

Appendix 5A

Scoping of assessment summary

This appendix provides the rationale for the scope of the assessment and comprises two tables. **Table 5A.1** describes and justifies the level of importance assigned to the ecological features identified during the data gathering exercise carried out to inform this assessment. **Table 5A.2** determines and justifies whether those ecological features require further assessment as they have either sufficient legal protection for a breach in legislation to occur or are of sufficient importance that a significant effect may occur as a result of the Project.

Within **Table 5A.1**, consideration is given to both the importance of ecological features based on legislation and policy and importance with regard to the Project (see **Section 5.2 and 5.10**). The justification provided for the decision to scope in or out each ecological feature is based on information on its status both with regard to the Project, and the local, county, regional, national or international context, where available.

Table 5A.1 – Importance of ecological features

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
International statutory designated biodiversity sites within 2km from the Preliminary Order Limits, extended to 10km for sites of bat interest features, and 20km for sites of ornithological interest features				
Mersey Estuary SPA & Ramsar Site: all features	European/ International	European/ International	This site is located ~870 m north of the Preliminary Order Limits at its closest point and the Preliminary Order Limits fall within 500 m of potentially functionally linked land (FLL) and therefore these sites are scoped into the ecology assessment.	Scoped in
Midlands Meres and Mosses Phase 2 Ramsar Site: all features	International	International	This site is located ~2.37 km southwest of the Preliminary Order Limits at its closest point. There are no ornithological features designated as part of this Ramsar Site, and there is no hydrological connectivity between the Preliminary Order Limits, e.g. a river. Therefore, there are no pathways for affecting the interest features and this site is scoped out from further ecology assessment.	Scoped out
Rostherne Mere Ramsar Site: all features	International	International	This site is located ~2.99 km east of the Preliminary Order Limits at its closest point. This sites’ features are unlikely to forage within the Preliminary Order Limits or 500 m buffer, given the distance from this internationally designated site and there is no hydrological connectivity between the Preliminary Order Limits, e.g. a river. Therefore, there are no pathways for affecting the interest features and this site is therefore scoped out from further ecology assessment.	Scoped out
Midlands Meres and Mosses Phase 1 Ramsar Site: all features	International	International	This site is located ~3.9 km east of the Preliminary Order Limits at its closest point. There are no ornithological features designated as part of this Ramsar Site, and there is no hydrological connectivity between the Preliminary Order Limits, e.g. a river. Therefore, there are no pathways for affecting the interest features and this site is therefore scoped out from further ecology assessment.	Scoped out
The Dee Estuary SPA and Ramsar Site: all features	European/ International	European/ International	This site is located ~13.6 km west of the Preliminary Order Limits at its closest point. These sites’ qualifying features are unlikely to forage within the Preliminary Order Limits or 500 m buffer, given the distance from these internationally designated sites. There is no hydrological connectivity between the Preliminary Order Limits and the Ramsar Site, e.g. a river.	Scoped out

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
			Therefore, there are no pathways for affecting the interest features, and these sites are scoped out from further ecology assessment.	
Liverpool Bay SPA: all features	European	European	This site is located ~15.8km west of the Preliminary Order Limits at its closest point. This sites’ features are unlikely to forage within the Preliminary Order Limits or 500 m buffer, given the distance from this internationally designated site and there is no hydrological connectivity between the Preliminary Order Limits, e.g. a river. Therefore, there are no pathways for affecting the interest features and this site is therefore scoped out from further ecology assessment.	Scoped out
Mersey Narrows and North Wirral Foreshore SPA and Ramsar Site: all features	European/ International	European/ International	This site is located ~17.5km west of the Preliminary Order Limits at its closest point. These sites’ qualifying features are unlikely to forage within the Preliminary Order Limits or 500 m buffer, given the distance from these internationally designated sites. There is no hydrological connectivity between the Preliminary Order Limits and the Ramsar Site, e.g. a river. Therefore, there are no pathways for affecting the interest features, and these sites are therefore scoped out from further ecology assessment.	Scoped out
Ribble and Alt Estuaries SPA and Ramsar Site: all features	European/ International	European/ International	This site is located ~19.2 km northwest of the Preliminary Order Limits at its closest point. Apart from pink-footed goose, these sites’ qualifying features are not considered to have potential connectivity with the habitats within the Preliminary Order Limits or 500 m buffer. The upper limit of pink-footed goose foraging activity from winter roost sites is 15-20km with farmland (particularly grassland) the principal foraging habitat in winter (Pendlebury et al., 2011). Given the amount of grassland habitat within the wider area, impacts on this species are considered negligible. There is no hydrological connectivity between the Preliminary Order Limits and the Ramsar site, e.g. a river. Therefore, there are no pathways for affecting the interest features, and these sites are therefore scoped out from further ecology assessment.	Scoped out
National statutory designated biodiversity sites with ornithological interest features located within 10km from the Preliminary Order Limits				
Woolston Eyes SSSI	National	National	This site is located ~150 m northwest of the Preliminary Order Limits at its closest point. A nationally important site for its breeding bird assemblage of lowland open waters and their margins (including nationally important numbers of black-necked grebe (<i>Podiceps nigricollis</i>), gadwall (<i>Anas strepera</i>) and pochard, shoveler and teal. Wintering tufted duck (<i>Aythya fuligula</i>) use Woolston Eyes in numbers of regional importance. Any site infrastructure/ noise impacts on the SSSI would be physically screened by a currently operational industrial plant and therefore it is considered that there are no pathways (e.g. disturbance to breeding and/or wintering birds) for affecting the notified features and this site is therefore scoped out from further ecology assessment.	Scoped out

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
Mersey Estuary SSSI	National	National	This site is located ~730 m north of the Preliminary Order Limits at its closest point. The Mersey Estuary is an internationally important site for wildfowl and consists of large areas of intertidal sand and mudflats. The site also includes an area of reclaimed marshland, saltmarshes, brackish marshes and boulder clay cliffs with freshwater seepages. Notable species include pintail, teal, shelduck, wigeon, dunlin, redshank, curlew and golden plover. The Preliminary Order Limits fall within 500 m of potentially functionally linked land (FLL) and therefore this site is scoped into the ecology assessment.	Scoped in
Rostherne Mere SSSI	National	National	This site is located ~2.56 km east of the Preliminary Order Limits at its closest point. <i>“The Mere is nationally important for its birds. It acts as a winter roost for large numbers of ducks and holds nationally significant numbers of pochard and pintail as well as good numbers of all other common species associated with freshwater. Over 10,000 gulls regularly roost on the water and up to 90 cormorants roost in the trees along the edge. Because of its size and depth it is the last freshwater body in the area to freeze in winter and is consequently an important refuge in severe weather”.</i> Given the distance from the Preliminary Order Limits to this site, it is considered that there are no pathways (e.g. disturbance to the wintering roost site) for affecting the interest features and this site is therefore scoped out from further ecology assessment.	Scoped out
Stanley Bank Meadow SSSI	National	National	This site is located ~3.43 km northeast of the Preliminary Order Limits at its closest point. <i>"The diversity of habitats present supports a wide range of insect and bird life. Breeding birds include willow warbler (Phylloscopus trochilus), reed bunting, yellowhammer (Emberiza citrinella) and redpoll (Carduelis spp.)."</i> Given the distance from the Preliminary Order Limits to this site, it is considered that there are no pathways for affecting the interest features (breeding passerines) and this site is therefore scoped out from further ecology assessment.	Scoped out
Rixton Clay Pits SSSI	National	National	This site is located ~3.49 km northwest of the Preliminary Order Limits at its closest point. Diverse populations of birds are associated with the range of wetland, grassland and woodland habitats within the Site. Given the distance from the Preliminary Order Limits to this site, it is considered that there are no pathways for affecting the interest features and this site is therefore scoped out from further ecology assessment.	Scoped out
Risley Moss SSSI	National	National	This site is located ~4.41 km northeast of the Preliminary Order Limits at its closest point. A wide range of breeding birds are present including species associated with unmodified mires, for example meadow pipit (<i>Anthus pratensis</i>), skylark	Scoped out

