



# WARRINGTON WATERFRONT MOORE, WARRINGTON BIODIVERSITY MITIGATION STRATEGY



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## **APPENDICES**

- APPENDIX A: Scheme Plans
- APPENDIX B: Policy Compliance Table

## 1.0 Introduction

- 1.1 This Biodiversity Mitigation Strategy (BMS) sets out ecological mitigation and enhancement measures for the proposed Warrington Waterfront scheme.

### **Background**

- 1.2 Peel (Land and Property) is seeking allocation, and release from greenbelt, of land at Moore Nature Reserve and Arpley Landfill for their Warrington Waterfront development proposal in the draft Local Plan. The area is part of the proposed allocation for Major Development (MD1) in the Warrington Local Plan.
- 1.3 Warrington Waterfront includes Port Warrington extension, a multi-modal port facility which would provide opportunities for port related manufacturing and logistics. Nearby, the proposed Warrington Commercial Park will provide flexible employment space.
- 1.4 Adding to the existing Port Warrington facility, the scheme provides a unique potential for a more sustainable approach to freight transport by linking movements along the Manchester Ship Canal to strategic road and rail networks.
- 1.5 Green infrastructure is integral to the draft allocation, including the creation and long-term management of Arpley Country Park which would incorporate retained areas of the Moore Nature Reserve. The development masterplan incorporates new green infrastructure and compensation measures for the partial loss of Moore Nature Reserve, needed for the Port Warrington extension.
- 1.6 The proposed illustrative masterplan for the scheme and the landscape proposals for Arpley Country Park are shown at Appendix A.

### **Aims of the BMS**

- 1.7 Recognising that there would be unavoidable construction-stage impacts, the aims of this BMS are to:
- minimise short-term impacts through avoidance and mitigation measures
  - provide early compensatory habitat creation, restoration and enhancement measures
  - outline long-term habitat management measures for retained and newly-created habitats
  - contribute, as far as possible to a net gain in biodiversity within the Waterfront area controlled by Peel.

### **Structure of the BMS**

- 1.8 This document sets out the overarching strategy for the provision of mitigation and enhancement with respect to designated sites, protected species, priority habitats, local issues, biodiversity net gain and future management. Appendix B has a policy compliance table showing how relevant laws and policies would be addressed.
- 1.9 As the timeframe for the construction is not known, where specific mitigation or enhancement measures are considered seasonally dependent, the recommended time for undertaking the works is specified by month.

## 2.0 Ecological Baseline Summary

2.1 Full details of the ecological baseline are presented in the Ecological Assessment (TEP Report: 6929.01.001). A summary of the surveys undertaken, which cover the Warrington Waterfront study area unless stated otherwise, and the key findings are presented below.

2.2 Throughout 2018 and 2019, the following surveys were completed:

- Ecology data searches
- Extended Phase 1 habitat survey
- National Vegetation Classification surveys of semi-natural broadleaved woodland and grasslands
- Detailed arboricultural survey
- Preliminary bat roost assessments of trees within development parcels
- Water vole and otter surveys
- Incidental evidence of badger activity
- Breeding bird surveys within Moore Nature Reserve Local Wildlife Site (LWS)
- Wintering bird surveys
- Habitat Suitability Index (HSI) assessments for great crested newt breeding

### Designated Sites

2.3 There are two European sites that have qualifying features within potential influencing distance of the proposals (Mersey Estuary SPA and Manchester and Mosses SAC). There are other, more distant European sites whose qualifying features might be affected through "in-combination" effects arising from Warrington Waterfront development and other plans or projects. These are considered at Chapter 3.

2.4 There is one Local Nature Reserve (Oxmoor Wood LNR, 1.14km southwest) with habitat links to the site. There are six LWSs, one within (Moore Nature Reserve LWS) and five close to the site (Moss Side Farm LWS, Norton Marsh & Upper Moss Side, Upper Mersey Estuary, Gatewarth and Manor Park Woodland).

### Protected and Notable Species

2.5 The data search identified seven species of bat recorded within the study area and the range of habitats present provide foraging, roosting and commuting opportunities for bats. The preliminary roost assessment identified 127 trees with high or moderate roost potential within the proposed development parcels.

2.6 Great crested newt (GCN) and common toad have been recorded within the study area as recently as 2013 and Habitat Suitability Index (HSI) assessments of 22 waterbodies indicate most have good or average suitability to support GCN.

2.7 Incidental recording of badger setts, has identified six setts within the study area, of which five are located within the proposed development parcels.

- 2.8 Although there are records for water vole within the study area, none were recorded during survey and American mink (the main predator of water vole) were seen. Otter was not identified during survey but have been recorded in the wider area and due to their large home ranges are likely to commute and forage along the Mersey corridor.
- 2.9 An extensive and well recorded assemblage of birds including those associated with both woodland and open water habitats is present within the study area. The site is used by birds during the wintering and breeding seasons and is of regional significance for breeding birds. Within the areas included in the breeding bird survey, notable breeding species include black-headed gull; dunnoek; gadwall; kingfisher; lapwing; lesser spotted woodpecker; mallard; mute swan; song thrush and teal.
- 2.10 The woodland, grassland and scrub habitats within the study area will provide good foraging and dispersal habitat for reptiles, although specific surveys have not yet been undertaken. Wood piles present across the site will provide hibernation habitat and there are numerous banks across the site which offer suitable basking habitat.
- 2.11 European eel are likely to be found in the lakes and other waterbodies present within the development parcels.
- 2.12 The data search also identified records for red squirrel, polecat, hedgehog and brown hare within the study area. It is unlikely that the habitats on site would provide opportunities for red squirrel and brown hare but conditions would be better for hedgehog and polecat.

### **Priority Habitats**

- 2.13 Six habitats of principal importance were identified during survey of the proposed development areas and retained area of Moore Nature Reserve (wet woodland, lowland dry acid grassland, lowland mixed deciduous woodland, native hedgerows, reedbeds and open water). Other habitats include scrub, marshy grassland, modified neutral grassland, tall herb and bare ground/ short ephemeral vegetation.
- 2.14 Reedbeds are the only priority habitat which has been recorded on the Arpley landfill. Other habitats include plantation broad-leaved woodland, modified neutral grassland, bracken, tall herb and bare ground.
- 2.15 There is no ancient woodland, but a preliminary assessment indicates six veteran trees within the Moore Nature Reserve arboricultural survey area, including one or two in areas that might be lost to development<sup>1</sup>. The protected plant native bluebell was found across the site.
- 2.16 The condition of the habitat communities present is indicative of the changing land use, the various stages of succession and the disturbance caused by public use.

