



**Wirral Metropolitan
Borough Council**

Wirral Green and Blue Infrastructure Strategy Part One

Second Draft
Prepared by LUC
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Wirral Metropolitan Borough Council

Wirral Green and Blue Infrastructure Strategy Part One



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Contents

Chapter 1 Introduction

What is the purpose of the Strategy?	2
Aims and objectives	2
Report structure	4
Our approach	4
What is Green and Blue Infrastructure?	5
Why is Green and Blue Infrastructure important for Wirral?	6

Chapter 2 The Vision for Wirral's Green and Blue Infrastructure

The Vision for Wirral	8
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Chapter 3 Setting the scene: the current network

Theme 1: Biodiversity	11
Objectives	11
A Cohesive and Resilient Network	11
Future Flexibility	12
Functionally Linked Habitat	14
Local Conservation Priorities	15

Addressing Recreational Pressure on Designated Nature Conservation Sites	24
Biodiversity Net Gain	24
Summary of Key Issues	25
Theme 2: People and Communities	27
Objectives	27
Reversing decline in Wirral's most deprived communities	27
Wirral's parks and open space network	29
Health and wellbeing	35
Growing communities	36
Creating GBI employment	37
Summary of Key Issues	37
Theme 3: Walking and Cycling	38
Objectives	38
Opportunities for Walking and Cycling	38
Making the links: linking active travel routes with key destinations	42
Summary of Key Issues	43
Theme 4: Landscape and Seascape	45
Objectives	45
Protecting Wirral's landscape and addressing threats	45
Shaping the landscape as a 'carbon sink'	48
Shaping a resilient landscape	51
Summary of Key Issues	53
Theme 5: Urban greening, placemaking and 'place-keeping'	54
Objectives	54

Addressing areas of poor environmental quality	54
Climate-proofing urban areas	60
'Place-keeping'	60
Turning back toward the water	60
Summary of Key Issues	60
Theme 6: Tourism, Heritage and the Rural Economy	62
Key destinations for nature tourism	62
Heritage-led tourism	65
The Rural Economy	66
Wirral's 'golf coast'	66
Key destinations as 'nodes' in the GBI network	67
Summary of Key Issues	67

Table of Tables

Table 3.1: Priority Habitats mapped within the 2015 Ecological Network	13
Table 3.2: Summary of the long-term trajectory of SMP management of the Wirral coast	20
Table 3.3: Open space - comparison of current provision and national benchmarks	30

Table of Figures

Figure 3.1: The LCR Ecological Network	12
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Figure 3.2: Biodiversity: International and national designations	17
Figure 3.3: Biodiversity: Local designations and notable habitats	18
Figure 3.4: Socio-economic context and health deprivation	28
Figure 3.5: Parks and the open space network	31
Figure 3.6: Access to parks and open space	32
Figure 3.7: Walking and cycling network in Wirral	39
Figure 3.8: Wirral's Walking and Cycling routes (from Wirral MBC leaflet)	42
Figure 3.9: Landscape Character Areas in Wirral	46
Figure 3.10: Landscape context in Wirral	49
Figure 3.11: Water assets in Wirral	52
Figure 3.12: Regeneration and placemaking priorities in Wirral	55
Figure 3.13: GBI in the Birkenhead area	56
Figure 3.14: Key nature and heritage tourism assets in Wirral	63
Figure 3.15: Heritage assets in Wirral	64
Figure 3.16: Wirral Conservation Areas and Heritage Trail: North West section	65

Chapter 1

Introduction

1.1 'Green and Blue infrastructure' (or GBI) is an essential component of healthy, thriving communities and ecosystems.

1.2 Working on behalf of Wirral Borough Council, and in consultation with key stakeholders, LUC was commissioned to prepare a Green and Blue Infrastructure Strategy for the Borough. This Strategy identifies opportunities across the Borough to protect and enhance GBI, helping guide the investment and delivery of GBI and its associated benefits. The Strategy also supports and informs the Local Plan which will contain policies to guide and manage development up to 2035, as required by the National Planning Policy Framework (NPPF).

What is the purpose of the Strategy?

1.3 The Strategy has three aims:







- to review the extent to which GBI assets (both 'green' and 'blue') are functioning well;
- to identify where there are existing and anticipated future gaps in GBI provision; and
- to set out what actions and interventions could enhance the current provision.

Aims and objectives

1.4 Green and Blue Infrastructure delivery arguably remains as challenging now as it ever has been, with funding opportunities from 'traditional' funding streams continuing to be limited. This means that GBI actions are required to draw on the energy, expertise and resources of a broad range of partners, including community-led and voluntary initiatives – in order to build the network.

1.5 While recognising the value of the range of activities taking place at a neighbourhood or site-specific scale, this Strategy seeks to place individual interventions within the context of the Borough's GBI network as a whole, providing a high-level strategy for the entire Borough. In this

way, the strategy will act as a catalyst and broad framework for a mosaic of diverse interventions, delivered by a wide range of partners, both within and external to the Council.

	Biodiversity	The GBI network can support bigger, better and more connected habitats, in order to help address and reverse the biodiversity crisis. Specifically within Wirral, GBI can contribute to alleviating the recreational pressure on designated nature conservation sites, particularly around the coast, which puts their qualifying wildlife at risk.
	People and Communities	The open space network can create space for communities to play, rest and recuperate 'on their doorstep', providing health and wellbeing benefits as well as climate change mitigation.
	Walking and Cycling	The GBI network can provide 'green corridors' for walking and cycling across the Borough to help reduce the need to use motorised transport and to encourage active travel as a means to explore and appreciate the peninsula.
	Landscape and Seascape	Enhancements to the GBI network can strengthen landscape character whilst helping to build the Borough's 'carbon sink' for climate change mitigation. 'Blue' elements of the GBI network can provide a range of functions, including aquatic habitats, natural flood management opportunities and blue-green corridors for walking, cycling and habitat connectivity.
	Urban Greening, Placemaking and 'Placekeeping'	The GBI framework can act as an anchor on which to build regeneration initiatives in declining urban areas, contributing to nature 'on the doorstep' and encouraging families to live in city neighbourhoods.
	Tourism, Heritage and the Rural Economy	A well-connected GBI network offers the opportunity to support the Visitor Economy Strategy by maximising heritage and nature-based tourism assets and helping to put Wirral 'on the map' as a beacon of sustainability.

1.6 GBI can be delivered, protected and enhanced via the planning system, particularly where there is a clear relationship between GBI opportunities or threats, and proposed development. This Strategy considers such opportunities, but also considers GBI on a wider and more holistic basis, highlighting the multifunctional and 'network-based' nature of GBI. The Strategy also recognises that the Borough Council itself does not have control of the majority of the land within Wirral via planning, or even by other means. This means that a successful Strategy must include consideration of opportunities for GBI delivery and enhancement via partnership and collaboration, extending beyond conventional planning mechanisms.

Report structure

1.7 This strategy is structured as follows:

- Part 1 defines the GBI vision for Wirral and presents the existing GBI resource, highlighting key issues emerging from the analysis of baseline data for six themes tailored to the Borough (see **Table 1.1**).
- Part 2 sets out a framework of how key issues are taken forward and translated into a series of priorities opportunities. It introduces case studies to illustrate how similar projects have been taken forward elsewhere. The Strategy concludes with some clear principles for embedding GBI within the Borough's Local Plan and other strategies.

Our approach



1.8 The process of developing the Strategy comprised the following stages:

Stage 1: Policy Review

1.9 A desk review was undertaken of the relevant national, regional and local policy and strategy context and the implications for the GBI strategy.

Stage 2: Data Assembly and Analysis

1.10 A baseline of mapped data was collected using Geographical Information Systems (GIS) to understand the spatial distribution of the existing GBI network as well as socio-economic data to identify the nature and spatial distribution of GBI 'need'. This included data from a wide variety of national and local sources. Details of spatial data sets used are included within the maps provided.

Stage 3: Stakeholder Consultation

1.11 Consultation is essential for the delivery of a successful GBI strategy, helping to identify public attitudes, expectations and aspirations for GBI in the borough as well as perceived GBI deficits and opportunities. Recognising the importance of harnessing local knowledge and identifying key delivery partners, stakeholder consultation was delivered via an online Consultation Hub website which remained active for a month-long period.

1.12 The consultation sought to capture information and views on the following key issues:

- where GBI is performing well locally;
- gaps and weaknesses in the GBI network;
- pressures on the GBI network;
- on-going GBI initiatives; and,
- opportunities for GBI protection and enhancement.

1.13 Various platforms were provided: an online survey; an interactive map; and a series of 8 live virtual workshops. A wide range of stakeholders were invited to contribute. Consultees included Council representatives, Elected Members, Local Plan consultees, utilities representatives, local and national NGOs, and community and voluntary groups. Neighbouring authorities were also contacted to draw out any key issues regarding cross-border cooperation in GBI provision.

1.14 A full list of consultees is provided in **Appendix A** and the outputs from the interactive workshop sessions in **Appendix B**.



Stage 4: Thematic Issues and Opportunities Assessment

1.15 The information gathered through the first three stages was drawn together to underpin an assessment of GBI issues and opportunities across the Borough, considered across a number of GBI 'themes'. GBI themes reflect the key environmental and social functions that GBI delivers at a strategic scale. Based on a consideration of both GBI functions in general, and the specific characteristics of Wirral Borough, the Strategy is organised according to the six themes set out in **Table 1.1**.

1.16 The analysis of maps, consultation feedback and the policy review led to the development of a 'long list' of potential GBI actions/interventions that could be implemented during the strategy period.

Stage 5: Priority Interventions

1.17 Through a process of further exploration of the long list of opportunities, and in conjunction with the Council, a 'short list' of priority actions and interventions for implementation during the strategy period was developed. These opportunities are multi-functional, respond directly to the challenges anticipated during the Plan period and have, wherever possible, identifiable delivery and funding mechanisms. These are explained in more detail in Part Two of the strategy.

What is Green and Blue Infrastructure?

1.18 'Green infrastructure' is typically a term used to describe the network of natural and semi-natural spaces and corridors in a given area. These might include open spaces such as parks and gardens but also allotments, woodlands, fields, hedges, lakes, ponds, playing fields, coastal habitats, as well as footpaths, cycle routes and watercourses. Crucially GBI provision, even within urban contexts, need not be limited to traditional green spaces such as parks and other open spaces but can involve various interventions to thread nature into streetscapes or to provide corridors of connectivity between non-linear GBI 'assets'. GBI can be in public or private ownership, can be at a range of scales (from individual gardens to river valleys) and can be in any condition.

1.19 National Planning Practice Guidance defines GI as:

"A network of multifunctional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities. Green infrastructure is not simply an alternative description for conventional open space. As a network it includes parks, open spaces, playing fields, woodlands, but also street trees, allotments and private gardens. It can also include streams, canals and other water bodies and features such as green roofs and walls"¹

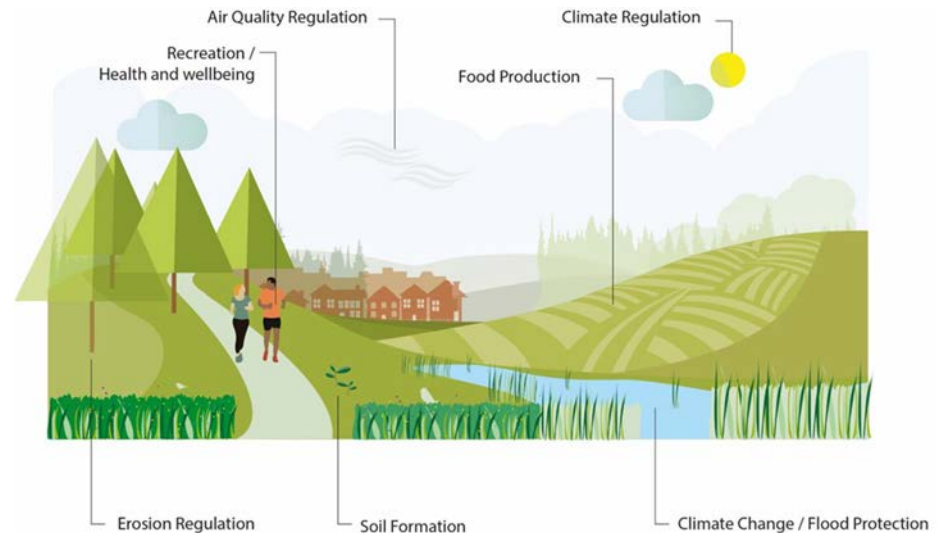
1.20 Environmental features contributing to the water cycle are known as 'blue infrastructure', but it is important that these are integrated into a 'green' infrastructure strategy. This is due to the interaction between 'green' and 'blue' environmental features, which can in combination, for example, deliver water and flood management simultaneously with protection and enhancement of biodiversity. Translating the importance of 'blue infrastructure' in Wirral, this Strategy refers to 'Green Infrastructure' as 'Green and Blue Infrastructure.'

Why is Green and Blue Infrastructure important for Wirral?

1.21 GBI is multifunctional as it delivers a range of benefits to people (both physical and mental well-being), biodiversity and landscape. GBI can help to create high quality, attractive and functional places that provide a setting for day-to-day living, enhance the character and diversity of the landscape, and protect heritage assets that contribute to the area's unique sense of place and cultural identity. It can enrich the area's wildlife value by addressing the negative impact of habitat loss and fragmentation by promoting habitat enhancement and connectivity. It can also play an important role in reducing local temperatures, climate change adaptation and mitigation, and alleviating flood risk and soil erosion. As well as offering environmental benefits, GBI affords economic and social benefits through:

- supporting healthy lifestyles;
- reducing healthcare costs by improving physical and mental well-being;
- connecting people to places by linking residents and visitors to leisure and work destinations along a network of safe and clearly defined routes;

- increasing the attractiveness of a local area; and
- promoting tourism and recreation.



Regeneration and population growth

1.22 There are ambitious plans for regeneration and growth within Wirral. For growth to be sustainable, GBI must be considered alongside other forms of infrastructure and built development. In the context of a growing population, existing assets must be protected and enhanced so they are resilient to additional pressures and provide resource for a wide range of users.