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
			(<i>Alauda arvensis</i>), reed bunting (<i>Emberiza schoeniclus</i>), mallard (<i>Anas platyrhynchos</i>) and snipe (<i>Gallinago gallinago</i>). The area is also of value for wintering wildfowl and raptors. Given the distance from the Preliminary Order Limits to this site, it is considered that there are no pathways for affecting the interest features (breeding bird assemblage and wintering wildfowl and raptors) and this site is therefore scoped out from further ecology assessment.	
Plumley Lime Beds SSSI	National	National	This site is located ~5.28 km east of the Preliminary Order Limits at its closest point. Little ringed plover (<i>Charadrius dubius</i>) is known to have bred. Given the distance from the Preliminary Order Limits to this site, it is considered that there are no pathways for affecting the interest features (little ringed plover) and this site is therefore scoped out from further ecology assessment.	Scoped out
Astley & Bedford Mosses SSSI	National	National	This site is located ~5.65 km north of the Preliminary Order Limits at its closest point. Important for birds, in particular wintering raptors such as hen harrier (<i>Circus cyaneus</i>), short-eared owl (<i>Asio flammeus</i>) and merlin (<i>Falco columbarius</i>), and it supports breeding species such as curlew and long-eared owl (<i>Asio otus</i>). Nightjar (<i>Caprimulgus europaeus</i>), precariously confined to the remnant lowland mosslands in the county, may also breed. Given the distance from the Preliminary Order Limits to this site and the level of impacts from the Project, it is considered that there are no pathways for affecting the interest features and this site is therefore scoped out from further ecology assessment.	Scoped out
Tatton Meres SSSI	National	National	This site is located ~6.41 km southeast of the Preliminary Order Limits at its closest point. This area is also important ornithologically as a breeding site for sedge (<i>Acrocephalus schoenobaenus</i>) and reed warblers (<i>A. scirpaceus</i>), sand martins (<i>Riparia riparia</i>) and for wintering and breeding wildfowl. Given the distance from the Preliminary Order Limits to this site, it is considered that there are no pathways for affecting the interest features (breeding and wintering bird assemblage) and this site is therefore scoped out from further ecology assessment.	Scoped out
Sandbach Flashes SSSI	National	National	This site is located ~6.64 km east of the Preliminary Order Limits at its closest point. Several of the flashes are important for breeding birds and also support large numbers of wildfowl and waders as migrants and winter residents. Wigeon (200), teal (500), lapwing (<i>Vanellus vanellus</i>) (500), snipe (200) and curlew (50) are regularly recorded. Given the distance from the Preliminary Order Limits to this site, it is considered that there are no pathways for affecting the interest features	Scoped out

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
			(breeding and wintering bird assemblage) and this site is therefore scoped out from further ecology assessment.	
Tabley Mere SSSI	National	National	This site is located ~6.89 km east of the Preliminary Order Limits at its closest point. A large heronry is present in the woodland and the undisturbed meres attract numerous wildfowl. Given the distance from the Preliminary Order Limits to this site, it is considered that there are no pathways for affecting the interest features (heronry and waterbird assemblage) and this site is therefore scoped out from further ecology assessment.	Scoped out
River Dee (England) SSSI	National	National	This site is located ~8.7 km southwest of the Preliminary Order Limits at its closest point. The entire River Dee system and associated tributaries support a wide range of breeding birds, which utilise a variety of bankside habitats. Nesting habitat for the kingfisher (<i>Alcedo atthis</i>) and sand martin is provided by active erosion of riverbanks. Areas of fast flowing water and bankside cover are favoured by the dipper (<i>Cinclus cinclus</i>) and grey wagtail (<i>Motacilla cinerea</i>), whereas the yellow wagtail (<i>Motacilla flava</i>) and mute swan (<i>Cygnus olor</i>) are found along the slower flowing reaches. Populations of grey heron (<i>Ardea cinerea</i>), common sandpiper (<i>Actitis hypoleucos</i>) and goosander (<i>Mergus merganser</i>) also occur on the River Dee. Areas of the Lower Dee floodplains provide breeding grounds for waders such as the lapwing (<i>Vanellus vanellus</i>), and, when flooded, provide important over-wintering sites for the pintail. These sites’ qualifying features are unlikely to forage within the Preliminary Order Limits or 500 m buffer, given the distance from this site. Therefore, there are no pathways for affecting the interest features, and these sites are therefore scoped out from further ecology assessment.	Scoped out
Cotteril Clough SSSI	National	National	This site is located ~9.5 km east of the Preliminary Order Limits at its closest point. The site has an interesting bird fauna with spotted flycatcher (<i>Muscicapa striata</i>), lesser spotted (<i>Dendrocops minor</i>), greater spotted (<i>Dendrocops major</i>) and green woodpecker (<i>Picus virids</i>), blackcap (<i>Sylvia atricapilla</i>) and whitethroat (<i>Sylvia communis</i>) all known to breed in the woodlands. Given the distance from the Preliminary Order Limits to this site, it is considered that there are no pathways for affecting the interest features (breeding bird assemblage) and this site is therefore scoped out from further ecology assessment.	Scoped out
National statutory designated biodiversity sites with terrestrial ecology features located within 2km of the Preliminary Order Limits:	National	National	These SSSIs support a range of species and habitats. As a precautionary measure all are considered to be of national importance in relation to the Project, based on legislation and their location within the Study Area. It may	Scoped in

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
Hatton’s Hey Wood, Whittles Corner and Bank Rough SSSI; Pettypool Brook Valley SSSI; Flood Brook Clough SSSI; Frodsham Railway and Road Cuttings SSSI; Witton Lime Beds SSSI; Brookheys Covert SSSI; Dunsdale Hollow SSSI; Red Brow Cutting SSSI; Dunham Park SSSI; Beechmill Wood and Pasture SSSI; Warburton’s Wood and Well Wood SSSI.			be possible to scope out further sites in the ES, once the DCO Order Limits have been finalised.	
Other statutory biodiversity sites within 2km of the Preliminary Order Limits: Thatto Heath Meadows LNR; Daresbury Firs LNR; Runcorn Hill LNR; Oxmoor Wood LNR; Paddington Meadows LNR; Marshall’s Arm, Hartford LNR; Helsby Quarry LNR; Murdishaw Wood and Valley LNR; Dorchester Park LNR; Parr Hall Millenium Green LNR.	County	County	These sites support a range of species and habitats. As a precautionary measure all are considered to be of County importance in relation to the Project, based on legislation and their location within the Study Area. It may be possible to scope out further sites in the ES, once the DCO Order Limits have been finalised.	Scoped in
Non-statutory designated biodiversity sites located within 2km of the Preliminary Order Limits: Partington Nature Reserve SBI; Rookery Wood and Pool LWS; Clifton Lagoon LWS; Disused Railway Line South of Warrington Road LWS; Ravenhead Ponds LWS; Frodsham, Helsby and Ince Marshes LWS; Vale Royal Wood LWS; East Clifton Tip LWS; Rows Wood LWS; Parkside Farm Wood LWS; Ansdells Wood LWS; Heys Wood and the Riddings LWS; Park Moss Wood LWS; Acton Bridge Meadows LWS; Littledales Gorse LWS; Anderton Lime Beds LWS; Sinderland Green Wood SBI; Reeve Court Woodland and grassland LWS;	County	County	These sites support a range of species and habitats. As a precautionary measure all are considered to be of County importance in relation to the Project based on legislation and their location within the Study Area. The level of importance of these sites with respect to the Project will be kept under review as baseline data collection and the Project progresses. It may be possible to reduce this list in the ES, once the DCO Order Limits have been finalised.	Scoped in

