noise will be short term and appropriate mitigation measures implemented to reduce any noise and vibration impacts. Construction works are also mobile and transient and as such noise sources move around the Site, depending on the area of the Site undergoing construction works. Due to the distance and relationship of the developments to receptors, the effects of noise will be no higher than assessed as part of the main assessment for the Application Proposals and as such negligible to minor adverse.

9.13. With regard to HS2, the socio economic cumulative effects would be a greater level of employment in the short term, as well as extending into the medium term, which is a positive cumulative effect. However, given the expected construction period for HS2, it is not expected to overlap significantly with the MSA development.

9.14. The cumulative effects of construction traffic with HS2 is difficult to assess at this stage as HS2 are yet to undertake a quantitative assessment and as such there are no traffic data available.

9.15. HS2 consider environmental impacts at a Community Level, for which the Community Area MA04: Broomedge to Glazebrook is relevant to the Proposed Development. The cumulative effect of the Proposed Development and HS2 would result in a loss of more than 20ha of agricultural land (the total potential agricultural land take at the local scale as a result of the Proposed Development (11.7 ha), and HS2, (63 ha, HS2 2018) would be 74.7 ha). Of this, more than 20ha is likely to be BMV quality (the total potential BMV agricultural land take at the local scale as a result of the Proposed Development (10.2 ha) and HS2 (44.0 ha, HS2, 2018) would be 50.2 ha.). 20 ha is the level of loss that Natural England identify as requiring consultation with them as a key strategic consultee. As such the scale of the environmental impact could be considered to be substantial adverse and as such significant. However the impact of HS2 alone on the loss of BMV land would be substantial adverse, whereas the Proposed Development, on its own, minor adverse.

9.16. The information available in the Working Draft ES for HS2 indicates a satellite construction compound located to the north of the M62 Motorway and to the east of the Application Site. Advance works for HS2 are predicted to commence autumn/winter 2022. At this point it is predicted that the construction phase for the MSA will be complete. It is therefore unlikely that the proposed cumulative development, when assessed in combination with the proposed MSA, will alter the predicted effect on landscape and visual receptors in the short term.

9.17. There is the possibility of cumulative effects on the water environment when two or more developments are constructed within the same catchment at the same time. Where the Proposed Development construction may overlap with the construction of HS2, there are potential for cumulative effects in respect of accidental release of oil, fuel and other pollutants as well as the release of sediments from earthworks. However, it can be assumed that HS2 will be constructed in line with best practice and that a CEMP, or equivalent, will be implemented. Therefore the potential construction cumulative effects arising from HS2 and the Proposed Development are considered to be negligible.

9.18. For ecological receptors, a potential short overlap in construction timescales for HS2 and the Proposed Development may result in increased pressure, particularly for breeding birds and overwintering bird populations. Such cumulative impacts are not considered to be significant however, given the wide availability of similar habitats (arable land) within the Borough, although there would be an anticipated cumulative loss of available habitat.

9.19. In terms of archaeological sites, cumulative impacts will principally arise where each development removes individual areas of preserved archaeological remains (identified as construction impacts as part of this Technical Paper) resulting in a gradual erosion and fragmentation of the total archaeological resource of the region in the long term. Development would contribute to the cumulative physical loss of archaeological remains from development in general within the region. However, in all cases of development, if necessary, this would be offset by the contribution made to archaeological understanding of the area through evaluation/excavation and recording. This does not constitute 'substantial harm' and on the scale of 'less than substantial harm' it is minimal.

9.20. In considering cumulative effects, it should be borne in mind that all developments should have a construction management plan or construction environmental management plan in place to manage and mitigate the effects of individual developments. This should also include a dust management plan and soil management plan where relevant. All development would need to manage their individual surface water and impact on water quality and ground water. Where relevant archaeology should be excavated/evaluated and recorded, which increases understanding. As such cumulative effects are managed and mitigated as far as possible, which will have the effect of minimizing the cumulative effects of the developments.

Operation

9.21. The socio economic effects of the Proposed Development with the development at Birchwood Park, would create additional GVA and employment within the economy, both of which would have a positive effect. In terms of HS2, with a station at Warrington Bank Quay, the benefits for Warrington and the Region as a whole are beneficial in terms of the town and regional status and the ability to attract further inward investment. This is beneficial in the longer term.

9.22. The developments at Birchwood Park would generate commercial waste during their operational phase and it is reasonable to expect a percentage to go to off-site recycling and a percentage for disposal at off-site landfill. However this is not considered to be significant and as such would have a minor adverse cumulative effect as a worst case.

9.23. The cumulative impacts of operational noise with the development at Birchwood Park and the Proposed development is considered to be no more than negligible to minor adverse.

9.24. During operation of the MSA, HS2 will still be under construction. Passing the Site, HS2 will be on an embankment. In terms of the effect on National Character Areas NCA 60: Mersey

Valley, landscape effect, landform/topography, vegetation (including grassland, woodland and hedges), PROWs (nos. 13, 27 and 28) and the effect on land use pattern and farming, whilst further affected by HS2, the cumulative effects are unlikely to increase from that assessed for the main assessment and as such remain not significant in the local context.

9.25. There is the potential that cumulative effects on the County Landscape Character Area, views from the nearest settlements of Culcheth and Gorse Covert, water bodies and drainage systems, wider greenspace network, heritage designations and environmental designations are likely to increase, but that these will still remain not significant in the local context.

9.26. View Points VP4, VP6, VP7, VP10, VP14 and VP16 will experience views of both development and are unlikely to change from that assessed within the assessment of the Proposed Development, given the local neighbourhood value and as such will reduce from moderate adverse to minor adverse over time as vegetation establishes. Whilst VP1 will experience views from within 1km of the HS2 works, it is likely that this will screen the view from the northeast and east of the MSA. (View Points shown on LVIA Key Receptor Plan within **Appendix 6**).

9.27. During operation, the HS2 project is likely to give rise to cumulative effects with the Proposed Development, however these are largely relating to surface water drainage regimes. It has been assumed that the HS2 project will take into account surface water drainage within the Glaze Brook catchment e.g. by discharges and outfalls being restricted to the greenfield runoff rate and the use of SuDS, where applicable. Therefore, the potential operational cumulative effects arising from HS2 and the Proposed Development are considered to be negligible.

9.28. The HS2 construction would continue through the 6-10 year 'medium term' period and would result in the permanent loss of mainly arable habitats associated with notable and protected species, but especially breeding and wintering birds. However, the MSA Development will be completed and operational at this time, and hence there will be a benefit to many species, including breeding birds via the enhancements to the re-aligned Brook corridor. The combined loss in bird overwintering (arable) habitat would increase the pressure on the wider habitats, however it should be noted that there are widespread alternative provisions elsewhere in the borough. It should also be noted that there is currently limited information available to make the assessment and hence confidence levels are low.

9.29. In the longer term the operational impacts of both developments would result in an additive effect via disturbance to a range of ecological receptors, this may lead to displacement of

breeding and wintering birds and minor displacement of foraging and commuting bats. As the MSA proposals will be fully mitigated, the impacts of the HS2 development are anticipated to be not significant once mitigation/compensation has been applied, hence additive effects will be of limited significance overall. At the time of writing no confirmation of mitigation/compensation proposals is available and therefore no detailed assessment can be undertaken.

9.30. In terms of cultural heritage, this paper has assessed that the impact of the Proposed Development on the setting of designated heritage assets would be neutral; it having been assessed that the Site does not currently contribute towards the significance of any designated heritage assets. As such, no cumulative operational impacts would arise from the implementation of the Proposed Development and HS2.

9.31. In considering cumulative effects, it should be borne in mind that all development will have to manage and mitigate their effects and that long term management plans relating to landscape and habitats should be implemented.

Summary

9.32. Socio economic cumulative effects are considered positive in terms of job creation, inward investment and business rates generated. Whilst the cumulative effect of developments could reduce the total archaeology resource in the area, mitigation would be in place for each development to evaluate/excavate and record, thereby increasing understanding. Views would change, but these would be managed with planting, which matures over time.

9.33. Although there would be a cumulative loss in habitats, the effect on species is not considered to be significant.

9.34. Cumulative effects in terms of waste, noise, air quality, water resources are considered to remain as assessed through the main assessment and are therefore not considered to be significant.

9.35. The cumulative loss of agricultural land, especially BMV land is considered significant. However, it should be noted, that the loss for the HS2 development alone is significant, but for the Proposed Development, it is not considered to be significant.

Synergistic Effects (In-Combination / Interaction of Effects)

9.36. This section considers how the various factors associated with the site will interact across both the construction and operational phases.

9.37. Through scheme evolution, close working within the Client and Consultant Team and through regular Design Team Meetings, the various interactions and in-combination effects arising from the proposed development have been considered fully and discussed at length to ensure any synergistic effects resulting for the proposed development are minimal and addressed through mitigation as necessary to minimise and manage any impacts and their effects. In some instances they have resulted in amendments to the scheme proposals and this is reported through Section 4 of the ES (Alternative Development Options) and Section 6 of each of the Technical Papers within Part 2 of this ES. Considerations associated with the peat underneath the Site, drainage, ecological and landscape matters have had a significant influence on the evolution of the Development Proposals, both at construction and operational phases. This has been to ensure matters associated with biodiversity enhancements and the brook diversion, along with retention of peat on Site to create a peatland type habitat can be achieved alongside the Development Proposals. As well as looking to secure long term enhancement both through retention of vegetation and new planting. Management of the landscape and habitats is also proposed through a Landscape and Habitat Management Plan. A summary of these interactions is also included within this section.

9.38. There are two key areas of interactions which are likely to occur, these being:

- Interaction of construction effects – related impacts in terms of ground, water resources, ecology and agricultural land and soils (including peat); air, noise and traffic; landscape, ecology and drainage; and cultural heritage and landscape.
- Interaction of operational impacts – related impacts associated with those arising from the proposed land uses for the site focusing upon traffic and consequential noise and air implications; landscape, ecology and drainage.

9.39. These are discussed in more detail below.

9.40. The different types of receptors are categorised as follows:

- Humans- (a) long term human receptors- residents, business users; and (b) transient human receptors, including pedestrians, cyclists, drivers and public transport users, construction workers.
- Property- residencies and business uses.
- Ecological- habitats, including protected sites or species.
- Agricultural land, peat and soil
- Historic Environment– heritage assets
- Landscape - character areas
- Controlled waters- surface waters like water courses or groundwater (aquifers).
- The economy
- Local waste infrastructure i.e. landfills, recycle and recovery facilities

9.41. Where all individual residual effects associated with a single receptor group are neutral or negligible there is no requirement to consider in-combination effects as these effects would not be significant. Where at least one effect on a receptor, after mitigation measures are determined, is minor adverse, or greater, then all identified effects (including neutral or negligible) should be reviewed to determine whether there are likely to be in-combination effects upon this particular receptor.

9.42. These are considered for construction and operational stages below.

Construction

9.43. The table below identifies the worst residual outcome for each of the technical assessments in respect of each of the receptor categories for the construction phase of the development. "A" refers to Adverse and "N" refers to Neutral / Negligible as shown below:

A	Adverse effects
N	Neutral / Negligible effects
B	Beneficial effects

Receptor Category	Ground Conditions and Contamination	Traffic and Transport	Water Resources (Drainage and FloodRisk)	Landscape and Visual Impact	Ecology and Nature Conservation	Agricultural Land and Soils (including peat)	Socio Economic	Noise and Vibration	Air Quality and Dust	Cultural Heritage and Archaeology	Waste	Climate Change (Energy and	Synergistic Effect
Humans	N	N		A			N / B	A	N			A	Yes
Property	N												No
Ecology					A	B							Yes
Agricultural Land and Soils (including peat)	N		N/A			A							Yes
Historic Environment				A						A			Yes
Landscape				A									No
Controlled Water			N										No
Economy							B						No
Local Waste Infrastructure											N		No

Table 9.3: Possible Synergistic Effects during Construction

9.44. From the above tables it can be seen that for the construction phase human, ecology, agricultural land (including soils and peat) and the historic environment are most likely to be subject to synergistic effects. These are considered below.

9.45. As set out within the Project Description (Section 2 of this ES Part 1 Report), the Proposed Development will be undertaken in a series of phases. This will start with the Enabling Phase, which will create the access to the Site and a development platform for the future development.

To facilitate this, the Enabling works will start with the installation of the retaining structure required for the gas pipe line (driven sheet piling). Other works will follow, such as those associated with soil stripping, removal of peat to the Peat Habitat Zone to create a peatland type habitat area, cut and fill works, drainage and creation of the Silver Lane Brook Corridor to enable the diversion of this brook. The footpath diversion will also take place at this stage to ensure the continued route for users of the PROW. Strategic landscape planting and establishment of ecological areas will be early works within the Site to ensure ecological habitats can become established.

9.46. The future car parking areas being used for storage and construction related facilities and will come forward for development as and when available to form the parking areas. Works associated with the vehicle parking, internal access roads, Facilities Building, Hotel and FFS will follow, with soft landscaping around these areas.

9.47. The construction phase for the proposed development is relatively short (12 to 18 months) and therefore temporary.

9.48. The greatest perceived interaction of effects at the construction phase results from the enabling works such as the creation of the peatland type habitat earth works and development platforms, as well as the physical activities associated with the construction of buildings and parking areas. As such the interaction of effects associated with ground, drainage and agricultural land, soils and peat are most likely for the works associated with the creation of the peatland type habitat, having an impact on the agricultural land, soils and peat receptors. Whereas the interactions of effects associated with ground, agricultural land (including soil), landscape, ecology, drainage and resulting traffic, noise and air quality (including dust) effects of traffic generated associated with all of the construction activities, will have an impact on human receptors and the historic environment.

9.49. The interaction during construction in respect of ground, landscape, agricultural land, soil and peat, water resources and ecology creates opportunities to enhance the existing landscape and to provide ecological benefits whilst also providing a managed surface water regime for the site. The extent of earthworks has also been balanced against the resulting development and how it will operate and to also minimise the import and export of material. This has also been balanced against the need to maintain existing landscaping and ecological habitats and the mitigation to provide new planting and ecological habitats that also incorporates the opportunity to create

betterment in respect of the new corridor for the diverted Silver Lane Brook and also peatland type habitat area to secure the greatest short term and longer term benefits.

9.50. There will be a loss of agricultural land, however the soil will be kept and re-used on site as far as is possible and there will be the ability to retain the peat that is currently under the Site to create a long term peatland type habitat, which is of benefit and prevents the continual degradation of the peat on Site resulting from its current agricultural use.

9.51. The use of material on Site as far as possible to create habitats and provide development platforms is also beneficial in that it minimises the need to import and export material as far as possible, thereby minimising traffic movements and consequential impacts on air quality, noise, energy and waste generation. The impacts will also be controlled through the implementation of a Construction Environmental Management Plan.

9.52. The proposed earthworks during the construction phase have been considered within the noise and air quality assessments and appropriate mitigation proposed to sufficiently manage any likely impacts. All impacts associated with Air Quality and Dust are therefore considered to be negligible. Those associated with noise are negligible, although there are likely to be short term increases in noise levels above the recommended noise limits, dependent on the construction activities and will be at different locations within the Site as the Site is developed. These will all be mitigated, by managing, and where possible reducing any resulting impacts through good working practices and the implementation of the Construction Management Plan. The sensitive human receptors are located at a distance from the Site, with the closest being approximately 290m away with the M62 Motorway running between them and the Site. All effects are considered not to be significant.

9.53. Whilst there are adverse effects assessed on historic environment receptors, the likely interaction of effects associated with these are minimal. Those associated with potential buried archaeology are minor adverse, and where required a watching brief or palaeoenvironmental sampling is proposed. However, in this instance the effects are limited to the historic environment and the receptors, if present, are considered of local importance. In respect of Heritage, the effects on Holcroft Hall are considered to be limited to landscape and visual and are considered negligible.

9.54. Much of the mitigation proposed is designed to address a number of interacting environmental impacts and as such will be multi-functional reducing the majority of the likely impacts to

negligible and minor adverse in their significance on human, ecological, landscape and soil and peat receptors.

9.55. This includes the following:

- A Construction Environmental Management Plan (CEMP) and best working practices will be implemented to ensure that the construction impacts are controlled and minimised. A Construction Management Plan Framework is included at **Appendix 12**.
- Soil management measures implemented through a Site specific Soil Management Plan (SMP) (or similar) to be produced by a qualified soil scientist prior to construction, will ensure that the quality of these soils is maintained and they remain in a condition suitable for reuse, either on or off Site. Maintenance of soil quality will also ensure that the soils are able to continue to effectively deliver a range of Ecosytem Services on replacement. The reuse of these soils within the Site will be maximised as far as is practicable.
- A Landscape and Habitat Management Plan will be implemented to deal with matters such as habitat creation and management, as well as mitigating the loss of any habitats during construction. In particular this is relevant to the Silver Lane Brook diversion and creation of a new brook corridor, as well as the creation of the peatland type habitat area. A Framework for the Habitat Management Plan is included at Appendix 5.10 of the Ecology and Nature Conservation ES Technical Paper, ES Part 2.

9.56. In addition to the short term impact of construction, there are however some counterbalancing socio economic beneficial impacts that are largely considered to be minor beneficial in respect of new jobs becoming available in the construction sector that are both direct and indirect and have employee training and skills development opportunities. There will also be increased spending locally, inward investment and increased GVA, all of which is beneficial to Warrington and the Region, having minor benefit to high benefit effects, some of which are considered significant beneficial effects. It is also considered that there would be a minor to moderate beneficial effect on image in terms of the development being seen as a positive for the economy and attract further future investors to the area.

9.57. There are also some ecological impacts that are considered minor beneficial in terms of habitat in respect of the creation of a wildlife corridor and diversion of Silver Lane Brook.

9.58. The synergistic effects are therefore not considered to be any greater for any of the receptors than those already assessed individually within the ES. Furthermore, the construction phase is temporary for a period of 12 to 18 months and as such, meaning different parts of the Site will be worked at different times, which aids to manage the combinations of effects on any one receptor.

Operation

9.59. The table below identifies the worst residual outcome for each of the technical assessments in respect of each of the receptor categories for the operation phase of the development. "A" refers to Adverse, "N" refers to Neutral / Negligible, and "B" refers to Beneficial.

A	Adverse effects
N	Neutral / Negligible effects
B	Beneficial effects

Receptor Category	Ground Conditions and Contamination	Traffic and Transport	Water Resources (Drainage and Flood Risk)	Landscape and Visual Impact	Ecology and Nature Conservation	Agricultural Land and Soils (including peat)	Socio Economic	Noise and Vibration	Air Quality and Dust	Cultural Heritage and Archaeology	Waste	Climate Change (Energy and Sustainability)	Synergistic Effect
Humans	N	A (N / B)*		A			N / B	A	N			A	Yes
Property	N												No
Ecology			B		N								Yes
Agricultural Land and Soils (including peat)	N		B										Yes
Historic Environment				A						N			Yes
Landscape				A									No
Controlled Water			A		N								Yes
Economy							B						No
Local Waste Infrastructure											N		No

Table 9.3: Possible Synergistic Effects during Operation

*A High Adverse effect has been assessed in respect of traffic and transport and relates to accidents and road safety at M62 J11. However this is a result of two of the observed accidents informing this significance of effect which involved drivers under the influence of alcohol and not therefore as a result of road safety at this junction. When these two accidents are excluded from this analysis, the assessment gives a negligible result. As such this is the effect considered in the assessment of synergistic effects.