1.23 The delivery of GBI in the Borough will drive economic growth and regeneration by aiding in the delivery of high-quality environments to increase development value, attracting business

¹ DCLG 2016 Planning Practice Guidance for the Natural Environment – Green Infrastructure. Available at: <http://planningguidance.communities.gov.uk/blog/guidance/natural-environment/green-infrastructure/>

and investors, and supporting the visitor economy. GBI will be a driver of economic and commercial value as well as environmental value.

1.24 Wirral Council have set out a plan to build 13,600 new homes by the end of the Local Plan period, adopting a 'brownfield first' approach. Consequently, this will place greater pressures on the existing GBI network and will require a strategic approach to landscape planning to ensure new GBI is embedded into new development and delivered.

Climate change resilience and mitigation

1.25 Development and investment in the Borough will be designed, implemented and managed to provide a range of benefits to society and nature to help manage, and adapt to, the effects of climate change. The effective delivery of GBI will provide a positive response to the Climate Emergency declared by Wirral Borough Council. This will include, but will not be limited to, substantial contributions to carbon sequestration efforts, greenways for active and low carbon travel, flood risk alleviation and reducing the urban heat island effect.

Diffuse Recreational Pressure

1.26 Recreational pressure on Wirral's biodiversity assets is of most acute concern at the international designations surrounding the coastline and the national designations at Thurstaston and Heswall Dales - in part, drawn by the inherent natural interest of these areas. This Strategy will highlight opportunities to diversify and improve the quality of recreation enjoyed by local residents, the wider Wirral community and visitors to alleviate this pressure.

Implementing Biodiversity Net Gain

1.27 Biodiversity Net Gain (BNG) is "an approach to development that leaves biodiversity in a better state than before" with a fundamental aim to minimise loss of biodiversity and help to restore ecological networks.

1.28 The forthcoming Environment Bill (in draft form at the time of writing) is set to include a requirement for all development of land to deliver a mandatory 10% BNG. The emphasis is likely to be on retaining and enhancing biodiversity within the boundary of the development site, however, it is likely that off-site contributions will have to be made in some cases, raising the prospect of channelling resources to strategic GBI priorities across the Borough.

1.29 Although BNG is not likely to become mandatory until late 2022, this Strategy presents an opportune moment for Wirral to embrace BNG as a delivery mechanism for GBI. This Strategy will form a key document in signposting where the priorities for BNG delivery.

Chapter 2

The Vision for Wirral's Green and Blue Infrastructure

The Vision for Wirral

The green and blue infrastructure network in Wirral will respect the Borough's unique peninsula landform and the wildlife that it supports. It will be a well-connected and resilient network providing the framework to attract investment and respond to development opportunities in a sustainable way. It will ensure that both urban and rural, inland and coastal areas enjoy thriving wildlife, are resilient to the impacts of climate change, and provide opportunities for play, for walking and cycling, and growing your own food.

Woven throughout each of the peninsula's neighbourhoods, the green and blue infrastructure network will be one that all ages and communities can freely access and enjoy. The network will provide opportunities for people to 'escape' from the daily stresses of life resulting in a positive impact on local health and wellbeing. The network will sit at the heart of regeneration of places and will be a pillar of support for sustainable economic growth.

2.1 Wirral's green spaces and coastline are features which define the identity of the peninsula's landscape and are a great source of pride among existing residents. These spaces are also what draws locals to relocate here after moving away, as well as attracting ever increasing numbers of tourists and day visitors.

2.2 It is thought that the name 'Wirral' may be derived from the Old English 'wir' for myrtle tree, a likely reference to the bog myrtle which once proliferated along the coastline. Similarly the name Birkenhead is derived from 'Bircen', meaning birch tree. In the origins of its name, we begin to understand that Wirral's identity is deeply rooted in its green assets.

2.3 Historically, the peninsula's landscapes have driven its purpose. As a 'green peninsula' Wirral has served as a place of escape from deteriorating industrial living conditions across the Mersey, as well as for tourists filling their lungs with fresh air away from urbanised areas. Wirral's population grew significantly in the 19th century as neighbouring Liverpool's declined, and when the Mersey Railway Tunnel opened in 1886, people arrived from Liverpool in droves with the promise of work and a new way of life. Similarly, destinations such as Rock Ferry, opened up by the advent of steam ferries in the 1830s, saw people arrive in search of rest and recuperation on the esplanade and at the nearby bath house. Today, as population pressures again affect Wirral, it is important that the peninsula builds on its legacy as a pioneer in urban green space, and on its rich environmental assets, both inland and coastal.

2.4 However, following generations of decline and urban decay due to the widespread closure of industry, large areas of the peninsula today suffer from acute levels of deprivation. These socio-economic challenges are combined with large-scale areas of impoverished environmental quality, albeit punctuated with flagship assets such as the recently restored Birkenhead Park, a striking coastline, the green link of Wirral Way and Wirral Circular Trail, and the 'urban wilderness' provided by Bidston Moss.

2.5 International recognition of Wirral's wildlife primarily relates to the extensive peninsula coast and estuarine habitats. Bird life here is of particular value, with an internationally important assemblage that shifts with the seasons.

2.6 In many ways, the journey to a 'greener' Wirral represents a rediscovery – of Birkenhead's role at the forefront of the Parks Movement, the role of Port Sunlight Village in making early links between green spaces and worker wellbeing, and the extension of the blue network from a waterside hub that draws in visitors to ensure that sensitive habitats remain in favourable condition and are resilient to climate change.

Chapter 3

Setting the scene: the current network

3.1 This Chapter will set out the state of the current network of green and blue infrastructure across the six themes set out in **Table 1.1**.

3.2 A policy review has been undertaken to understand the legislative framework and strategies relevant to green and blue infrastructure in Wirral. This can be found in **Appendix C**.

3.3 A glossary is located in **Appendix D**.

Theme 1: Biodiversity

International recognition of Wirral's wildlife primarily relates to its extensive peninsula coast and to estuarine wildlife. Bird life here is of particular value, with an internationally recognised assemblage that shifts with the seasons. Whilst significant improvements to water quality have addressed historic industrial pollution, the pressures of an expanding urban edge and the demand of recreational play within Wirral's wild spaces now pose the greatest pressure on its biodiversity. Actions taken under this Strategy will focus on maximising functional connectivity across the ecological network and encouraging public appreciation of how these habitats function.

Objectives

Objective 1.1: To safeguard Wirral's existing ecological resource bringing this to favourable condition, prioritising those elements that are locally distinct.

Objective 1.2: To secure a diverse and well-connected ecological network which is resilient to, and serves to mitigate the effects of, climate change.

Objective 1.3: To ensure that future growth – of development, of local communities and of visitor numbers – respect the ecosystems that underpin prosperity and wellbeing in Wirral, and to support the delivery of locally-appropriate Biodiversity Net Gain (BNG).

A Cohesive and Resilient Network

3.4 Wirral's Ecological Network² map forms part of the wider LCR network (**Figure 3.1**), ensuring common understanding across the entire city region. Developed in response to the national trends of habitat and species loss, the 2015 Network serves to support thriving wildlife and reflects the ecological character of the locality. It provides a spatial framework to deliver coordinated habitat reconnection, restoration and creation that supports the characteristic wildlife of the peninsula.

3.5 The Network comprises:

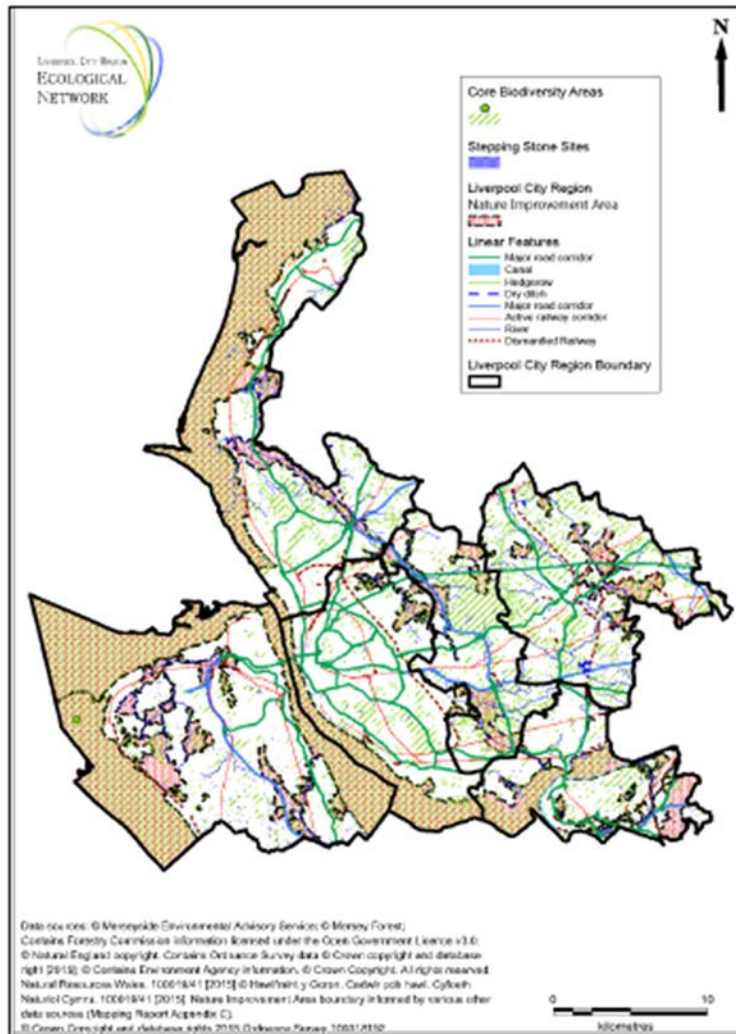
- Core biodiversity areas (2,599 ha within Wirral) – principally nature conservation designations and habitats of local conservation priority.
- Linear features – habitat 'corridors' of both inherent ecological value and which facilitate connection between core areas. Includes natural features such as rivers, plus canal, rail and road corridors.
- Stepping stones (60 ha, principally ponds and standing waterbodies) – habitat patches that facilitate movement of species between otherwise distant refuges i.e. increasing the 'permeable matrix' of a landscape that is intensively managed and/or of restricted diversity.
- Nature Improvement Areas (NIA) (13,013 ha) – intended to 'deliver a step change in nature conservation' with significant improvements for wildlife and people through the sustainable use of natural resources.

3.6 Both linear features (corridors) and stepping stones can help build resilience within a network by optimising connectivity, restoring natural processes and accommodating dynamism. Recent guidance on the design of nature networks published by Natural England (NERR082, Table 1)³ highlights the importance of creating 'stepping stones' of sufficient size and proximity to facilitate the dispersal distance/s of target species. There is also general recommendation for an increase in the cover of semi-natural habitats by 20% (nationally), and a minimum corridor width of 100m.

² MEAS (2015) Liverpool City Region Ecological Network Report: Final

³ NE (2020) Research Report NERR082 Nature Networks: A Summary for Practitioners. Natural England, York

Figure 3.1: The LCR Ecological Network



3.7 Regarding cross-boundary connections, the 2015 Network recognises Wirral as particularly integral to the wider Sefton and north west coast. Key features of Wirral's coast and estuarine habitats include intertidal mud and sand flats, salt marsh (Wirral and Sefton together support approx. 9% of the national resource), and overwintering migratory birds (birds of the Eastern Atlantic Flyway are dependent on the estuaries each year). **Table 3.1** summarises the area and length of each priority habitat mapped in the 2015 Network within Wirral in comparison to LCR as a whole.

3.8 NIAs within Wirral are illustrated in **Figure 3.1**, and summarised as follows:

- North Wirral Coast & Liverpool Bay (4,265 ha)
- Dee Estuary (3,911 ha)
- West Wirral Heathlands & Arrowe Park (1,008 ha)
- River Birket Corridor (757 ha) – extending north and east from Grange and Newton, across to Bidston Moss
- Mersey Estuary (6,438 ha)
- East Wirral Heathlands (223 ha) – extending south from Bidston to Bebington
- Dibbinsdale, Raby Mere & Eastham Country Park (602 ha).

Future Flexibility

3.9 It is recognised that the 2015 Network will be updated in due course by updated field survey (led by MEAS and in progress). Such additional baseline could inform future nature network mapping underpinned by quantified analysis at the field or 'land parcel' scale should it be required to inform a future Local Nature Recovery Strategy (LNRS). Accurate identification of the most appropriate areas to focus delivery of biodiversity recovery and enhancement within local policy is essential. This is reflected in the DEFRA Biodiversity Net Gain (BNG) Metric 2.0 which encourages well-planned BNG that effectively contributes to the wider network by weighting biodiversity credits within such locations (currently set at 15%).

Table 3.1: Priority Habitats mapped within the 2015 Ecological Network

Priority Habitat	Total Area/Length in LCR	Total Area/Length in Wirral
Coast & Estuarine Habitats		
Coastal saltmarsh	4,945 ha	2,416 ha
Coastal sand dunes	2,340 ha	144 ha
Coastal vegetated shingle	<1 ha	No data
Estuarine rocky habitats	No data	No data
Intertidal mudflats	12,160 ha	3,979 ha
Subtidal sands and gravels	No data	No data
Maritime cliff and slopes	76 ha	62 ha
Blue mussel beds	<1 ha	<1 ha
<i>Sabellaria alveolata</i> reefs	No data	No data
Saline lagoons	96 ha	No data
Inland Meres & Mosses, Wetlands & Waterways		
Rivers	364 km	57 km
Ponds	257 ha	No data
Lowland raised bog	92 ha	No data
Peat and clay exposures	10 ha	10 ha
Lowland fens	184 ha	25 ha
Reedbeds	331 ha	112 ha

Priority Habitat	Total Area/Length in LCR	Total Area/Length in Wirral
Coastal and floodplain grazing marsh	243 ha	<1 ha
Woodlands & Trees		
Lowland mixed broad-leaved woodland	5,987 ha	1,114 ha
Wet woodland	151 ha	47 ha
Wood pasture and parkland	47 ha	40 ha
Traditional orchards	9 ha	<1 ha
Hedgerows	451 km	No data
Grasslands & Heathlands		
Lowland calcareous grassland	10 ha	No data
Lowland meadows	962 ha	41 ha
Lowland dry acid grassland	233 ha	5 ha
Lowland heathland	261 ha	160 ha
Purple moor-grass and rush pastures	39 ha	11 ha
Inland rock outcrops and scree	<1 ha	No data
Agricultural Grasslands		
Arable field margins	No data	No data

3.10 The Habitat Regulation Assessment (HRA) of various Local Plans across the city region identifies potential cross-boundary issues associated with the demand of recreational play within Wirral's wild spaces, arising from both local residents and visitors from distance, which can create disturbance and displacement pressure on the qualifying features of some international designations. In response, LCR local authorities have commissioned a Recreation Mitigation Strategy (RMS) in partnership with Natural England and the National Trust to address current and future pressures on all international designations holistically. The RMS is anticipated to be published by the close of 2020. A policy setting out Wirral Council's approach to recreation mitigation will be included in the emerging Local Plan, which will include a recreation avoidance and mitigation mechanism in advance of the LCR RMS publication. The policy is anticipated to require mitigation for recreational disturbance from new residential development within 5km of the coast, funded by a combination of access management, habitat management and provision of alternative recreational space, to be secured through legal agreement before permission is granted.