### **Local Issues**

- 2.17 A good range of invertebrates including some s41 species of principal importance have been historically recorded on site, as would be anticipated by the mix of terrestrial and aquatic habitats and the structural variety within.

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<sup>1</sup> One would be affected by the indicative Port Warrington Extension layout, and one may be affected, depending on final positioning. No veteran trees are found in the Warrington Commercial Park

2.18 The Moore Nature Reserve is well-used by local naturalists and species recorders, many of whom submit records to the Local Records Centre. It is used for ecological training purposes by volunteers.

2.19 It is understood that the Moore Nature Reserve and Arpley Country Park are used for recording and re-introduction of locally rare native plants.

### **Invasive Species**

2.20 Multiple areas of invasive non-native plants including Himalayan balsam, Japanese knotweed, giant hogweed, variegated yellow archangel, montbretia, wall cotoneaster and New Zealand pygmy weed have been recorded within Moore Nature Reserve, with invasive species less prevalent on Arpley landfill.

### **Biodiversity Metric**

2.21 Using the defra Biodiversity Assessment tool<sup>2</sup>, the baseline, or "pre-intervention" score is 2081.39 biodiversity units. This is derived from the 2019 survey results and in making assessments of condition, the fact that the Moore Nature Reserve and the restored Arpley landfill currently only have short-term management arrangements in place, as one of the benefits of the scheme will be long-term management and funding. A biodiversity net gain assessment will be provided separately and in due course.

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<sup>2</sup> Using defra metric 1.0, as version 2.0 is in beta test mode and generated unreliable results when applied to the scheme.

## 3.0 Mitigation Strategy

3.1 This section sets out ecological features which are likely to be affected by the Warrington Waterfront proposals and how those effects will be avoided, mitigated and/or compensated, in line with the "mitigation hierarchy" set out in the NPPF and associated Planning Practice Guidance.

### Designated Sites

#### Natura 2000 Sites

3.2 A shadow Habitat Regulations Assessment has been undertaken by TEP (Ref: 6929.01.022) which discusses the potential for effects on qualifying features of the following sites:

- Mersey Estuary SPA/Ramsar
- Liverpool Bay SPA
- Mersey Narrows and North Wirral Foreshore SPA/Ramsar
- Ribble and Alt Estuaries SPA/Ramsar
- Dee Estuary SAC/SPA/Ramsar
- Sefton Coast SAC

3.3 There will be no loss of, or disturbance to, habitats within the European sites, the nearest of which (Mersey Estuary SPA/Ramsar) is over 6km away.

3.4 Likely significant effects were identified for the following birds as a result of the loss of open water habitat in Moore Nature Reserve; and from construction and operational disturbance/displacement:

- Teal (in association with Mersey Estuary SPA/Ramsar)
- Great crested grebe (in association with Mersey Estuary SPA)
- Cormorant (in association with Liverpool Bay SPA)

3.5 To ensure that there will not be a significant impact on teal that may form part of the qualifying Mersey Estuary SPA and Ramsar population, 1,450m of the currently dry and overgrown Runcorn to Latchford Canal will be enhanced to provide suitable habitat for this species. In addition the remaining water bodies within Moore Nature Reserve will continue to be managed to provide optimal teal habitat.

3.6 To prevent disturbance and displacement of all waterbird species during the construction of the proposed development, various control measures will be put in place, including visual and acoustic screening, maintenance of machinery, toolbox talks and the implementation of a watching brief to monitor any bird disturbance observed during the construction period. Visual and acoustic screening will also be installed where there are any gaps in tree cover between the waterbodies and the proposed vehicle access routes, to prevent visual and noise disturbance from traffic to birds using the waterbodies.



- 3.7 Adequate filtering and anti-pollution measures will be implemented as part of the appointed contractors' environmental management plan (CEMP). In addition areas of sustainable drainage will be incorporated in the form of SUDS to allow for excessive run-off from storm events etc. to settle and slowly dissipate, filtering excessive nutrient levels before reaching the open water system.
- 3.8 Following the implementation of these measures there will be no adverse effects on the integrity of the conservation interests of Natura 2000 sites as a result of habitat loss or disturbance or displacement of birds, or as a result of excessive nitrogen deposition critical loading.
- 3.9 These measures can be secured through conditions attached to future planning permissions relating to the development.

#### Moore Nature Reserve LWS

- 3.10 Compensation for the habitats lost at Moore Nature Reserve LWS will be required in order to ensure an overall net gain in biodiversity for the development; this is a requirement under the NPPF and under locally adopted policy. It is proposed that net gain will be achieved via the following:
- A range of enhancements will be implemented within the retained Moore Nature Reserve, including re-wetting of the Runcorn-Latchford canal;
  - Extensive additional habitat enhancement including woodland planting will be implemented within Arpley Country Park;
  - Long-term management in-perpetuity will be implemented at both Moore Nature Reserve and Arpley Country Park to achieve good condition in all retained, enhanced and created habitats;
  - Within the proposed development parcels - boundary treatments along the interface between development and retained habitats that reduce visual, lighting and traffic disturbance;
  - Within the proposed development parcels - habitat creation as part of the green infrastructure and sustainable drainage systems of the proposed designs; and
  - Off-site compensation involving creation of woodland and wetland habitats along with long-term management agreements.
- 3.11 Full details will be provided in the Biodiversity Net Gain Strategy (TEP Report Ref: 6929.01.037, to be provided in due course). An outline Landscape and Habitat Management Plan (TEP Report Ref: 6929.01.042) is provided to confirm that the habitats would be actively managed for nature conservation over the long-term, an essential component of the net gain strategy.
- 3.12 In addition, the following measures will be implemented to ensure no harm to retained habitats and protected species within Moore Nature Reserve:
- Construction-stage controls on encroachment into, and pollution of, retained habitats (CEMP);
  - Seasonal restrictions on vegetation clearance; and
  - Conservation method statements for protected and notable species, under Natural England licence as appropriate.