9.60. From the above tables it can be seen that for the operational phase human, ecology, agricultural land (including soils and peat), the historic environment and controlled waters are most likely to be subject to synergistic effects. These are considered below.

9.61. Taking the likely effects associated with human receptors, many of the environmental impacts during the operation phase have been assessed as being negligible after mitigation. These are particularly in relation to ground, air quality, socio economic and, for the reasons specified in the asterisk under Table 9.3 above, traffic and transport.

9.62. Where effects are considered to be greater than negligible, these relate to noise associated with the operation of the MSA within the Site, with minor adverse being identified after mitigation for receptors ESR1, 2, 3 and 5 (see plan at **Appendix 6** for key receptors), and effects associated with ESR4 (i.e. Gorse Covert to the south of the M62 Motorway), being assessed as moderate adverse of short duration and at night time. Air quality and odour effects at receptors are considered to be negligible. When noise, air quality and odour are considered together in respect of the human receptors in this location, it is not considered that there is likely to be any greater impact on the receptors than individually assessed through each technical area within the ES. In addition, the M62 Motorway runs between these receptors and the Site and as such acts to segregate the receptors from the Site.

9.63. The impact of the operational traffic will have implications for noise and air quality, however this is associated with the diversion of traffic wanting to use the MSA and its facilities from the Strategic Highway Network. The traffic and transport, noise and air quality impacts are however assessed as negligible in this respect.

9.64. The benefits arising for human receptors when assessing road safety and accidents on the strategic highway network between existing services is minor to moderate beneficial in traffic and transport terms and substantial to high beneficial in socio economic terms, due to addressing a long standing gap in motorway service area provision in the Region. This is a significant benefit addressing four of the gaps identified in the Region.

9.65. Whilst the development of the Site will result in a change from an agricultural field to development in a landscaped setting, the effects on people using the PROW and having views from other areas, including footpath, places of work or transport corridors would reduce to minor adverse over time, as vegetation becomes established. Furthermore, the proposed improvements to pedestrian crossing facilities at M62 Motorway Junction 11 will provide an

enhanced environment for pedestrians and better link PROW and other footpaths, as well as accessibility to the Site. Long term management of proposed and existing landscape planting and ecological habitats, has long term benefits for the Site and the area.

9.66. In respect of the peat receptor, there are inter-related ground and drainage benefits associated with the creation of a peatland type habitat. There is also an ecological enhancement benefit from the creation of the peatland type habitat that would not otherwise be realized without the Proposed Development, and which has long lasting benefits through long term management proposals.

9.67. Impacts on controlled waters are managed through mitigation to ensure the effects associated with storage of fuel and chemicals and the de-icing of roads, walkways and parking areas are minimal. All other effects associated with creating new drainage regimes within the Site, brook diversion and water crossings are considered to be negligible.

9.68. In respect of heritage, the effects on Holcroft Hall are considered to be negligible for landscape and visual impact, with planting proposed which will mature over time. In respect of heritage and the setting of Holcroft Hall, there is not considered to be any impact as a result of the Proposed Development.

9.69. Effects associated with Climate Change are adverse and due to the approach taken to assessment, comparing the baseline position of the Site as an agricultural field with the Proposed Development, any change to the baseline conditions is considered significant to a variety of receptors, including human and ecological. This would be the case with any development of an agricultural field. However it is minimized as far as possible with the mitigation proposed and the generation of energy from renewable sources far exceeding the planning policy position through the use of ground source heat pumps (or other renewable energy or low carbon measures that will be considered further through detailed design). The below risk matrix identifies the interaction with ecology, flood risk and air quality and the mitigation proposed:

	Impact of Climate Change	Contribution to Climate Change
Ecology	Climatic changes significantly impact upon both flora and fauna by potentially inhibiting internal biological processes and through indirect consequences such as habitat loss, food resource depletion and water scarcity/flooding. Most species survive within a defined ecosystem and are put at risk when changes occur faster than evolution or behaviour can adapt. This can result in increased displacement, maladaptation, disease and/or mortality.	Reduce the urban heat island effect which can include planting deciduous trees and increasing the availability of green and blue spaces. The use of water features and vegetation to improve landscaping can provide a cooling effect as well as providing insects, invertebrates, small mammals and humans shading from the elements. Additionally, the increase of green infrastructure contributes to the sequestration potential of the Proposed Development, where features will actively absorb a small portion of carbon emissions produced on site.
	Mitigation/Adaptation: The Silver Lane Brook flows within a very flat (in places almost static) channel with the proposal to divert to instead follow the southern, eastern and northern boundaries prior to re-joining the existing channel beyond the eastern corner of the application site. The re-design of the channel profile will provide a greater diversity of aquatic habitats including shallow berms, marginal planting, alder and willow tree plantings. The Framework Habitat Management Plan includes the reversion of existing arable land into biodiverse habitats. This will be a combination of water features and green infrastructure to form marshy grassland, shallows pools/ponds, trees and woodland, and flower rich grasslands. Planting will need to take into consideration the future climatic changes to the currently high water table. The proposed SuDS strategy and purposed landscaping should ensure the site is resistant to droughting conditions and ecological habitats are likely to continuing thriving.	
Flooding	There is projected increased precipitation rates over the construction and operational period of the Proposed Development as a result of climate change, which could present an increased risk of flooding.	Flooding itself does not directly exacerbate or contribute to climate change, especially in short-term events. However, the detrimental effects of prolonged, sustained and/or heavy flash flooding on ecosystems could be considered an indirect impact. This could include the loss of vegetation due to storm damage, root saturation/ hypoxia or the formation of water logged soils resulting in a change of carbon sequestration potential. On a localised level large bodies of wadies of water can impact albedo, evaporation and the urban island effect.
	Mitigation/Adaptation: The Flood Risk Assessment has shown the site is at low risk of fluvial, pluvial and groundwater flooding and is not within proximity of the tidal reach of any watercourse. Nearby drainage systems on the restored Risley Landfill site were designed for a 1 in 100 year event with a 10% allowance for climate change. Biffa are assessing improvements to the surface water management of this neighbouring site to provide a 40% climate change allowance. The surface water storage design for the proposed development has utilized a 20% climate change allowance on peak rainfall intensity as per Environment Agency guidance. It is considered that there is an overall reduction in on and off-site flood risk achieved by reducing existing surface water discharge and providing surface water storage.	
Air Quality	Dust and particles are constantly interacting with water vapour and other gases in the atmosphere, often driven and influenced by heat and UV radiation. The relationship between air quality and climate change is highly complex, but due to the direct risk to human health, an important consideration. For example, when atmospheric pressure increases pollutants are concentrated to the ground, resulting in increased respiratory health issues. Climate variations across regions will affect air quality differently. Increased precipitation aids the clearing of pollutants from air, whilst warmer, drier conditions stalls air that is saturated in pollutants e.g. smog.	Many air pollutants are volatile in the atmosphere and can act as precursors to greenhouse gas formation, and/or be a greenhouse gas themselves. For example, emissions of NOx contribute to ozone formation (O3) in reactions with UV radiation. Whilst exposure to O3 at ground level can cause significant respiratory difficulties, O3 is also a short-term greenhouse gas, contributing to the warming effect. Particulate matter in the atmosphere can scatter or absorb incoming radiation as well as indirectly effect climate change due its role as condensation nuclei in cloud formation, and therefore impact radiative forcing.

	Impact of Climate Change	Contribution to Climate Change
	Mitigation/Adaptation The Applicant is committed to reducing the emissions of pollutants from the development and will seek to develop and implement a site-wide strategy for pollution reduction, dust and air quality control and safe storage/disposal of contaminants. Where appropriate measures will include: • Developing and implementing a best practice Dust Mitigation Plan (DMP); • Providing designated areas for re-fuelling on bunded hard standing; • Re-vegetate earthworks and exposed soil stockpiles to stabilise surfaces; • Ensure sand and aggregates are stored in bunded areas and not allowed to dry out; • Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems; • Use water assisted dust sweepers on the access and local roads to remove, as necessary, any material tracked out of site; • Ensure vehicles entering and leaving the sites are covered to prevent escape of materials during transport; • Appropriate storage and disposal of Municipal Solid Wastes; • Regular maintenance of heating systems to avoid CO release; and • Ensure radon provisions are in place where appropriate.	

9.70. There are also other significant benefits in respect of social and economic receptors. In terms of the economy, this ranges from minor to moderate beneficial for the local and regional economy, enhancing the locational appeal of the area and Warrington from minor to moderate beneficial. GVA and business rates have a moderate to high beneficial effect for the area. There are also benefits for employment with minor beneficial being assessed. There are further benefits in respect of indicators associated with retail and leisure; community infrastructure, quality of life such as education and skills training, health and wellbeing in respect if provision of walking and cycling routes, and also reduction in crime. The development also raises the image of Warrington and the wider area, which has economic benefits assessed as moderate beneficial.

9.71. The synergistic effects are therefore not considered to be any greater for any of the receptors than those already assessed individually within the ES.

Summary

9.72. Synergistic effects have been considered throughout the evolution of the development proposals across all the technical areas and scheme design. These will be minimised and managed through the implementation of mitigation, much of which is multi-functional to address synergistic effects.

9.73. The adverse interaction of impacts in and around the Site will occur at their greatest during the short term period (construction). It is however considered that the mitigation proposed as part of the Environmental Assessment (summarised in Section 8) is sufficient to deal with these

impacts which will be controlled by way of planning conditions and a S106 as necessary and as such the majority of impacts will be no worse than minor adverse and negligible and many being beneficial.

9.74. The synergistic effects are therefore not considered to be any greater for any of the receptors than those already assessed individually within the ES.

10. Conclusion

10.1. The proposals are considered to be EIA Development and as such, in line with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017, are accompanied by an ES.

10.2. The ES has been prepared on behalf of Extra MSA Group by competent experts to accompany the outline planning permission for a 'New Concept' Motorway Service Area (MSA) at Junction 11 of the M62 Motorway.

10.3. This ES Part 1 Report presents a detailed project description of the proposals to develop the application site (Section 2), which are controlled by a series of parameters detailed on parameter plans (**Appendix 5**). It sets out the methodology which the Study Team has followed, the alternatives which were considered and the legislative/planning context. Section 7 and the Summary tables set out an overview of the environmental impacts on a topic by topic basis. Section 8 sets out the key mitigation measures. An overview of the additive/cumulative effects and the synergistic/interaction of effects are included in Section 9. A non-technical summary is provided in a separately bound document.

10.4. The Technical Papers in Part 2 of the ES provide more detail of this impact of the development during the construction and operational phases against a range of topics including

- Paper 1 - Geology and Ground Conditions
- Paper 2 - Traffic and Transportation
- Paper 3 – Water Resources
- Paper 4 - Landscape
- Paper 5 - Ecology and Nature Conservation
- Paper 6 - Socio Economic
- Paper 7 - Noise and Vibration
- Paper 8 - Air Quality, Odour and Dust
- Paper 9 - Cultural Heritage and Archaeology
- Paper 10 – Agricultural Land and Soils
- Paper 12 - Waste
- Paper 13 – Climate Change

10.5. These separate papers contain the detailed analysis of impacts and mitigation and should be referred to for the complete assessment of impact. This ES Part 1 report aims to provide an overview of the predicted effects and how it is proposed to mitigate the impacts. It should be noted that the information submitted for this planning application is extensive given the nature of the site, however, the detailed mitigation strategies will be controlled via the use of planning conditions and the Section 106 Agreement. A variety of mitigation measures are proposed to control, manage and reduce the effects of the Proposed Development. Further mitigation of environmental effects is also inherent in the design of the Proposals. All of the mitigation is devised to either mitigate individual effects or it is multi-functional to mitigate a number of effects.

10.6. Section 7 summarises the likely significance of effects assessed through the environmental assessment, with further detail contained within each of the Technical Papers within the ES Part 2.

10.7. The likely effects at the construction phase are likely to be greatest, but these will be short term temporary. Most effects are neutral, negligible or minor adverse when mitigation is implemented and as such not significant. This is the case for the impacts assessed for geology and ground conditions, ecology and nature conservation, agricultural land and soils, noise and vibration, air quality, odour and dust, traffic and transport, water resources and waste. Many of the effects associated with Heritage are also considered to be minor adverse or less, except for those associated with palaeoenvironmental deposits, for which the effect is minor to moderate adverse, but not considered to be significant.

10.8. Many of the effects associated with landscape and visual impact are also minor adverse or less, except for those associated with environmental designations and the view points VP4, 6, 7, 10 and 14 (as shown on Landscape Receptor Plan at **Appendix 6**), which are considered to be moderate adverse and as such significant.

10.9. These significant adverse effects are balanced with the beneficial effects associated with socio economic which are beneficial in respect of job creation and inward investment. Other beneficial effects are associated with the creation of the diversion of Silver Lane Brook to create a wildlife corridor and the creation of high value eco systems.

10.10. Through scheme evolution and appropriate mitigation, the likely effects at the operation phase are considered to be minor adverse, neutral or negligible and as such not significant. This is

the case for effects associated with cultural heritage, noise and vibration, air quality, dust and odour, traffic and transport, water resources, geology and ground, socio economic and ecology and nature conservation. Over time, as vegetation matures, effects associated with landscape and visual impact will also be minor adverse or better and as such not significant.

10.11. Benefits of the proposals are related to socio economic, particularly in respect of job creation, business rates and increased GVA. Other benefits are associated with traffic and transport with the reduction in the potential of accidents on the strategic highway network due to provision of an MSA to address the current gap in MSA provision on the network. Use of peat in habitat creation and enhancement by creating a peatland type habitat and corridor for the diversion of Silver Lane Brook are also benefits of the Proposed Development.

10.12. Effects associated with Climate Change are adverse and due to the approach taken to assessment, comparing the baseline position of the Site as an agricultural field with the Proposed Development, any change to the baseline conditions is considered significant to a variety of receptors, including human and ecological. This would be the case with any development of an agricultural field. However it is minimized as far as possible with the mitigation proposed and the generation of energy from renewable sources far exceeding the planning policy position through the use of ground source heat pumps (or other renewable energy or low carbon measures that will be considered further through detailed design).

10.13. The ES Part 1 also assesses the potential for the synergistic/interaction of effects and concludes that these should be no greater than the individual effects assessed through the main assessment of the Development Proposals. These effects have been fully considered throughout the evolution of the scheme proposals and mitigation, that in many cases is multi-functional, identified as required to address the likely effects so they are suitably reduced and managed.

10.14. Cumulative impacts are assessed and take account of a number of developments in the area, including development at Birchwood Park to the south of the M62 Motorway, and also HS2, which is proposed to run in close proximity to the north east of the Application Site. Socio economic cumulative effects are considered positive in terms of job creation, inward investment and business rates generated. Whilst the cumulative effect of developments could reduce the total archaeology resource in the area, mitigation would be in place for each development to evaluate/excavate and record, thereby increasing understanding. Views would change, but these would be managed with planting, which matures over time. Although there would be a cumulative loss in habitats, the effect on species is not considered to be significant. Cumulative

effects in terms of waste, noise, air quality, water resources are considered to remain as assessed through the main assessment and are therefore not considered to be significant. The cumulative loss of agricultural land, especially BMV land is considered significant. However, it should be noted, that the loss for the HS2 development alone is significant, but for the Proposed Development, it is not considered to be significant.

10.15. There are therefore not considered to be any potential environmental impacts that cannot be suitably mitigated and which would prevent the proposals from being granted planning permission.

11. ES Part 1 Appendices

ES Part 1 Appendix 1

Warrington MSA, J11, M62

Extra MSA Group

Site Specific Glossary

Site Specific Terminology	Description
A574 Birchwood Way	
Applicant	Extra MSA Group
Application Site	Application Site for proposed development - Land at Junction 11 of the M62 Motorway
AQMA	Air Quality Management Area
Birchwood Park	Business Park to the south of Junction 11 of the M62 Motorway
Borough	The authority area is a Borough
Business Lounge	Contained within the Facility Building to provide facilities for business use
CIA	Cumulative Impact Assessment
Client	Extra MSA Group
Core Strategy (July 2014)	Warrington's adopted local planning policy (although currently under review).
Culcheth	Settlement to the north of the Site
EIA Regulations 2017	The Town and Country Planning (Environmental Impact Assessment) Regulations 2017. The EIA Regulations the ES is based upon.
emerging Local Plan (Preferred Options July 2017)	Warrington's emerging Local Plan document that iwas consulted upon in July 2017
EVCP	electric vehicle charging points
Extra MSA Group	Applicant / Client
Facilities Building	MSA facility to include food court, ancillary retail, toilets, washing facilities and staff areas as well as Business Centre and Visitor Centre
FFS Fuel Filling Station	Fuel Filling Station
Gorse Covert	Residential area in Birchwood, to the south of the M62 and Birchwood Park
Green Belt	Land designation
GRR	Greenfield run-off rate
Hotel	
HGV	Heavy Goods Vehicle
HS2	High Speed Rail 2
HSE	Health and Safety Executive
Internal Site Access Road(s)	The access road within the site to facilitate access
Local Plan Core Strategy (July 2014)	Warrington's adopted local planning policy (although currently under review).
LNR	Local Nature Reserve e.g. Risley Moss
LWS	Local Wildlife Sites

Warrington MSA, J11, M62

Extra MSA Group

Site Specific Terminology	Description
M62 Motorway	
M6 Motorway	
MAQMA	Motorway Air Quality Management Area
Means of Access	Details of the vehicular access into the Application Site
MSA	Motorway Service Area
NPPF 2019	National Planning Policy Framework, February 2019
Oakwood	Residential area in Birchwood, to the south of the M62 and Birchwood Park
PADHIZone	Zones where planning advice for developments near hazardous installations is relevant
Parameters / Parameter Plan	A series of parameters fixed as part of the proposals which form the basis of the environmental assessment.
Peatland Habitat Zone	Area created on Site as Peatland Habitat as part of the Proposed Development, thereby retaining the peat on Site
Peatland Type Habitat	Area created on Site as Peatland Habitat as part of the Proposed Development, thereby retaining the peat on Site
Primary Internal Site Access Road	The primary access road within the site
Proposed Development	Application Site for proposed development
PROW	Public Rights of Way
Restored Risley Landfill Site	Restored landfill site adjacent the Application Site
SAC	Special Area of Conservation e.g. Manchester Mosses
Silver Lane Brook	Brook currently running south to north to the western boundary.
Site	Application Site - Land at Junction 11, M62 Motorway
SSSI	Site of Special Scientific Interest e.g. Holcroft Moss and Risley Moss
The Town and Country Planning (Environmental Impact Assessment) Regulations 2017	The EIA Regulations the ES is based upon.
Warrington MSA, J11 M62	The Site
WBC	Warrington Borough Council

Abbreviations

A a

AADT	Annual Average Daily Traffic
AAWT	Average Annual Weekday Traffic
ABI	Annual Business Inquiry Data
ACM	Asbestos Containing Materials
ADF	Average Daylight Factor
AGL	Above Ground Level. A measurement of altitude above a specific land mass.
AOD	Above Ordnance Datum
APSH	Annual Probable Sunlight Hours
APZ	Archaeological Priority Zone
AQAP	Air Quality Action Plan
AQMA(s)	Air Quality Management Area(s)
AQS	Air Quality Strategy
AVR	Accurate Visual Representations