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
Thatto Heath Meadows LWS; Sandiway Golf Course LWS; Upper Mersey Estuary LWS; Rye Grass Pipes LWS; Weaver Valley Country Park LWS; St Helens Canal Disused_A LWS; Newbridge Wood LWS; Latchford Railway Sidings LWS; Pendlebury Brook (SJ493920-SJ515914) LWS; Norton Marsh and Upper Moss Side Fields LWS; Upper Moss Side Farm LWS; Bradford Mill Wood and Marsh LWS; Frodsham Field Studies Centre LWS; Walton Locks LWS; Trent and Mersey Canal, Whatcroft LWS; Sutton Manor LWS; Weaver Valley/Newbridge Pool LWS; Moore Nature Reserve LWS; Sutton Bridge Unused Lagoon LWS; Lower Weaver Valley Woods LWS; Manor Park Woodland LWS; Dutton Dean LWS; Clifton Cloughs_B LWS; Model Farm Wood LWS; Park Brow LWS; Morts Wood LWS; Rows Wood LWS; Whatcroft Hedge LWS; Lowes Wood LWS; Fields Behind Ye Olde No. 3_B LWS; Broadoak Wood SBI; Fields Behind Ye Olde No. 3_A LWS; Clifton Cloughs_A LWS; Lodge Wood LWS; Puddinglake Brook Wood LWS; Whatcroft Lane Wetlands LWS; River Dane, Bostock LWS; Model Farm Pasture LWS; Moore Meadows LWS; Birds Wood LWS; Dutton Dingles LWS; Sherdley Park LWS; Garden Wood LWS; Old mineral line Lea Green LWS; Fury Tip LWS; Whatcroft Woodland LWS;				

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
Kennel Wood, Northwich LWS; Woolstencroft Farm Meadow LWS; Hefferston Grange Farm Meadows LWS; Bog Rough LWS; Daresbury Firs (Keckwick Hill) LWS; Hopyards Wood LWS; Wharton Green Pasture LWS; Cuddington Brook (North) LWS; Long Acre Wood LWS; Station Road Railway Site LWS; Appleton Reservoir LWS; Daresbury Firs LWS; Pitts Heath Wood LWS; Witton Flashes LWS; Helsby Hill LWS; Runcorn Hill LWS; New Pool and Wood LWS; Quick Woods LWS; Nursery Wood LWS; Whitegate Way LWS; Clough Wood LWS; Carrington Power Station SBI; Bestway Wood, Gunners Clough and Nursery Wood LWS; Green Wood LWS; Oxmoor_B LWS; Beechwood LWS; Gowy Meadows and Ditches LWS; Whittle Brook (SJ521902-SJ535896) LWS; Heath Off Bradford Road LWS; Oxmoor_A LWS; Barker's Hollow Wood LWS; Pettypool Wood LWS; First Pit, Ellis Lane LWS; Park Brow Pool LWS; Boundary Farm Pond LWS; Weston Marsh Lagoon LWS; Mersey Valley Golf Course LWS; Marbury Big Wood LWS; Lower Weaver Valley Floodplain LWS; Gatewarth LWS; Alexandra Colliery LWS; Greenbank Wood LWS; Catsclough LWS; Silver Well Wood LWS; Friar's Rough LWS;				

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
St Helens Canal Disused_B LWS; Ash Trees along Trent and Mersey Canal, Billinge Green LWS; Crowholt Wood and Whitley Brook LWS; Bradley Meadow Wood, Hawton Clough and Little Leigh Ponds LWS; Hob Hey Wood LWS; Marbury Lime Bed and Forge Pool LWS; Meadow by Earls Wood and River Dane LWS; Dennow Wood LWS; Moss Wood SBI; Southern Verge Embankment LWS; Paddington Meadows LWS; Peck Mill Valley LWS; Whiteoaks Wood SBI; Dutton Hospital Wood LWS; Sankey Canal Central_B LWS; Petty Pool Brook and Woods LWS; Frodsham and Overton Woods LWS; Barnton Cut Wood LWS; Budworth Mere LWS; Land off Lunts Heath Road_A LWS; Hoblane Ponds LWS; Widnes Warth Saltmarsh LWS; Sankey Canal Central_A; Brookheys Covert SBI; St Helens Canal LWS; Merryfall Wood LWS; Fox Covert and Meadows SBI; Lodge Plantation LWS; Upper Mersey Estuary LWS; Harmers Wood LWS; Billinge Green Farm Pond LWS; Land off Lunts Heath Road_B LWS; Helsby Allotments and Cemetery LWS; Black Moss Covert SBI; Red Brook SBI; Norbury Wood LWS; Drakelow Gorse LWS; Upper Mersey Estuary Intertidal Areas and Mudflats LWS; Sutton Brook (SJ530935-SJ526945) LWS; Bawsgate Pond and Grassland LWS; Pickering's Oxbow LWS; Bridgewater Canal SBI; Brickkiln Nursery Wood SBI;				

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
Blackamoor Wood and the Coppice LWS; Big Wood LWS; B W Lagoon, Kingsley LWS; Sandymoor Wood LWS; The Glen LWS; Bull's Wood and Meadow LWS; Ashton's and Neumann's Flashes LWS; Oak Wood near School Lane SBI; Murdishaw Wood and Valley LWS; Dorchester Park LWS; Helsdale Wood and Newhey's Plantation LWS; Westy Point LWS; Sutton Mill Dam LWS; Forge Wood LWS; Grappenhall Heys_B LWS; Dunham Park SBI; Pear Tree Farm LWS; Cartledge Moss LWS; Acton Cliff Meadow LWS; Thatto Heath Dam LWS; Wades Lane Clough LWS; Sixes Pool LWS; Hogswood Covert SBI; Astmoor Saltmarsh and Swamp LWS; Deakin Yard Wood LWS; The Bongs and the Gorse LWS; Land North of Hallwood Park LWS; Marston Meadows LWS; Stretton Moss LWS; Thelwall Meadow LWS; Kennel Wood, Sandiway LWS; Wetland at Carrington Moss SBI; Cliff Brook Meadows LWS; The Twiggeries LWS; Flixton Sludge Beds SBI; Woolston New Cut Canal LWS; Grappenhall Heys_A LWS; Grey's Gorse LWS; Old River Irwell SBI; Pex Hill Country Park LWS; Daresbury LWS; Heatley Lake_B LWS; Heatley Lake_A LWS; Bank Hall Farm Flush LWS; Mill Wood, Big Wood & Willowbed Wood LWS; The Rough woodland LWS;				

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
Beauty Bank LWS; Bewsey Meadows LWS; Flint Mill Reedbeds LWS; River Gowy LWS; Snipe Island LWS; Owley Wood LWS; Jack Lane SBI; Birchmoss Covert SBI; Blundell Hills Golf Course LWS; The Dingle and Ford's Rough LWS; Beach Hill Wood LWS; Marston Flashes LWS; The Willowbeds LWS; Land, west of Gerrards Lane LWS; Ravensclough LWS; St Helens Canal, south of Haresfinch Burgy Bank LWS; Haresfinch Burgy Banks LWS; Lymm Dam Complex LWS; Stenhills Open Space LWS; Rough Grassland around Sutton Dam Stream LWS; Parr Hall Millenium Green and Canal LWS; Norton Priory_A LWS; Veteran Ash Tree - Bank Hall Farm LWS; Altrincham Sewage Works SBI; Wervin Meadows LWS; Leg O'Mutton Dam LWS; Stockton Heath Quarry LWS; Coroners Wood SBI; Ravensclough Marsh LWS; Bostock Road Orchards LWS; Redmoor Covert SBI; Booth's Wood LWS; Tunstalls Farm LWS; Eccleston Top Dam LWS; Twenty Acre Wood LWS; The Bongs and the Gorse LWS; Malljurs Covert SBI; Sankey Brook LWS; Veteran Ash Tree - Bank Farm, Bostock LWS;				
Ancient and semi-ancient woodland/ Ancient replanted woodland and veteran trees	National	National	The desk study identified ancient woodland within the Preliminary Order limits. Ancient woodland/veteran trees are considered irreplaceable habitats and as such are considered to have National importance at the Project-level. Habitat and arboricultural surveys are on-going during 2022 and will confirm the status and distribution of habitats within the Preliminary Order limits.	Scoped in