- 3.13 All recommendations made in the Biodiversity Net Gain strategy would be adhered to throughout development to ensure no net loss of biodiversity. These measures can be delivered through planning conditions and underpinned where required by Natural England licences for protected species affected by the development.
- 3.14 The loss of approximately 37ha of Moore Nature Reserve with respect to public access and visitors will be mitigated via the remediation of Arpley Landfill to a country park upon cessation of landfill activities. Peel have confirmed their intent to enhance Arpley Landfill beyond the current proposed level of remediation to create Arpley Country Park which will include a new car park, purpose built foot and cycle paths and visitor facilities. Arpley Country Park is of a suitable size to offset the number of visitors displaced from Moore Nature Reserve, which will also avoid negative impacts on surrounding protected, public access sites including Oxmoor Wood LNR and Dorchester Park LNR.

#### Other Local Nature Reserves and Local Wildlife Sites

- 3.15 A CEMP will apply to all construction activities and will therefore also ensure that other designated sites will not be indirectly affected by construction activities. This will include:
- Oxmoor Wood LNR
  - Dorchester Park LNR
  - Moss Side Farm LWS
  - Upper Mersey Estuary LWS
  - Norton Marsh and Upper Moss Side Farm LWS
  - Gatewarth LWS and
  - Manor Park Woodland LWS
- 3.16 The CEMP will include standard, best-practice methods on how site run-off will be controlled, management of windblown dust and rubbish, how site waste will be managed, how fuel and other spillages will be prevented and will include emergency procedures for any pollution accidents.
- 3.17 These measures can be secured through conditions attached to future planning permissions relating to the development.

#### **Protected and Notable Species**

##### Bats

- 3.18 The Preliminary Roost Assessment (PRA) identified ca 127 trees with potential to support roosting bats, although there were limitations to access in some areas.
- 3.19 Further surveys are required prior to development to obtain more complete baseline information on the bat population within the study area, with localised scrub clearance in places to facilitate access, to include:
- Updated PRA during the period October to February, when foliage from trees and ivy are lacking and views into the canopies are less obscured;
  - Aerial inspections by a licensed bat consultant of all trees with roost habitat suitability to confirm characterisation of potential roost features (PRFs) and

- confirm tree roost habitat suitability. To be undertaken during the period October to February to avoid risk of disturbance to bird nesting;
- Inspection of existing bat boxes within the site, as part of the aerial inspections by a licensed bat consultant;
  - DNA analysis of droppings, where found, if no bats are present.
- 3.20 The findings from the above surveys would be sufficient to inform the baseline for assessment, support conclusions on viability of the site for development and inform further masterplanning.
- 3.21 Further surveys will be carried out in the 12-18 months prior to a planning application, in order to ensure the decision is informed by contemporary data and permission can be granted having regard to the licencing tests in the Habitats Regulations:
- Nocturnal roost surveys of high and moderate category trees - due to the dynamic nature of bat roosting in trees and abundance of bat roost opportunities, bat occupation of tree roosts may vary considerably between years.
  - Activity transect surveys and static monitoring - to establish species assemblage, features of particular importance for foraging and commuting bats and to further determine the impacts associated with proposals. The site comprises high quality habitat for bats and therefore two survey visits per month from April to October in appropriate weather conditions are required, using a minimum of five transects to cover the study area and three automated static detector locations per transect (collecting data for five consecutive nights per month).
- 3.22 Mitigation and compensation schemes would need to be designed following these surveys and are likely to comprise the following which would be implemented through a Natural England European protected species (EPS) licence:
- Mitigation for roost habitat loss and enhancing net roost habitat availability;
  - Provision of replacement roost boxes which should be incorporated into mitigation areas prior to any works, include a variety of designs and should act to replicate the size, height and aspects of tree roosts lost
  - Boxes should be sited in a variety of locations, near features which provide suitable flight-lines and should have an entrance close to appropriate habitat.
  - All replacement roost habitat should be positioned away from sources of external lighting or where light spillage.
  - Additional mitigation design may incorporate removal of sections of trees with PRFs within the site and attachment to other trees without PRFs within retained areas.
  - Appropriate supervision by licensed bat ecologists during felling and use of suitable felling techniques.
  - Mitigating for foraging and commuting habitat loss and maintaining habitat connectivity and quality:
  - Provision of similar habitats to those lost as a result of proposals should include creation of ponds and lakes.

- Management of woodland areas to increase diversity in woodland structure and ensure development of mature trees. Woodlands should be managed to incorporate glades and scrub buffer areas around woodland edges with species incorporated to enhance invertebrate prey diversity.
- Areas planted with wildflower mixes and managed as tall grassland to increase the invertebrate assemblage and therefore the prey availability for bats.
- New tree and hedgerow planting should be designed to provide linear features connecting blocks of woodland, which may be used by commuting bats and to connected habitats with the wider landscape.
- Sensitive lighting scheme:
  - Maintenance of dark corridors along woodland edge habitats, retained treelines and new hedges will maintain connectivity within the site.
  - Sensitive lighting scheme must be included within any future development proposals (and during construction activities) and should adopt the following principals:
    - Avoid lighting on key habitat and important features altogether;
    - Dark buffer zones between habitats and lighting should be used with illuminance limits and zonation;
    - Light spill should be screened through soft landscaping and installation of walls, fences and bunding;
    - Narrow spectrum bulbs should be used, that do not emit UV light (peaking higher than 550nm);
    - Downward directional luminaires should be used to retain darkness above and using only luminaires with an upward light ratio of 0% and with good optical control; and
    - Any external security lighting should be set on motion-sensors and short (1min) timers.

3.23 Additional enhancement for bats can be achieved by installing at least a further 50 bat boxes across both retained areas of Moore Nature Reserve and within Arpley Country Park.

3.24 The above mitigation measures will be secured through planning conditions (RAMMS, roost features, habitat creation, management, sensitive lighting), underpinned by Natural England licence (covering works to roosts, provision of replacement roost features and habitat creation).

#### Amphibians, including great crested newt (GCN)

3.25 Once fixed development plans are made available and the exact extent of habitats to be lost are known, detailed surveys to identify potential impacts on amphibians will be required prior to submittal of a planning application.

3.26 Based on available desktop data and the findings of the HSI assessment it is considered likely that GCN are present on site. Therefore, all ponds on site and within 250m of development must be subject to eDNA surveys to confirm which ponds hold populations of great crested newts. In addition torch surveys should be undertaken to establish which ponds support common toad. The optimum season for eDNA survey is mid-April to June and the optimum season for torch surveys is March - June.