3.11 This GBI Strategy identifies opportunities for biodiversity based on the existing ecological network, augmented by species, habitat and conservation project data, and informed by consultation with local delivery organisations. It should be considered sufficiently flexible to accommodate future update to baseline conditions, including that identified by monitoring of the international, national and local wildlife site networks, and future measures recommended in the RMS.

Functionally Linked Habitat

3.12 The term 'functionally linked habitats' refers to the areas outside of an international designated site but which are integral to the integrity of the site and/or favourable conservation status of qualifying species therein. Functionally linked habitat is therefore key to the assessment of pressures on, and opportunities for, the international designated site network. The nature and extent of functionally linked habitat is dependent on the lifecycle requirements of the qualifying features in question. Examples in the Wirral principally relate to inland agricultural land, wetlands and grasslands which support a significant proportion of the

wintering wetland bird populations of the coastal SPA and Ramsar sites. The Interim HRA of Wirral Plan 2020-2053 (AECOM, 2019⁴) also states that the Wirral dock system is functionally linked habitat for a range of qualifying species, such as breeding common tern and cormorant (Mersey Narrows & North Wirral Foreshore SPA and Ramsar). Interim HRA Table 5 lists the likelihood of qualifying waterfowl species using functionally linked habitat within Wirral. Species identified as present inland (away from tidal areas other than at rare numbers) during winter are summarised as⁵:

- Mersey Narrows & North Wirral Foreshore SPA and Ramsar – redshank, oystercatcher, cormorant;
- Dee Estuary SPA and Ramsar – dunlin, curlew, pintail, shelduck, teal, black-tailed godwit, mallard, lapwing, wigeon;
- Mersey Estuary SPA and Ramsar – golden plover, great-crested grebe;
- the more distant Ribble & Alt Estuaries SPA and Ramsar of which qualifying species may use habitats within Wirral - Bewick's swan, whooper swan, lesser black-backed gull, pink-footed goose.

3.13 There is also potential for Wirral to provide functionally linked land to highly mobile bird species which form the qualifying species of international designations at greater distance, such as golden plover (a probing feeder) and pink-footed goose (grazing) associated with the Ribble and Alt Estuaries SPA. These are species which are recognised to travel distances of 10-15km, particularly where intervening connectivity or stepping stone habitats exist.

3.14 Central to the HRA process is the need to safeguard functionally linked habitat to ensure the integrity of a designated site is maintained. Where potential impacts are unavoidable and mitigation or remedial action is required, land which is suitable but not optimal as functionally linked may be enhanced in line with the habitat requirements of the qualifying species. This is typically assessed at the land parcel scale. Golden plover, for example, is associated with open flood plan and grazing marsh wetlands but, particularly in winter, also arable and short pasture which support higher productivity of prey. 'Functionally linked land banking' refers to forward

⁴ AECOM (2019) Wirral Local Plan 2020-2053: Interim Habitats Regulations Assessment

⁵ Species marked with an asterisk* are components of the overall qualifying waterbird assemblage for the respective European site. Some species are qualifying features of multiple European sites but are listed only for the site to which they

first appear (e.g. redshank is a qualifying species of all three sites, but is only listed for the Mersey Narrows and North Wirral Foreshore SPA & Ramsar).

planning of targeted enhancement but should be considered over and above the maintenance of current favourable conservation status. The need to enhance biodiversity more widely (or indeed explicitly to provide BNG) may then be considered alongside the requirement to maintain or create functionally linked habitat.

3.15 In the absence of functionally linked habitat explicitly identified in the HRA, the BTO WeBS Core Count boundaries⁶ (used by Wirral MBC as a proxy to inform HRA Screening) has been used as preliminary representation of functionally linked habitats for the purposes of this GIS Strategy. Consideration is also given to land within a preliminary 2km buffer on all international designations of the Wirral coast (reflecting a 'typical' distance assessed for coastal wetland designated for birds) which may be suitable for these species is also given consideration. Note that the 15km dispersal distance associated with some wider-ranging qualifying species, such as golden plover, applies to select designations. Records of qualifying species, including the Cheshire & Wirral Bird Atlas⁷, further BTO monitoring data, and targeted survey of Wirral Waters (TEP appointed by MEAS, in progress) are not included.

3.16 Based on the BTO WeBS Core Count boundaries, areas supporting the designations, and which are of greatest sensitivity within Wirral are summarised below. Note that the Core Count areas within the Dee and Mersey estuaries (marked with an asterisk*) fall within/largely within the SPA boundaries and should not therefore be 'double counted':

- Red Rocks in the Dee Estuary, to West Kirby Beach and Marine Lake*;
- West Wirral across the open fields coast-side of Heswall and Thurstaston Common;
- Inland of Hoylake to Frankby and Thurstaston Common, and across the Greasby Brook corridor to Saughall Massie and the urban edge of Upton;
- River Birket corridor, spanning between the railway and north coast embankment, plus discrete wetlands south of the railway at Meols and at Carr Hall Clay Pit, Ditton Lane Nature Reserve, and open fields at Fender Bridge alongside the M53.
- Mersey Narrows at Wallasey and Perch Rock Pool*;

■ New Ferry (Tranmere Beach to Eastham Ferry)* ;

■ Discrete inland waterbodies at Arrowe, Central and Birkenhead Parks, and at Raby Hall.

Local Conservation Priorities

3.17 Habitats and sites are described below under subheadings that broadly reflect the strategic natural assets identified in the 2015 LCR Ecological Network Report. Key pressures – both existing and future – are also highlighted in turn.

Coast and Estuarine Habitats

3.18 Wirral's most highly designated habitats are found on its coastal and estuarine edges – the Dee Estuary, North Wirral Coast, and Mersey Estuary support a layered complex of international SAC, SPA and Ramsar and national SSSI designations (see **Figures 3.2 and 3.3**). These legal protections support the integrity of qualifying features within the site as part of a commitment to conserving the international network of habitats and species, irrespective of the developing wind power, shipping and recreational uses we ask of these vast open habitats. The north and east coasts are, in particular, vulnerable to coastal squeeze as the Victorians expanded built development and infrastructure out toward the sandy coastal habitats.

3.19 Wirral's shoreline is almost entirely designated at the international level for in recognition of the wetland habitats and water birds it supports. With the exception of c3.5km around the ferry crossing at Birkenhead, Ramsar designations capture Wirral Estuary to the south and east, the Mersey Narrows & North Wirral Foreshore to the north and north west, and the Dee Estuary to the west. Each designation captures the juxtaposition of urban/industrial and rural land uses so characteristic of Wirral. Each provides essential ecosystem services including shoreline stabilisation and dissipation of erosive forces, sediment trapping and water supply. The Mersey and Dee Estuaries each rank amongst the top ten in the UK for wintering and passage waterbird populations. Liverpool Bay SPA extends seaward of the collective coastal designations.

⁶ British Trust for Ornithology Wetlands Birds Survey Core Counts use standard methods as part of national wetland monitoring. Counts are completed principally during the wintering period of September to March.

⁷ Available from: <http://www.cheshireandwirralbirdatlas.org/species/>

The Mersey Narrows & North Wirral Foreshore

3.20 The Mersey Narrows & North Wirral Foreshore Ramsar spans the mouths of the Mersey and Dee estuaries. This international designation encompasses extensive saltmarsh, and intertidal sand and mud flats habitats, with limited brackish marsh, rocky shoreline and boulder clay cliffs also present. The European Mersey Narrows & North Wirral Foreshore SPA designation covers similar extent, whilst the European Dee Estuary SAC designation only the North Wirral foreshore. Sources of potential threat to the SPA character⁸ are recognised to be:

- Recreational activities – walking and dog walking⁹, fishing, sailing, canoeing, cycling, bird watching, paragliding and kite surfing;
- Social and economic pressures to return the foreshore back to sandy beaches;
- Sedimentation of the foreshore which reduces the available low tide feeding habitat and promotes vegetation succession;
- Land drainage (storm overflow) to the foreshore, posing risk of contamination¹⁰.

3.21 Key recreational hotspots are recognised to be at public points of access including New Brighton and Hoylake. Red Rocks is noted to be vulnerable to nutrient enrichment (e.g. associated with dog walking) and is seasonally sensitive to trampling. Footfall increases during summer and favourable weather, although it is recognised that the value to bird is principally during winter. Individual aerial sports can incur relatively high levels of disturbance to flocks. Within the dunes, boardwalks are subject to dynamic management in select locations i.e. offer directed access to the public for a period of approx. two years before a route is closed to avoid dune blow out, and an alternative route created. As part of site management, boardwalks also offer opportunity for public information boards at key access points.

3.22 Of the component national SSSI, North Wirral Foreshore SSSI is recorded to be in 'unfavourable – declining' condition owing to the fall in qualifying bird populations. Reasons cited include (a) reduction in feeding habitat for turnstone and (b) disturbance from the foreshore roost causing displacement at bar-tailed godwit at high tide. Mersey Narrows SSSI is

recorded to be in 'unfavourable – recovering' condition owing to the loss of habitat for qualifying birds (notably turnstone), and possible mitigation thereof.

The Mersey Estuary

3.23 The Mersey Estuary Ramsar and SPA designations capture the southern extent of the west Wirral shoreline, extending across the tidal Eastham Banks, and beyond to Runcorn Gap. This is a more linear estuary than the Dee and, within the boundary of Wirral, encompasses salt marsh, intertidal sand and mud flats, rocky shoreline and boulder clay cliffs.

3.24 Of the component SSSI designations, New Ferry SSSI is the most urban, located south of the Birkenhead ferry crossing. This is recorded to be in 'unfavourable – recovering' condition owing to the availability of mud and sand flat habitats for roosting and feeding by qualifying bird species. The majority of the Mersey Estuary SSSI which falls within Wirral's boundary is in favourable condition, being used less intensively for recreation than other coastal areas. However, there remains significant industry along the banks and it is a heavily urbanised coastal landscape. The outer, mid channel reaches of Mersey Estuary SSSI is recorded to be in 'unfavourable – no change' condition owing to the decrease in some qualifying non-breeding bird populations, although wintering populations reportedly remain favourable.

3.25 The cockle picking season (at both Mersey & Dee Estuaries) runs September to late March, with the exception of fallow years. Granting of permits is informed by monitoring. Generally, the industry is understood to be of lower yield than less compacted sands farther north west along the coast; hence picking effort and associated disturbance correspondingly less. Cockle beds within the Mersey are accessed via quad bikes and picked on foot, reportedly causing localised and short-term disturbance of feeding birds¹¹.

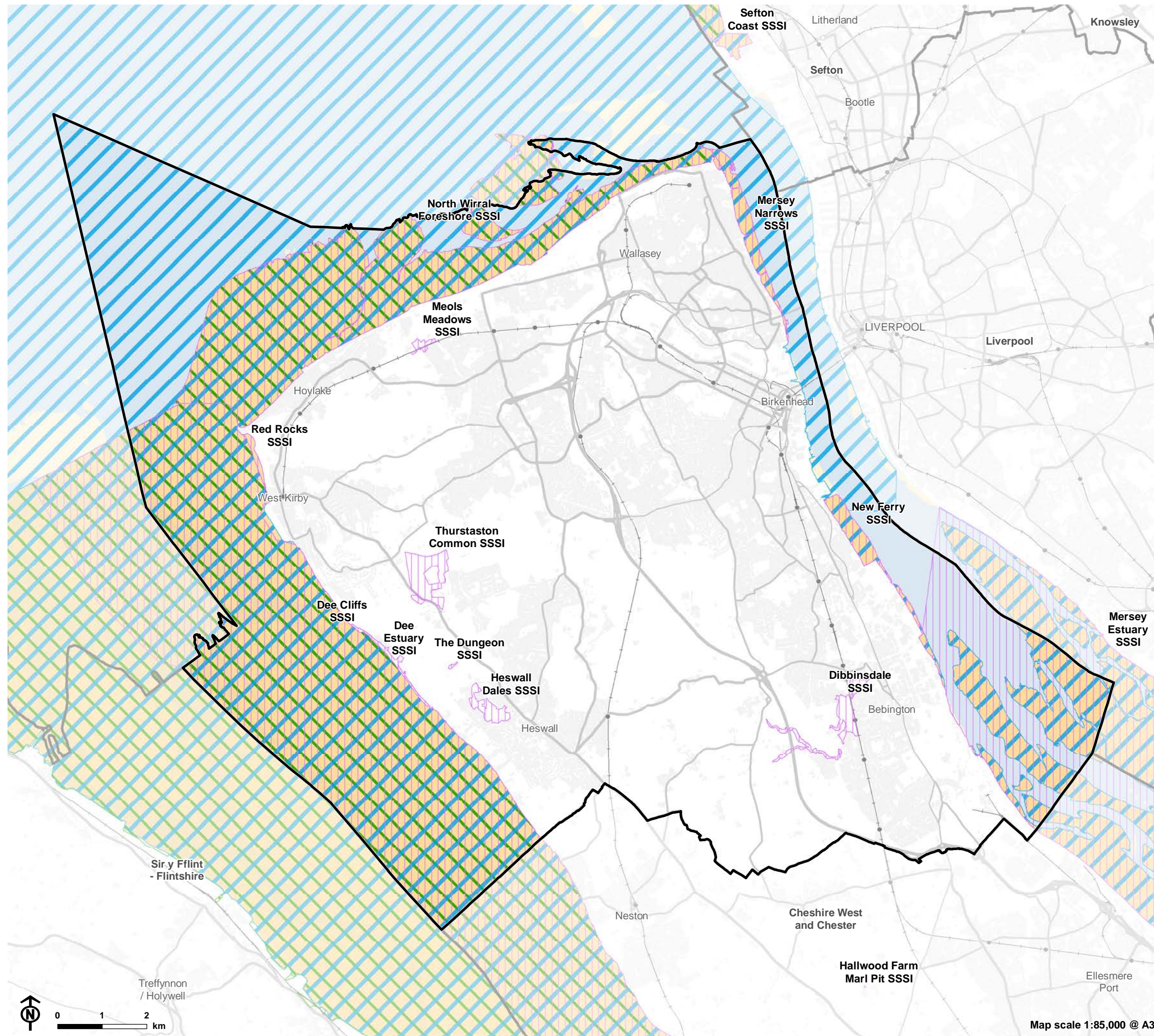
⁸ Mersey Narrows & North Wirral Foreshore SPA Data Sheet

⁹ NE (2015) Consultant Report CR201: Mersey Narrows & North Wirral Foreshore Sites of Special Scientific Interest - Investigation into the impacts of Recreational Disturbance on Bird Declines 2015

¹⁰ Additional risk identified in the 'Natural England advice to Wirral Council regarding Beach Management' (01 March 2020)

¹¹ Wirral Ranger Service, pers. comm.