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
Broadleaved semi-natural woodland	National	County	Habitat surveys are on-going during 2022 and will confirm the status and distribution of habitats within the Preliminary Order Limits. Parcels of broadleaved semi-natural woodland potentially occur within the Preliminary Order Limits and are included at this stage as a precautionary measure. The habitat may qualify as lowland mixed deciduous woodland HPI and therefore be of County importance with regards to the Project.	Scoped in
Other woodland: plantation woodland – mixed; plantation woodland – broadleaved; plantation woodland – coniferous.	Local	Local	Habitat surveys are on-going during 2022 and will confirm the status and distribution of habitats within the Preliminary Order Limits. Parcels of these habitat types potentially occur within the Preliminary Order Limits. This habitat is considered common and widespread and of local importance. Embedded environmental measures outlined in Section 5.7 ensure that permanent loss of these habitats is minimised and avoided where possible and where damaged are reinstated accordingly.	Scoped out
Hedgerows	National	County	Hedgerows are common throughout the Preliminary Order Limits with a mix of species-poor and species-rich hedgerows, intact and defunct hedgerows, and hedgerows with trees. All native hedgerows over 20m in length, both species-poor and species-rich, are defined as HPI ¹ ; it is therefore assumed that all hedgerows identified to date would qualify as HPI. The feature is classed as being of County importance in relation to the Project. Habitat surveys are on-going during 2022 and will confirm the status and distribution of habitats within the Preliminary Order Limits.	Scoped in
Standing water (ponds and wet ditches)	National	County	Numerous ponds and wet ditches are present throughout the Preliminary Order Limits. For this assessment all are classed as HPI and of County importance in relation to the Project on a precautionary basis. Habitat surveys are on-going during 2022 and will confirm the status and distribution of habitats within the Preliminary Order Limits.	Scoped in
Running water (rivers, streams and ditches)	National	County	Several watercourses bisect the Preliminary Order Limits. Although only short stretches of most watercourses are present within the Preliminary Order Limits (relative to their entire lengths), given their value as connective habitat between up and downstream reaches, the habitat is considered to be of County importance in relation to the Project on a precautionary basis. Habitat surveys are on-going during 2022 and will confirm the status and distribution of habitats within the Preliminary Order Limits.	Scoped in
Other HPis	National	County	The desk study identified several HPis within the Preliminary Order Limits, including a range of woodland, grassland, fen, traditional orchard and intertidal habitats. HPI are considered to be of County importance in relation to the Project on a precautionary basis. Habitat surveys are on-going during	Scoped in

¹ JNCC (2016). UK Biodiversity Action Plan; Priority Habitat Descriptions: Hedgerows. (online) Available at: <https://data.jncc.gov.uk/data/ca179c55-3e9d-4e95-abd9-4edb2347c3b6/UKBAP-BAPHabitats-17-Hedgerows.pdf> (Accessed 01 July 2022).

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
			2022 and will confirm the type, status and distribution of HPis within the Preliminary Order Limits.	
Other non-priority habitats with biodiversity benefit	County to local	Local	Aside from habitats occurring within LWSs (which is assessed as part of the LWSs), small areas of non-priority habitats with biodiversity benefit are present within the Preliminary Order Limits including habitats such as neutral grasslands and habitats on previously developed land. These habitats are considered to be of Local importance in relation to the Project on a precautionary basis. Habitat surveys are on-going during 2022 and will confirm the type, status and distribution of non-priority habitats with biodiversity benefit within the Preliminary Order Limits, and level of importance in relation to the Project.	Scoped in
Other non-priority habitats with low or negligible biodiversity interest: Amenity grassland; Improved grassland; Poor semi-improved grassland; Marshy grassland; Tall ruderal; Arable; Dry ditch; Ephemeral/short perennial; Introduced shrub; Scattered trees; Scrub (dense and scattered); Buildings; Hardstanding; Bare ground; Fences.	Local to negligible	Local to negligible	A large proportion of the Preliminary Order Limits includes non-priority habitats (or habitats which do not meet the HPI criteria) with low or negligible biodiversity interest, including extensive areas of agricultural, urban and industrial land. All habitats are considered common and widespread in the vicinity of the Project and are therefore of local to negligible importance at the Project level. Embedded environmental measures outlined in Section 5.7 ensure that permanent loss of these habitats is minimised and avoided where possible, and that temporary land take would be reinstated and permanent land take would be compensated for through the provision of BNG.	Scoped out
Bats	International	County	The desk study identified 1,696 bat records relating to at least 10 species within 2km of the Preliminary Order Limits. Bat surveys are on-going during 2022. However, suitable commuting and foraging and roosting habitat has been identified within the Preliminary Order Limits. Bats are considered to be of County importance in relation to the Project on a precautionary basis. The importance of this species will be kept under review as baseline data collection and the Project progresses.	Scoped in
Great crested newt	International	County	It is intended that the Project will join a Natural England-led great crested newt District Level Licencing (DLL) scheme in districts of Cheshire East, Cheshire West and Chester, Halton, Greater Manchester and Warrington, so great crested newt populations in these areas are excluded from baseline surveys and assessment.	Scoped in (St Helens only)

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
			Great crested newt surveys are on-going during 2022 in the remaining areas of the Project (St Helens), where numerous suitable waterbodies (ponds and ditches) and suitable terrestrial habitats are present within 250m of the Preliminary Order Limits. The desk study identified 390 records within 2km of the Preliminary Order Limits. Great crested newts are considered to be of County importance in relation to the Project on a precautionary basis. The importance of this species will be kept under review as baseline data collection and the Project progresses.	
Otter	International	County to Local – TBC pending further surveys	Otter surveys are on-going during 2022. The desk study identified 45 records of otter within 2km of the Preliminary Order Limits. Short sections of various watercourses bisect the Preliminary Order Limits, which in combination with adjoining riparian habitats, provide suitable commuting, foraging and holt/resting habitat. In recent years otters have become more widespread and common and as such are considered to be of Local importance in relation to the Project on a precautionary basis. The importance of this species will be kept under review as baseline data collection and the Project progresses.	Scoped in
Water vole	National	County to Local – TBC pending further surveys	Water vole surveys are on-going during 2022. The desk study identified 28 records of water vole within 2km of the Preliminary Order Limits. Short sections of various watercourses bisect the Preliminary Order Limits, and ditches are relatively frequent, which in combination with adjoining riparian habitats, provide suitable habitat for commuting, foraging and burrows. Water voles are considered to be of Local importance in relation to the Project on a precautionary basis. The importance of this species will be kept under review as baseline data collection and the Project progresses.	Scoped in
Reptiles	National	County to Local – TBC pending further surveys	The desk study identified 285 records of reptiles within 2km of the Preliminary Order Limits and Helsby Allotments and Cemetery LWS is located approximately 0.9km southeast which is noted to support a population of reptiles. Should the extended Phase 1 habitat survey identify habitats with the potential to support important assemblages of reptiles in areas likely to be subject to significant effects, presence/likely absence surveys would be undertaken during 2022/23. The level of importance of these species (if present) in relation to the Project will be kept under review as baseline data collection and the Project progresses.	Scoped in
Badger	National	Local ²	Badger surveys are on-going during 2022. The desk study identified records 1,291 badger records within 2km of the Preliminary Order Limits. Areas of suitable badger habitat within the Preliminary Order Limits include arable, grassland, woodland, scrub and watercourse corridors and are suitable for commuting, foraging and sett creation. Badgers are considered common and	Scoped in

² Badgers are listed as local importance within **Chapter 5: Biodiversity**, however the species is common and widespread within the UK and has been included within the chapter because of its legal protection (which relates to persecution) only, rather than conservation status/importance.