- 3.27 Where GCN are confirmed to be present, traditional surveys are likely to be required to establish a population estimate.
- 3.28 These surveys will be carried out in the 12-18 months prior to a planning application, in order to ensure the decision is informed by contemporary data and permission can be granted having regard to the tests in the Habitats Regulations.
- 3.29 Should ponds that support GCN and common toad be lost during development detailed mitigation will be required and works may need to be undertaken under a licence from Natural England. Great crested newt licencing with Natural England is currently undergoing a number of changes with district licencing. The exact methods of mitigation and need for population surveys would be determined with Natural England prior to development but are likely to include either creation of new pond habitat or financial compensation to a suitable scheme offsite.
- 3.30 Based on the proposed development framework it is anticipated that there is suitable land and features available either on site within the retained areas of Moore Nature Reserve or within Arpley Country Park to mitigate for any negative impacts on GCN and common toad. This can be achieved through creation of dedicated newt ponds within the retained section of Moore Nature Reserve along the line of the former Runcorn to Latchford Canal.
- 3.31 Additional GCN enhancements, in addition to mitigation requirements, will include:
- Provision of deadwood piles (using felled woodland) throughout the retained areas of Moore Nature Reserve which will provide both foraging and hibernation opportunities for local amphibians.
  - Installation of at least five hibernacula within the retained areas of Moore Nature Reserve,
  - Specific management measures for any ponds on site which do not currently support a population of GCN in order to improve the habitat for GCN.
- 3.32 The above mitigation measures will be secured through planning conditions (RAMMS, habitat creation, management), underpinned by Natural England licence (covering works to trapping and translocation if required, provision of replacement ponds and other habitat creation).

#### Badger

- 3.33 Badger setts are known to be within the development parcels. Once fixed development plans are made available and the exact extent of habitats to be lost are known, detailed surveys to identify potential impacts on badger will be required prior to submittal of a planning application. This will involve detailed survey to locate all setts within the development boundary or within influencing distance of the development boundary (30m). Each sett identified will be classified (for example as a main, outlier or subsidiary sett) and its location recorded. Once all setts have been identified they will need to be monitored for a period of four weeks to establish their occupation status.

- 3.34 Where badger setts are identified within the site, or within 30m of the site boundary, it is likely they will require closure under licence from Natural England. A detailed mitigation method statement would be produced to accompany the licence application and would identify any necessary mitigation measures and may include the creation of new artificial badger setts, particularly if a main sett requires closure. New artificial setts would be constructed in advance of sett closure.
- 3.35 Based on the proposed development framework it is anticipated that there is suitable land and features available within the retained areas of Moore Nature Reserve or within Arpley Country Park to mitigate for any negative impacts on badger.
- 3.36 Further measures will be taken to ensure badgers are not harmed during construction including the closure of excavations at night, or the inclusion of an escape ramp within excavations.
- 3.37 Additional enhancements for badger will include the planting of a variety of fruit producing trees and shrubs within the retained Moore Nature Reserve. This planting will be focused around slopes and hillocks to encourage badgers into these areas where new setts can be created.
- 3.38 The above mitigation measures will be secured through planning conditions, underpinned by Natural England licence (covering works for sett closure and required mitigation such as construction of artificial setts).

#### Otter

- 3.39 Otter footprints have been identified within 200m of the proposed development site but no holt or resting places have been identified on site. Given there is evidence of otter within close proximity to the site and it is likely that otter will forage and commute along both the River Mersey and the Manchester Ship Canal, Reasonable Avoidance Measures (RAMs) will be required to avoid any negative impacts.
- 3.40 This will include an updated survey of woodland for any evidence of otter holts or couches immediately prior to woodland clearance, due to the highly transient nature of this species. If a holt or resting place is identified and cannot be avoided, an EPS licence and appropriate mitigation will be required which may include the construction of an artificial holt and restrictions on construction activities. It is anticipated that if required there is suitable land and features available within the retained areas of Moore Nature Reserve or within Arpley Country Park to mitigate for any negative impacts on otter.
- 3.41 The above mitigation measures will be secured through planning conditions, underpinned by Natural England licence if necessary.

#### Water vole

- 3.42 Currently there are no implications with regard to water vole, however given the transient nature of this species, updated surveys will be required prior to planning application and works commencing to ensure that no water vole have moved into the site during the intervening period.

- 3.43 In the event of colonisation by water vole, it is anticipated that there would be sufficient opportunity to create alternative habitats within the retained areas of Moore Nature Reserve to enable displacement or translocation of water voles, under Natural England licence.
- 3.44 Creation of new waterbodies will provide additional opportunities for water vole. Within the newly created waterbodies, vegetation favoured by water voles will be planted and sections of bank will be profiled to provide burrowing opportunities.
- 3.45 The above mitigation measures will be secured through planning conditions, underpinned by Natural England licence if necessary.

#### Breeding Birds

- 3.46 Three Schedule 1 species<sup>3</sup> and numerous notable species<sup>4</sup> were identified on site during the breeding bird survey whilst teal and a significant population of great crested grebe were identified during the winter bird surveys. The full mitigation requirements for teal and great crested grebe are detailed within the HRA assessment (TEP ref: 6929.01.022) and in relation to Natura 2000 sites above. These must be adhered to in full during development.
- 3.47 To avoid adverse impact on nesting birds, site clearance would need to be completed outside of the nesting period (typically taken to be March to August inclusive). Where this is not practicable, a nesting bird check must be carried out by a suitably qualified ecologist in advance to confirm no active nests are present. In the event that an active nest is identified, works within the surrounding area (radius dependent on species and context) must halt until the chicks have fledged. Given the extent of suitable nesting habitat on site, and the associated risk of encountering nests which restrict construction across a large portion of the site, it is strongly recommended that sensitive programming of works be considered.
- 3.48 In addition to the above it will be necessary to ensure that any Schedule 1 bird species are not subject to disturbance whilst nesting on site.
- 3.49 Based on the proposed development framework it is anticipated that there is suitable land and features available either on site within the retained areas of Moore Nature Reserve or within Arpley Country Park to mitigate, in the long-term, for the negative impacts on birds arising from terrestrial habitat loss. Replacement nest boxes will be incorporated into mitigation areas prior to any works and will include a variety of designs and should act to replicate the size, height and aspects of nest sites which are lost.
- 3.50 Enhanced retained habitats, as well as created habitats, will be managed in order to create and maintain features which provide suitable breeding habitat for species known to be present.