Figure 3.2 Biodiversity:
International & national designations



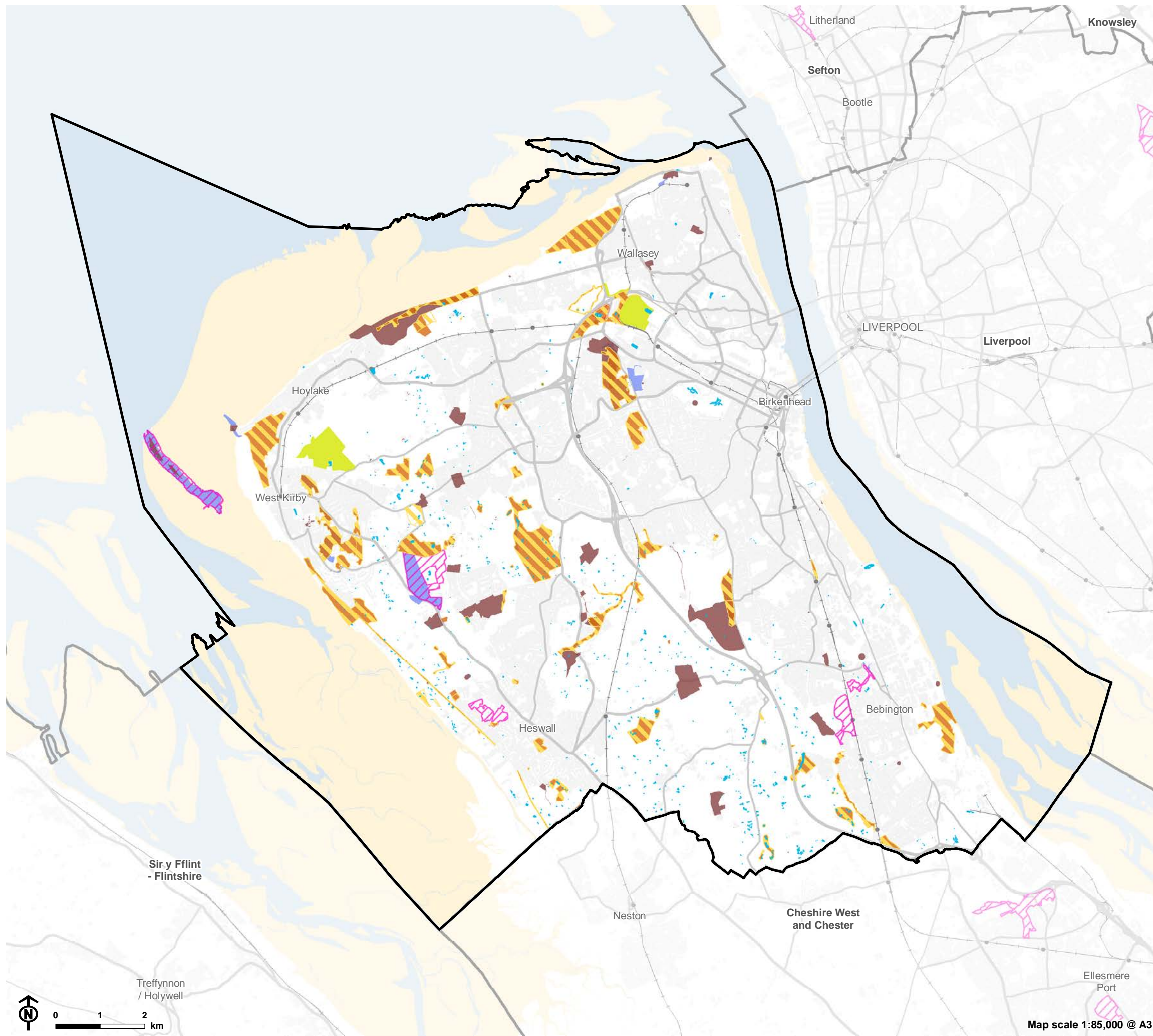
- Wirral Borough boundary
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- Ramsar site



0 1 2 km

Map scale 1:85,000 @ A3

Figure 3.3 Biodiversity:
Local designations and notable habitats



- Wirral Borough boundary
- Local Wildlife Site
- Potential Local Wildlife Site
- Site of Biological Importance
- Local Nature Reserve
- Stepping stone site
- Local Geological Site
- Site of archaeological importance



0 1 2 km

Sir y Fflint
- Flintshire

Treffynnon
/ Holywell

Cheshire West
and Chester

Map scale 1:85,000 @ A3

The Dee Estuary

3.26 The **Dee Estuary** captures the recreational and residential use of the west Wirral shoreline, which sits in juxtaposition with that of relatively industrialised Flintshire beyond. The Ramsar designation recognises the mosaic of mud and sand flats, sea cliff, salt meadows, and dune habitats, in addition to natterjack toads, wintering waterbird assemblage and population size of key species therein. The European SPA designation focuses on the importance to wintering waterbirds, and SAC designation the habitats, plus presence of river and sea lamprey fishes, and of petalwort (inhabitant of moist dunes). The Dee Estuary SSSI is the only component SSSI within Wirral (currently assessed to be in favourable condition). The designation additionally recognises the breeding grounds for coastal fish species and sand eel, and resident grey seal population at West Hoyle Bank near Hilbre Island. Recognised pressures on the Dee Estuary SPA and SAC designations¹² include:

- Low flying small aircraft causing bird disturbance, board sports – varied and numerous launch point causing disturbance to wader roosts. Kite surfing has been flagged a key concern at Red Rocks/Bird Rock and Hoylake. Bird Rock (refuge area for waders at high tide) often disturbed.
- Paddle sports, notably from late summer onwards, particularly on Middle Eye if paddlers land and walk over the island disturbing roosting waders.
- Off-road motorsports recorded as a sporadic problem on the Dee Estuary. Occasional and slightly increasing use of trail bikes on the beach at West Kirby/Hoylelake and riding out to Hilbre Island. Trail bikes occasionally seen on saltmarsh of the Welsh side of the estuary where they can disturb roosts and damage vegetation.

- Increasing use of drones, including low flights over roosting, feeding and nesting birds e.g. incidents of disturbance to waders feeding at low tide around the gutter and edge of East Hoyle sandbank noted by Hilbre Island Observatory.

Coastal Management

3.27 As stated by Natural England in recent guidance to the Council¹³, “*coastal conservation is often about understanding the way in which the physical system underpins the presence of individual habitats or species. Management for habitat and species features must to take account of coastal dynamics... As the coast changes so the mosaic of habitats and species as well as the landscape and its ‘local distinctiveness’ will change and evolve. Understanding the reasons for change must be factored into management decisions to ensure the best possible outcomes for the natural environment*”. Coastal management around the peninsula is guided by the 2016 Shoreline Management Plan (SMP)¹⁴. SMP policies will also inform conservation and greenspace planning inland where ‘upstream’ measures are required to adapt to changes in sea level rise and flood risk.

3.28 The SMP¹⁵ sets high-level policy for the management of risks associated with natural coastal processes around the Wirral peninsula (a component part of SMP sub cell 11a). Erosion or accretion processes underpin the ‘surface’ habitats of Wirral’s coast and so form an essential part of the GBI baseline. The SMP considers hard defence measures and some lower intervention, natural process-led approaches.

3.29 Habitat loss and gain predicted under the SMP (through the entirety of sub cell 11a) are summarised as follows:

- 0-20 years: Overall net gains of intertidal saltmarsh, sandflat, mudflat and dune habitats.

¹² Dee Estuary SPA & SAC Data Sheets

¹³ Natural England advice to Wirral Council regarding Beach Management’ (01 March 2020)

¹⁴ North West England & North Wales Coastal Group (2016) North West England & North Wales Shoreline Management Plan SMP2: Main SMP2 Document. A partnership project between the Government environment agencies of England and Wales as well as all LPA spanning the coast from Great Orme Head to the Scottish Border. The SMP provides an assessment of, and high-level policy for, the sustainable management of risks to both people and the environment that are associated with natural coastal processes. Wirral’s coast lies within sub cell 11a of the SMP.

¹⁵ North West England & North Wales Coastal Group (2016) North West England & North Wales Shoreline Management Plan SMP2: Main SMP2 Document. A partnership project between the Government environment agencies of England and Wales as well as all LPA spanning the coast from Great Orme Head to the Scottish Border. The SMP provides an assessment of, and high-level policy for, the sustainable management of risks to both people and the environment that are associated with natural coastal processes. Wirral’s coast lies within sub cell 11a of the SMP.

- 20-50 years: Offshore sediment supply, supplemented by beach management should be sufficient to balance sea level rise. Potential for dune and beach gains resulting from beach management. Intertidal gains due to managed realignment.
- 50-100 years: Overall, gains and losses of intertidal and dunes highly uncertain due to sea level rise. Potential for some intertidal gains due to managed realignment.

3.30 Table 3.2 summarises the long-term trajectory of SMP policies for the Wirral coastline.

Table 3.2: Summary of the long-term trajectory of SMP management of the Wirral coast

Stretch of Coast	Description	Overview of long-term SMP policies
Mouth of Dee Estuary	Characterised by several channels and sandbanks, the small rounded spit of the Point of Ayr near Talacre, and Hilbre Island at West Kirby. SPA, Ramsar and Marine Protection Area designations along the frontage protect the extensive inter-tidal flats and the numerous waterfowl that use the habitat. Sections of eroding cliff near Thurstaston are also designated.	Continue to manage risks to commercial and industrial assets from flooding and erosion, but also allow more natural evolution where appropriate. To mitigate the impacts of the defences on the evolution of the estuary in combination with expected long-term future sea level rise, the SMP allows for creation of areas of new habitat by moving defences inland where opportunities exist. A number of areas with potential opportunities for managed realignment ¹⁶ have been identified.
Northern Wirral Coastline	Significantly influenced by the Dee and Mersey Estuaries at either end. Sand dunes and the designated wide sandy foreshore have formed along the length of the frontage, providing natural protection to the settlements of Hoylake, Moreton, Leasowe, Wallasey and New Brighton as well as	Continue to provide flood and erosion protection to the residential areas, infrastructure and low-lying land along the frontage. Justification and sustainability of continuing to hold the present defence line for the whole frontage will require

Stretch of Coast	Description	Overview of long-term SMP policies
	recreational assets. The entire frontage is defended.	more detailed investigation of combinations of front line and secondary defences.
Mersey Estuary	In contrast to most other estuaries in the north west, the Mersey has a deep narrow mouth, with rocky shores that have been extensively modified in the past. The shoreline is now almost entirely industrialised. There are also substantial urban areas, associated recreational and amenity facilities, and the Liverpool Maritime Mercantile City World Heritage Site.	In the Narrows and Inner estuary, the long-term plan is to maintain the status quo by continuing to provide the same extent of protection currently afforded to property and infrastructure, while allowing natural evolution of the shoreline where there are currently no defences present. In the Upper Mersey, managed realignment was assessed as an alternative policy to offset for the potential loss of internationally designated habitat elsewhere, due to the impacts of hold the line policies and predicted sea level rise. A number of areas have been identified where the long term plan is to look at opportunities to potentially reduce flood risks upstream and create additional habitat.

Inland Meres & Mosses, Wetlands & Waterways

3.31 Wirral's inland network of waterways, meres and the wetlands, and riparian woodlands that accompany them also provide important habitats. The River Birket Corridor, across the north of the Borough, provides ecologically important grasslands and wetland habitats associated with its tributaries, with great value for overwintering, passage and breeding birds. Wirral's dock system, as previously mentioned is recognised to support sufficient numbers of

¹⁶ The EA Tidal Dee Flood Risk Management Strategy (in progress) forms the delivery plan for managed realignment.

cormorant and common tern to be considered functionally linked habitat despite its urban position.

3.32 Ponds account for the stepping stone habitats of the 2015 Network. These are widespread and notably frequent in distribution through the agricultural hinterland. There is opportunity to benefit this component of the network through positive management in the agricultural context. The NE great crested newt (GCN) District Licensing Zones of adjoining Cheshire West & Chester identifies Amber Zones¹⁷ (suitable habitat, GCN likely to be present) along 75% (10.5km) of Wirral's southern terrestrial boundary.