B b

BAME	Black, Asian and Minority Ethnic
BAP	Biodiversity Action Plan
BGS	British Geological Survey
BMT	BMT Fluid Mechanics Limited. Wind Microclimate specialist consultant
BRMC	Biodiversity Recording and Monitoring Centre
BS	British Standard
BSI	British Standard Institute
BT	British Telecom
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
BUG	Bicycle User Groups

C c

CCTV	Closed Circuit Television
CEMP	Construction Environmental Management Plan
CFD	Computational Fluid Dynamics
CIRIA	Construction Industry Research and Information Association
CLEA	Contaminated Land Exposure Assessment
CLP	Construction Logistics Plan
CLR	Contaminated Land Report
CMS	Construction Management System
CMSC	Construction Management System Contractor
CO	Carbon Monoxide
CO_2	Carbon Dioxide
COCP	Code of Construction Practice
COP	Code of Practice
CPZ	Controlled Parking Zone
CRN	Calculation of Rail Noise
CRTN	Calculation of Road Traffic Noise
CS	Core Strategy
CWS	County Wildlife Site

D d

dB	Decibel
dBA	The unit of noise measurement (measured on a logarithmic scale), which expresses the loudness in terms of decibel (dB) scale and the frequency factor
DCLG/CLG	Department for Communities and Local Government
DDA	Disability Discrimination Act
DEFRA	Department for Environment, Food and Rural Affairs
DETR	Department of Environment, Transport and the Regions (now Department for Transport)
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
DoE	Department of Environment
DoT	Department of Transport
DPD	Development Plan Document

E e

EA	Environment Agency
EAPPG	Environment Agency Pollution Prevention Guidelines
EDBP	Economic Development Business Plan
EH	English Heritage
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
EMSEEnvironmental Management	Environmental Protection Act 1990
StrategyPA	
EN	English Nature
EPS	Uropean Protected Species
EQS	Environmental Quality Standard
ES	Environmental Statement
EU	European Union

F f

FRA	Flood Risk Assessment
FE	Form of Entry – cohorts of 30 children
FTE (Jobs)	Full Time Equivalent (Jobs)

G g

GDP	Gross Domestic Product. A measure of the national economic performance.
GEA	Gross External Area
GIA	Gross Internal Area
GP	General Practitioner
GQA	General Quality Assessments
GVA	Gross Value Added

H h

Ha	Hectare
HDV(s)	Heavy Duty Vehicle(s)
HER	Historic Environment Record
HGV(s)	Heavy Goods Vehicle(s)
HSMS	Health and Safety Management System
HVAC	Heating, Ventilation, Air Conditioning
HWR	Hazardous Waste Regulations 2005
Hz / kHz	Hertz / Kilohertz

I i

ICE	Institute of Civil Engineers
IDP	Infrastructure Delivery Plan
IEA	Institute of Environmental Assessment
IEEM	Institute of Ecology and Environmental Management
IEMA	Institute of Environmental Management and Assessment
IHT	Institute of Highways and transportation
IMD	Index of Multiple Deprivation

J j

JMP	Inclusive Access Consultants
JSA	Job Seekers Allowance
JSNA	Joint Strategic Needs Assessment

K k

Kg	Kilogram
KS1	Key Stage 1 – Primary education between years 1-2
KS2	Key Stage 2 – Primary education between years 3-6
Kw	Kilowatt

L l

LA10	The noise level exceeded for 10% of the measurement time
LAeqT	Equivalent continuous sound level
LAQM	Local Air Quality Management
LDF	Local Development Framework
LDV	Light Duty Vehicles
LEZ	Low Emission Zone
LGV	Light Goods Vehicle
LNR	Local Nature Reserve
LoWR	List of Waste Regulations
LPA	Local Planning Authority
LSOAs	Lower Super Output Areas
LW	Long Wave

M m

m	Metre
m^2	Square metres
m^3	Cubic metres
MAGIC	Multi-Agency Geographic Information for the Countryside
mm	millimetres
MMP	Materials Management Plan
MNL	Music Noise Level
MOL	Metropolitan Open Land
m/s	Metres per second

N n

NAQS	National Air Quality Strategy
NE	Natural England
NEC	Noise Exposure Category
NGR	National Grid Reference
NHBC	National House Building Council
NHS	National Health Service
NIA	Net Internal Area
NMR	National Monuments Record
NNR	National Nature Reserve
No_2	Nitrogen Dioxide
NOx	Nitrogen Oxide
NPPF	National Planning Policy

	Framework
NPS	National Planning Statement (NN NPS National Networks National Planning Statement)
NSCA	National Society for Clean Air
NTS	Non-Technical Summary

O o

ONS	Office of National Statistics
OS	Ordnance Survey

P p

PAH(s)	Polycyclic Aromatic Hydrocarbons
PAL	Published Admissions Limit
PANs	Published Admissions Numbers
PCBs	Polychlorinated Biphenyls
PCT	Primary Care Trust
PERS	Pedestrian Environment Review System
PIA	Personal Injury Accidents
PPE	Personal Protective Equipment
PPG	Planning Policy Guidance
PPPL	Primary Place Planning Location
PPS	Planning Policy Statement
PTAL	Public Transport Accessibility Level
PV	Photovoltics

Q q

R r

R&A	Review and Assessment
RC	Reinforced Concrete
RF	Radio Frequency
RPG	Registered Park and Garden

S s

SAC	Special Areas of Conservation
SAM	Scheduled Ancient Monument
SAP	Species Action Plan
SFRA	Strategic Flood Risk Assessment
SHMA	Strategic Housing Market Assessment
SIC	Standard Industrial Classification
SIL	Strategic Industrial Land
SINC	Site of Importance for Nature Conservation
SMR	Sites and Monuments Records
SNCI	Sites of Nature Conservation Importance
SO_2	Sulphur dioxide
SOC	Standard Occupational Classification
SPA	Special Protection Area
SPD	Supplementary Planning Document
SPG	Supplementary Planning Guidance
SPZ	Source Protection Zone
SSSI	Site of Special Scientific Interest
SUDS	Sustainable Urban Drainage System
SVOCs	Semi Volatile Organic Compounds
SWMP	Site Waste Management Plan

T t

T	Total Annual Probable Sunlight Hours (APSH)
TA	Transport Assessment
TfL	Transport for London
TG	Technical Guidance
TPH	Total Petroleum Hydrocarbons
TPO	Tree Preservation Order

U u

UDP	Unitary Development Plan
UK	United Kingdom
UK BAP	United Kingdom Biodiversity Action Plan
USA	Updating and Screening Assessment
UXO	Unexploded Ordnance

V v

VCM	Volatile Correction Model
VOCs	Volatile Organic Compounds
VSC	Vertical Sky Component

W w

WFD	Water Framework Directive
WHO	World Health Organisation
WM	Winter Months Component of APSH
WRA	Water Resources Act 1991
WW	First World War
WWII	Second World War

X x

Y y

Z z

Glossary of Terms

A a

Adoption - the final confirmation of a plan as a statutory document by the local planning authority.

Affordable Housing - low cost housing for sale or rent, often from a housing association, to meet the needs of local people who cannot afford accommodation through the open or low cost market, or subsidised housing.

Aged or veteran tree: A tree which, because of its great age, size or condition is of exceptional value for wildlife, in the landscape, or culturally.

Agricultural Dwelling - a dwelling which is subject to a condition or legal agreement that it shall only be occupied by someone who is employed or was last employed solely or mainly in agriculture, forestry or other appropriate rural employment.

Air Quality Management Areas: Areas designated by local authorities because they are not likely to achieve national air quality objectives by the relevant deadlines.

Alternative option/solution. Alternative methods of achieving the objectives of the project. They may include: alternative locations that are suitable; or different approaches in terms of design, manufacturing, transportation, energy, or supply of materials etc.

Ambient: Background levels

Amenity - the pleasant or normally satisfactory aspects of a location which contribute to its overall character and the enjoyment of residents or visitors.

Anemometer. Measures the wind speed and transmits wind speed data to the controller.

Ancient woodland: An area that has been wooded continuously since at least 1600 AD.

Ancillary Use - a subsidiary use connected to the main use of a building or piece of land.

AOD: Above Ordnance Datum, the height above acknowledged sea level.

Appeal - the process whereby an applicant can challenge an adverse decision on an application by means of written representations, an informal hearing or formal inquiry proceedings. Appeals can also be made against the failure of the planning authority to issue a decision, against conditions attached to a permission and against the issue of an enforcement notice.

Aquifer: A water bearing bed of strata, either by virtue of its porosity or because it is pervious.

Archaeological interest: There will be archaeological interest in a heritage asset if it holds, or potentially may hold, evidence of past human activity worthy of expert investigation at some point. Heritage assets with archaeological interest are the
primary source of evidence about the substance and evolution of places, and of the people and cultures that made them.

Archaeological watching brief: Attendance on site of a suitable qualified or experienced archaeologist during the course of ground excavations, usually working to a brief agreed with the Local planning Authority.

Area of Outstanding Natural Beauty - area designated by the Countryside Agency or the Countryside Council for Wales where the primary purpose is the conservation and enhancement of natural beauty including flora, fauna, geology and landscape.

Area of Special Control of Advertisements - an area which is specifically defined by the local planning authority because they consider its scenic, historical, architectural or cultural features are so significant that a stricter degree of advertisement control is justified in order to conserve visual amenity within that area. Such areas can only be designated with the approval of the Secretary of State.

Article 4 Direction - an order made by the Secretary of State, the National Assembly for Wales or the local planning authority, requiring a planning application to be made where normally permitted development rights would apply.

Article 14 Direction - issued by the Secretary of State or the National Assembly for Wales to restrict the grant of planning permission by a local planning authority, either indefinitely or for a specified period, normally to give the Department time to decide whether to call in the application.

Assessment: An umbrella term for description, analysis and evaluation.

B b

Background Noise: The background noise level is the under lying level of noise present at a particular location for the majority (usually 90%) of a period of time. As such it excludes any short duration noises, such as individual passing cars (but not continuous
traffic), dogs barking or passersby. Sources of background noise typically include such things as wind noise, traffic and continuously operating machinery (e.g. air conditioning or generators).

Back-land - land which is behind existing development with no, or very limited, road frontage.

Baseline conditions. The conditions that would pertain in the absence of the proposed project at the time that the project would be constructed/operated/decommissioned. The definition of these baseline conditions should be informed by changes arising from other causes (e.g. other consented developments).

BPEO (Best Possible Environmental Option) - The option that provides the most benefits or the least damage for the environment, as a whole, at acceptable cost, in the long term as well as the short term. (defined in the 12th report of the Royal Commission on Environmental Pollution)

Best and most versatile agricultural land: Land in grades 1, 2 and 3a of the Agricultural Land Classification.

Betterment - the amount by which the value of land is increased by development or by the grant of planning permission, or because of the development of neighbouring land.

Bio-diversity - a measure of the number and range of species and their relative abundance in a community. / The biological diversity of the earth's living resources. The total range of variability among
systems and organisms at all levels of organisation and the structural and functional relationships within
and between these different levels.

Bio-diversity Action Plan (BAP) - the means by which the UK government commitment to the Convention on Biological Diversity at Rio de Janeiro (1992) is to be met.

Birds and Habitats Directives: European Directives to conserve natural habitats and wild fauna and flora.

Borehole: A deep hole bored into the ground as part of intrusive investigations typically to test depth and quality of ground water.

Brown-field Site - land which has been previously developed, excluding mineral workings or other temporary uses.

Bronze Age: Prehistoric time period from 2,000 to 700 BC.

Buffer zone. An area (human-made or natural) that helps to protect a habitat from damage, disturbance or pollution. It is managed to protect the 'integrity' of the valued habitat and/or the conservation status of species that it supports

Building Preservation Order - a notice under Section 3 of the Planning (Listed Buildings and Conservation Areas) Act 1990 to protect buildings of special architectural or historic interest from demolition or alterations that would affect their interest.

C c

Cadw - government agency supporting the preservation, conservation, enhancement, interpretation and appreciation of historic buildings and monuments in Wales.

Called-in Application - a planning application referred to the Secretary of State or the National Assembly for Wales for determination by virtue of the powers contained in section 77 of the Town and Country Planning Act 1990.

Change of Use - more correctly referred to as a 'material change of use'. A change in the use of land or buildings that is of significance for planning purposes, often requiring planning permission.

Circular - guidance, including policy, issued by a government department usually, but not always, in support of legislation.

Commercial (activity): Activities involved in buying and selling things, such as office workplaces. Commercial sites are not often open to the public.

Commitments - All land with current planning permission or allocated in local plans.

Community Forests - A joint initiative between the Countryside Agency and the Forestry Commission to promote the creation, regeneration of well-wooded landscapes around major towns and cities.

Community Infrastructure Levy: A levy allowing local authorities to raise funds from owners or developers of land undertaking new building projects in their area.

Community Right to Build Order: An Order made by the local planning authority (under the Town and Country Planning Act 1990) that grants planning permission for a site-specific development proposal or classes of development.

Competent person (to prepare site investigation information): A person with a recognised relevant qualification, sufficient experience in dealing with the type(s) of pollution or land instability, and membership of a relevant professional organisation.

Comparison Goods - 'non perishable' goods for retail sale which are often stocked in a wide range of sizes, styles, colours and qualities, including furniture, carpets, televisions etc.

Competent Authority. The authority which determines the application for a consent, permission, license or other authorisation to proceed with a development. It is the authority that must consider the environmental information before granting any kind of authorisation. For example, for projects requiring planning permission this will usually be the Local Planning Authority.

Compulsory Purchase Orders (CPOs) - notice issued by the government or a local authority to acquire land or buildings for public interest purposes.

Conditions - stipulations attached to a planning permission to limit or direct the manner in which a development is carried out.

Contaminated Land - land which has been polluted or harmed in some way rendering it unfit for safe development and most practical uses.

C**ontrolled Parking Zone (CPZ)** - an area in which all kerbside space is controlled by either waiting or loading restrictions or by designated parking spaces.

Conservation (for heritage policy): The process of maintaining and managing change to a heritage asset in a way that sustains and, where appropriate, enhances its significance.

Conservation Area - an area given statutory protection under the Planning Acts, in order to preserve and enhance its character and townscape.

Conservation Area Consent - consent required from the local planning authority before demolishing an unlisted building in a conservation area.

Contamination: Contamination is the addition, or the result of addition, or presence of a material or materials to, or in, another substance to such degree as to render it unfit for its intended purpose.

Consultation - procedures for assessing public opinion about a plan or major development proposal, or in the case of a planning application, the means of obtaining the views of affected neighbours or others with an interest in the proposal.

Consultation bodies (consultees). Any body specified which has been consulted in respect of the Environmental Statement. See **Statutory Consultee** below.

Convenience Shop - supermarket, grocers, newsagents, confectioners, tobacconists, off-licences or other shops selling goods which tend to be purchased regularly.

Conversions - the sub-division of residential properties into bedsits, self-contained flats or maisonettes.

Countryside Agency - organisation responsible for advising government and taking action on issues affecting the social, economic and environmental well-being of the English countryside.

Countryside Council for Wales (CCW) - government agency promoting the interests and well-being of rural Wales.

CO2: (Carbon Dioxide) Contributes about 60% of the potential global warming effect of man made emissions of greenhouse gases. Although this gas is naturally emitted by living organisms, these emissions are offset by the uptake of carbon dioxide by plants during photosynthesis; they therefore tend to have no effect on atmospheric concentrations. The burning of fossil fuels, however, releases carbon dioxide fixed by plants many millions of years ago and thus increases its concentration in the atmosphere.

Cumulative effects / impacts: The summation of effects / impacts that result from changes caused by a development in conjunction with other past, present or reasonably foreseeable actions.

Cumulative landscape effects: There is the potential for cumulative landscape effects where there would be:
• An incremental change to the fabric of the landscape, as the result of two or more operational, permitted and/or proposed wind farms.
• An incremental change in the character and/or quality of the landscape as a result of the simultaneous, successive and/or sequential visibility of two or more operational, permitted and/or proposed wind farms from various locations.

Cumulative visual effects: can occur where there would be:
• Simultaneous visibility of two or more operational, permitted and/or proposed wind farms at a viewpoint location, in the same sector of the view (within 45degrees).
• Successive visibility of two or more operational, permitted and/or proposed wind farms at a viewpoint location, where each wind farm is in a different sector of the view (>45 percent apart). Sequential visibility of two more operational, permitted and/or proposed wind farms along a linear route.

Cumulative ZVI: Areas within which a number of proposed developments may have an influence or effect on visual amenity.

D d

Decentralised energy: Local renewable energy and local low-carbon energy usually but not always on a relatively small scale encompassing a diverse range of technologies.

Decommissioning: A process where the site is made safe by removing hazards.

Deemed Consent - this allows the display of certain "specified classes" of advertisement without first having to make an application to the local planning authority. Under the Control of Advertisements Regulations there are 14 Classes, all of which are subject to strict conditions and limitations.

Density - in the case of residential development, a measurement of either the number of habitable rooms per hectare or the number of dwellings per hectare.

Departure - a proposed development which is not in accordance with a local plan but which due to exceptional circumstances the local planning authority proposes to accept - after due publicity and possible referral to the Secretary of State or the National Assembly for Wales.

Designated heritage asset: A World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area designated under the relevant legislation.

Derelict Land - Land so damaged by industrial or other development that it is incapable of beneficial use without treatment.

Detailed/Full Application - The most common type of planning application is one that seeks full or detailed planning permission. It should contain all the information needed for the LPA to reach its decision, but the LPA may seek further information.

Determination - local planning authority process to decide whether a proposed development requires planning permission.

Developer: The applicant for authorisation for a private project or the public authority which initiates a project.

Development - the carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of any buildings or land.

Development Area - a priority area for environmental, social or economic regeneration or a combination of these.

Development Brief - document providing detailed information to guide developers on the type of development, design and layout constraints and other requirements for a particular, usually substantial, site.

Development Consent: The decision of the Competent Authority or Authorities which entitles the Developer to proceed with the project.

Development Control - the process whereby a local planning authority decides whether a planning application meets the requirements of planning policy, particularly as set out in development plans.

Development Plan - document (a structure or local plan) that sets out in writing and/or in maps and diagrams a local planning authority's policies and proposals for the development and use of land and buildings in the authority's area.

Directive: European Commission (EC) Directives impose legal obligations on European Member States. They are binding as to the results to be achieved, but allow individual states the right to decide the form and methods used to achieve the results.

Discontinuance Notice - notice served by a local planning authority requiring the discontinuance of the display of any advertisement, or the use of a site for the display of an advertisement, which has the benefit of deemed consent under the Control of Advertisements Regulations. Action to serve a discontinuance notice may only be taken if the planning authority is satisfied it is necessary to do so to remedy a substantial injury to the amenity of the locality or a danger to members of the public.

Displacement: The extent to which the benefits of a project are offset by reductions of output or employment elsewhere.

E e

EA: Environment Agency

Economic development: Development, including those within the B Use Classes, public and community uses and main town centre uses (but excluding housing development).

Ecology: The study of living organisms in relation to their surroundings.

Ecological networks: These link sites of biodiversity importance.

Ecosystem services: The benefits people obtain from ecosystems such as, food water, flood and disease control and recreation.

Effects/Impacts: A predicted change in the environmental baseline as a result of the proposed development. Effects can be positive or negative.

Effluent: A fluid discharged or emitted to the external environment.

Employment uses: Any undertaking or use of land that provides paid employment.