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
			widespread, therefore they are considered to be of Local importance in relation to the Project. The importance of this species will be kept under review as baseline data collection and the Project progresses.	
Freshwater fish	National to Local	National to Local – TBC pending further surveys	Where deemed necessary, subject to on-going review of watercourse crossing designs and locations, follow-up surveys: fish surveys would be undertaken during 2022. The desk study identified 178 fish records within 2km of the Preliminary Order Limits. Short sections of various watercourses bisect the Preliminary Order Limits, including the River Mersey and River Weaver. Freshwater fish are considered to be of local importance (coarse fish) and national importance (anguillids and salmonids) in relation to the Project on a precautionary basis. The importance of these species will be kept under review as baseline data collection and the Project progresses.	Scoped in
SPI and other conservation-notable vertebrate species	National	Local	The desk study identified 650 records of five conservation-notable vertebrate species within 2km of the Preliminary Order Limits. These species are widespread and numerous, although there have been large declines in the national population. Although the Project will result in a loss of habitat for these species, the reduction will be minimal and affect a small area of habitat currently occupied. Embedded environmental measures outlined in Section 5.7 ensure that permanent loss of these habitats is minimised and avoided where possible, and that the risk of injury/death to these species is minimised. Temporary land take would be reinstated and permanent land take would be compensated for through the provision of BNG.	Scoped out
SPI and other conservation-notable terrestrial and aquatic invertebrate species	International to Local	National to Local – TBC pending further surveys	The desk study identified 1,282 records relating to 54 conservation-notable terrestrial and aquatic invertebrate species within 2km of the Preliminary Order Limits. Should the extended Phase 1 habitat survey identify habitats with the potential to support important species or assemblages of terrestrial and aquatic invertebrates in areas likely to be subject to significant effects, detailed surveys would be undertaken during 2022/23. The level of importance of these species (if present) in relation to the Project will be kept under review as baseline data collection and the Project progresses.	Scoped in
SPI and other protected/conservation-notable plant species	International to Local	National to Local – TBC pending further surveys	The desk study identified 362 records relating to 50 SPI and protected/conservation-notable plant species within 2km of the Preliminary Order Limits. Should the extended Phase 1 habitat survey identify habitats with the potential to support important species or assemblages of protected/conservation-notable plants in areas likely to be subject to significant effects, detailed surveys would be undertaken during 2022/23. The level of importance of these species (if present) in relation to the Project will be kept under review as baseline data collection and the Project progresses.	Scoped in
Schedule 1 breeding birds	National	National	Schedule 1 breeding bird surveys are on-going during 2022 but have identified the following Schedule 1 species likely breeding within the	Scoped in

Ecological feature	Importance – legislation and policy	Importance – project level	Justification	Scoped in/out of assessment
			Preliminary Order Limits and/or 500 m buffer: quail, barn owl, marsh harrier, kingfisher and Cetti’s warbler. The desk study identified records of the following additional Schedule 1 species within 2 km of the draft Order limits: black-necked grebe, bittern, avocet, little ringed plover, peregrine and hobby. Due to their legal protection these species have been of National importance in relation to the Project.	
Non-Schedule 1 breeding birds	European to Local	National to Local	It is considered that any effects upon active nests of breeding birds can be mitigated by best practice embedded environmental measures (see PEIR Section 5.7) such as timing of vegetation clearance works outside the breeding bird season, and where this is not possible carrying out pre-construction nest checks and avoiding active nests.	Scoped out
Invasive non-native plant species	National	Local	It is illegal to cause the spread of invasive non-native species in the wild in accordance with the Wildlife and Countryside Act (1981 as amended). The risk of spreading non-native invasive plant species across and beyond the Preliminary Order limits from construction or operational activities associated with the Project will be controlled via the implementation of embedded environmental measures - see Section 5.7 .	Scoped out

For those ecological features that remain scoped in following the process as described in **Table 5A.1**, the following are provided in **Table 5A.2**: description of the potential environmental change and associated effect; a description of the zone of influence relevant for each ecological feature; justification of the decision to scope in or out each ecological feature based on the likely scale of the potential effect and general working measures (i.e. those covered within the Construction Environmental Management Plan) that negate the effect; and relevant information on the features status within the local, county, regional, national or international context where that is available.

Table 5A.2 – Scoping of ecological features of Local or above importance and those receiving legal protection

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
Mersey Estuary SPA, Ramsar Site and SSSI: all features	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	FLL lies within 500 m of the Preliminary Order Limits and therefore qualifying features using FLL are at risk of displacement from permanent and/or temporary land take/land use change, and therefore is scoped into the assessment,
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped out	Although FLL lies within 500 m of the Preliminary Order Limits, it is not considered that the Project would not cause fragmentation to any habitats associated with these statutory designated sites and is therefore scoped out of the assessment.

³ Consideration of increased noise, vibration, light and movement levels is not relevant for any habitats and therefore has not been included as an environmental change for any habitats listed in **Table 5A.2**.

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to 500 m from the construction works for sensitive species	Scoped in	FLL lies within 500 m of the Preliminary Order Limits and therefore qualifying features using FLL are at risk of disturbance and/or displacement from increased noise, vibration, light and movement levels, and therefore is scoped into the assessment,
National statutory designated biodiversity sites with terrestrial ecology features located within 2km of the Preliminary Order limits: Hatton’s Hey Wood, Whittles Corner and Bank Rough SSSI; Pettypool Brook Valley SSSI; Flood Brook Clough SSSI; Frodsham Railway and Road Cuttings SSSI; Witton Lime Beds SSSI; Brookheys Covert SSSI; Dunsdale Hollow SSSI; Red Brow Cutting SSSI; Dunham Park SSSI; Beechmill Wood and Pasture SSSI; Warburton’s Wood and Well Wood SSSI.	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped out	None of these SSSIs are located within the Zol. Therefore, there is no pathway for a significant effect on sedentary cited features. Where mobile features are cited, the Zol falls outside the range of these species, and there is no pathway for a significant effect.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped out	None of these SSSIs are located within the Zol. Therefore, there is no pathway for a significant effect on sedentary cited features. Where mobile features are cited, the Zol falls outside the range of these species, and there is no pathway for a significant effect.
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to 500m from the construction works for sensitive species	Scoped out	The cited habitat features are not considered sensitive to this environmental change. Where species are cited within the potential Zol (invertebrate fauna; Pettypool Brook Valley SSSI) these species are not considered sensitive to this environmental change at the distance from the Preliminary Order Limits (approximately 0.18km), and embedded environmental measures (such as 13. Sensitive lighting design ; also see measures included in Chapter 10 Noise and Vibration) further minimise the potential impact of this environmental change. Therefore, there is no pathway for a significant effect.
National statutory designated biodiversity sites with ornithological interest features located within 10km from the Preliminary Order Limits: Woolston Eyes SSSI; Rostherne Mere SSSI; Stanley Bank Meadow SSSI; Rixton Clay Pits SSSI; Risley Moss SSSI; Plumley Lime Beds SSSI; Astley & Bedford Mosses SSSI;	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped out	Where mobile ornithological features are cited, the range of the features fall outside the Zol and thus there is no pathway for a significant effect; or these features are not considered sensitive to the potential indirect environmental changes (increased noise, vibration, light and movement levels) at the distance from the Preliminary Order Limits, and embedded environmental measures (such as 13: Sensitive lighting design; also see measures included in Chapter 10: Noise and Vibration) further minimise the potential impact of these environmental changes.