3.33 Lowland fen (a form of lowland bog habitat) totals 25ha (see **Table 3.1**) occurs in the south east of Wirral around Dibbinsdale and Raby, in mosaic with priority wet woodland and lowland woodland habitats. The more widespread reedbed habitat totals 112ha, of which the largest areas occur in the River Birket NIA around Bidston Moss and Moreton Mere. Reedbed, as a relatively readily created wetland habitat, can offer opportunity to diversify the habitat mosaic at appropriate open water sites where on-going management can be deployed.

3.34 There is need for the restoration of habitats which support natural process and sustainable land management. The 2015 Ecological Network Report highlights the heavily modified nature of much of the collective watercourse and wetland asset, and that agricultural land is typically maintained by active pumping.

3.35 The Environment Agency WWNP dataset identifies 'floodplain reconnectivity potential' and 'floodplain woodland potential' through the Dibbinsdale Valley, extending north west of Clatterbridge and south past Hooton. There is also a general clustering of habitat potential types mapped through the River Birket Corridor NIA. In the west, floodplain reconnectivity and floodplain woodland potential both extend north of Gilroy Nature Park to the confluence of Greasby Brook, north of Frankby/Saughall Massie, and west of Bidston Moss, between Moreton and the M53. Further 'riparian woodland connection potential' extends along key watercourse corridors.

Woodlands and Trees

3.36 Ancient woodland occurs in the south east of the Borough, around the urban fringes at Eastham Country Park, across Dibbinsdale and flanking the railway line, and through the Clatter Brook corridor. Whilst the ancient woodland network is, to some degree, buffered and connected by deciduous broad-leaved and mixed woodlands, these remain subject to relatively high levels of recreational access by virtue of their close proximity to, and enjoyment by, local residents. Areas of woodland within steeper watercourse valleys which are less accessible may support a more diverse and representative assemblage.

3.37 The Dibbinsdale SSSI designation captures typical examples of ash-wych elm and valley alder woodlands, each with a rich flora and fauna, notably breeding birds and invertebrate assemblages. The Dungeon SSSI captures a small wooded ravine but designation principally relates to the natural stream section through Triassic geology.

3.38 More widely, the largest woodland habitats occur around the sandstone hills of Thurstaston Hill, Caldy Hill and Royden Country Park in the west of the peninsula. Overall however, Wirral's canopy cover is lower than surrounding districts, with an average of 14%¹⁸. Ash dieback disease is present on Wirral and predicted in the Tree Strategy to incur losses of 20-35% of the borough's current tree stock. Within Dibbinsdale SSSI for example, five of the six management units are in unfavourable condition, primarily a result of invasive species and ash die-back disease. A diverse species assemblage is widely recognised to increase resilience to climate change and the accompanying risk of new tree diseases.

3.39 A varied age class is also recognised to convey resilience to fluctuating weather conditions and, including large specimens, optimise ecosystem services such as urban cooling effects. Ecological niches may be increased where deadwood is retained (standing, fallen or buried), for example within woodland, orchard and hedgerow habitats.

3.40 Positive woodland management to optimise structural, and so too species, richness of these habitats and the resident fauna is recommended within the 2015 Network Report. The Tree Strategy references creation of glades, rides, thinning, etc. as appropriate. Creation of pockets protected from high levels of disturbance would also be beneficial for resident fauna

¹⁷ DLL zone mapping available from: <https://naturespaceuk.com/qismaps/impact-risk-map/>

¹⁸ Canopy cover measurements listed in the Tree Strategy: 9% Wallasey, 12% Birkenhead, 17% Wirral West, 18% Wirral South.

(e.g. scrub or thorn underplanting, use of laid or woven hedgerows, strategic use of deadwood and natural play features). Targeted planting to buffer existing woodlands (particularly ancient woodlands) and to extend canopy cover into agricultural, peri-urban and urban areas.

3.41 With reference to the need to divert recreational pressures (existing and projected) away from the vulnerable sites of Wirral's coast; the LCR GI Strategy notes that woodland sites may have greater holding capacity for visitors than coastal areas with qualifying features typically less sensitive to visitor pressure. Positive management is of particular importance to ensure such woodlands maintain favourable condition.

3.42 The Tree Strategy sets a target of 210,000 trees to be planted during the period 2020-2030, addressing anticipated losses to pests or disease and increasing canopy cover to 25%. Planting will follow the principle of 'right tree, right place' to support trees reaching full health and maturity, focusing on the protection and increase in cover of a thriving urban forest. Note that tree cover is accounted for in specimens above 4m¹⁹, hence, there may be opportunity for tall and outgrown hedges to contribute. In Wirral, habitats of inherent value which would not benefit from tree planting typically include lowland heathland, sand dunes, marsh and (depending on context) wetlands and species-rich grassland. Favourable planting sites may range from parkland and sports pitch periphery, to streets and civic spaces, agricultural field boundaries, dedicated woodland creation and expansion through natural colonisation under low intensity management.

3.43 Opportunities to create new and buffer existing, primarily ancient, woodland are identified in the Mersey Estuary NIA, River Birket NIA and Dibbinsdale NIA. Natural England habitat network mapping identifies:

- Opportunity to connect fragmented woodland habitats at the north extent of Bidston Hill and around Heswall Dales;
- Opportunity for restoration in open green spaces local to Heswall, around Thurstaston Common and at Royden Country Park;

- Restoration west of this collective area, and around the woodland and heath habitats of Caldy Hill.

Grassland and Heathlands

3.44 Grassland habitats are vulnerable to changes in land use or management, and particularly around urban areas, to new development.

3.45 Lowland heath is relatively well represented in Wirral, although the remaining 160ha (total) is remnant of the previous extent. Lowland heath occurs generally along the western Wirral belt (Grange Hill, Caldy Hill, Thurstaston to Heswall) and in the north east (Bidston Moss and Wirral Ladies Golf Club). Thurstaston Common SSSI and Heswall Dales SSSI designations support dry heath and damp heath habitats in mosaic with other valued grassland and wetlands, although Thurstaston is of greater area and botanical diversity. Recreational pressure is recognised to be adversely impact the heath habitats at both SSSI, and both are in 'unfavourable, recovering' condition as result of appropriate management. At Thurstaston, water availability is also noted to be of concern. At Heswall Dales, habitat connectivity has reportedly been impacted as a result of local residential development²⁰.

3.46 Lowland meadows total 41ha in Wirral. Meols Meadows SSSI supports damp unimproved neutral grassland, with level fields separated by ditches containing tall fen vegetation. All units in unfavourable condition (some recovering) relate to intensive grazing or lack of lack of appropriate scrub management. Further, relatively large, examples of this priority grassland occur at Frankby and at Arrowe Country Park.

3.47 Smaller areas of priority grasslands include purple moor-grass and rush pasture (11ha) in the central south at Raby, and lowland dry acid grassland (5ha) within the Thurston complex.

3.48 Opportunities for grassland habitats are widely noted, for example, in the East Wirral Heathlands NIA and Mersey Estuary NIA. Beyond, and indeed interlinking the NIA, extension of the area of wildflower-rich sward may be delivered as part of the transport estate. The Merseyside 2010 Wildflowers for Transport Projects guidance²¹ and the Wirral 2019 Pollinator

¹⁹ + Forestry Research Ref.

²⁰ Identified during GI stakeholder workshops of 2020

²¹ Landlife National Wildflower Centre (2010) Wildflowers of Transport Projects: A best practice guide for the creative conservation for the Merseyside transport network. Produced for the Merseyside Transport Project

Action Plan²² recognise the national need to provide 'bigger, better and more joined up' habitats for pollinating insects by setting actions for land management, new planting, and in promoting engagement with community groups (see also **Theme 3: Walking and Cycling**).

3.49 Golf courses designated as LWS across Wirral include the Royal Liverpool, Caldy, Wallasey and parts of Bromborough Golf Course. Brackenwood Golf Course lies within the East Wirral Heathlands NIA, which recommends restoring and creating new heathland and grassland to better support existing habitat and species diversity. The managed nature of golf courses lends a potentially useful immediate vehicle to deliver ecological enhancement offset and for the expansion of partnership working.

Agricultural Hinterland

3.50 The agricultural character of Wirral predominantly lies west of the M53. Reflecting the national trend, agricultural intensification has exacerbated the loss and fragmentation of natural and semi-natural habitat. This is of particular relevance, not only to the breeding farmland bird assemblages and to brown hare, but also the wetland birds which rely on this open land to feed and roost (particularly north and west Wirral) inland of the coastal and wetland designated sites.

3.51 RSPB farmland breeding bird data reveals the highest grassland assemblages²³ are generally distributed across the peripheral areas of north and west Wirral, with peak count at Grange/Newton. The arable assemblage²⁴ counts follow broadly similar trend, although with higher counts across a wider area – at Saughall Massie north to the coast (peak count category six), and at Hoylake and the area of Lingham Farm behind the north foreshore (category five). Both Newton and Royal Liverpool Golf Course in the north west, and the more central area of Landican and Arrowe also support relatively strong assemblages (category four).

3.52 Opportunities for positive management focus on:

- A catchment approach to water management to deliver flood alleviation alongside ecological (wetland, watercourse and grassland) enhancement and encourage a return to a seasonally responsive landscape (and so too greater capacity for seasonal bird life etc)
- Support for the uptake of agri-environment measures which reduce the intensity of land management and bring greater diversity to the ecological landscape.

Permeability through the Urban Fabric and along the Transport Network

3.53 Urban landscapes are the everyday environment of the majority (more than 51%) of the world's population, including nearly 80% of Europeans²⁵. Deciduous woodland is the priority habitat that commonly threads alongside and through the urban and peri-urban areas of Wirral. Open water, other wetlands and grasslands are also prominent through Wirral Docks and Bidston Moss. The western portion of Bidston Moss is designated an LNR in recognition of public enjoyment of nature. Opportunity to optimise the value of greenspace for both biodiversity and to people, and to connect with habitats and extended access routes farther south and west are of particular importance here.

3.54 The Buglife B-Line²⁶ encompasses the north (Wallasey, Leasowe, Moreton to Hoylake) and west (West Kirby, Thurstaston to Heswall) flanks of Wirral, as well as a belt passing from Heswall through Raby to Eastham and Ellesmere. The 2019 Pollinator Action Plan provides opportunity for Wirral's network of roadside habitats offer potential to link diverse environments to and through urban areas, as well as addressing parks, playgrounds and cemeteries, bringing benefit through more densely built and heavily patronised areas - for wildlife and people alike.

3.55 Urban greening opportunities range from diversification of species and structure within public parks, to green buildings (walls, roofs, screening), use of large planters as traffic calming measures or composite with street furniture, retrofitting trees within civic spaces (as exemplified in Manchester St Peter's Square), to inclusion of rain gardens in urban drainage systems. Examples of such projects in progress in Wirral include Wirral Waters (Setting the Scene for Growth Tree Planting Programme, Northbank Streetscape Project and Tower Road

²² Wirral Council (2019) Pollinators Action Plan & Grass Verges Pollinators Maintenance <https://democracy.wirral.gov.uk/mglIssueHistoryHome.aspx?lId=50036028&Opt=0>

²³ The Bird Conservation Targeting Project (BCTP) produces breeding distribution maps for a suite of rare and declining farmland and/or woodland birds to inform land management decision-making and/or prioritisation of funding. The arable assemblage dataset is based on the following species: curlew, lapwing, redshank, snipe, and yellow wagtail.

²⁴ The BCTP arable assemblage dataset is based on the following species: corn bunting, grey partridge, lapwing, turtle dove, tree sparrow and yellow wagtail.

²⁵ Hudekova, Z. (2020) Green infrastructure & Biodiversity: PERFECT Expert paper 5. TCPA & PERFECT Interreg Europe

²⁶ Strategic corridors for focus of enhancement for pollinators identified nationally by invertebrate conservation charity Buglife.

Streetscape Project), the linear park connection between Bidston & Hoylake, and the Urban Garden City. Extending connection from Birkenhead to Hoylake is welcome in terms of active travel but, in parallel, broadening of destination greenspaces behind the coast will be essential to avoid additional recreational pressure on bird life. Where destination greenspaces lie in close proximity to, or are multifunctional with, habitat creation for specific conservation priorities, sensitive design and management will be required to balance access and screening, interaction and education.

Addressing Recreational Pressure on Designated Nature Conservation Sites

3.56 Objective 1.1 of the GBI is “To safeguard Wirral’s existing ecological resource, bringing this to favourable condition, prioritising those elements that are locally distinct”. As described under ‘Local Conservation Priorities’ above, recreational pressure on the designations of Wirral is of most acute concern at the international designations surrounding the Wirral coast and the national designations at Thurstaston and Heswall Dales - in part, drawn by the inherent natural interest of these areas. A strategic approach for the GBI Strategy to address the recreation enjoyed by local residents, the wider Wirral community and visitors, is summarised below. These measures are reflected in the opportunities identified in Part Two of the Strategy.

Objective 1.1.1: To support management of visitor numbers and activities, particularly in coastal sites, through extension of the existing programme of visitor engagement, site monitoring, management of visitor numbers via access points and access routes (including cycleways and boardwalks which may be seasonally open or re-routed to avoid cumulative pressure over time).

Objective 1.1.2: Protect functionally linked land behind the coast e.g. in the form of LWS, support for appropriate environmental stewardship, conservation covenant or other management agreement, where practicable. Provide habitat management and

enhancement to reflect the target species of each land parcel as part of the wider or neighbouring NIA. Provide an appropriate level of recreational access.

Objective 1.1.3: Provide natural greenspaces inland, within and around urban and peri-urban areas, to accommodate recreational need ‘on the doorstep’ of existing and new residential development.

Objective 1.1.4: Provide clearly signposted walking and cycling routes across and around the peninsula, connecting to new and extended greenspaces, to offer recreational interest away from the coast. Detailed siting and design of greenspace destinations within the rural heartland of Wirral will should be informed by the location of functionally linked land and of areas known to support farmland bird assemblages of importance. This also applies to the detailed routing and design of associated access routes.