Employment density: Average floor space per person in a given building

EN: English Nature

Enforcement - procedures by a local planning authority to ensure that the terms and conditions of a planning decision are carried out, or that development carried out without planning permission is brought under control.

Enforcement Notice - notice requiring the discontinuance of an unauthorised use and/or the removal of buildings, including restoration of land, where development has been begun without permission or in breach of a condition.

Edge-of-centre - For retail purposes, a location that is well connected and up to 300 metres of the primary shopping area. For all other main town centre uses, a location within 300 metres of a town centre boundary. For office development, this includes locations outside the town centre but within 500 metres of a public transport interchange. In determining whether a site falls within the definition of edge of centre, account should be taken of local circumstances.

Emission: A material that is expelled or released to the environment. Usually applied to gaseous or odorous discharges to the atmosphere.

English Heritage (Historic Buildings and Monuments Commission for England) - a national body funded by the government to promote and give advice on building conservation matters.

English Nature - a national body funded by the government to promote and give advice on the conservation of England's wildlife and natural features.

Environmental Appraisal - the process of weighing all the policies in a development plan for their global, national and local implications.

Environmental Baseline: The existing (pre-development) context of a study area.

Environmental Capacity: The ability of the environment to accommodate a particular activity or rate of activity without unacceptable change.

Environmental Impact Assessment (EIA) - under the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988, proposers of certain scheduled developments are required to submit a planning application with an accompanying environmental statement, evaluating the likely environmental impacts of the development, together with an assessment of how the severity of the impacts could be reduced. / This is an assessment carried out under the EIA Regulations. It is the whole process of gathering environmental information; describing a development or other project; predicting and describing the environmental effects of the project; defining ways of avoiding, reducing or compensating for these effects; consulting the general public and specific bodies with responsibilities for the environment; and ensuring that measures are prescribed to avoid, reduce or compensate for environmental effects.

Environmental Information - The information that must be taken into account by the decision maker (the Competent Authority) before granting any kind of authorisation in any case where the EIA process applies. It includes the Environmental Statement, including any further information, any representations made by any body required by the Regulations to be invited to make representations, and any representations duly made by any other person about the environmental effects of the development.

Environmental Statement (ES) - The report on the assessment carried out under the EIA Regulations, on the environmental effects of a development; normally submitted with the planning application.

Environmental Studies: The surveys and investigations carried out by the developer and the EIA team in order to prepare the Environmental Information for submission to the competent authority.

EIA Regulations - The UK statutory instruments that are designed to meet the requirements of Council Directive 85/337/EEC on the Assessment of the effects of certain public and private projects on the environment, as amended by Council Directive 97/11/EC, 2003/35/EC and 2009/31/EC.

EIA Team: The team which carries out the environmental studies and prepares the environmental information for submission to the competent authority.

Established use - a use which does not conform to a plan but against which enforcement proceedings cannot be taken, often because of the length of time a use has been in operation.

Established Use Certificate - these were issued by a planning authority before July 1992 where it could be shown that a use of land or buildings had existed since before 1964. It gave immunity from enforcement action. Since July 1992 these have been replaced by Lawful Development Certificates.

European Spatial Development Perspective (ESDP) - non-binding regional structure plan for the European Union.

Examination in Public (EIP) - consideration of public views on a draft structure plan or proposed changes to it, held before an independent inspector.

Exclusion List: A list of threshold and criteria for specified categories of projects defining those projects for which EIA is not required because they are considered to be unlikely to have significant effects on the environment.

Express Consent - this is needed to display an advertisement, which does not benefit from deemed consent under the Town and Country Planning (Control of Advertisements Regulations).

F f

Fauna: Animal Life.

Floodplain: Land adjacent to a watercourse over which water flows, or would flow but for defences in place, in times of flood.

Flora: The plant life of a particular geographical area.

Footprint: perimeter of building's ground floor plan.

Frequency: The frequency of a sound is equivalent to its pitch in musical terms. The units of frequency are Hertz (Hz), which represents the number of cycles (vibrations) per second.

Fugitive dust emissions: Dust emissions escaping from a construction site.

G g

General Permitted Development Order (GPDO) - the Town and Country Planning (General Permitted Development) Order 1995 grants rights (known as permitted development rights) to carry out certain limited forms of development without the need to make an application for planning permission.

Green Belt - specially designated area of countryside protected from most forms of development in order to stop urban sprawl and the coalescence of settlements, preserve the character of existing settlements and encourage development to locate within existing built-up areas.

Green infrastructure: A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.

Green-field Site - an area not previously used for built development.

Grid (also "National Grid" and "Power Grid"). A common term referring to the electricity transmission and distribution system.

Gross: The sum total without reduction.

Gross Value Added - A productivity metric that measures the difference between output and intermediate consumption. Gross value added provides a pound value for the amount of goods and services that have been produced, less the cost of all inputs and raw materials that are directly attributable to that production.

Ground Investigation (GI). An intrusive sub-surface investigation by mechanised plant or hand held tools. Designed to characterise soil or rock by sample recovery or exposure of subsurface strata; thus enabling the correct and accurate design of foundations, slopes or earthworks.

Ground Water: Water associated with soil or rocks below the ground surface but is usually taken to mean water in the saturated zone.

H h

ha: 1 hectare = 10,000 sq. metres = 2.47 acres.
Horizon: A time - plane recognisable in rocks by some characteristic feature such as flora, fauna or lithology.

Habitable Room - all living rooms and bedrooms, but not kitchens, bathrooms, WCs or circulation space, are normally regarded as habitable for the purposes of density calculations.

Habitat - A place in which a particular plant or animal lives. Often used in the wider sense referring to major assemblages of plants and animals found together.

Heritage asset: A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing).

Heritage Coast: Areas of undeveloped coastline which are managed to conserve their natural beauty and, where appropriate, to improve accessibility for visitors.

Historic environment: All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora.
Historic environment record: Information services that seek to provide access to comprehensive and dynamic resources relating to the historic environment of a defined geographic area for public benefit and use.

Hoarding: A temporary board fence set up on the perimeter of a building site.

Hydraulic piling: A piling mechanism used for pressing in and pulling out sheet piles with minimized noise and vibration generation.

Hydrogeology: The study of the geological factors relating to the Earth's water.

Hydrology: The study of the distribution, conservation, use of the water of the earth and its atmosphere.

Hz: Sound frequency refers to how quickly the air vibrates, or how close the sound waves are to each other (in cycles per second, or Hertz; Hz).

I i

Impact - The way in which a receptor or natural resource is affected by a proposed development.

Improved grassland: Grassland that has been modified to increase its agricultural value, often using ploughing and re-seeding, land drainage and treatment with fertilisers and herbicides.

Inclusive design: Designing the built environment, including buildings and their surrounding spaces, to ensure that they can be accessed and used by everyone.

Inert waste: Wastes that do not undergo any significant physical, chemical or biological transformation.

In-situ preservation: Preserving archaeological remains in the natural, original or appropriate position.

Invertebrate: An animal lacking a backbone and internal skeleton.

Indirect impacts: Impacts on the environment, which are not a direct result of the Development but are often produced away from it or as a result of a complex pathway. Sometimes referred to as secondary impacts.

Infrastructure - permanent resources serving society's needs, including roads, sewers, schools, hospitals, railways, communication networks etc.

Integrated Transport Strategy - the integration of land-use and transportation planning to allow transport provision and the demand for travel to be planned and managed together, balancing the use of different modes of transport to encourage easy transfer between them and reduced reliance on the private car.

Iterative process - A process repeated until the best solution has been found. In the context of EIA, it can be understood as the process of assessment and reassessment until the most appropriate development is achieved.

J j

K k

kWh: kilowatt hour = 1 unit of electricity.

L l

Land Compensation - concerns the assessment of compensation where land, or some other interest in land, is being acquired, either compulsorily, or by agreement, by an authority possessing compulsory purchase powers.

Landscape: Landscape results from the way that different aspects of our environment
(physical, social, aesthetic and perceptual) interact together and are perceived by us:
• Physical elements- e.g. geology, landform, soils, flora and fauna.
• Social elements- e.g. land use, enclosure patterns, and the patterns, form and scale of
settlements and other built development.
• Aesthetic factors- e.g. colour, form, visual texture and pattern, sounds, smells and
touch.
• Perceptual factors- e.g. memories, associations, stimuli and preferences.

LBAP: Local Biodiversity Action Plan.

Landscape character: the distinct and recognisable pattern of elements that occur consistently in a particular type of landscape, and how these are perceived by people. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement. It creates the particular sense of place of different areas of the landscape.

Landscape character type: A landscape type will have broadly similar patterns of geology, landform, soils, vegetation, land use, settlement and field pattern discernible in maps and field survey records.

Landscape effects: Change in the elements, characteristics, character and qualities of the landscape as a result of development. These effects can be negative or positive.

Landscape value: is concerned with the relative value that is attached to different landscapes. In a policy context the usual basis for recognising certain highly valued landscapes is through the application of a local or national landscape designation. Yet a landscape may be valued by different communities of interest for many different reasons without any formal designation, recognising, for example, perceptual aspects such as scenic beauty, tranquility or wildness; special cultural associations; the influence and presence of other conservation interests; or the existence of a consensus about
importance, either nationally or locally.

Lawful Development Certificate - a procedure by which existing or proposed uses and other forms of development can be certified as lawful for planning purposes. An application has to be made to the local planning authority and there is a right of appeal against their decision.

Listed Building - building or other structure of special architectural or historic interest included on a statutory list and assigned a grade (I, II* or II).

Listed Building Consent - a permission required for the alteration or demolition of a listed building.

Local Development Order: An Order made by a local planning authority (under the Town and Country Planning Act 1990) that grants planning permission for a specific development proposal or classes of development.

Local Enterprise Partnership: A body, designated by the Secretary of State for Communities and Local Government, established for the purpose of creating or improving the conditions for economic growth in an area.

Local Nature Partnership: A body, designated by the Secretary of State for Environment, Food and Rural Affairs, established for the purpose of protecting and improving the natural environment in an area and the benefits derived from it.

Local planning authority: The public authority whose duty it is to carry out specific planning functions for a particular area. All references to local planning authority apply to the district council, London borough council, county council, Broads Authority, National Park Authority and the Greater London Authority, to the extent appropriate to their responsibilities.

Local Nature Reserve (LNR) - area designated under the National Parks and Access to the Countryside Act 1949 as being of particular importance to nature conservation and where public understanding of nature conservation issues is encouraged.

Local Plan - statutory development plan prepared by a local planning authority setting out detailed policies for environmental protection and development.

Local Planning Authority - the local authority or council that is empowered by law to exercise planning functions. This is normally the local borough or district council, but in National Parks and some other areas there is a different arrangement.

M m

Made Ground: Soils or other material that has been deposited by man rather than natural processes, for example to make up ground levels.

Magnitude: A combination of the scale, extent and duration of an effect.

Mandatory List: A list of thresholds and criteria for specified categories of projects defining those projects for which EIA is always required because they are considered to be likely to have significant effects on the environment.

Material Consideration - a matter which should be taken into account in deciding on a planning application or on an appeal against a planning decision.

Medieval: Historic time period from AD1066 – AD1485.

Megawatt (MW) - A million watts.

Megawatt-hour (MWh) - One million watt-hours. Equal to one thousand kilowatt-hours (kWh) or 'units' of electricity.

Metropolitan - constituting a large urban area, usually including a city, its suburbs and outlying areas.

Micro climate: The climate of a small localised area.

Mineral Planning Guidance Notes (MPGs) - a series of documents issued by the Office of the Deputy Prime Minister (ODPM) (previously Department of Transport, Local Government and the Regions (DTLR)) setting out government policy and advice on planning issues relating to mineral resources.

Minerals Planning Policy Wales - Document setting out the policy of the Welsh Assembly Government in relation to short and long term future use and safeguarding of mineral deposits.

Mitigation - Measures taken to avoid or reduce negative impacts. Measures may include: locating the development and its working areas and access routes away from areas of high ecological interest, fencing off sensitive areas during the construction period, or timing works to avoid sensitive periods.

Multiplier: Figure used to calculate the number of induced and indirect jobs created.

Multiplier Effects: Further economic activity (jobs, expenditure or income) associated with additional local income and local supplier purchasing.

N n

National Assembly for Wales - Government body in Wales that debates and approves legislation and holds the Welsh Assembly Government to account.

National Nature Reserve - area designated by English Nature to protect and conserve nationally important areas of wildlife habitat and geological formations and to promote scientific research; in Wales it is an SSSI that the Countryside Council for Wales (CCW) has designated of national or international importance for nature conservation. (Note: on the CCW website I noticed that they also refer to National Nature Reserves, as well as SSSIs)

National Park - tract of predominantly open and attractive countryside designated under the National Parks and Access to the Countryside Act 1949 with its own administration and management role and function as a local planning authority.

National Planning Policy Framework – NPPF sets out the Government's policies on different aspects of planning.

Nature Conservation - the preservation, management and enhancement of natural plant and animal communities, and occasionally modified vegetation, as representative samples of their kind.

Net: After all deductions have been made.

Net Additional Jobs: The number of jobs created in the construction and operating phases, less the number of jobs likely to happen anyway (deadweight), those jobs that are filled by non-impact area residents (leakage) and those jobs displaced in existing businesses or activities by the development (displacement).

Natural Area: Sub-division of England, each with a characteristic association of wildlife and natural features.

Negative List: See exclusion List

New Town - free-standing new settlement designated and planned under the New Towns Act 1946 and subsequent legislation.

NGR: National Grid Reference used for identifying locations on OS maps.

Noise: Unwanted sound. May refer to both natural (e.g. wind, birdsong etc) and artificial sounds (e.g. traffic, noise from wind turbines, etc)

Noise sensitive receptors: Locations that may potentially be adversely affected by the addition of a new source of noise. Can include residential properties, outdoor areas and sensitive species.

Non-aquifer: A below ground layer of soil or rock that does not yield water.

Non-conforming Use - a use which does not conform to the general provisions of the development plan for the area in which it is located.

Non-Fossil Fuel Obligation (NFFO) - a provision of the Electricity Act 1989 requiring regional electricity companies to take a proportion of their electricity from energy sources other than fossil fuels.

Non-Technical Summary: A brief report summarising the principle sections of the Environmental Statement in non-technical language. The Non-Technical Summary is bound into the main report, but is also be available as a free-standing document.

O o

Office of the Deputy Prime Minister (ODPM) - (previously Department of Transport, Local Government and the Regions (DTLR)) government department responsible for town and country planning policy and administration.

Open space: All open space of public value, including not just land, but also areas of water (such as rivers, canals, lakes and reservoirs) which offer important opportunities for sport and recreation and can act as a visual amenity.

Original building: A building as it existed on 1 July 1948 or, if constructed after 1 July 1948, as it was built originally.

OS: Ordnance Survey

Outline application - a general application for planning permission to establish that a development is acceptable in principle, subject to subsequent approval of detailed matters.

Out-of-Centre - a location that is separated from a town centre but is not necessarily outside the built-up area.

Out-of-town - an out-of-centre development on a green-field site or on land not clearly within the current urban boundary.

P p

Palaeolithic: Prehistoric time period from 450,000 – 12,000 BC.

Park and Ride - scheme enabling motorists to leave their vehicles at edge-of-town car parks and travel into town centres by public transport.

Parks and Gardens of Special Historic Interest (GSHI) - parks and gardens containing historic features dating from 1939 or earlier and registered by English Heritage in three grades as with historic buildings.

Pathways: The routes by which impacts are transmitted through air, water, soils or plants and organisms to their receptors.

Permeability: The ease at which liquids (or gases) can pass through rocks or a layer of soil.

Permitted Development Rights - rights to carry out certain limited forms of development without the need to make an application for planning permission, as granted under the terms of the Town and Country Planning (General Permitted Development) Order 1995.

pH: Scale of 0-14 defining the acidity/alkalinity of solutions including those in soils and water bodies; 0 = extremely acid, 14 = extremely alkaline and 7 = neutral.

Phase 1 Habitat Survey: first stage of strategy recommended by Nature Conservancy
Council (1990) for ecological surveys. Seeks to provide general description of
habitat/vegetation types within a study area, and to fit these to as standard classification
so that they can be readily compared.

Photomontage: computer aided process which incorporates a photograph of the existing site/view/landscape with a representation of the development to provide an impression of the visual impact of the Development.

Planning condition: A condition imposed on a grant of planning permission (in accordance with the Town and Country Planning Act 1990) or a condition included in a Local Development Order or Neighbourhood Development Order.

Planning Obligations and Agreements - legal agreements between a planning authority and a developer, or offered unilaterally by a developer, ensuring that certain extra works related to a development are undertaken, usually under Section 106 of the Town and Country Planning Act 1990.

Planning Gain - the principle of a developer agreeing to provide additional benefits or safeguards, often for the benefit of the community, usually in the form of related development supplied at the developer's expense.

Planning Policy Wales - document setting out the land use planning policies of the Welsh Assembly Government.

Plant: A building's generator, heating, ventilation, and/or electricity-production system.

Playing field: The whole of a site which encompasses at least one playing pitch as defined in the Town and Country Planning (Development Management Procedure) (England) Order 2010.

Population - A collection of individuals (plants or animals), all of the same species and in a defined geographical area.

Positive List: See Mandatory List.

Previously developed land: Land which is or was occupied by a permanent structure, including the curtilage of the developed land (although it should not be assumed that the whole of the curtilage should be developed) and any associated fixed surface infrastructure.

Proposals Map - an obligatory component of a local plan showing the location of proposals in the plan on an Ordnance Survey base map.

Protected Species - plant and animal species, including all wild birds, protected under the Conservation (Natural Habitats and Conservation) Regulations 1994, the Wildlife and Countryside Act 1981 and subsequent amendments, or other species protected under legislation specific to them and the Wildlife and Countryside (Amendments) Act 1985.

Public Open Space (POS) - land provided in urban or rural areas for public recreation, though not necessarily publicly owned.

Public Realm - outdoor areas accessible to the public.

Public Right of Way - a way where the public has a right to walk, and in some cases ride horses, bicycles, motorcycles or drive motor vehicles, which will be designated either as a footpath, a bridleway, a road used as a public path (RUPP) or a byway.

Purchase Notice - this requires a local planning authority to purchase an interest in land where a planning decision conflicts with the private interests of landowners.

Q q

Quasi-static equipment: moves sufficiently slowly to be considered stationary for the
purpose of noise assessment.

R r

Ramsar Site - area identified under the internationally agreed Convention on Wetlands of International Importance, especially as waterfowl sites and as Sites of Special Scientific Interest focusing on the ecological importance of wetlands generally.

Receptor - Any environmental or other defined feature (e.g. human beings) that is sensitive to or has the potential to be affected by an impact.
Recycling - the recovery of reusable materials from waste.

Regional Planning Guidance Notes (RPGs) -policy guidance and advice issued for each region in England by the Secretary of State.

Regional Shopping Centre - out-of-town concentration of shops, usually containing over 50,000 square metres gross retail area, typically offering a wide range of comparison goods.

Regionally Important Geological/Geomorphological Sites (RIGS) - non-statutory sites of regional importance recognised by English Nature and local authorities.

Regulation 7 Direction - a Direction made by the Secretary of State to remove from a particular site or defined area the benefit of deemed consent normally provided by the Town and Country Planning (Control of Advertisements) Regulations.

Renewable Energy - energy generated from resources that are unlimited, rapidly replenished or naturally renewable such as wind, water, sun, wave and refuse, and not from the combustion of fossil fuels.