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
Tatton Meres SSSI; Sandbach Flashes SSSI; Tabley Mere SSSI; River Dee (England) SSSI; Cotteril Clough SSSI.	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped out	Where mobile ornithological features are cited, the range of the features fall outside the Zol and thus there is no pathway for a significant effect; or these features are not considered sensitive to the potential indirect environmental changes (increased noise, vibration, light and movement levels) at the distance from the Preliminary Order Limits, and embedded environmental measures (such as 13: Sensitive lighting design; also see measures included in Chapter 10: Noise and Vibration) further minimise the potential impact of these environmental changes.
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to 500m from the construction works for sensitive species	Scoped out	Where mobile ornithological features are cited, the range of the features fall outside the Zol and thus there is no pathway for a significant effect; or these features are not considered sensitive to the potential indirect environmental changes (increased noise, vibration, light and movement levels) at the distance from the Preliminary Order Limits, and embedded environmental measures (such as 13: Sensitive lighting design; also see measures included in Chapter 10: Noise and Vibration) further minimise the potential impact of these environmental changes. The only exception to this is Woolston Eyes SSSI and Mersey Estuary SSSI (the latter SSSI is dealt with alongside the Mersey Estuary SPA and Ramsar Site above). Although Woolston Eyes SSSI lies within 500 m of the Preliminary Order Limits, it is screened from view by an operational industrial plant and therefore no impact pathways on any notified features are predicted due to this physical barrier and therefore any impacts from construction are scoped out.
Other statutory biodiversity sites within 2km of the Preliminary Order Limits: Thatto Heath Meadows LNR; Daresbury Firs LNR; Runcorn Hill LNR; Oxmoor Wood LNR; Paddington Meadows LNR; Marshall’s Arm, Hartford LNR; Helsby Quarry LNR; Murdishaw Wood and Valley LNR;	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped out	None of these LNRs are located within the Zol. Therefore, there is no pathway for a significant effect on sedentary cited features, and no mobile features are cited. Thatto Heath Meadows LNR is located adjacent to the Preliminary Order Limits, however embedded environmental measures (such as 2. Standard best practice; 3. Minimise land take and micro-site; 6. Maintaining habitat connectivity; 8. Protection of retained habitats; and 11. Sensitive access and enabling works) would minimise the risk of impacts to negligible.

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
Dorchester Park LNR; Parr Hall Millenium Green LNR.	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped out	None of these LNRs are located within the Zol. Therefore, there is no pathway for a significant effect on sedentary cited features, and no mobile features are cited. Thatto Heath Meadows LNR is located adjacent to the Preliminary Order Limits, however embedded environmental measures (such as 2. Standard best practice; 3. Minimise land take and micro-site; 6. Maintaining habitat connectivity; 8. Protection of retained habitats; and 11. Sensitive access and enabling works) would minimise the risk of impacts to negligible.
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to 500m from the construction works for sensitive species	Scoped out	The cited habitat features are not considered sensitive to this environmental change, there is no pathway for a significant effect. Water vole is a cited feature of Parr Hall Millenium Green LNR, however considering this distance of the LNR from the Preliminary Order Limits (approximately 1.72km) the LNR is outside of the Zol for this species, therefore there is not pathway for significant effect.
Non-statutory designated biodiversity sites located within the Preliminary Order Limits: Rookery Wood and Pool LWS; Clifton Lagoon LWS; Disused Railway Line South of Warrington Road LWS; Ravenhead Ponds LWS; Frodsham, Helsby and Ince Marshes LWS; Vale Royal Wood LWS; East Clifton Tip LWS; Rows Wood LWS; Parkside Farm Wood LWS; Ansdells Wood LWS; Heys Wood and the Riddings LWS; Park Moss Wood LWS; Acton Bridge Meadows LWS; Littledales Gorse LWS; Anderton Lime Beds LWS; Sinderland Green Wood SBI; Reeve Court Woodland and grassland LWS; Thatto Heath Meadows LWS;	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Feature is within Preliminary Order Limits: within Zol
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped in	Feature is within Preliminary Order Limits: within Zol
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to 500m from the construction works for sensitive species	Scoped in	Feature is within Preliminary Order Limits: within Zol The cited habitat features are not considered sensitive to this environmental change. Sites with cited species features are potentially sensitive to this environmental change.

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
Sandiway Golf Course LWS; Upper Mersey Estuary LWS; Rye Grass Pipes LWS; Weaver Valley Country Park LWS; St Helens Canal Disused_A LWS; Newbridge Wood LWS; Latchford Railway Sidings LWS; Pendlebury Brook (SJ493920-SJ515914) LWS; Norton Marsh and Upper Moss Side Fields LWS; Upper Moss Side Farm LWS; Bradford Mill Wood and Marsh LWS; Frodsham Field Studies Centre LWS; Walton Locks LWS; Trent and Mersey Canal, Whatcroft LWS; Sutton Manor LWS; Weaver Valley/Newbridge Pool LWS; Moore Nature Reserve LWS; Sutton Bridge Unused Lagoon LWS				
Non-statutory designated biodiversity sites located within <0.5km of the Preliminary Order Limits: Lower Weaver Valley Woods LWS; Manor Park Woodland LWS; Model Farm Wood LWS; Sherdley Park LWS; Kennel Wood, Northwich LWS; Woolstencroft Farm Meadow LWS; Bog Rough LWS; Daresbury Firs (Keckwick Hill) LWS; Appleton Reservoir LWS; Daresbury Firs LWS; Pitts Heath Wood LWS;	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped out	None of these sites are located within the Zol. Therefore, there is no pathway for a significant effect. Several of these sites are located adjacent to the Preliminary Order Limits, however embedded environmental measures (such as 2. Standard best practice; 3. Minimise land take and micro-site; 6. Maintaining habitat connectivity; 8. Protection of retained habitats; and 11. Sensitive access and enabling works) would minimise the risk of impacts to negligible.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped out	None of these sites are located within the Zol. Therefore, there is no pathway for a significant effect. Several of these sites are located adjacent to the Preliminary Order Limits, however embedded environmental measures (such as 2. Standard best practice; 3. Minimise land take and micro-site; 6. Maintaining habitat connectivity; 8. Protection of retained habitats; and 11. Sensitive access and

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
Helsby Hill LWS; Runcorn Hill LWS; Quick Woods LWS; Whitegate Way LWS; Clough Wood LWS; Bestway Wood, Gunners Clough and Nursery Wood LWS; Green Wood LWS; Oxmoor_B LWS; Beechwood LWS; Gowy Meadows and Ditches LWS; Whittle Brook (SJ521902- SJ535896) LWS; Heath Off Bradford Road LWS; Oxmoor_A LWS; Barker's Hollow Wood LWS				enabling works) would minimise the risk of impacts to negligible.
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to 500m from the construction works for sensitive species	Scoped in	The cited habitat features are not considered sensitive to this environmental change. Feature is potentially within ZoI for faunal species. All of these sites either include cited faunal species, or the cited features are unknown therefore potentially include faunal species. Disturbance/displacement effects are scoped in as a precaution due to the potential for sensitive faunal species to be present and affected by the environmental change.
Non-statutory designated biodiversity sites located within <0.5km of the Preliminary Order Limits: Partington Nature Reserve SBI; Dutton Dean LWS; Clifton Cloughs_B LWS; Park Brow LWS; Morts Wood LWS; Rows Wood LWS; Whatcroft Hedge LWS; Loves Wood LWS; Fields Behind Ye Olde No. 3_B LWS; Broadoak Wood SBI; Fields Behind Ye Olde No. 3_A LWS; Clifton Cloughs_A LWS; Lodge Wood LWS; Puddinglake Brook Wood LWS; Whatcroft Lane Wetlands LWS; River Dane, Bostock LWS; Model Farm Pasture LWS; Moore Meadows LWS; Birds Wood LWS; Dutton Dingles LWS; Garden Wood LWS; Old mineral line Lea Green LWS;	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped out	None of these sites are located within the ZoI. Therefore, there is no pathway for a significant effect. Several of these sites are located adjacent to the Preliminary Order Limits, however embedded environmental measures (such as 2. Standard best practice; 3. Minimise land take and micro-site; 6. Maintaining habitat connectivity; 8. Protection of retained habitats; and 11. Sensitive access and enabling works) would minimise the risk of impacts to negligible.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped out	None of these sites are located within the ZoI. Therefore, there is no pathway for a significant effect. Several of these sites are located adjacent to the Preliminary Order Limits, however embedded environmental measures (such as 2. Standard best practice; 3. Minimise land take and micro-site; 6. Maintaining habitat connectivity; 8. Protection of retained habitats; and 11. Sensitive access and enabling works) would minimise the risk of impacts to negligible.
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to 500m from the construction works for sensitive species	Scoped out	Cited features for all of these sites include solely vegetation communities, and no faunal species that could be affected by the environmental change. Therefore, there is no pathway for a significant effect.