<sup>3</sup> Wildlife and Countryside Act, 1981, as amended

<sup>4</sup> Birds of Conservation Concern are identified through s41 of the Natural Environments and Rural Communities Act, through "Red-listing" by IUCN and by references to citations for designated sites, which list bird species of qualifying interest.

- 3.51 The outline Landscape and Habitat Management Plan confirms that there will be active management for birds, which are recognised to be one of the principal features of nature conservation interest of the site.
- 3.52 Rewetting of the former Runcorn to Latchford Canal will go some way to mitigation for the loss of Lapwing Lake and the breeding and foraging opportunities it provides for a number of wetland birds. Options to create additional waterbodies off-site, but in close proximity to Moore Nature Reserve, are being investigated.
- 3.53 Additional enhancements will include:
- A scheme of further bird box installation will be undertaken across both retained areas of Moore Nature Reserve and within Arpley Country Park including a minimum of 50 new boxes. The types used will be based on the findings of any breeding bird surveys.
  - Deadwood piles will be created (using felled woodland) throughout the retained areas of Moore Nature Reserve which will provide both foraging and nesting opportunities for local bird species.
  - A new feeding station and corresponding hide will be created within the retained Moore Nature Reserve. This will provide food for local birds during the winter months (October - March) and will also benefit local bird watchers. Any hides within the retained Moore Nature Reserve will also be upgraded and a recording feature created (ideally using a web based form) so that use of the site, and hence the effectiveness of mitigation and enhancement measures, can be monitored.
  - A scheme of hedgerow planting will be undertaken where feasible within the Port Warrington development footprint to maintain connectivity through the site.

3.54 The above mitigation measures will be secured through planning conditions.

#### Reptiles

- 3.55 Once fixed development plans are made available and the exact extent of habitats to be lost are known, a scoping survey will be undertaken to determine the need for and location of detailed reptile surveys.
- 3.56 Reptile surveys should be undertaken within all suitable habitat to be lost and would also need to be undertaken on any areas that reptiles might be translocated into. Reptile surveys should be undertaken between April and May or in September.
- 3.57 Should reptiles be present on site it may be necessary to translocate any reptiles from site into suitable retained habitat. Mitigation will also be required through the creation of replacement habitats for those being lost as a result of the development.
- 3.58 Based on the proposed development framework it is anticipated that there is suitable land and features available either on site within the retained areas of Moore Nature Reserve or within Arpley Country Park to mitigate for any negative impacts on reptiles. There is room for new hibernacula to be created and extensive areas of wildflower planting can be included which will provide a food source for invertebrates and hence increased foraging opportunities for reptiles. Landscaping can also be undertaken to provide south facing banks suitable for reptile basking.



3.59 In addition, deadwood piles will be created (using felled woodland) throughout the retained areas of Moore Nature Reserve which will provide both foraging and hibernation opportunities for local reptiles. Compost heaps and rock piles will also be created from onsite management works to benefit grass snake and slow worm.

3.60 The above mitigation measures will be secured through planning conditions.

#### Fish

3.61 A detailed fish survey of Lapwing Lake will be undertaken prior to works commencing to confirm the presence or absence of European eel and other protected species. Mitigation for fish populations, particularly European eel, within waterbodies to be lost on site is likely to comprise fish rescue during drain down of the feature and transfer to retained or newly created waterbodies.

3.62 Development at the site may have indirect effects on local fish populations in waterbodies within and outwith the site as a result of pollution events. This risk will be avoided through the production and implementation of a CEMP during construction and EMP during operation, as discussed previously.

3.63 The above mitigation measures will be secured through planning conditions.

#### Invertebrates

3.64 Once fixed development plans are made available and the exact extent of habitats to be lost are known, a scoping survey of the development area will be undertaken by a suitably qualified entomologist (between April and September) in order to determine the need for detailed invertebrate surveys, both terrestrial and aquatic.

3.65 Should notable invertebrates or an important invertebrate assemblage be present on site, suitable mitigation for any loss of habitats will be required. This is likely to include offsetting of any habitat losses and may also involve translocation of habitats which contain suitable food plants into areas unaffected by development.

3.66 Based on the proposed development framework it is anticipated that there is suitable land and features available either on site within the retained areas of Moore Nature Reserve or within Arpley Country Park to mitigate for any negative impacts on invertebrates. A scheme of wildflower planting will be undertaken across Arpley Country Park and within suitable habitats in the retained Moore Nature Reserve which will provide a valuable food source for invertebrates. In addition, the deadwood piles which will be created using felled wood will provide a range of foraging, breeding and overwintering opportunities for invertebrates.

3.67 The above mitigation measures will be secured through planning conditions.

#### Other Species

3.68 Although considered unlikely to be present, prior to removal of trees on site it will be necessary to assess trees for the presence of red squirrel and their dreys. Where red squirrel dreys are present these trees can only be removed outside the breeding season (outside of February to August).

- 3.69 Woodland replacement planting will include small-seeded species appropriate for red squirrel such as Scot's pine (*Pinus sylvestris*), willow (*Salix* spp.), rowan (*Sorbus aucuparia*), birch (*Betula pendula* or *B. pubescens*), hawthorn (*Crataegus monogyna*) and holly (*Ilex aquifolium*).
- 3.70 With respect to the potential presence of polecat and the likely presence of hedgehog, RAMs will be required during site clearance and development to ensure that there are no negative impacts on these species including seasonal restrictions and staged habitat removal with hand searching. Habitat enhancement and creation proposals for the retained Moore Nature Reserve and Arpley Country Park will provide replacement habitat suitable to support these species.
- 3.71 The above mitigation measures will be secured through planning conditions.