Residual Effects/Impacts: Effects/Impacts predicted as a consequence of the development assuming successful implementation of the identified mitigation measures.

Review: The process of establishing whether an EIS is adequate for the Competent authority to use it to inform the decision on Development consent.

Ribbon development - a narrow band of development extending along one or both sides of a road.

Risk Assessment: An assessment of the likelihood and severity of an occurrence.

RSPB: Royal Society for the Protection of Birds.

Rural Development Area - priority area for economic and social development.

Rural Diversification - activities undertaken on surplus land to support farming incomes, including, for example, forestry, leisure and tourism.

S s

Scheduled Ancient Monument - a structure placed on a schedule compiled by the Department of National Heritage in England and Cadw in Wales for protection under the Ancient Monuments and Archaeological Areas Act.

Scoping - Is the procedure whereby the Competent Authority and the relevant statutory and other consultees are consulted at the outset, or very early in the EIA process, by the developer to agree what effects should be

covered in the Environmental Statement, how they should be covered and the methods to be used to assess them. If requested by the developer the Competent Authority must give a scoping opinion.

Screening - Is the process of deciding whether a particular project that is proposed is subject to the EIA process. It involves checking whether the project falls within the classes of project in Schedules 1 or 2 of the Regulations (or Annexes I or II of the Directives) and if in Schedule 2, whether it would be likely to have significant effects on the environment.

Section 106 Agreement (see Planning Gain) - a binding agreement between a council and a developer associated with a grant of planning permission and regarding matters linked to the proposed development.

Site of Importance for Nature Conservation (SINC): An area of land designated by a local authority because it supports nature conservation of significance in a county context. Designation criteria and policy context may vary between different local authority areas but they are usually linked with planning policies relating to nature conservation.

Site of Special Scientific Interest (SSSI) - area identified by English Nature or Countryside Council for Wales for protection by reason of the rarity of its nature conservation or wildlife features.

Special Area of Conservation: Land protected under Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora. Data supplied has a status of 'Candidate'.

Special Needs Housing - housing to meet need arising from homelessness or overcrowding, and purpose-built or supported housing for the elderly or disabled people or those requiring care.

Special Protection Area: Land classified under Directive 79/409 on the Conservation of Wild Birds. Data supplied has a status of 'Classified'.

Statutory - required by law (statute), usually through an Act of Parliament.

Statutory Consultee – Any body specified in the relevant EIA Regulations which the Competent Authority must consult in respect of an Environmental Statement, and which also has a duty to provide information or advice during the EIA process

Statutory Undertakers/Statutory Utilities - providers of essential services such as gas, electricity, water or telecommunications.

Stop Notice - a notice served in respect of land subject to enforcement proceedings prohibiting the carrying out or continuing of specified operations which are alleged to constitute a breach of planning control and designed to stop work going on pending the outcome of an appeal.

Structure Plan - statutory plan setting out key strategic policies which provide the framework for more detailed policies in local plans.

Sui Generis - uses of land or buildings which do not fall into any of the use classes identified by the Use Classes Order, for example theatres, launderettes, car showrooms and filling stations.

Supplementary Planning Guidance - additional advice issued by a local planning authority expanding upon its statutory policies.

Sustainable Development - environmentally responsible development, commonly defined as "development which meets the needs of the present generation without compromising the ability of future generations to meet their own needs".

T t

TANs - technical advice notes for Wales which provide topic-based supplements to the policy document Planning Policy Wales.

Threshold: A level of effect above which an assessment will be taken of whether any changes to procedures need to be made.

Topography: The natural or artificial features, level and surface form of the ground surface.

Town Centre - describes city, town and traditional suburban centres which provide a broad range of facilities and services and which fulfil a function as a focus for a community and for public transport.

Town Centre Management - partnership of local organisations, businesses and individuals to promote the common good of a town by developing, managing, promoting and improving facilities, the useful resources, the economy and the environment of a town centre.

Townscape - the appearance and character of buildings and all other features of an urban area taken together as a whole.

Traffic Calming - management measures designed to lower traffic speeds or redirect traffic to alternative routes to avoid congestion, reduce accidents and injuries and prevent excess levels of pollution.

Transport assessment: A comprehensive and systematic process that sets out transport issues relating to a proposed development. It identifies what measures will be required to improve accessibility and safety for all modes of travel, particularly for alternatives to the car such as walking, cycling and public transport and what measures will need to be taken to deal with the anticipated transport impacts of the development.

Travel plan: A long-term management strategy for an organisation or site that seeks to deliver sustainable

transport objectives through action and is articulated in a document that is regularly reviewed.

Transport Policy and Programme (TPP) - statutory document setting out a transport authority's bid for the programming and funding of transport measures, produced annually for submission to central government.

Transport statement: A simplified version of a transport assessment where it is agreed the transport issues arising out of development proposals are limited and a full transport assessment is not required.

Travel to Work Area (TTWA) - a broadly self-contained labour market area usually focused on an urban employment centre.

Tree Preservation Order (TPO) - direction made by a local planning authority that makes it an offence to cut, top, lop, uproot or wilfully damage or destroy a tree without that authority's permission.

Trial pits: intrusive investigation positions excavated by a mechanical excavator.

U u

Unitary Development Plan - local plan produced by certain unitary district authorities and London boroughs which have responsibility for the full range of local authority services.

Urban Fringe - predominantly open land on the edge of an existing urban area.

Urban Regeneration - the re-use or redevelopment of decaying or run-down parts of older urban areas to bring them new life and economic vitality.

Use Classes Order - the Town and Country Planning (Use Classes) Order 1987 puts uses of land and buildings into various categories, planning permission not being required for changes of use within the same use class. In practice changes between use classes are likely to require planning permission.

V v

Vibration: In this context, refers to vibration carried in structures such as the ground or buildings, rather than airborne noise

Village envelope - boundaries defined on a map beyond which the local planning authority proposes that a village should not be allowed to extend.

Visual amenity: The value of a particular area or view in terms of what is seen.

Visual effect: Change in the appearance of the landscape as a result of development. This can be positive (i.e. beneficial or an improvement) or negative (i.e. adverse or a detraction).

Visual envelope: Extent of potential visibility to or from a specific area or feature.

W w

Welsh Assembly Government - a body that develops and implements policy in Wales via the civil service and a range of sponsored bodies.

Wildlife Corridor - a continuous area facilitating the movement of wildlife through rural or urban environments.

Wind Farm - large open site where wind speeds are consistently high on which a number of wind turbines generate electricity for private or commercial use.

Wind turbine. A term used for a wind energy onversion device that produces electricity.

Wireline perspective: computer aided process which shows landform and number and extent of wind turbines visible from a view.

Written Statement - documentary statement of policy, forming part of a development plan submitted by a local planning authority and requiring formal approval.

X x

Y y

Z z

Zone of influence. The areas/resources that may be affected by the biophysical changes caused by activities associated with a project.

Zone of Theoretical Visibility (ZTV): representation (usually presented as a map with
markings or colourings) of the area over which a site and/or a proposed development may be visible. Does not account for buildings or trees local to the viewer that may obscure a view.

ES Part 1 Appendix 2


Orkney
Western Isles
Skye
Highland
Grampian
Tayside
Mull
Fife
Central
Islay
GLASGOW
Lothian
Strathclyde
Arran
Borders
Dumfries And Galloway
North Umberland
Tyne & Wear
Durham
Cumbria
Cleveland
Isle Of Man
North Yorkshire
Derry
Antrim
Tyrone
BELFAST
Fermanagh
Armagh
Down
Lancashire
West Yorkshire
Humberside
Warrington
Greater Manchester
Merseyside
South Yorkshire
Anglesey
Cheshire
Derbyshire
Lincolnshire
Nottinghamshire
Clwyd
Gwynedd
Staffordshire
Leicestershire
Norfolk
Shropshire
West Midlands
North-Hamptonshire
Cambridgeshire
Warwickshire
Suffolk
Powys
Hereford & Worcester
Bedfordshire
Dyfed
Buckinghamshire
Essex
Gloucestershire
Hertfordshire
Oxfordshire
Mid Glamorgan
Gwent
West Glamorgan
Greater London
LONDON
South Glamorgan
Avon
Berkshire
Surrey
Kent
Wiltshire
Somerset
Hampshire
W. Sussex
E. Sussex
Devon
Dorset
Isle of Wight
Cornwall


Greater Manchester & Cheshire
ENGLAND
Leyland
Darwen
Calderdale
Euxton
Blackburn with Darwen
Southport
Eccleston
Chorley
Ramsbottom
Coppull
Burscough Bridge
Lancashire
Adlington
Horwich
Tottington
Rochdale
Appley Bridge
Bury
Sefton
Ormskirk
Blackrod
Bolton
Shaw
Formby
Skelmersdale
Royton
Wigan
Whitefield
Chadderton
Oldham
Aughton
Maghull
Pendlebury
Prestwich
Mossley
Rainford
Tameside
Crosby
Kirkby
Billinge
Salford
Litherland
Bootle
Knowsley
St Helens
Newton-le-Willows
Manchester
Droylsden
Longdendale
Irlam
Stretford
Denton
Hyde
Wallasey
Prescot
Cadishead
Sale
Moreton
Liverpool
Huyton with Roby
Trafford
Stockport
Birkenhead
Warrington
Altrincham
Marple
Wirral
Widnes
Halebarns
New Mills
Bebington
Halewood
Handforth
Poynton
Bromborough
Hale
Halton
Speke
Wilmslow
Runcorn
Knutsford
Alderley Edge
Bollington
Neston
Frodsham
Acton Bridge
Little Sutton
Helsby
Ellesmere Port
Weaverham
Northwich
Nether Alderley
Macclesfield
Flint
Cuddington
Cheshire
Chester
Middlewich
Winsford
Buckley
Broughton
Congleton
Sandbach
Biddulph
Leek
Crewe
Alsager
Kidsgrove
Staffordshire
Gresford
Nantwich
Wrexham
Wrecsam
Cheddleton
Audley
Stoke-on-Trent
Newcastle-under-Lyme
Cheadle
Ruabon
Rhiwabon
Whitchurch
Shropshire
M6
M56
M53
M58
M60
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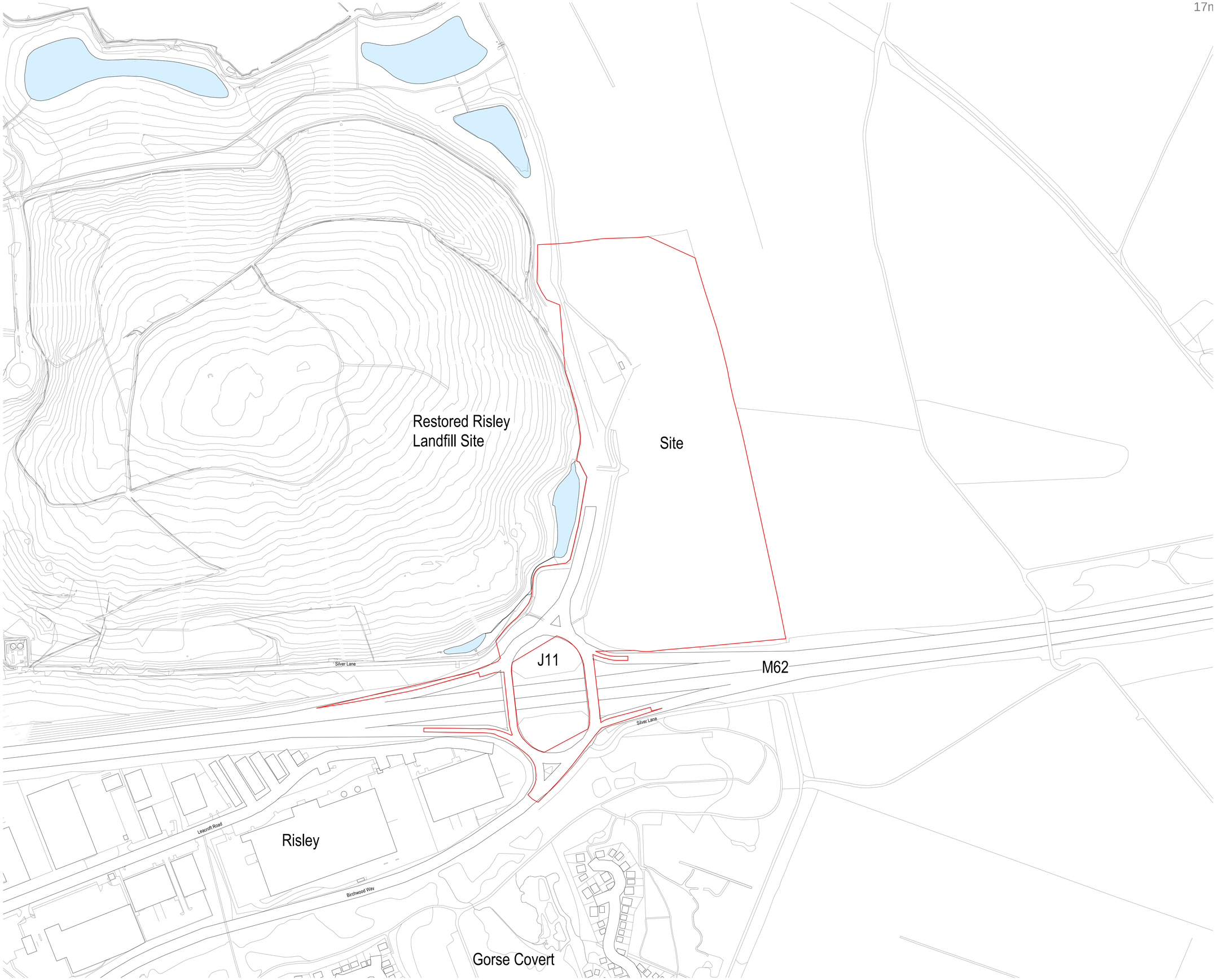
A539
A520
A522
A523

ES Part 1 Appendix 3


Culceth
Risley Country Park
Proposed
MSA
Site
M62
Birchwood Technology Park
Gorse Covert



17n

1:2500

0 50 100 250 m

N

KEY

Application Boundary

NOTES:

The site boundary is based on Wardell Armstrong drawing no SH11739-006 with amendments discussed with Wardell Armstrong, Shoosmiths, Spawforths and i-transport and approved by Extra.

This red line boundary is to be used for planning purposes only.

Site and surrounding information based on Ordnance Survey Plan Information supplied by Spawforths. Licence no. 100022432.

Area of restored landfill site amended to reflect current site conditions.

Rev:	Date:	Description:	By:	Rvw:
P3	26.07.19	Outline Planning Issue	JLR	TW
P2	22.05.19	Planning Draft For Review	TW	NAB
P1	11.04.19	Change of format	JLR	TW

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Client:

EXTRA MSA GROUP

Project No:	Project Name:
2562	WARRINGTON MOTORWAY SERVICE AREA, J11 M62

Document Reference:

Project - Originator - Volume - Level - Type - Role - Number

RMS - 519 - ZZ - XX - DR - A - 0740

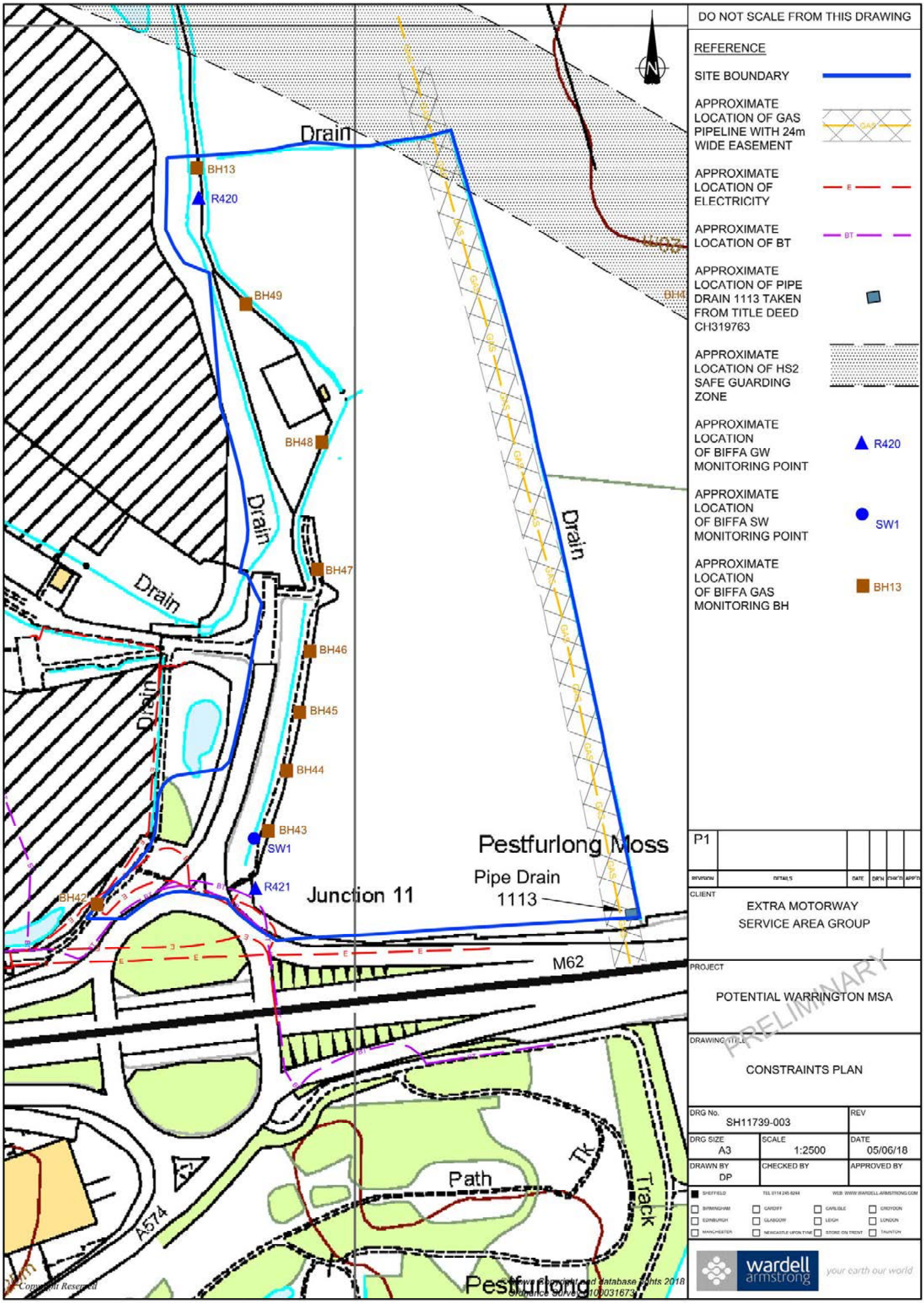
SITE LOCATION PLAN

Status: Code: Suitability description

Revision: Code: P3 Revision status: Planning

Created By:	Reviewed By:	Date:	Scale at A1:
JLR	TW	01.04.19	1 : 2500

ES Part 1 Appendix 4



P1					
REVISION	DETAILS	DATE	DR'N	CHK'D	APP'D

CLIENT
EXTRA MOTORWAY SERVICE AREA GROUP

PROJECT
POTENTIAL WARRINGTON MSA

PRELIMINARY

DRAWING TITLE
CONSTRAINTS PLAN

DRG No.	REV
SH11739-003	

DRG SIZE	SCALE	DATE
A3	1:2500	05/06/18

DRAWN BY	CHECKED BY	APPROVED BY
DP		

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N:\SH\SH11739 - MOTORWAY SERVICES, WARRINGTON\03 - DESIGN\DRAWINGS\SH11739-003.P1.DWG

ES Part 1 Appendix 5

0 25 50 125 m

N

NOTES

The site boundary is based on Wardell Amstrong drawing no SH11739-006 with amendments discussed with Wardell Armstrong, Shoosmiths, Spawforths and i-transport and approved by Extra.