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
Fury Tip LWS; Whatcroft Woodland LWS; Hefferston Grange Farm Meadows LWS; Hopyards Wood LWS; Wharton Green Pasture LWS; Cuddington Brook (North) LWS; Long Acre Wood LWS; Station Road Railway Site LWS; Witton Flashes LWS; New Pool and Wood LWS; Nursery Wood LWS; Carrington Power Station SBI				
Non-statutory designated biodiversity sites located between 0.5-2km of the Preliminary Order Limits: Pettypool Wood LWS; First Pit, Ellis Lane LWS; Park Brow Pool LWS; Boundary Farm Pond LWS; Weston Marsh Lagoon LWS; Mersey Valley Golf Course LWS; Marbury Big Wood LWS; Lower Weaver Valley Floodplain LWS; Gatewarth LWS; Alexandra Colliery LWS; Greenbank Wood LWS; Catsclough LWS; Silver Well Wood LWS; Friar's Rough LWS; St Helens Canal Disused_B LWS; Ash Trees along Trent and Mersey Canal, Billinge Green LWS; Crowholt Wood and Whitley Brook LWS; Bradley Meadow Wood, Hawton Clough and Little Leigh Ponds LWS; Hob Hey Wood LWS; Marbury Lime Bed and Forge Pool LWS;	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped out	None of these sites are located within the Zol. Therefore, there is no pathway for a significant effect.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped out	None of these sites are located within the Zol. Therefore, there is no pathway for a significant effect.
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to 500m from the construction works for sensitive species	Scoped out	None of these sites are located within the Zol. Therefore, there is no pathway for a significant effect.

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
Meadow by Earls Wood and River Dane LWS; Dennow Wood LWS; Moss Wood SBI; Southern Verge Embankment LWS; Paddington Meadows LWS; Peck Mill Valley LWS; Whiteoaks Wood SBI; Dutton Hospital Wood LWS; Sankey Canal Central_B LWS; Petty Pool Brook and Woods LWS; Frodsham and Overton Woods LWS; Barnton Cut Wood LWS; Budworth Mere LWS; Land off Lunts Heath Road_A LWS; Hoblane Ponds LWS; Widnes Warth Saltmarsh LWS; Sankey Canal Central_A; Brookheys Covert SBI; St Helens Canal LWS; Merryfall Wood LWS; Fox Covert and Meadows SBI; Lodge Plantation LWS; Upper Mersey Estuary LWS; Harmers Wood LWS; Billinge Green Farm Pond LWS; Land off Lunts Heath Road_B LWS; Helsby Allotments and Cemetery LWS; Black Moss Covert SBI; Red Brook SBI; Norbury Wood LWS; Drakelow Gorse LWS; Upper Mersey Estuary Intertidal Areas and Mudflats LWS; Sutton Brook (SJ530935-SJ526945) LWS; Bawsgate Pond and Grassland LWS; Pickering's Oxbow LWS; Bridgewater Canal SBI; Brickkiln Nursery Wood SBI;				

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
Blackamoor Wood and the Coppice LWS; Big Wood LWS; B W Lagoon, Kingsley LWS; Sandymoor Wood LWS; The Glen LWS; Bull's Wood and Meadow LWS; Ashton's and Neumann's Flashes LWS; Oak Wood near School Lane SBI; Murdishaw Wood and Valley LWS; Dorchester Park LWS; Helsdale Wood and Newhey's Plantation LWS; Westy Point LWS; Sutton Mill Dam LWS; Forge Wood LWS; Grappenhall Heys_B LWS; Dunham Park SBI; Pear Tree Farm LWS; Cartledge Moss LWS; Acton Cliff Meadow LWS; Thatto Heath Dam LWS; Wades Lane Clough LWS; Sixes Pool LWS; Hogswood Covert SBI; Astmoor Saltmarsh and Swamp LWS; Deakin Yard Wood LWS; The Bongs and the Gorse LWS; Land North of Hallwood Park LWS; Marston Meadows LWS; Stretton Moss LWS; Thelwall Meadow LWS; Kennel Wood, Sandiway LWS; Wetland at Carrington Moss SBI; Cliff Brook Meadows LWS; The Twiggeries LWS; Flixton Sludge Beds SBI; Woolston New Cut Canal LWS; Grappenhall Heys_A LWS; Grey's Gorse LWS; Old River Irwell SBI; Pex Hill Country Park LWS;				

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
Daresbury LWS; Heatley Lake_B LWS; Heatley Lake_A LWS; Bank Hall Farm Flush LWS; Mill Wood, Big Wood & Willowbed Wood LWS; The Rough woodland LWS; Beauty Bank LWS; Bewsey Meadows LWS; Flint Mill Reedbeds LWS; River Gowy LWS; Snipe Island LWS; Owley Wood LWS; Jack Lane SBI; Birchmoss Covert SBI; Blundell Hills Golf Course LWS; The Dingle and Ford's Rough LWS; Beach Hill Wood LWS; Marston Flashes LWS; The Willowbeds LWS; Land, west of Gerrards Lane LWS; Ravensclough LWS; St Helens Canal, south of Haresfinch Burgy Bank LWS; Haresfinch Burgy Banks LWS; Lymm Dam Complex LWS; Stenhills Open Space LWS; Rough Grassland around Sutton Dam Stream LWS; Parr Hall Millenium Green and Canal LWS; Norton Priory_A LWS; Veteran Ash Tree - Bank Hall Farm LWS; Altrincham Sewage Works SBI; Wervin Meadows LWS; Leg O'Mutton Dam LWS; Stockton Heath Quarry LWS; Coroners Wood SBI; Ravensclough Marsh LWS; Bostock Road Orchards LWS; Redmoor Covert SBI; Booth's Wood LWS; Tunstalls Farm LWS; Eccleston Top Dam LWS;				

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
Twenty Acre Wood LWS; The Bongs and the Gorse LWS; Malljurs Covert SBI; Sankey Brook LWS; Veteran Ash Tree - Bank Farm, Bostock LWS.				
Ancient and semi-ancient woodland/ancient replanted woodland and veteran trees	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	The desk study identified ancient woodland within the Preliminary Order Limits. Habitat and arboricultural surveys are on-going during 2022 and will confirm the status and distribution of habitats within the Preliminary Order Limits. As a precaution, this feature is assumed to be present within the Zol at this stage and will be reviewed in the following completion of baseline surveys.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped in	The desk study identified ancient woodland within the Preliminary Order Limits. Habitat and arboricultural surveys are on-going during 2022 and will confirm the status and distribution of habitats within the Preliminary Order Limits. As a precaution, this feature is assumed to be present within the Zol at this stage and will be reviewed in the following completion of baseline surveys.
Broadleaved semi-natural woodland	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Habitat surveys are on-going during 2022 and will confirm the status and distribution of habitats within the Preliminary Order Limits. As a precaution, feature is assumed to be present within the Zol at this stage and will be reviewed in the following completion of baseline surveys.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped in	Habitat surveys are on-going during 2022 and will confirm the status and distribution of habitats within the Preliminary Order Limits. As a precaution, feature is assumed to be present within the Zol at this stage and will be reviewed in the following completion of baseline surveys.
Hedgerows	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Feature is within the Zol.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped in	Feature is within the Zol.
Standing water (ponds and wet ditches)	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Feature is within the Zol.