## **Habitats and Flora**

### Priority Habitats

- 3.72 Extensive woodland creation within the newly created Arpley Country Park will mitigate for the majority of woodland loss from the Port Warrington and Warrington Commercial Park development areas. Options for off-site compensation are also being investigated in order to achieve net gain for woodland loss.
- 3.73 It is recognised that the amount of wet woodland will decline, although to some extent the benefits it provides to species can be enhanced through management of retained wet woodland and through provision of non-wet woodland using a similar species mix on Arpley Country Park, albeit not on flooded substrates. Opportunities to create wet woodland on-site are limited by the extent of good condition existing habitats in the retained Moore Nature Reserve and the limitations of planting on the capped Arpley Landfill which is not suitable for the creation of wet habitats. Opportunities are being explored to undertake wet woodland creation off-site which would contribute to the achievement of no net loss or net gain for this habitat type.
- 3.74 Enhancement of retained hedgerows and the creation of new hedgerows within mitigation areas and within the green infrastructure element of the proposed developments will ensure that there is net gain for native hedgerows.
- 3.75 Lowland dry acid grassland developed as a result of the sand quarrying activities at Moore prior to its conversion to a Nature Reserve. Areas of acid grassland in the retained Moore Nature Reserve will be enhanced and managed in the long-term to improve its quality and condition. Opportunities for acid grassland creation as part of the green infrastructure within the developed areas will be explored. However, it is recognised that creation of acid grassland on Arpley landfill will be limited due to the nature of the clay cap. Overall it is likely there will be a net loss of lowland dry acid grassland.
- 3.76 Several areas of reedbed habitat will be lost from the Port Warrington development site. Retained reedbeds within Moore Nature Reserve and the extensive reedbeds within Arpley Country Park will be enhanced through long-term management to improve their viability and suitability for the species that utilise this habitat. Overall there will be a net loss of reedbed habitat, although opportunities for reedbed creation off-site are being explored and would contribute to reducing the losses of this habitat.

3.77 The loss of priority open water habitats will be partially mitigated by the rewetting of the former Runcorn to Latchford Canal to form a series of waterbodies designed to also provide suitable habitat for waterbirds, amphibians and water vole. The layout of the built development offers opportunity for the creation of linear bioswales as part of a commitment to sustainable urban drainage systems and will further contribute to the mitigation for the loss of open water habitat. Opportunities to create further open water on-site are limited by the extent of good condition existing habitats in the retained Moore Nature Reserve and the limitations of wetland creation on the capped Arpley Landfill. Opportunities for the creation of larger waterbodies off-site are being explored, which would contribute to the achievement of no net loss or net gain for this habitat type

3.78 These measures can be secured through planning condition.

#### Veteran Trees

3.79 Every effort will be made to avoid the loss of veteran trees through detailed design of the Port Warrington development area. On present evidence, there were six veteran trees identified in the areas surveyed, of which it appears that one would definitely be affected by the layout of Port Warrington extension, and one might be affected but could be capable of retention at design stages. Further contemporary investigations of the viability of the potential veterans would be needed.

3.80 If loss of a viable veteran tree is unavoidable, a compensation strategy will be developed which will be over and above the mitigation proposals for all other habitats. The strategy will be specific to each tree and would include consideration of the potential for translocation, soil translocation, replacement planting, whole tree carcass retention, destructive pruning or veteranisation, artificial ecological enhancement or woodland planting.

3.81 This can be secured through planning condition.

#### Future Survey

3.82 If works have not commenced by summer 2021 an updated Phase 1 habitat survey would be undertaken prior to the commencement of on-site works to determine if any change to habitats or species composition has occurred. If the scheme is to be developed as a phased approach, this update will be required prior to commencement of each individual phase.

3.83 This can be secured through planning condition.

#### Protection of Retained Habitats

3.84 All retained habitats will be fenced off to protect them from encroachment and damage by construction activities.

3.85 Appropriate tree protection measures will be implemented for all retained woodland, scattered trees and hedgerows and will be included in an Arboricultural Method Statement appended to the CEMP. These measures will accord with current standards (BS5837:2012 Trees in relation to design, demolition and construction – Recommendations). All tree and hedgerow works will comply with BS3998:2010 ‘Tree Work – Recommendations’.

3.86 These measures can be secured through planning condition.

#### Bluebell Mitigation Strategy

3.87 A bluebell translocation strategy will be produced and will be informed by an updated species specific survey when bluebells are in flower (mid-April to June). The mitigation strategy will provide a map showing the location of bluebells, a methodology for translocation and will identify suitable receptor sites.

3.88 In addition, a scheme which undertook planting of native bluebells within woodland habitat in Moore Nature Reserve will be continued and expanded into the retained areas of Moore Nature Reserve and any woodlands within Arpley Country Park.

3.89 This can be secured through planning condition.

#### **Local Issues**

3.90 Access to the retained areas of Moore Nature Reserve will be maintained throughout construction activities in areas being developed. This will ensure the local visitors and naturalists can still enjoy the variety of wildlife present in the reserve.

3.91 New footpaths will be created within Arpley Country Park which link with those in Moore Nature Reserve enabling access to the whole area for enjoyment and wildlife watching. A new feeding station and hide will be installed within the retained area of Moore Nature Reserve, as discussed previously. Retained hides will be upgraded and include opportunities for recording wildlife.

3.92 Through commitments to part-fund a ranger associated with the Arpley Country Park, training and volunteering opportunities will be available for volunteer groups and incoming employers at Port Warrington looking for CSR volunteer activities.

3.93 A scheme of information boards will be installed in the retained areas of Moore Nature Reserve and Arpley Country Park recording the history of the lost areas of Moore Nature Reserve and detailing the enhancements made, alongside information on species likely to be found.

3.94 It is also possible that the re-introduction of locally rare plants could be taken forward as a local project within retained areas of Moore Nature Reserve and Arpley Country Park.

3.95 These commitments can be secured through planning condition.

### **Invasive Species**

- 3.96 A site specific Invasive Species Method Statement will be produced detailing how the invasive species present in the site will be controlled and removed during development. This method statement should be informed by a detailed site specific survey undertaken during the optimum season (mid-April – October).
- 3.97 Ongoing management post-development will ensure invasive species are removed from the retained areas of Moore Nature Reserve, as is set out in the Landscape and Habitat Management Plan.
- 3.98 This can be secured through planning condition.

### **Biodiversity Net Gain**

- 3.99 Full details of the biodiversity net gain assessment will be provided in TEP Report: 6929.01.037. The calculation indicates a minor shortfall in biodiversity units based on the enhancement and habitat creation measures proposed for the retained Moore Nature Reserve and Arpley Country Park. With respect to enhancement measures, this calculation has taken into account the fact that the current management arrangements at Moore Nature Reserve and Arpley Landfill are short-term and unfunded beyond a 5-10 year period, whereas the future management arrangements would apply for over 30 years, and for the lifetime of the development, enabling good condition scores to be allocated to the existing and future habitats in the Arpley Country Park.
- 3.100 Opportunities to create or restore additional habitats are being explored at sites in close proximity to Moore Nature Reserve and Arpley landfill which would enable a perceptible “net gain” to be delivered.
- 3.101 “Net Gain” is not assessed solely through the metric, it is incumbent that the scheme must follow the mitigation hierarchy and must also consider the actual species and habitats affected by the proposal. In this case, most species and habitats will benefit over the long term, but some species and habitats will not benefit. The net amount of wet woodland, reedbed, lowland dry acid grassland and open water will decline, although to some extent the benefits these habitats provide to species can be enhanced through detailed long-term management, where they are retained.