This red line boundary is to be used for planning purposes only.

All legal boundaries to be confirmed by the client.

Site and surrounding information based on Ordnance Survey Plan Information supplied by Spawforths. Licence no. 100022432

Area of restored landfill site amended to reflect current site conditions

19.18
20.57
20.45
20.16
19.92
Zone of Facilities and Hotel Buildings
Ground Floor FFL : 20.65m +/-2.0m
25.25
22.90
20.84
23.26
23.19
24.26
21.22
26.22
Zone of fuel filling station and internal vehicular circulation
Ground Floor FFL : 22.55m +/-2.0m
21.95
21.46
21.85
22.90

KEY

Red line boundary

21.650 Spot Height - Proposed Level - With +/-0.5m tolerance to allow for scheme evolution

RESTRICTIVE ZONES

Position of gas pipeline as Wardell Armstrong survey drawing SH11739-019-B

Extents of 24m wide gas pipeline easment zone

Extents of HSE 96m Inner Consultation Zone from gas pipeline

Location of HS2 safe guarding zone as Wardell Armstrong drawing SH11739-003

DEVELOPMENT CELLS

Zone of Facilities and Hotel Buildings (including incidental landscaped areas) - Max building height 15m. This area also includes the service yard and external amenity spaces. With +/-2.0m tolerance to allow for scheme evolution and datum level adjustments. (Maximum 37.65m AOD)

Zone of Fuel Filling Station and internal vehicular circulation (including incidental landscaped areas) - Max building height 6.5m. With +/-2.0m tolerance to allow for scheme evolution and datum level adjustments. (Maximum 31.05m AOD)

Landscaped vehicle parking and circulation zone including drainage and ecological features

Extent of proposed access in and out of the site area

GREEN INFRASTRUCTURE

Existing and proposed landscaping, including ecological habitats and drainage

Diverted footpath zone and associated ecological habitat and landscaping

Corridor for Silver Lane Brook Diversion and associated ecological habitat and landscaping

Rev:	Date:	Description:	By:	Rvw:
P12	24.07.19	Outline Planning Issue	TW	JR
P11	16.07.19	Full update in line with Spawforths advice DTM 15.07.19	TW	TW
P10	08.07.19	Full update	MU	TW
P9	22.05.19	Planning Draft For Review	TW	NAB
P8	12.04.19	Site levels provided by Wardell Armstrong added	JLR	TW
P7	10.04.18	Updated restored landfill area. Amended brook diversion zone	JLR	TW
P6	18.03.19	Updated following comments	TW	TW
P5	15.03.19	Updated following comments and surveyed gas main	JLR	TW
P4	08.03.19	Updated following scheme revision	JLR	TW
P3	18.12.18	Updated parameter plans following client comment	SK	JR
P2	04.12.18	Parameters Plans revised following updated layouts	SK	JR
P1	03.12.18	Parameters Plans revised to Spawforths and Extra's comment	SK	JR

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Client:

EXTRA MSA GROUP

Project No: 2562

Project Name: WARRINGTON MOTORWAY SERVICE AREA, J11 M62

Document Reference:

Project - Originator - Volume - Level - Type - Role - Number

RMS - 519 - ZZ - XX - DR - A - 0703

COMBINED PARAMETER PLAN

Status: Code — Suitability description

Revision: Code **P12** — Revision status Planning

Created By:	Reviewed By:	Date:	Scale at A1:
SK	SB	03.12.18	1 : 1250

0 25 50 125 m

N

Zone of Facilities and Hotel Buildings

Zone of fuel filling station and internal vehicular circulation

NOTES

The site boundary is based on Wardell Amstrong drawing no SH11739-006 with amendments discussed with Wardell Armstrong, Shoosmiths, Spawforths and i-transport and approved by Extra.

This red line boundary is to be used for planning purposes only.

All legal boundaries to be confirmed by the client.

Site and surrounding information based on Ordnance Survey Plan Information supplied by Spawforths. Licence no. 100022432

Area of restored landfill site amended to reflect current site conditions

KEY

Red line boundary

DEVELOPMENT CELLS

Zone of Facilities and Hotel Buildings (including incidental landscaped areas) - Max building height 15m. This area also includes the service yard and external amenity spaces. With +/-2.0m tolerance to allow for scheme evolution and datum level adjustments. (Maximum 37.65m AOD)

Zone of Fuel Filling Station and internal vehicular circulation (including incidental landscaped areas) - Max building height 6.5m. With +/-2.0m tolerance to allow for scheme evolution and datum level adjustments. (Maximum 31.05m AOD)

Landscaped vehicle parking and circulation zone including drainage and ecological features

Extent of proposed access in and out of the site area

Rev:	Date:	Description:	By:	Rvw:
P10	24.07.19	Outline Planning Issue	TW	JR
P9	16.07.19	Full update in line with Spawforths advice DTM 15.07.19	TW	TW
P8	08.07.19	Full update	MU	TW
P7	22.05.19	Planning Draft For Review	TW	NAB
P6	10.04.18	Updated restored landfill area. Amended brook diversion zone	JLR	TW
P5	18.03.19	Updated following comments	TW	TW
P4	15.03.19	Updated following comments and surveyed gas main	JLR	TW
P3	08.03.19	Update following scheme revisions	JLR	TW
P2	18.12.18	Updated parameter plans following client comment	SK	JR
P1	04.12.18	Parameters Plans revised following updated layouts	SK	JR

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Client:

EXTRA MSA GROUP

Project No: 2562

Project Name: WARRINGTON MOTORWAY SERVICE AREA, J11 M62

Document Reference:

Project - Originator - Volume - Level - Type - Role - Number

RMS - 519 - ZZ - XX - DR - A - 0720

DEVELOPMENT CELLS PARAMETER PLAN

Status: Code: Suitability description:

Revision: Code: P10 Revision status: Planning

Created By:	Reviewed By:	Date:	Scale at A1:
JLR	TW	04.12.18	1 : 1250

0 25 50 125 m

N

NOTES

The site boundary is based on Wardell Amstrong drawing no SH11739-006 with amendments discussed with Wardell Armstrong, Shoosmiths, Spawforths and i-transport and approved by Extra.

This red line boundary is to be used for planning purposes only.

All legal boundaries to be confirmed by the client.

Site and surrounding information based on Ordnance Survey Plan Information supplied by Spawforths. Licence no. 100022432

Area of restored landfill site amended to reflect current site conditions

KEY

Red line boundary

GREEN INFRASTRUCTURE

Existing and proposed landscaping, including ecological habitats and drainage

Diverted footpath zone and associated ecological habitat and landscaping

Corridor for Silver Lane Brook Diversion and associated ecological habitat and landscaping

Rev:	Date:	Description:	By:	Rvw:
P10	24.07.19	Outline Planning Issue	TW	JR
P9	16.07.19	Full update in line with Spawforths advice DTM 15.07.19	TW	TW
P8	08.07.19	Full update	MU	TW
P7	22.05.19	Planning Draft For Review	TW	NAB
P6	10.04.18	Updated restored landfill area. Amended brook diversion zone	JLR	TW
P5	18.03.19	Updated following comments	TW	TW
P4	15.03.19	Updated following comments and surveyed gas main	JLR	TW
P3	08.03.19	Update following scheme revisions	JLR	TW
P2	18.12.18	Updated parameter plans following client comment	SK	JR
P1	04.12.18	Parameters Plans revised following updated layouts	SK	JR

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Client:

EXTRA MSA GROUP

Project No: 2562

Project Name: WARRINGTON MOTORWAY SERVICE AREA, J11 M62

Document Reference:

Project - Originator - Volume - Level - Type - Role - Number

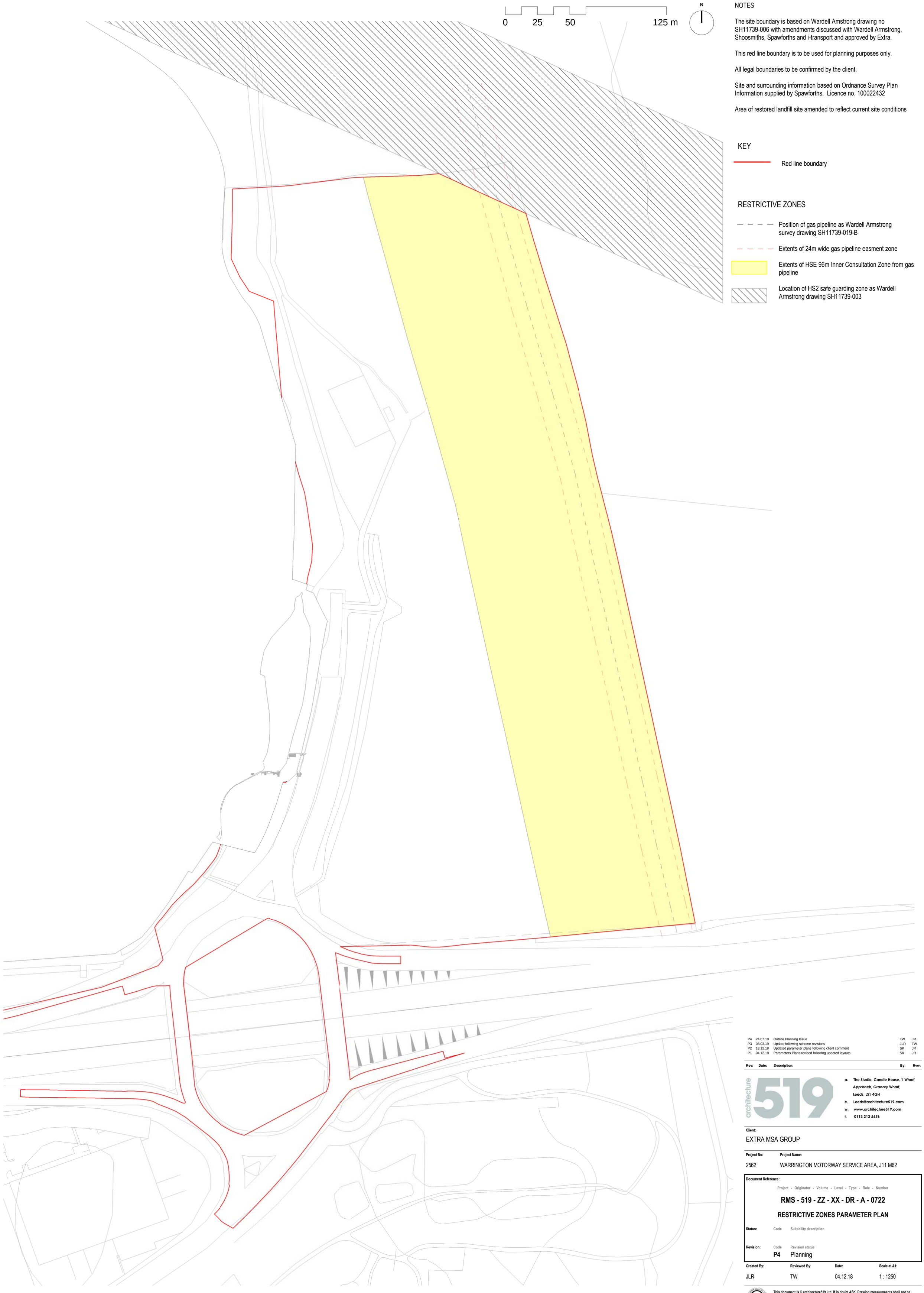
RMS - 519 - ZZ - XX - DR - A - 0721

GREEN INFRASTRUCTURE PARAMETER PLAN

Status: Code — Suitability description

Revision: Code **P10** — Revision status Planning

Created By:	Reviewed By:	Date:	Scale at A1:
JLR	TW	04.12.18	1 : 1250



NOTES

The site boundary is based on Wardell Amstrong drawing no SH11739-006 with amendments discussed with Wardell Armstrong, Shoosmiths, Spawforths and i-transport and approved by Extra.

This red line boundary is to be used for planning purposes only.

All legal boundaries to be confirmed by the client.

Site and surrounding information based on Ordnance Survey Plan Information supplied by Spawforths. Licence no. 100022432

Area of restored landfill site amended to reflect current site conditions

KEY

Red line boundary

RESTRICTIVE ZONES

Position of gas pipeline as Wardell Armstrong survey drawing SH11739-019-B

Extents of 24m wide gas pipeline easment zone

Extents of HSE 96m Inner Consultation Zone from gas pipeline

Location of HS2 safe guarding zone as Wardell Armstrong drawing SH11739-003

Rev:	Date:	Description:	By:	Rvw:
P4	24.07.19	Outline Planning Issue	TW	JR
P3	08.03.19	Update following scheme revisions	JLR	TW
P2	18.12.18	Updated parameter plans following client comment	SK	JR
P1	04.12.18	Parameters Plans revised following updated layouts	SK	JR

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Client:

EXTRA MSA GROUP

Project No: 2562

Project Name: WARRINGTON MOTORWAY SERVICE AREA, J11 M62

Document Reference:

Project - Originator - Volume - Level - Type - Role - Number

RMS - 519 - ZZ - XX - DR - A - 0722

RESTRICTIVE ZONES PARAMETER PLAN

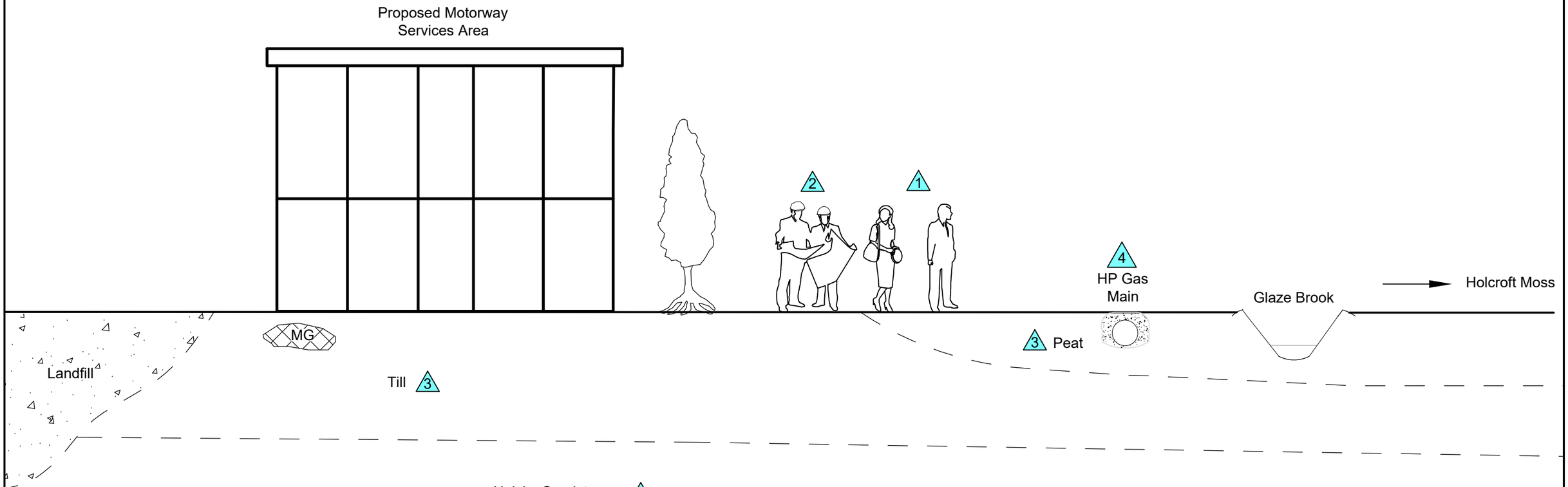
Status: Code: Suitability description:

Revision: Code: P4 Revision status: Planning

Created By:	Reviewed By:	Date:	Scale at A1:
JLR	TW	04.12.18	1 : 1250

ES Part 1 Appendix 6

DO NOT SCALE FROM THIS DRAWING



Receptor
1. Future Occupiers - Human Health Receptor
2. Construction Workers - Human Health Receptor
3. Peat and other Geological Strata
4. HP Gas Main - Stability and other issues to be considered

REVISION	DETAILS	DATE	DR'N	CHK'D	APP'D
A	FIRST ISSUE	13/12/18	SJB	JAS	AJD

CLIENT
EXTRA MSA GROUP

PROJECT
POTENTIAL WARRINGTON MSA

DRAWING TITLE
RECEPTOR PLAN
- GROUND CONDITIONS

DRG No.	REV
SH11739-011	A

DRG SIZE	SCALE	DATE
A3	NTS	05/12/18

DRAWN BY	CHECKED BY	APPROVED BY
DP	JAS	AJD

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N:\SH\SH11739 - MOTORWAY SERVICES, WARRINGTON\03 - DESIGN\DRAWINGS\SH11739-011-A.DWG

Regional
Drivers at M62 J11 including at the slip roads and on the J10-J11 weaving section of the M62

Local/Neighbourhood
Pedestrians on the site access arm from M62 J11

M62 J11

Local/Neighbourhood
Pedestrians at M62 J11 and parallel to A574 Birchwood Way

Local/Neighbourhood
Bus users in vicinity of the site

Borough/District
Drivers at A574 Birchwood Way/ Daten Avenue/ Moss Gate Junction

Daten Avenue

A574 Birchwood Way

M62 J10/M6 J21A

M6

N

KEY:

Proposed Development

i-Transport

Centurion House, 129 Deansgate,
Manchester, M3 3WR

Tel: 0161 830 2172
Fax: 0161 830 2173

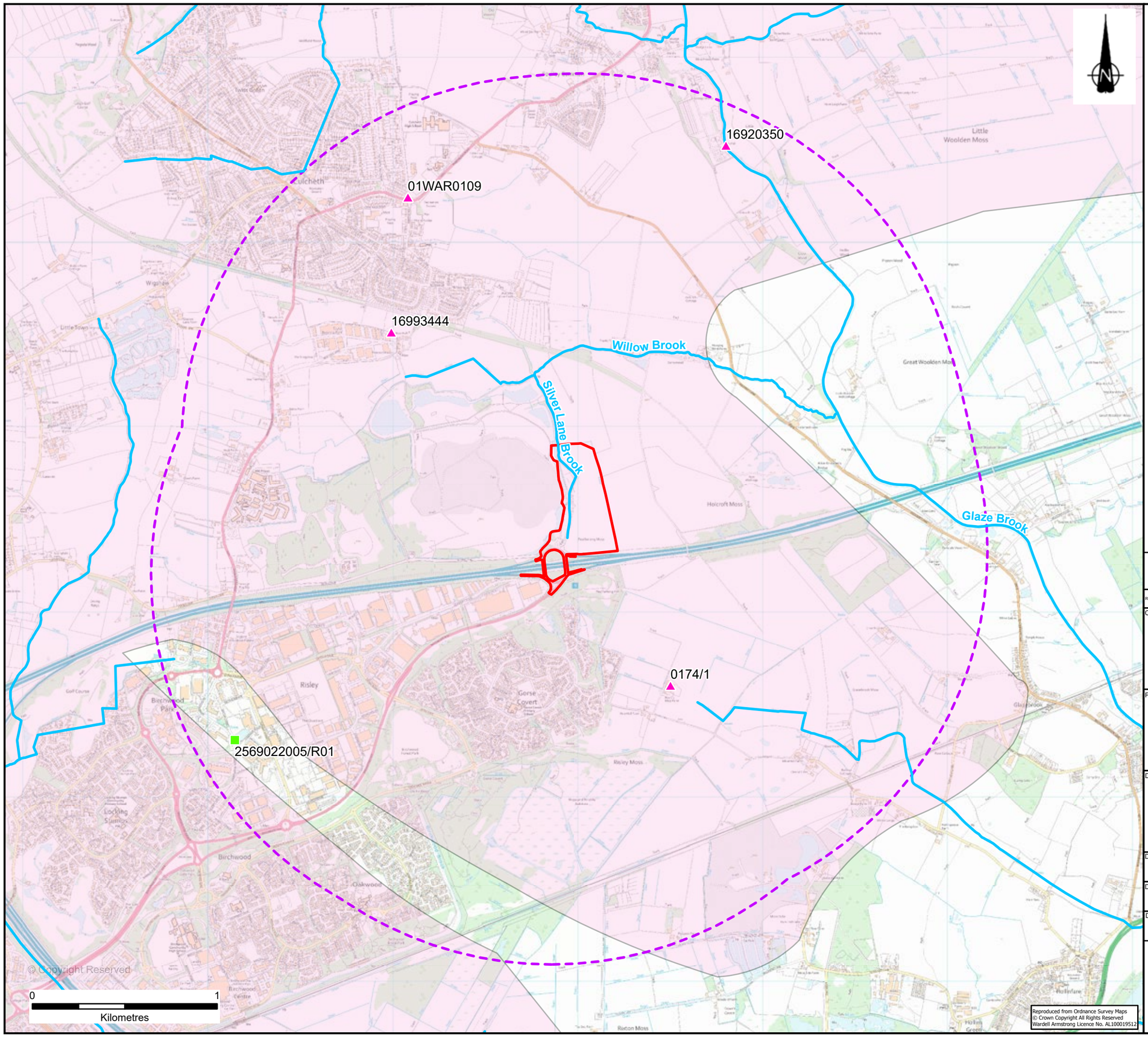
www.i-transport.co.uk

TITLE:

WARRINGTON MSA, J11 M62
TRAFFIC & TRANSPORTATION -
RECEPTOR PLAN

FIGURE No:

FIGURE 2.1



KEY

- Site Boundary
- 2km Buffer
- Main Rivers
- Source Protection Zone 3: (Total Catchment)
- Discharge
- Abstraction

REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
B	AMENDED SITE BOUNDARY	JULY 2019	SW	RG	LB
A	FIRST ISSUE	APRIL 2019	HM	RG	LB

CLIENT

EXTRA MSA GROUP

PROJECT

MOTORWAY SERVICES, WARRINGTON

DRAWING TITLE

FIGURE 9.1
LOCAL WATER RESOURCES

DRG No.		REV
SH11739/Figure 9.1		A
DRG SIZE	SCALE	DATE
A3	1:20,000	18/07/2019
DRAWN BY	CHECKED BY	APPROVED BY
HM	RG	LB

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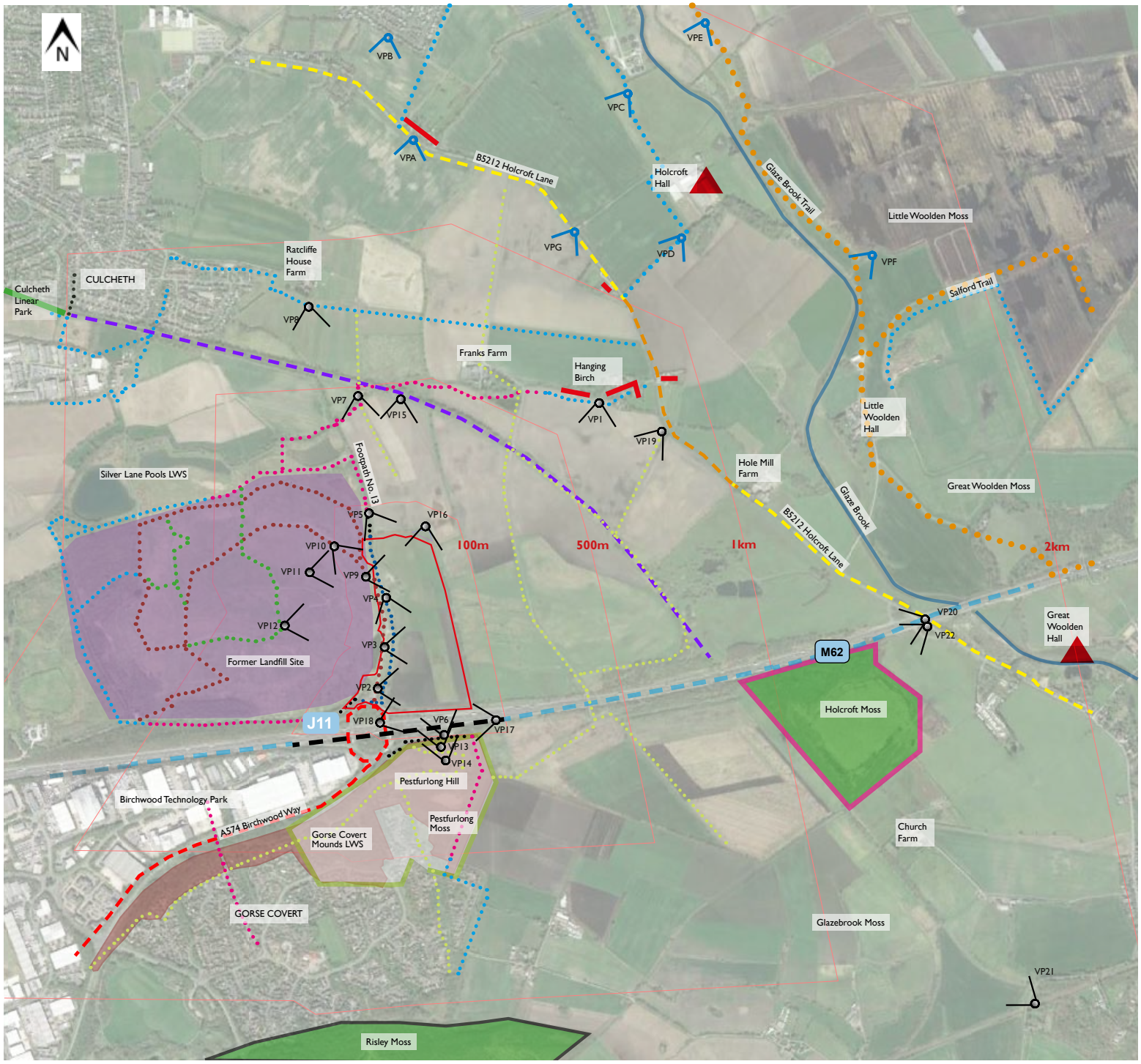
Figure 4.1 - Scoping Stage: Potential Receptor Viewpoints Mapped on Aerial Photograph



KEY

- Proposed Application Boundary
- Offsets from Application Boundary
- Potential receptor Viewpoints identified in LVIA Scoping (VP7)
- Potential receptor Viewpoints identified following Scoping feedback/ZTV update (VPA)

Residential receptors

- R1 - properties with front, rear or side elevations facing site, within 1.5km (representative view is VP1)

Recreation receptors

- R2 - Public Right of Way within the Site (VP2, 3,4 and 5)
- R3 - Public Right of Way within 100m of Site Boundary (VP5 and 6)
- R4 - Public Right of Way within 500m of Application Boundary (VP8)
- R5- Public Rights of Way within 2km of Application Boundary (VP2 and 8,VPC,VPD,VPE)
- R6 - Permissive Bridleway and Footpath on former (restored) landfill site within 1000m of Application Boundary (VP9, 10, 11 and 12)
- R7 - Non-designated access track within 500m of Application Boundary (VP13 and 14)

Place of work receptors

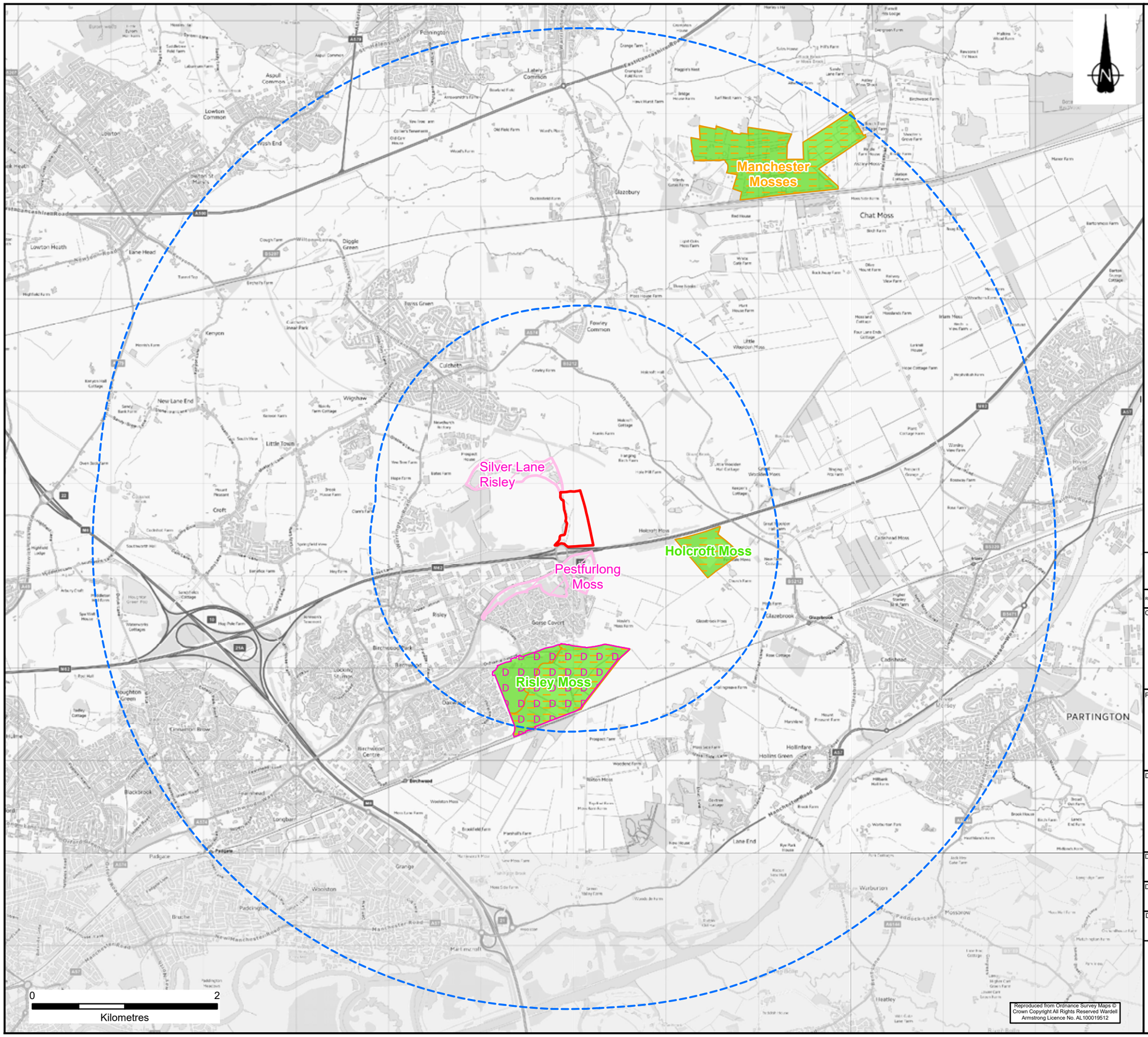
- R8 - Elevated disused railway line within 1km of Application Boundary (VP15)
- R9 - No Places of Work receptors have been identified as having views of the site, other than land and buildings included under Recreation Receptors above, and adjacent agricultural land (VP16,VPF)

Transport receptors

- R10 - M1 Motorway and slip roads within 100m of Application Site boundary (VP16)
- R11- M1 Motorway and slip roads within 1km of Application Site boundary (no views included)
- R12 - A-Roads within 500m of the Application Site boundary (VP18)
- R13 - B-Roads within 1km of the Application Site boundary (VP19)
- R14 - B-Roads within 2km of the Application Site boundary (VP20 and 21)
- R15 - Holcroft Moss SSSI

Source of Aerial Photography is Google Earth Pro. Please refer to Photoviews.

spawforths



KEY

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

REVISION	DETAILS	DATE	DRAWN	CHKD	APPD
.	.	.	.	.	.

CLIENT

EXTRA MSA GROUP

PROJECT

MOTORWAY SERVICES, WARRINGTON

DRAWING TITLE

RECEPTORS PLAN

DRG No.	REV
SH11739/017	A

DRG SIZE	SCALE	DATE
A3	1:40,000	14/12/2018

DRAWN BY	CHECKED BY	APPROVED BY
SW	TP	MB

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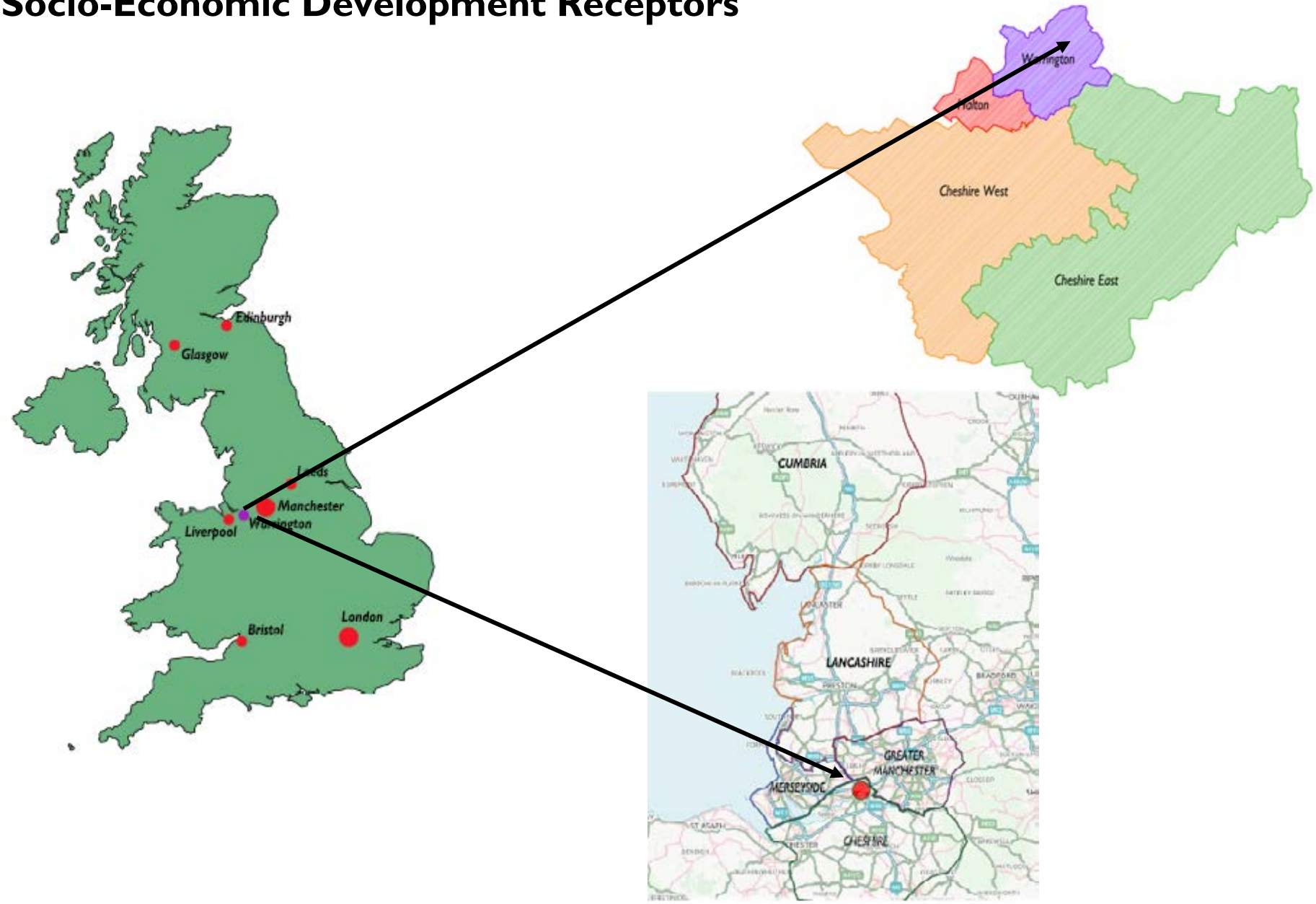
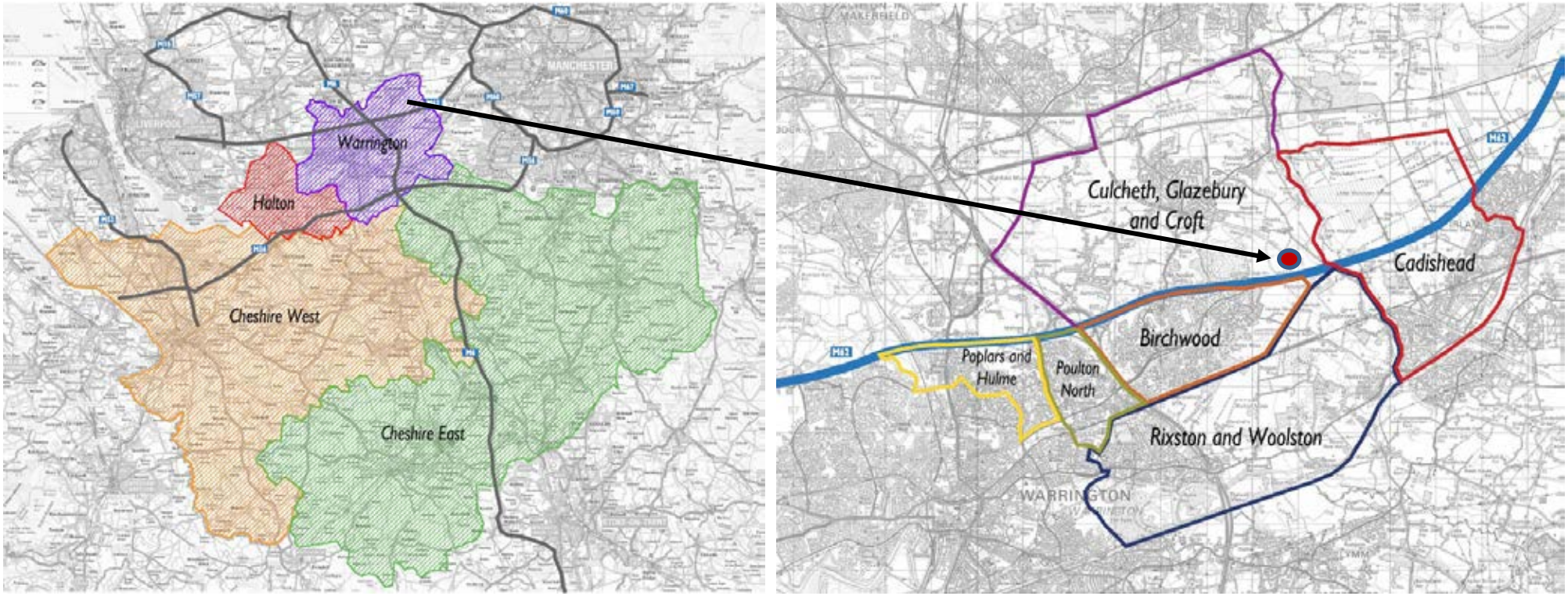
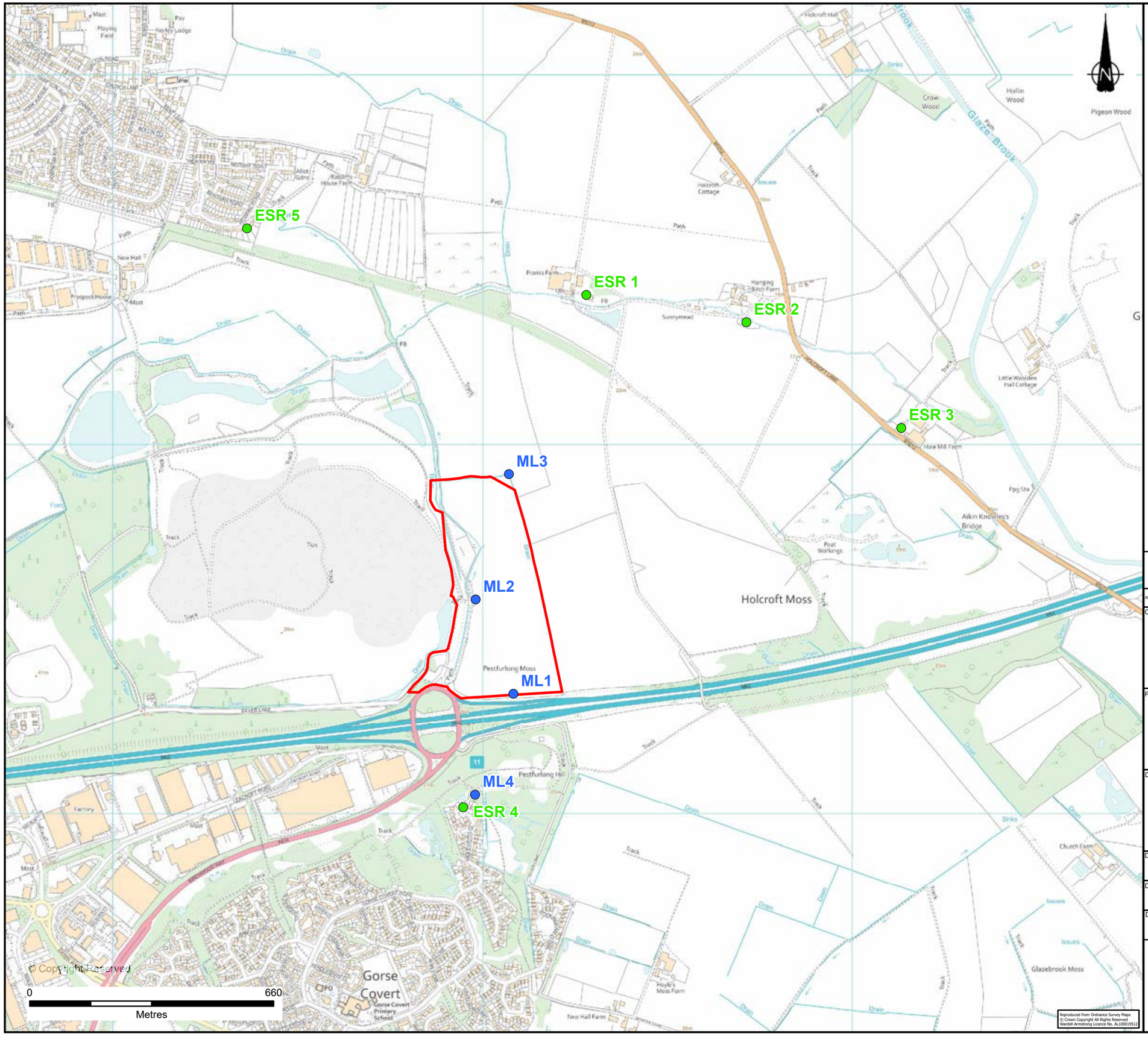
Socio-Economic Development Receptors