Biodiversity Net Gain

3.57 Objective 1.3 of the GBI Strategy is “To ensure that future growth – of development, of local communities and of visitor numbers – respect the ecosystems that underpin prosperity and wellbeing in Wirral, and to support the delivery of locally-appropriate BNG”. The Draft Environment Bill currently targets BNG at 10% with 30 year management legacy, which is anticipated to become mandatory in late 2022 (assuming royal assent of the Bill in late 2020, with two year transition period). Any requirement for delivery of BNG within Wirral should be reflected in local planning policy to ensure this is implemented during the interim period prior to becoming mandatory²⁷.

3.58 Note that the Bill leaves much detail to secondary legislation i.e. subsequent Regulations; any planning policy will need to be sufficiently flexible to respond to this. Flexibility will also be required to respond to the future ‘biodiversity credit’²⁸ and ‘environmental credit’ markets as these are brought forward, and to the social component (also referred to as the ‘people’s principles’) of BNG. Draft British Standard BS:8683 Process for Designing & Implementing BNG – Specification²⁹ (section 5.2.1.1) provides initial guidance on the social component of

²⁷ Planning Inspectorate Appeal ref. APP/Y0435/W/20/3251121 Land at Brickhill Street, South Caldecotte, Milton Keynes, MK17 9FE, decision 14.10.20

²⁸ DEFRA research to determine the national approach to establish a biodiversity credit market is currently underway, with view to enable a market to be in place in time for the mandatory BNG requirement, late 2022.

• ²⁹ <https://standardsdevelopment.bsigroup.com/projects/2018-02413#/section>

BNG, which takes an approach not dissimilar to the GBI strategy in recognising the wider benefits of greenspace to local and future residents. .

Objective 1.3.1: Recognise that the provision of 'locally-appropriate' BNG refers not only to the habitat type to be provided but, where adjoining land is recognised to be of high value, refers also to the need to optimise opportunity to buffer or extend the high value feature/s. In this regard, BNG which aims to accommodate recreational use must avoid creating disturbance of adjacent land (if sensitive) and should seek to alleviate existing recreational pressure (if present).

Objective 1.3.2: Secure delivery, the requirement for BNG, should be prescribed in planning policy, at a basic target of 10%, supported by minimum 30 year legacy, habitat management plan and land owner agreement, which can be enforced through s106, conservation covenant or equivalent mechanism. It may be appropriate for policy to require management 'in perpetuity' where BNG is considered to be an essential long-term requirement, e.g. in areas of ecological paucity or pressure, or where additional environmental benefits are achieved (e.g. flood alleviation or carbon sequestration).

Objective 1.3.3: Maintain a BNG register to enable monitoring of the BNG proposed, delivered and maintained. To assess the cumulative effect of biodiversity and wider environmental services provided through BNG to the Wirral, and identify issues and opportunities to optimise its delivery proactively across the peninsula.

Summary of Key Issues

- The Council has statutory nature conservation duties under the Habitats and Wild Birds Directive (The Conservation of Habitats & Species Regulations 2017), Regulation 9(3)); to further conserve and enhance its SSSIs (Wildlife & Countryside Act 1981 (as amended), Section 28G); and to conserve biodiversity (NERC Act 2006, Section 40).

- Cheshire Wildlife Trust highlighted during consultation that there are different types of GBI serving different functions³⁰. Some assets will need to serve specific purposes – such as accommodating species sensitive to disturbance – and to do so effectively may entail narrow focus as well as sensitive design.
- A holistic approach to coastal management is required – developing the strategic SMP that addresses coastal processes to accommodate wildlife and people in a changing climate, and applied cohesively to the coasts of the peninsula. This may range from monitoring coastal process and built infrastructure (e.g. sand deposition rates behind the coastal path), and 'soft' management approaches (e.g. as part of the wardening programme).
- Alleviation of existing and avoidance of future pressure on the qualifying features of the designated coast is well-recognised in a number of published reports. The GBI strategy must accommodate alternative recreation routes and destinations away from the coast to encourage people to explore the wider 'inlandscape' and to do so using active transport (i.e. without use of the car) wherever possible. The LCR-wide mitigation package (in progress) will need to be accommodated in future iterations of the GBI Strategy.
- Habitat connectivity is one of the pillars to a healthy functioning ecological network and increases resilience to climate change. Connectivity to non-coastal green assets offers opportunity to ensure assets do not become degraded and instead extend favourable habitats, diversify the mosaic, and allow existing green assets 'better and broader' multi-functionality. Example locations include Bidston Moss, Birkenhead Park, Wirral Waters.
- Recreational demand on 'wild' and green spaces is high across the peninsula – including grassland and woodland habitats as well as the coast. To help existing greenspaces 'work better' for biodiversity, a greater area of land with ecological value – both in and outside the designated network – could be brought into positive management to promote benefits to biodiversity overall. Data provided by Wirral MD (reporting of 2013/14). shows that of the 85 designated local sites, only 42% are in positive conservation management.

³⁰ "Some types will score poorly, or not at all, on some functions and this is perfectly acceptable. It is the range of functions that is important to capture.

- Lack of positive management is a recognised concern, not only for inherent ecological value but in relation to the ecosystem services of carbon sequestration and storage. Key habitats that offer carbon storage include grassland (large areas of loss and intensive management) and mossland (fragmentation and drying).

Theme 2: People and Communities

Wirral has a strong recreational offer thanks to its parks and open spaces, an asset which draws people to live in and visit the peninsula. In the past, Wirral has dealt with periods of intense population growth by advancing itself as a green space pioneer, considering how parks can act as 'green lungs' which underpin the health and wellbeing of working communities. The Borough's GBI network needs to build on this pioneering legacy and update it for the 21st century.

Objectives

Objective 2.1: To build on Wirral's history at the forefront of the public parks movement by ensuring that every resident of Wirral has access to greenspace 'on their doorstep' and can interact with their environment, particularly in the Borough's most deprived wards. This will support the 'Natural Health Service' in underpinning health and wellbeing challenges.

Objective 2.2: To encourage a sense of 'ownership' over the Borough's green assets by a wide range of community, to help to ensure their long-term stewardship.

3.59 During the Industrial Revolution, Wirral served as a place of 'escape' for those crossing the Mersey Estuary to escape worsening urban conditions in Liverpool. The response to these conditions was the establishment of spaces like Birkenhead Park. Joseph Paxton, who designed the park, once said that:

"If we range through the whole territory of nature, and endeavour to extract from each department the rich stores of knowledge and pleasure they respectively contain, we shall not find a more refined or purer source of amusement ... than that which the observation and examination of the structure, affinities, and habits of plants and vegetables, afford."

3.60 The challenges that Wirral faces today are starkly different than in Paxton's time, however, research continues to suggest the mental and physical health benefits of spending time outdoors in nature. Today, in the context of an ambitious regeneration agenda being taken forward in the Borough – particularly around the wider Birkenhead urbanised area – it is vital that people, and the most vulnerable people, do not 'get lost' amid fast-paced growth and change. The green and open space network is an important vehicle for achieving this, by ensuring that no-cost, publicly accessible green spaces are accessible to all as a health and wellbeing resource.

"We are now re-populating Birkenhead with thousands of people, but where are they going to play?"

(Stakeholder consulted)

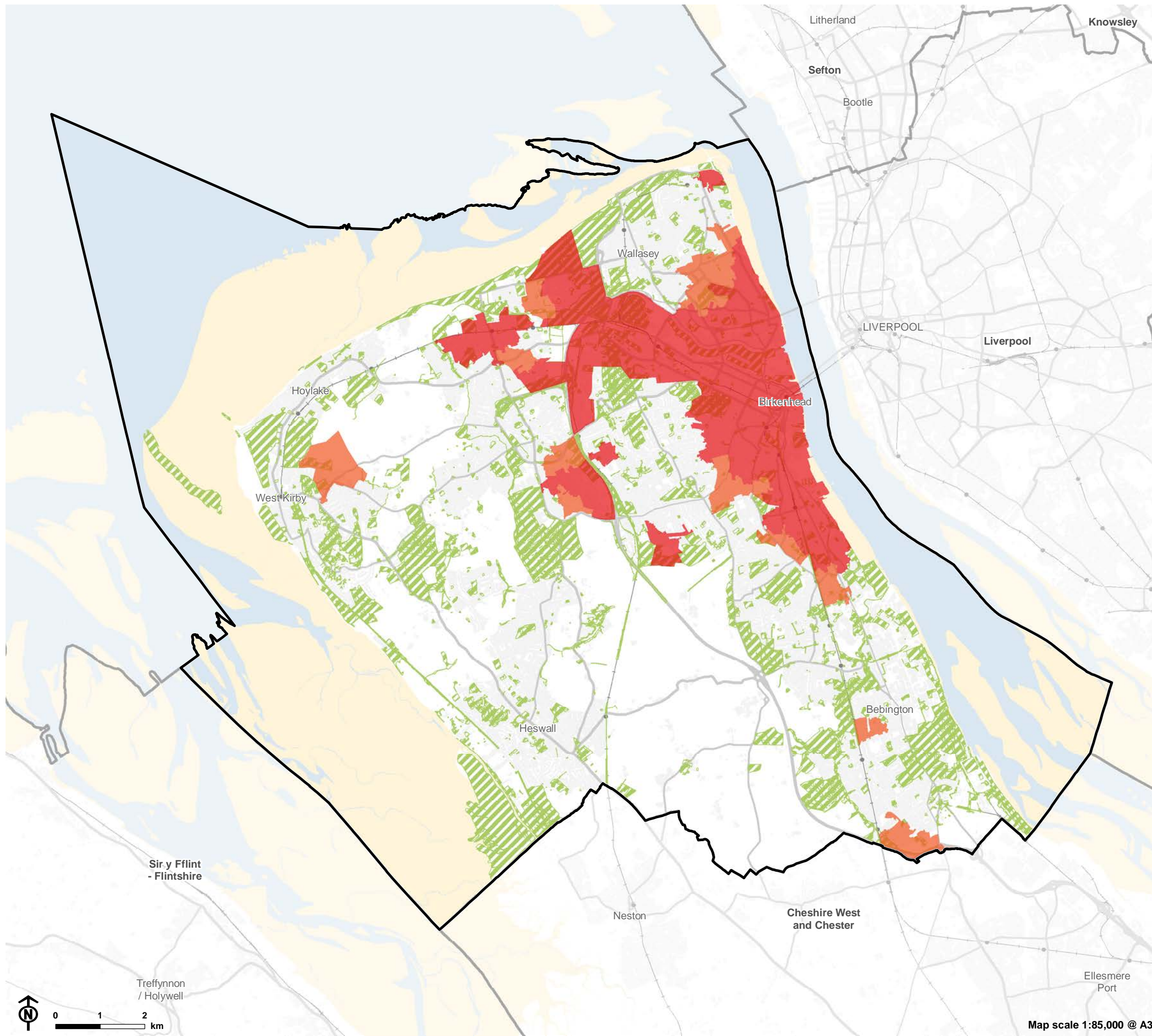
3.61 Bearing in mind the pressures outlined under **Theme 1: Biodiversity**, in order to better manage intense recreational pressures experienced at popular coastal sites and the resulting threats to natural habitats, there will be a need for the green space network to enable some 'recreational diffusion'. This will mean looking more carefully at landscape corridors and identifying where there are opportunities for them to 'work harder'.

Reversing decline in Wirral's most deprived communities

3.62 **Figure 3.4** maps the socio-economic context against which Wirral's GBI network must function, and which it must respond to. It highlights a number of 'hotspots' of deprivation. Analysis by Wirral Intelligence Service (WIS) highlights that 32% of Wirral population live in the top 20% most deprived areas of England and 19% of children aged 0 to 15 live in poverty.³¹ However, those challenges are not evenly distributed across the borough. The mapping highlights a clear pattern of concentrated acute deprivation within the Birkenhead conurbation, stretching upwards toward New Brighton and Moreton and south towards New Ferry. Other small pockets of deprivation exist around Grange Hill on the west coast.

³¹ <https://www.wirralintelligenceservice.org/this-is-wirral/health-wellbeing/>

Figure 3.4 People and Communities:
Deprivation and access to green space



3.63 In many ways, the Wirral peninsula is a story of two halves. While the Dee Peninsula in the west is home to significant prosperity, areas of acute socio-economic deprivation are largely concentrated in the east along the Mersey Estuary. Unsurprisingly, the consequences of this divide follow through into health outcomes, given that the relationships between low income and poor health has been found to follow a social gradient nationally, and that people living on a low income are more likely to experience worse health and be less physically active.

3.64 A mapping of life expectancy by railway station carried out by the WIS reveals a stark difference for males, ranging from 84 in Heswall in the west to only 72 in Rock Ferry in the east³². **Figure 3.4** shows how health deprivation varies across the peninsula, according to the Index of Multiple Deprivation (IMD). Trend data also shows that inequalities in obesity prevalence in Wirral are increasing³³. A key goal of the GBI strategy is to address this east-west 'health divide' and concentrate resources in areas of greatest need, as was reflected in the views of stakeholders consulted, who highlighted socio-economic deprivation as "the biggest threat (to the GBI network) because it blights communities".

3.65 The scale of the challenge in certain parts of the Borough should not be underestimated. There is not yet any scientific consensus over whether different types of physical environment can affect health equalities – only suggestions – and the benefits of green and blue spaces, and the mechanisms by which they work, are varied and complex³⁴. As such, while it would be naïve to believe that the peninsula's green spaces can act as a straightforward 'miracle nature cure' or panacea to solving these deep-rooted health and wellbeing problems, the GBI network does have a role to play in providing some of the natural, recreational and community resources on which a range of other interventions can build.

3.66 A report by the Academy of Medical Royal Colleges highlights improving facilities for active travel and green or outdoor space as one of two key areas to target for most gains at community level³⁵. This is underlined by the Borough's Open Space and Parks Strategy (2014-24), which sees parks and open space as having an important role in addressing public health

issues and health 'hotspots' through the borough, in partnership with the Public Health Team, voluntary groups and other organisations.