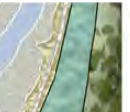
















## 4.0 Long-term Management and Maintenance

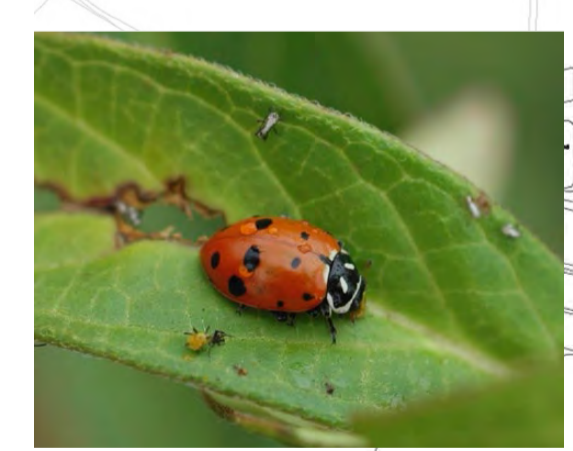
- 4.1 Central to long-term management and maintenance of the features which have been enhanced and created for habitats as well as species will be the implementation of a Landscape and Habitat Management Plan (LHMP). Further detail is provided in TEP Report 6929.01.042.
- 4.2 This LHMP is preliminary, showing sufficient detail appropriate to the allocation stage of the Warrington Local Plan. It summarises the approach to management, the aims and objectives, the different zones of the site, and outlines the key considerations and factors that affect management.
- 4.3 It would be expected that future planning applications will be informed by a draft LHMP showing detailed management prescriptions, and that this LHMP would be secured through planning condition and/or obligation.















## **APPENDIX A: Scheme Plans**

# ARPLEY NATURE PARK




## Masterplan Key

 Additional Native Woodland Planting	 Additional Reed Planting	<b>Country Park Features</b>	 Additional Sculpture Trail	<b>Additional Infrastructure</b>	<b>Country Park Features</b>
 Additional Scrub Planting	 Existing Nature Trail Enhanced	<b>(A)</b> Links to disused Canal Towpath	 Additional Bouldering /Climbing area	 Additional Footpath Infrastructure	<b>(J)</b> Main Country Park Entrances
 Additional Species Rich Grassland	 Additional Nature Trail with Interpretation	<b>(B)</b> New Viewing Platform / Bird Hides	 Additional Grass Mounds	 Additional Node Spaces	<b>(K)</b> Proposed Car Parking
 Additional Viewing Platforms/Birdhides		<b>(EB)</b> Existing Platform / Bird Hides enhanced	 Additional Warden's Hut / Education Room	 Additional Car Parking	<b>(L)</b> Secondary Pedestrian Entrances
 Existing Viewing Platforms/Birdhides Enhanced				 Existing Gateways / Entry Points Enhanced	<b>(M)</b> Node Spaces
				 Additional Riverside Trail with Interpretation	<b>(N)</b> Gateways
				 Proposed & Improved Vehicular Routes	