Warrington
Halton
Cheshire West
Cheshire East
Culcheth, Glazebury and Croft
Cadishead
Birchwood
Poplars and Hulme
Poulton North
Rixston and Woolston
WARRINGTON



KEY

- Site Boundary
- Noise Monitoring Locations
- Existing Sensitive Receptors

REVISION	DETAILS	DATE	DRAWN	CHK'D	APP'D
.	.	.	.	.	.

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EXTRA MSA GROUP

PROJECT

WARRINGTON MSA

DRAWING TITLE

NOISE MONITORING AND EXISTING SENSITIVE RECEPTORS LOCATION PLAN

DRG No.		REV
SH11739-FIGURE 7.1		P01
DRG SIZE	SCALE	DATE
A3	1:10,000	26/04/2019
DRAWN BY	CHECKED BY	APPROVED BY
EF		

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DO NOT SCALE FROM THIS DRAWING

REFERENCE

- SITE BOUNDARY
- 350m CONSTRUCTION PHASE IMPACT ZONE
- DUST SENSITIVE RECEPTOR

REVISION	DETAILS	DATE	DR'N	CHK'D	APP'D
C	Site Boundary amended	02/08/19	CT	RF	MTW
B	Site Boundary amended	02/05/19	CT	RF	MTW

CLIENT

EXTRA MSA GROUP

PROJECT

WARRINGTON MOTORWAY
SERVICE AREA
JCT 11 M62

DRAWING TITLE

CONSTRUCTION PHASE RECEPTORS
(AIR QUALITY)

DRG No.		REV
Figure 8.1		C
DRG SIZE	SCALE	DATE
A3	1:5000	05/04/19
DRAWN BY	CHECKED BY	APPROVED BY
CT	RF	MTW

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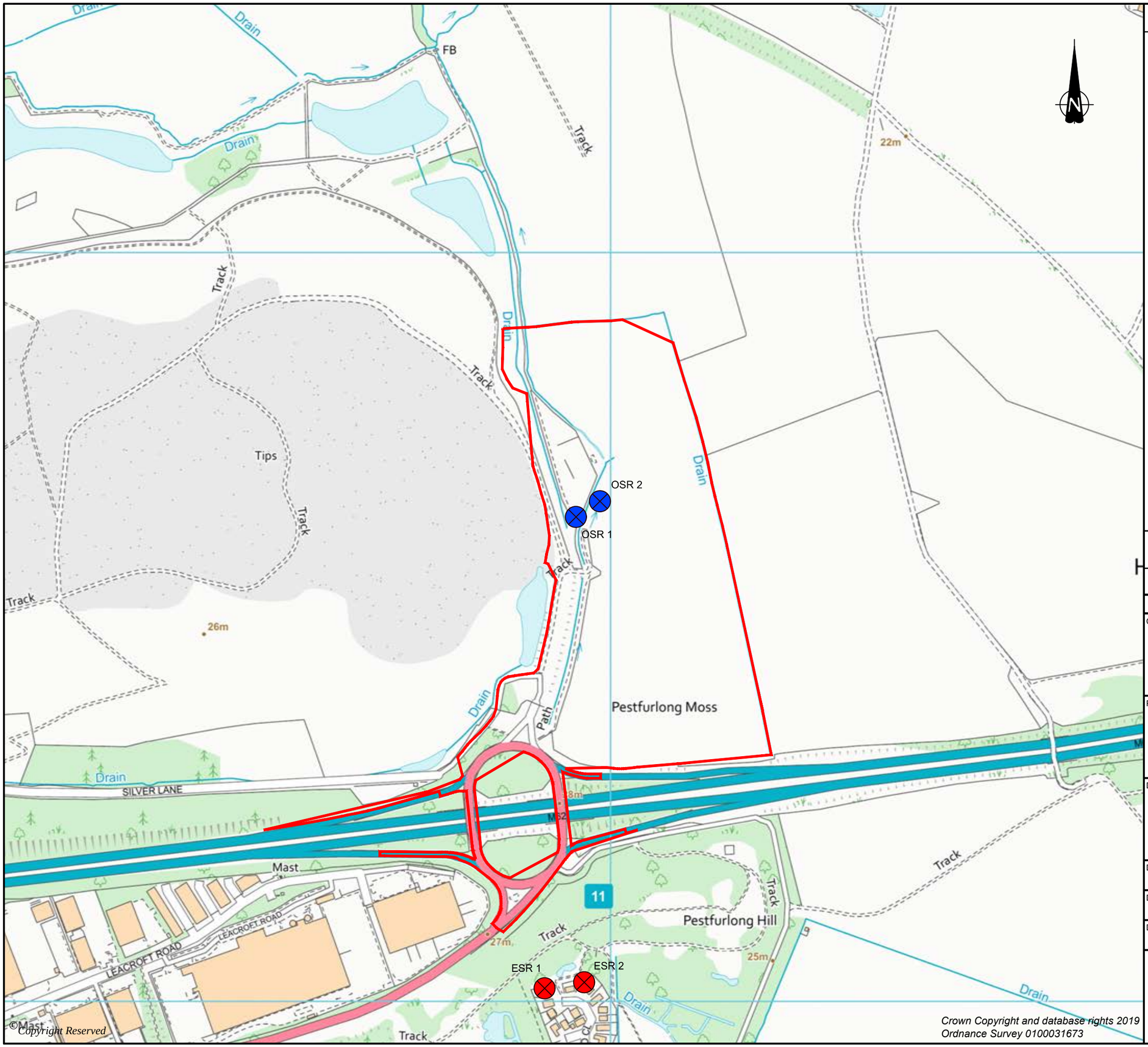
N:\SH\SH11739 - MOTORWAY SERVICES, WARRINGTON\03 - DESIGN\DRAWINGS\SH11739-FIGURE 8.1 REV C - CONSTRUCTION PHASE RECEPTORS.DWG



DO NOT SCALE FROM THIS DRAWING

REFERENCE

- SITE BOUNDARY
- EXISTING SENSITIVE RECEPTOR
- ODOUR SENSITIVE RECEPTOR

REVISION	DETAILS	DATE	DR'N	CHK'D	APP'D
C	Site Boundary amended	02/08/19	CT	RF	MTW
B	Site Boundary amended	02/05/19	CT	RF	MTW

CLIENT

EXTRA MSA GROUP

PROJECT

WARRINGTON MOTORWAY
SERVICE AREA
JCT 11 M62

DRAWING TITLE

OPERATIONAL PHASE RECEPTORS
(AIR QUALITY)

DRG No.	REV
Figure 8.2	C

DRG SIZE	SCALE	DATE
A3	1:5000	08/04/19

DRAWN BY	CHECKED BY	APPROVED BY
CT	RF	MTW

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N:\SH\SH11739 - MOTORWAY SERVICES, WARRINGTON\03 - DESIGN\DRAWINGS\SH11739-FIGURE 8.2 REV C - OPERATIONAL PHASE RECEPTORS.DWG

DO NOT SCALE FROM THIS DRAWING

REFERENCE

- SITE BOUNDARY
- FORMER RISLEY LANDFILL ENVIRONMENTAL PERMIT BOUNDARY
- ODOUR SENSITIVE RECEPTOR
- PREVAILING WIND DIRECTION

REVISION	DETAILS	DATE	DR'N	CHK'D	APP'D
C	Site Boundary amended	02/08/19	CT	RF	MTW
B	Site Boundary amended	02/05/19	CT	RF	MTW

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EXTRA MSA GROUP

PROJECT

WARRINGTON MOTORWAY
SERVICE AREA
JCT 11 M62

DRAWING TITLE

INDICATIVE SOURCE PATHWAY
AND RECEPTOR PLAN
(AIR QUALITY)

DRG No.	REV
Figure 8.3	C

DRG SIZE	SCALE	DATE
A3	1:5000	08/04/19

DRAWN BY	CHECKED BY	APPROVED BY
CT	RF	MTW

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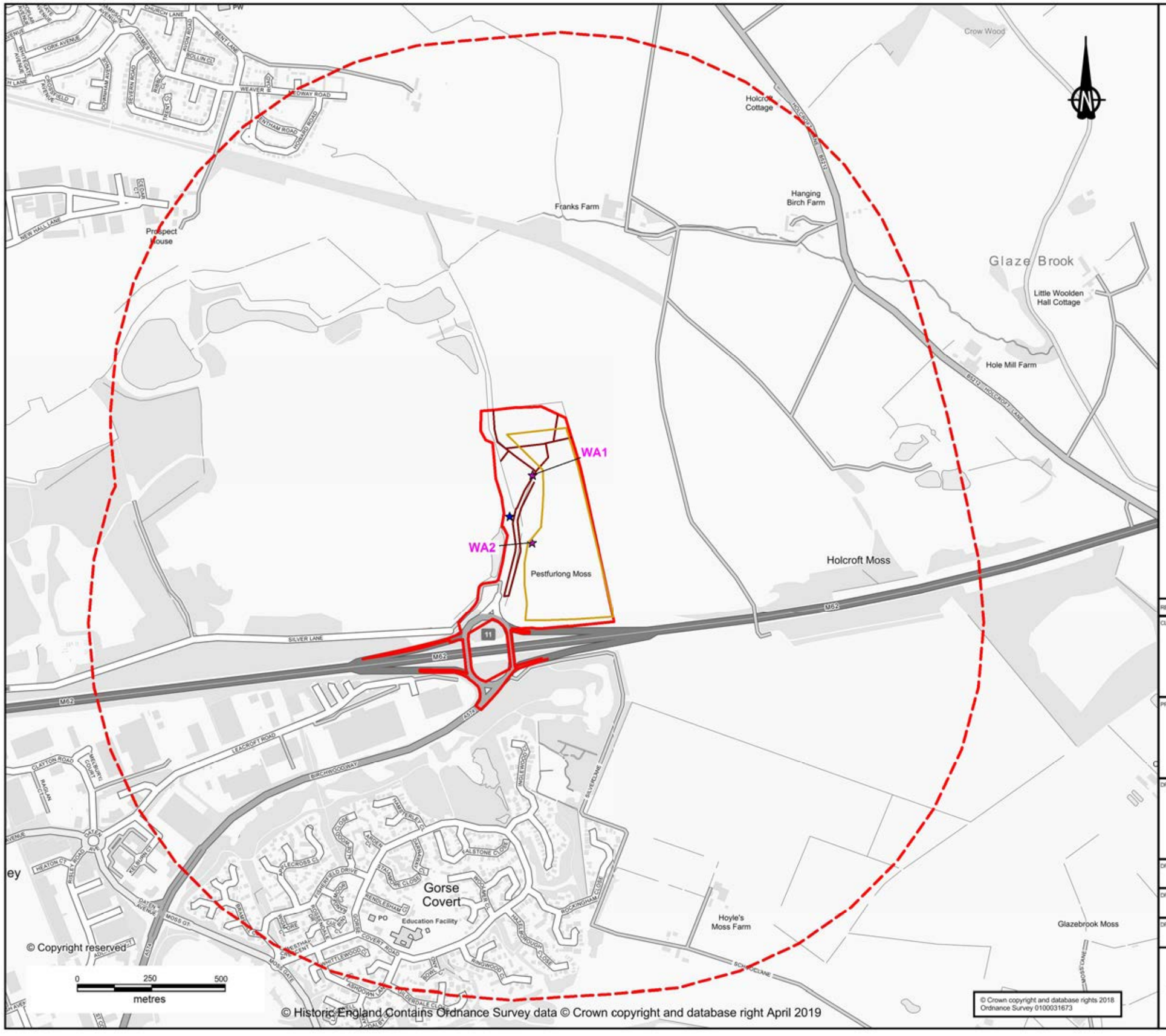
N:\SH\SH11739 - MOTORWAY SERVICES, WARRINGTON\03 - DESIGN\DRAWINGS\SH11739-FIGURE 8.3 REV C - INDICATIVE SOURCE PATHWAY AND RECEPTOR PLAN.DWG



Redline Boundary

Search Area (1km)

WA Non-Designated Heritage Asset

Possible enclosure shown on LiDAR

Peat Survey Area - potential for Palaeoenvironmental deposits

Former field boundaries on the Tithe map

Non-Designated Wardell Armstrong Reference:
WA1 Stone-faced bank
WA2 Pesfurlong Moss Farm

REVISION	DETAILS	DRAWN	CHKD	APP'D

CLIENT

Extra Motorway Service Area Group

PROJECT

Warrington Motorway Service Area
J11 M62

DRAWING TITLE

Cultural Heritage Receptors

DRG No	REV
SH11739/029	A

DRG SIZE	SCALE	DATE
A3	1:11,000 @ A3	July 2019

DRAWN BY	CHECKED BY	APPROVED BY
ACH	CLD	DFH

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KEY

- Site Boundary

Sample Type

- Auger Core
- Soil Profile Pit

Agricultural Land Classification

- Subgrade 3a
- Subgrade 3b
- Non-agricultural
- Roads and other hardstanding

Notes:

Survey undertaken in January 2019 by Wardell Armstrong.

Aerial imagery shown for context purposes only.

Boundaries are indicative.

REVISION	DETAILS	DATE	DRAWN	CHKD	APP'D
B	SITE BOUNDARY AMENDMENT	JULY 2019	SW	HS	AJD
A	FIRST ISSUE	APRIL 2019	SW	HS	AJD

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EXTRA MOTORWAY SERVICE AREA GROUP

PROJECT

WARRINGTON MOTORWAY SERVICE AREA,
J11 M62

DRAWING TITLE

FIGURE 10.3
AGRICULTURAL LAND CLASSIFICATION

DRG No.		REV
SH11739/031		B
DRG SIZE	SCALE	DATE
A3	1:2,500	22/07/2019
DRAWN BY	CHECKED BY	APPROVED BY
SW	HS	CR

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KEY

- Site Boundary
- Peat Depth Survey Area
- Survey Points

Peat Depth Interpolation

- 0.0 ≤ x < 0.5 m
- 0.5 ≤ x < 1.0 m
- 1.0 ≤ x < 1.5 m
- 1.5 ≤ x < 2.0 m

Notes:

Survey undertaken in January 2019 by Wardell Armstrong.

Depths are below ground level and therefore include the upper approximately 0.36 m of peaty agricultural topsoil.

Aerial imagery shown for context purposes only.

Boundaries are indicative.

REVISION	DETAILS	DATE	DRAWN	CHKD	APP'D
B	SITE BOUNDARY AMENDMENTS	JULY 2019	SW	HS	CR
A	FIRST ISSUES	APRIL 2019	SW	HS	CR

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EXTRA MOTORWAY SERVICE AREA GROUP

PROJECT

WARRINGTON MOTORWAY SERVICE AREA,
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DRAWING TITLE

FIGURE 10.4
PEAT DEPTH

DRG No.	REV
SH11739/018	B

DRG SIZE	SCALE	DATE
A3	1:2,500	22/07/2019

DRAWN BY	CHECKED BY	APPROVED BY
SW	HS	CR

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Appendix 18.1 – Waste Receptor Plan