Adapting to an ageing population

3.67 In line with national trends, the demographic makeup of Wirral is set to change dramatically in the longer term. The Borough faces an ageing population, with the Wirral Intelligence Service (WIS) warning that 'frailty' will present a huge challenge to both the NHS and social care³⁶. The latest population projections predict that by 2043, the number of Wirral residents over 90 will increase by 93% (over 20% by 2030), and increases are projected for all age groups over 70 over the same period. Younger age groups will see negative growth³⁷. This raises the challenge of designing green spaces to enable people to remain active into later life, and taking account of age-friendly and dementia-friendly design principles across the network.

3.68 The need to ensure that the needs of the Borough's older people are taken into account in green space provision was highlighted during stakeholder workshops, and Wirral's Older Peoples' Parliament provides a valuable 'sounding board' to fully understand local needs³⁸.

Wirral's parks and open space network

Overview of the network

3.69 The Liverpool City Region (LCR) GI Strategy highlights the importance of GBI planning, delivery and management in reducing health inequalities, promoting positive wellbeing and reducing poor mental and physical health.

3.70 Recreational assets in Wirral are strong in places and some are of very high quality. There are currently over 210 parks and open space sites owned by the Council, 19 of which had achieved a Green Flag Award as of 2014. The most popular recreational sites highlighted by the Parks and Open Space Strategy are:

³² Wirral Intelligence Agency (2015), 'Male Life Expectancy at Birth by Wirral Railway Station 2015-27' [Online] Available at: <https://www.wirralintelligenceservice.org/media/2670/male-life-expectancy-by-train-station-201517.pdf>

³³ <https://www.wirralintelligenceservice.org/isna/childhood-obesity/>

³⁴ Natural England (2011), 'Green space access, green space use, physical activity and overweight', [Online] Available at: <http://publications.naturalengland.org.uk/publication/40017?category=47004>

³⁵ https://www.aomrc.org.uk/wp-content/uploads/2016/05/Exercise_the_Miracle_Cure_0215.pdf

³⁶ <https://www.wirralintelligenceservice.org/this-is-wirral/health-wellbeing/>

³⁷ ONS (2020), "2018-based subnational principal population projections for local authorities and higher administrative areas in England".

³⁸ Wirral Older People's Parliament (OPP): <https://wirralopp.co.uk/>

- The coast
- Royden Park
- Wirral Way walking route
- Arrowe Park
- Birkenhead Park
- Ashton Park
- Wirral Country Park.

3.71 Open space is frequently divided into a number of 'typologies.' However, in Wirral it is also recognised that the popularity of the coastal areas as a recreational asset means that it may help to meet gaps in other forms of provision. **Table 3.3** (based on data from the Borough's Parks and Open Space strategy) gives an overview of how the provision of each 'typology' compares to national standards. Despite overall provision being above national standards, the tables highlights in orange where there are quantitative deficiencies across the Borough, in: natural and semi-natural green space; provision for children and young people; and allotments.

3.72 **Figures 3.5 and 3.6** provide a spatial awareness of where deficiencies present themselves across the typologies.

Table 3.3: Open space - comparison of current provision and national benchmarks

Typology	Hectares per 1,000 population	
	Current provision	National benchmarks
Parks and Gardens	1.80	0.80
Amenity Greenspace	0.70	0.60
Natural and Semi-Natural Green Space	1.78	1.80
Provision for Children and Young People	0.03	0.25
Allotments	0.18	0.25
Combined	4.49	3.70

Flagship assets: parks and gardens

3.73 The flagship Birkenhead Park was a forerunner of the Parks Movement, which emerged in the US from the 1830s for humanitarian reasons, driven by public concern over the state of 19th century industrial towns. The 125-acre Park opened in 1847 as a 'green oasis in an industrial urban area' and it was the world's first publicly funded park, as public parks started to be considered as the answer to most of the ills of the times. Famously, Frederick Law Olmstead visited the park and what he saw influenced the design of New York's Central Park. A £11.8 million restoration was completed in 2008.

3.74 As shown on **Figure 3.5** in total the peninsula boasts six Country Parks, a more formal set of public green spaces often on the edge of urban areas, which also serve as important heritage assets. Two of these (Wirral Country Park and the North Wirral Coastal Park) are linear designations along the peninsula's coastline. The largest apparent gap in Country Park provision lies within the residential areas within the A41 corridor, around New Ferry and Bebington.

3.75 However, as was highlighted in stakeholder workshops, while the Borough has several strongly performing assets, they require much strong connections in order to link them up as a strongly performing *network*, for example by connecting spaces such as Birkenhead Park, Bidston Moss and Wallasey green spaces.

'Urban wilderness': natural and semi-natural green space

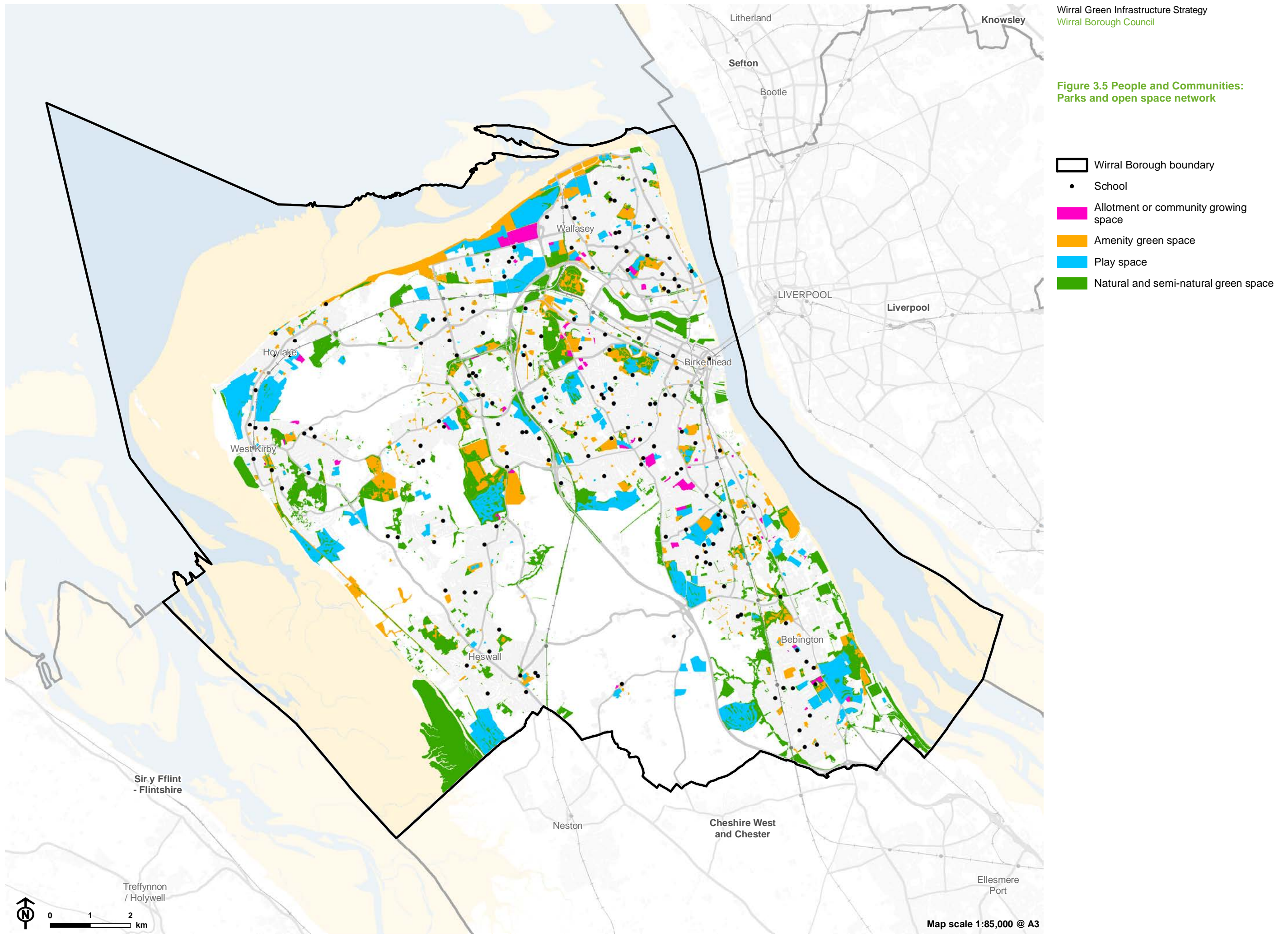
3.76 Wirral also benefits from some strongly performing areas of semi-natural green space, including the 'urban wilderness' of Bidston Moss Local Nature Reserve (LNR), which is surrounded by development and some 'hotspots' of socio-economic deprivation.

3.77 However, overall provision falls just short of national standards. In particular, there are shortfalls in provision in the higher density urban areas of Birkenhead, Mid Wirral and Wallasey. This coincides with areas highlighted as suffering from higher levels of deprivation.

On your doorstep: amenity green space

3.78 Amenity green space, most commonly found amid areas of housing, provides opportunities for rest and play closer to home and is an important complement to larger-scale parks, gardens and natural and semi-natural green spaces. These spaces also have a role in