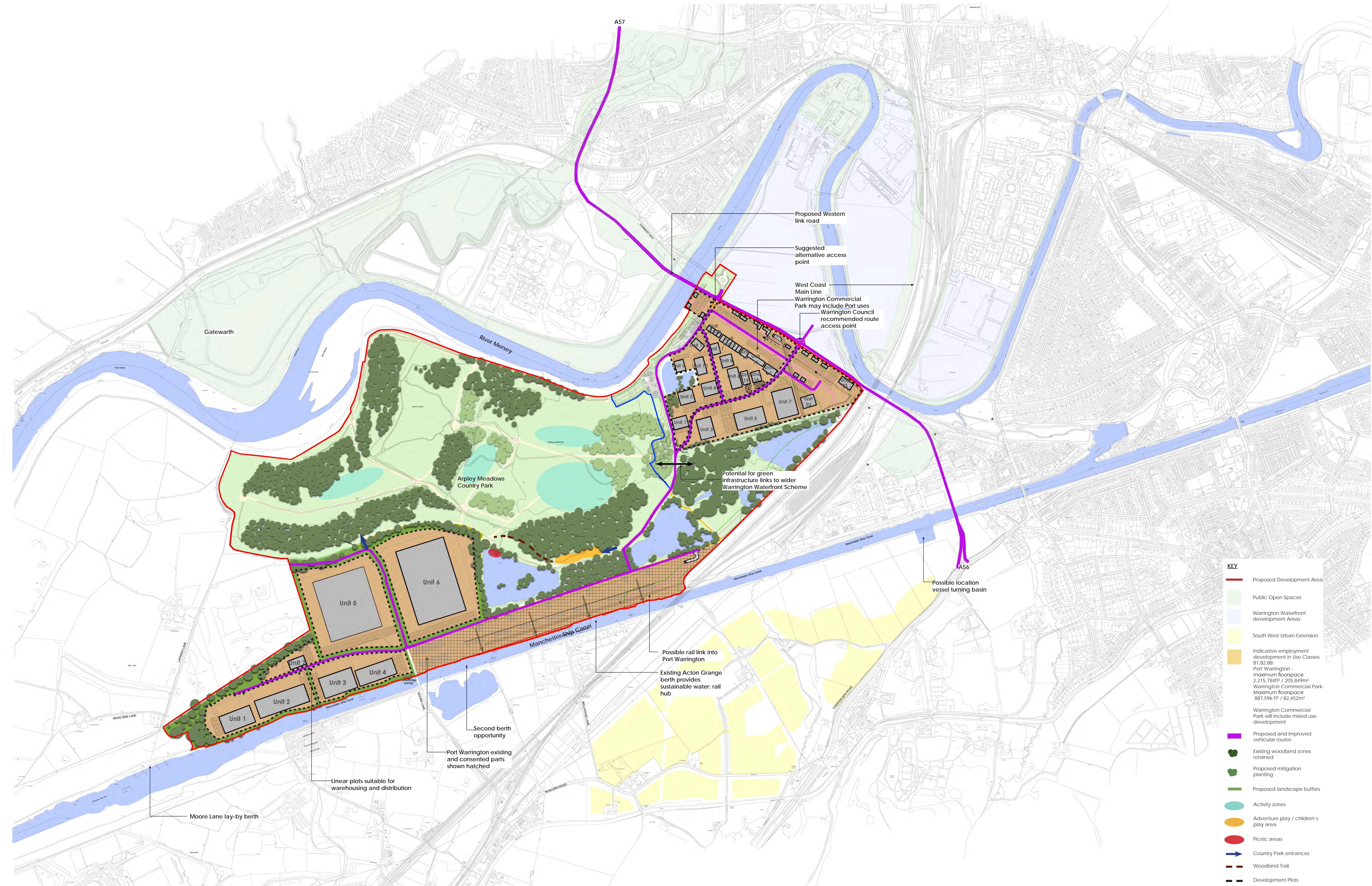


 Existing Woodland Planting Retained	 Conservation Grassland	 Proposed Water Bodies Along Latchford Canal Route	 Site Boundary	 Proposed Landscape Buffers/Mitigation Planting
 Proposed Woodland Planting	 Existing Reed Beds / Aquatic Habitat	 Existing Green Open Spaces	 Proposed & Improved Vehicular Routes	 Existing Port Warrington Site
 Conservation Grassland	 Existing Water Bodies	 Pedestrian Routes Adjacent to Site	 Indicative Employment Developments	

**Project :** Warrington Waterfront  
**Client :** Peel Land and Property  
**Drawing Title :** Landscape Masterplan Proposal  
**Drawing Number :** 10315\_GA\_PL\_01

 Land & Property  
 PEEL PORTS GROUP  
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- KEY**
- Proposed Development Area
  - Public Open Spaces
  - Warrington Waterfront development Areas
  - South West Urban Extension
  - Indicative employment development in Use Classes B1, B2, B8
  - Port Warrington - maximum floorspace 2,215,784ft<sup>2</sup> / 205,849m<sup>2</sup>
  - Warrington Commercial Park - Maximum floorspace 887,596 ft<sup>2</sup> / 82,452m<sup>2</sup>
  - Warrington Commercial Park will include mixed use development
  - Proposed and improved vehicular routes
  - Existing woodland zones retained
  - Proposed mitigation planting
  - Proposed landscape buffers
  - Activity zones
  - Adventure play / children's play area
  - Picnic areas
  - Country Park entrances
  - Woodland Trail
  - Development Plots

## **APPENDIX B: Policy Compliance Table**

Policy/legislation	How compliance is achieved
<p>Conservation of Habitats and Species Regulations 2010 (as amended)</p>	<p>Shadow HRA produced which concludes no adverse effects on Natura 2000 sites subject to implementation of following mitigation via planning conditions:</p> <ul style="list-style-type: none"> <li>- rewetting of former Runcorn to Latchford Canal within Moore Nature Reserve</li> <li>- use of visual and acoustic screening, maintenance of machinery, toolbox talks and the implementation of a watching brief during construction period</li> <li>- filtering and anti-pollution measures included within CEMP</li> <li>- use of SUDS to attenuate and filter storm run-off.</li> </ul>
<p>Wildlife &amp; Countryside Act 1981 (as amended)</p>	<p>Measures can be delivered through planning conditions and underpinned where required by Natural England licences for protected species affected by the development:</p> <ul style="list-style-type: none"> <li>- RAMMS for affected species</li> <li>- seasonal restrictions to vegetation clearance, particularly with respect to birds</li> <li>- NE licences and associated mitigation method statements for species, likely bats, badger, GCN</li> </ul>
<p>Natural Environment and Rural Communities (NERC) Act 2006</p>	<p>Due regard is given to S41 priority habitat and species with respect to proposed mitigation measures</p>
<p>Hedgerows Regulations 1997</p>	<p>Hedgerows will be assessed to see whether they would be categorised as 'Important' with respect to wildlife and landscape criteria. Where this is the case and the hedgerows are to be lost, replacement hedgerows will include the same or better species mixes.</p>
<p>Protection of Badgers Act 1992</p>	<p>Where badgers and their setts will be affected by development, detailed mitigation will be produced and setts will be closed under licence from Natural England</p>

Policy/legislation	How compliance is achieved
National Planning Policy Framework 2019	Adherence to Biodiversity Net Gain Strategy, Landscape and Habitat Management Plan and Mitigation Strategy which can be delivered through planning conditions and underpinned where required by Natural England licences for protected species affected by the development.
Warrington Draft Local Plan - DC3 Green Infrastructure	<p>The proposals will:</p> <ul style="list-style-type: none"> <li>- enhance the habitats within Arpley Country Park</li> <li>- secure net gain in biodiversity via on-site mitigation and off-site compensation habitat creation</li> <li>- tree planting will help mitigate the effects of climate change and contribute to management of flood risk</li> <li>- increase the functionality existing and planned green infrastructure</li> <li>- improve the quality of existing green infrastructure</li> <li>- improve access to and connectivity between existing and planned green infrastructure</li> <li>- provide long-term management arrangements for new and enhanced green infrastructure within development sites</li> </ul>
Warrington Draft Local Plan - DC4 Ecological Network	<ul style="list-style-type: none"> <li>- the proposals do not affect internationally or nationally designated sites</li> <li>- regionally significant development proposal outweighs need to safeguard all of Moore Nature Reserve</li> <li>- mitigation proposals will achieve a net gain in biodiversity assessed against the latest version of the DEFRA metric (metric 1.0 as metric 2.0 is still a test version with errors)</li> <li>- detailed survey and assessment has or will be undertaken prior to development with detailed mitigation and Natural England licences where required being undertaken</li> </ul>
Warrington Draft Local Plan - MD1 Warrington Waterfront	<p>The proposals will provide:</p> <ul style="list-style-type: none"> <li>- Arpley Country Park</li> <li>- Biodiversity Mitigation Strategy demonstrating extensive ecological mitigation and enhancement for the loss of part of Moore Nature Reserve</li> <li>- long-term management arrangements for Arpley Country Park and retained Moore Nature Reserve</li> </ul>



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