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped in	Feature is within the ZoI.
Running water (rivers, streams and ditches)	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Feature is within the ZoI.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped in	Feature is within the ZoI.
Other HPIs ⁴	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Feature is within the ZoI. The desk study identified several HPIs within the Preliminary Order Limits, including a range of woodland, grassland, fen, traditional orchard and intertidal habitats. Habitat surveys are on-going during 2022 and will confirm the type, status and distribution of HPIs within the Preliminary Order Limits.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped in	Feature is within the ZoI. The desk study identified several HPIs within the Preliminary Order Limits, including a range of woodland, grassland, fen, traditional orchard and intertidal habitats. Habitat surveys are on-going during 2022 and will confirm the type, status and distribution of HPIs within the Preliminary Order Limits.
Other non-priority habitats with biodiversity benefit	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Feature is within the ZoI. The desk study identified several non-priority habitats with biodiversity benefit within the Preliminary Order Limits including habitats such as neutral grasslands and habitats on previously developed land. Habitat surveys are on-going during 2022 and will confirm the type, status and distribution of HPIs within the Preliminary Order Limits.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped in	
Bats	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Bat surveys are on-going during 2022. The desk study identified 1,696 bat records relating to at least 10 species within 2km of the Preliminary Order Limits. As a precaution, this feature is assumed to be present within the ZoI at this stage and will be reviewed in the following completion of baseline surveys.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Up to ~4km from the construction/operational works	Scoped in	

⁴ The Project will join a Natural England-led great crested newt District Level Licencing (DLL) scheme in districts where it is currently available. This recommends the non-mandatory employment of standard best practice Reasonable Avoidance Measures, but otherwise removes the requirement to include great crested newts in the Ecological Impact Assessment (EclA). DLL is not currently available in St Helens, therefore great crested newts are included in the EclA for this area only.

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
Great crested newt (St Helens only)	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to ~100m from the construction/operational works	Scoped in	Great crested newt surveys are on-going during 2022. The desk study identified 390 records of great crested newt within 2km of the Preliminary Order Limits. As a precaution, feature is assumed to be present within the Zol at this stage and will be reviewed in the following completion of baseline surveys.
	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Up to ~250m from the construction/operational works	Scoped in	
	Fragmentation of habitats (resulting in a reduction in connectivity)	Up to ~250m from the construction/operational works	Scoped in	
Otter	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	N/A	Scoped out	Great crested newts are not sensitive to significant disturbance from this environmental change.
	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Otter surveys are on-going during 2022. The desk study identified 45 records of otter within 2km of the Preliminary Order Limits. As a precaution, feature is assumed to be present within the Zol at this stage and will be reviewed in the following completion of baseline surveys.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Up to ~200m from the construction/operational works	Scoped in	
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to ~200m from the construction/operational works	Scoped in	
Water vole	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Water vole surveys are on-going during 2022. The desk study identified 28 records of water vole within 2km of the Preliminary Order Limits. As a precaution, this feature is assumed to be present within the Zol at this stage and will be reviewed in the following completion of baseline surveys.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Up to ~500m upstream and downstream from the construction/operational works within a watercourse	Scoped in	
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Minimum of ~5m from the construction/operational works	Scoped in	
Reptiles	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	The desk study identified 285 records of reptiles within 2km of the Preliminary Order Limits, although Helsby Allotments and Cemetery LWS is located approximately 0.9km southeast and is noted to support a population of reptiles. Should the extended Phase 1 habitat survey identify habitats with the potential to support important assemblages of reptiles in areas likely to be subject to significant effects, presence/likely absence surveys
	Fragmentation of habitats (resulting in a reduction in connectivity)	Up to ~50m from the construction/operational works	Scoped in	

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
				would be undertaken during 2022/23. As a precaution, feature is assumed to be present within the Zol at this stage and will be reviewed in the following completion of baseline surveys.
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	N/A	Scoped out	Reptiles are not sensitive to significant disturbance from this environmental change.
Badger	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Approximately 30m from the construction/operational works	Scoped in	Badger surveys are on-going during 2022. The desk study identified 1,291 badger records within 2km of the Preliminary Order Limits. As a precaution, feature is assumed to be present within the Zol at this stage and will be reviewed in the following completion of baseline surveys.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Approximately 30m from the construction/operational works	Scoped in	
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to approximately 30m from the construction/operational works	Scoped in	
Freshwater fish	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Where deemed necessary, subject to on-going review of watercourse crossing designs and locations, follow-up surveys: fish surveys would be undertaken during 2022. The desk study identified 178 fish records within 2km of the Preliminary Order Limits. As a precaution, this feature is assumed to be present within the Zol at this stage and will be reviewed in the following completion of baseline surveys.
	Fragmentation of habitats (resulting in a reduction in connectivity and obstruction of migratory pathway)	Within the footprint of the construction/operational works	Scoped in	
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to 500m from the construction works for sensitive species	Scoped in	
SPI and other conservation-notable vertebrate species	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped out	The desk study identified 650 records of five conservation-notable vertebrate species within 2km of the Preliminary Order Limits. Although, features are assumed to be present within the Zol and the Project will result in a loss of habitat for these species, the reduction will be minimal and affect a small area of habitat currently occupied. Embedded environmental measures outlined in Section 5.7 (such as 2. Standard best practice ; 3. Minimise land take and micro-site ; 5. Sensitive vegetation removal ; 6. Maintaining habitat connectivity ; and 8. Protection of retained habitats) will ensure that permanent loss and fragmentation of these habitats is minimised and avoided where possible, and that the risk of injury/death and disturbance to these species is minimised. Temporary
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped out	
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to ~50m from the construction works for sensitive species	Scoped out	

Ecological feature	Environmental change ³ and potential effect	Zone of Influence	Scoped in/out	Justification
				land take would be re-instated and permanent land take would be compensated for through the provision of BNG.
SPI and other conservation-notable terrestrial and aquatic invertebrate species	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	The desk study identified 1,282 records of SPI and conservation-notable terrestrial and aquatic invertebrate species within 2km of the Preliminary Order Limits. Should the extended Phase 1 habitat survey identify habitats with the potential to support important species or assemblages of terrestrial and aquatic invertebrates in areas likely to be subject to significant effects, detailed surveys would be undertaken during 2022/23. As a precaution, this feature is assumed to be present within the ZoI at this stage and will be reviewed in the following completion of baseline surveys.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped in	
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to 50m from the construction works for sensitive species	Scoped in	
SPI and other protected/conservation-notable plant species	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	The desk study identified records of 362 SPI and protected/conservation-notable plant species within 2km of the Preliminary Order Limits. Should the extended Phase 1 habitat survey identify habitats with the potential to support important species or assemblages of protected/conservation-notable plants in areas likely to be subject to significant effects, detailed surveys would be undertaken during 2022/23. As a precaution, feature is assumed to be present within the ZoI at this stage, and will be reviewed in the following completion of baseline surveys
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped in	
Schedule 1 breeding birds	Permanent or temporary land take/land use change (resulting in habitat loss or degradation and/or loss of fauna)	Within the footprint of the construction/operational works	Scoped in	Schedule 1 breeding bird surveys are on-going during 2022. The field surveys have identified Schedule 1 bird species breeding within at the ZoI (500 m of the Preliminary Order Limits) and therefore effects on this feature through land take and disturbance/displacement have been scoped in. The fragmentation of habitats is scoped out given the temporary nature of the construction works and the mobility of this feature. Additionally embedded environmental measures (such as 2 – Standard best practice , 3 – Minimise land take and micro-site , 4 – CoCP , 5 – Sensitive vegetation removal , 6 – Maintaining habitat connectivity , 8 – Protection of retained habitats , 10 – Habitat reinstatement , 11 – Sensitive access and enabling works , 13 – Sensitive lighting design and 15 – Pre-construction update surveys) will ensure that permanent loss and fragmentation of habitats supporting this feature is minimised and avoided where possible.
	Fragmentation of habitats (resulting in a reduction in connectivity)	Within the footprint of the construction/operational works	Scoped out	
	Increased noise, vibration, light and movement levels (resulting in disturbance and/or displacement)	Up to 500m from the construction works for sensitive species	Scoped in	

HyNet North West Hydrogen Pipeline

Delivering clean growth

Cadent
Your Gas Network