**Figure 3.5 People and Communities:
Parks and open space network**



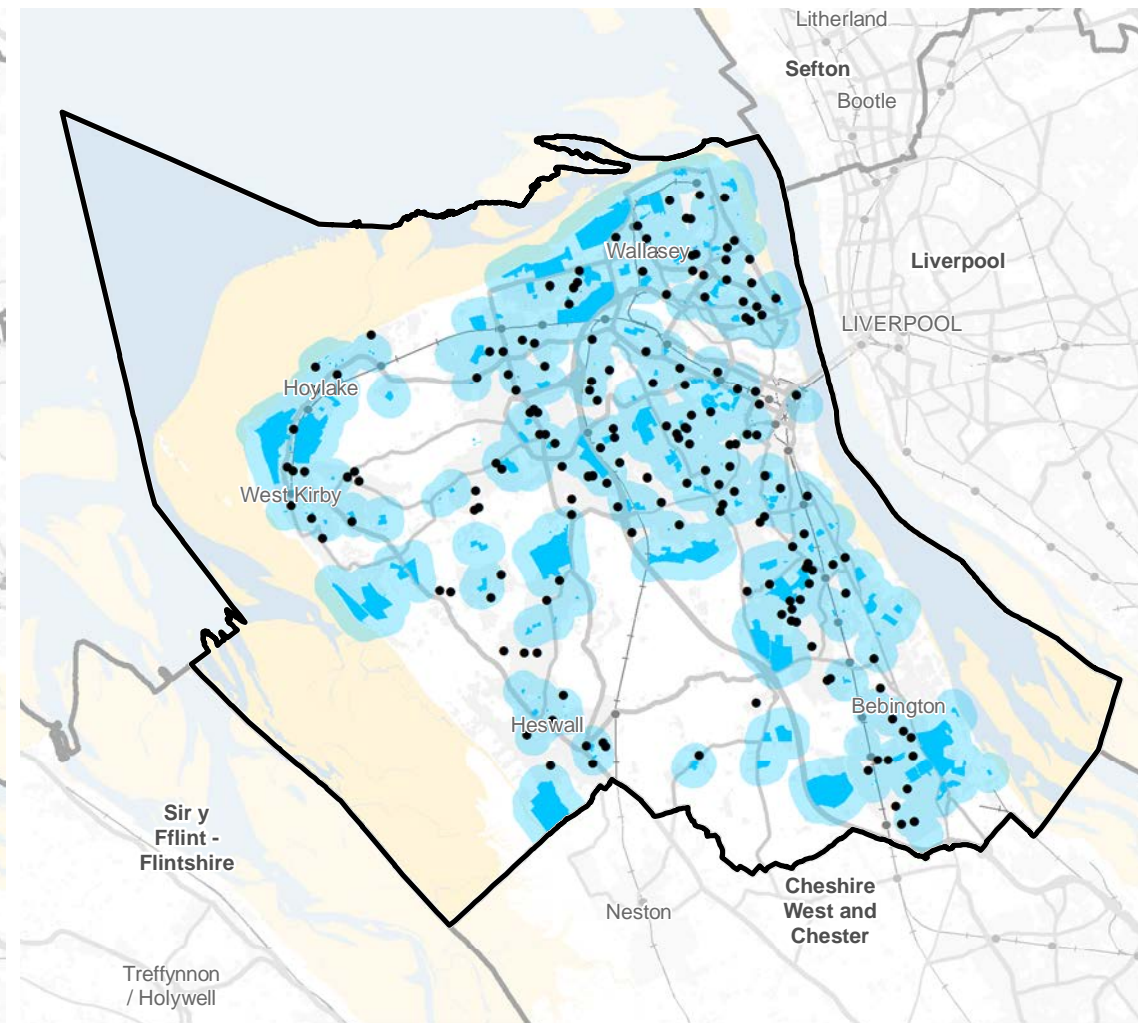
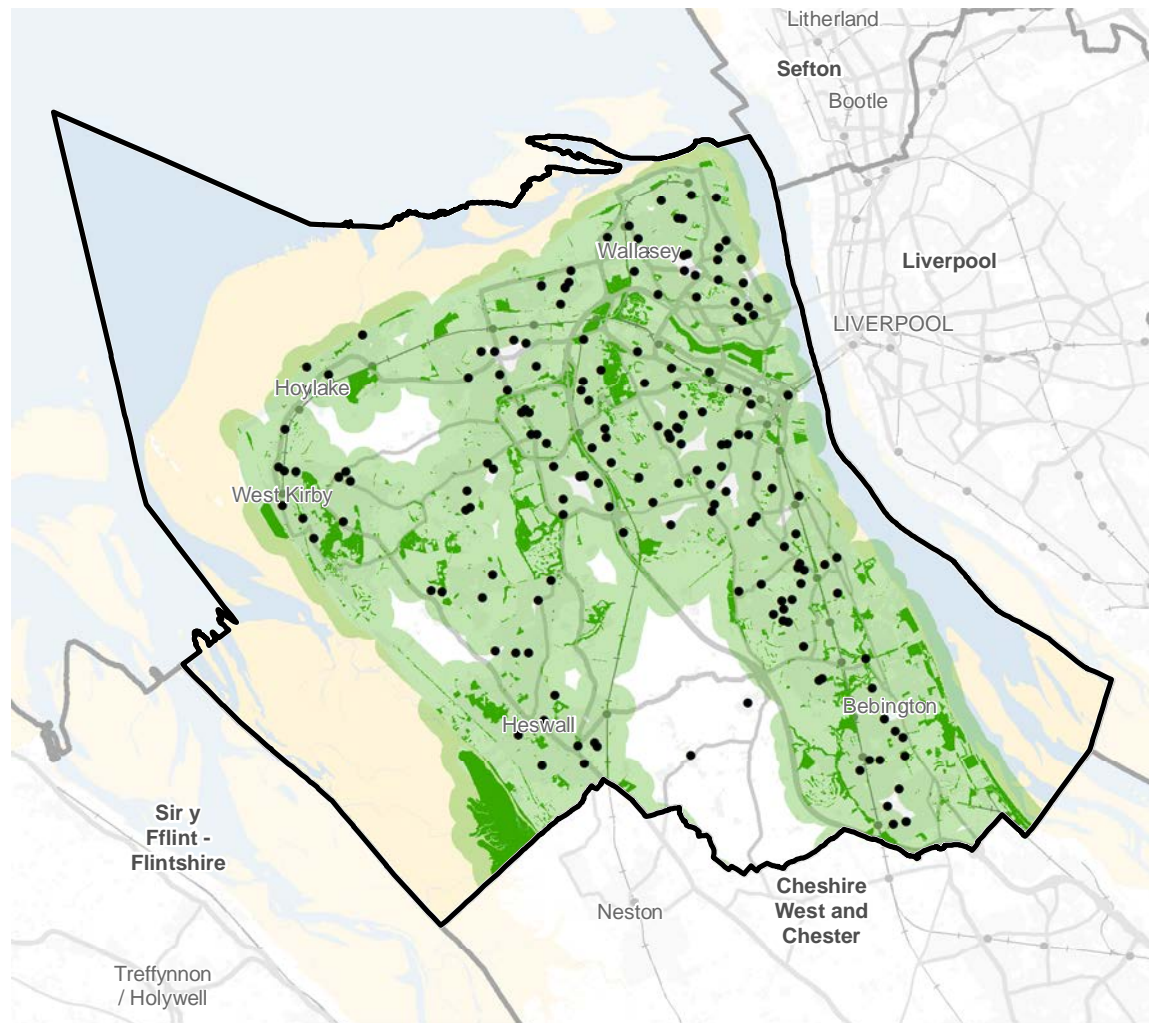
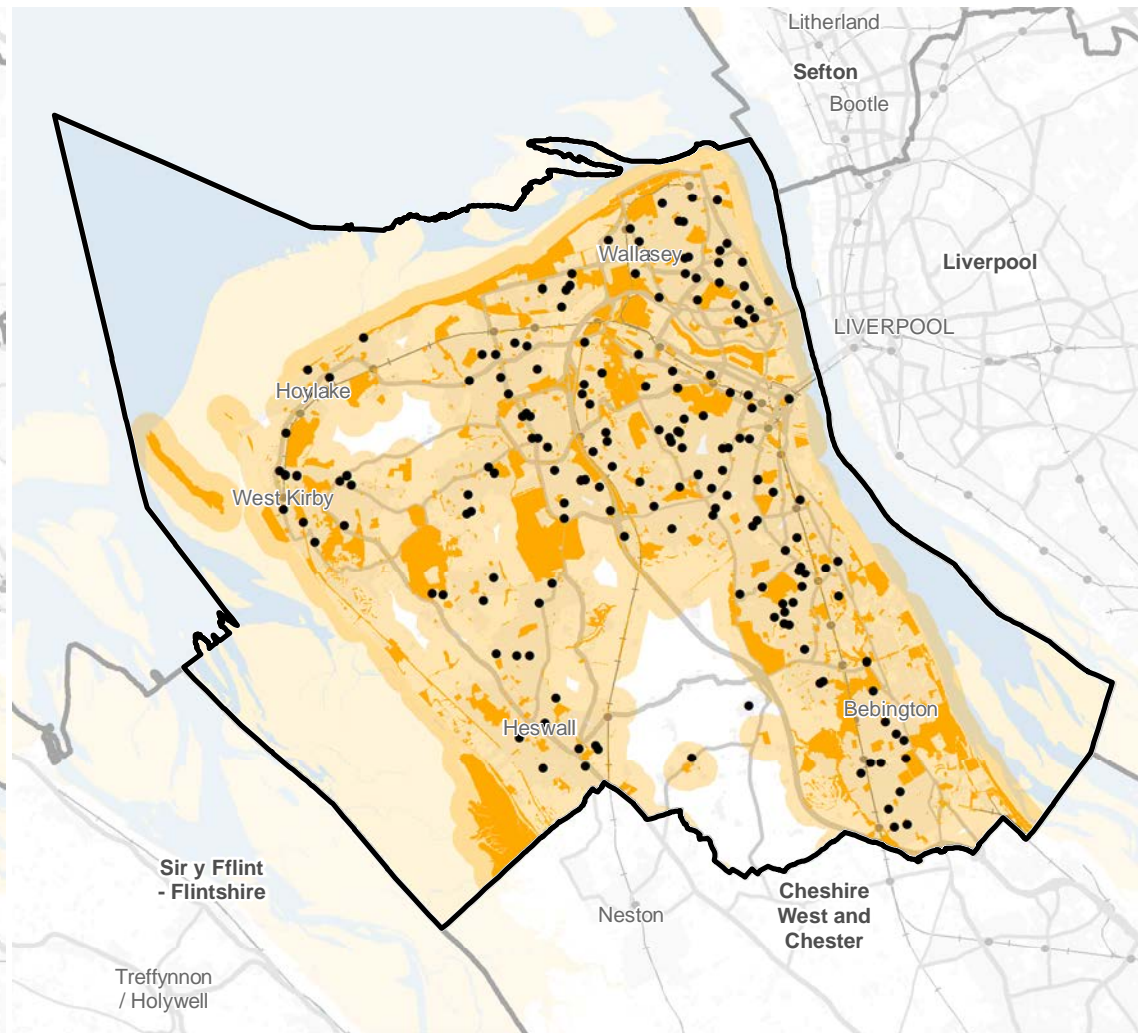
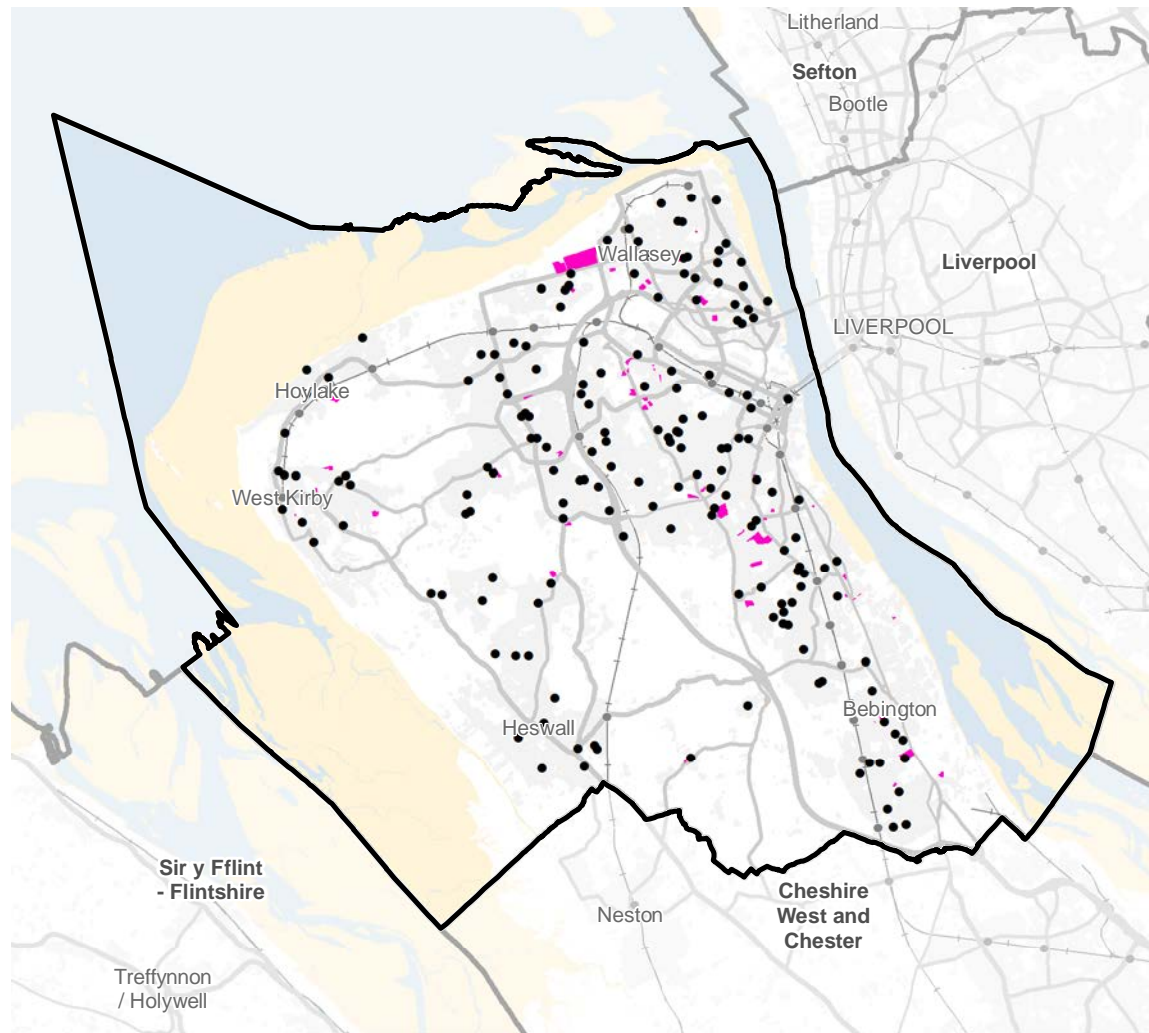


Figure 3.6 People and Communities:
Access to parks and open spaces

- Wirral Borough boundary
- School
- Allotment or community growing space
- Amenity green space
- Play space
- Natural and semi-natural green space
- Amenity green space 400m buffer
- Natural and semi-natural green space 400m buffer
- Play space 400m buffer

softening the urban fabric and providing a setting for buildings and informal leisure activities. They may take the form of 'pocket parks', which are discussed in more detail under **Theme 5: Urban Greening, Placemaking and 'Place-keeping'**.

3.79 Overall provision of amenity green space meets national standards. However, shortfalls in provision have been identified in the urban areas of Birkenhead, in Heswall and in the West Kirby and Hoylake areas. The Open Space strategy found that for quality, 72% were rated above the expected quality threshold.

3.80 It will be important for future development in Wirral to provide high quality incidental green spaces which bridge existing gaps and act as a neighbourhood resource, particularly in the wider Birkenhead area, where health deprivation is concentrated.

3.81 These green spaces, by their nature, are weaved through urbanised areas, and as such can also provide important 'stepping stone' habitats, and pollinator resources, which is discussed further under **Theme 1: Biodiversity**.

Space to play: provision for children and young people

3.82 The data shows a significant under-provision of green space for children and young people across the Borough, with shortfalls in Birkenhead, Heswall and the Bromborough/Eastham areas.

3.83 In terms of quality, the Open Spaces Strategy found that 75% of play areas exceeded the quality threshold. Lower scores reflected a poor range of equipment and general condition.

3.84 Against a backdrop of a national decline in opportunities for 'nature-based play', there is great potential for play spaces within Wirral to serve as multi-functional GBI assets, providing challenging and self-led play opportunities, community hubs, and as 'stepping stone' habitats to support biodiversity in urbanised areas.

Space to grow: food growing sites

3.85 The Borough's 2015 Allotment Strategy notes that providing allotments can help to enhance health and wellbeing, contribute to nature conservation, and increase peoples' pride in the places where they live, all in a cost effective manner.

3.86 Overall, there is a shortfall in the provision of allotments in Wirral. The majority of the Borough's 51 sites are concentrated in the built-up area in the east of the peninsula. Consultation with key stakeholders highlighted 'rocketing demand' for growing space, particularly during 2020's Covid-19 crisis, leading to long waiting list. Stakeholder added that:

"Let's not think of allotments as 'vast areas', growing spaces can also be in compact areas"

(Workshop participant)

Woodlands for recreation

3.87 The LCR GI Strategy highlights the role that woodlands, particularly those close to where people live, can act as recreational assets. The Woodland Trust's 'Woods for People' standard³⁹ provides guidance on targeting action for woodland access. The Trust highlights that woodland areas cost little to maintain, can welcome large numbers of visitors and, as rich natural habitats, make for exciting and inspiring places to visit. Academic research provides further support for the impact of woodlands on quality of life in deprived communities⁴⁰.

3.88 The Woodland Trust believes that no person should live more than 500m from at least one area of accessible woodland of no less than 2ha in size, and that there should be at least one area of accessible woodland (>20ha) within 4km of peoples' homes.

3.89 The ambitions laid out in the Borough's Tree, Hedgerow and Woodland Strategy (2020-2030) are strongly supported by local stakeholders and will be important in providing recreational spaces as well as 'carbon sinks'. Schools provide opportunities for engaging the community in woodland expansion, however, it is understood that there is little remaining

³⁹ Woodland Trust (2017), 'Space for people: Targeting action for woodland access' [Online] Available at: <https://www.woodlandtrust.org.uk/media/1721/space-for-people-woodland-access.pdf>

⁴⁰ Ward Thompson et al (2013), 'Woodland improvements in deprived urban communities: What impact do they have on people's activities and quality of life?', Landscape and Urban Planning. 118, pp 79-89.

capacity on school sites. Where possible, derelict sites should be used for woodland planting (see **Theme 5: Urban Greening, Placemaking and 'Place-keeping'**).

How accessible is green space in Wirral? And how inclusive?

3.90 Often in urban areas we find that more deprived areas tend to be less well served by green space. **Figure 3.6** maps green space accessibility (in line with Natural England's ANGST standards)⁴¹ against the identified 'hotspots' of deprivation.

3.91 On a city-region scale, Birkenhead (along with Widnes and Liverpool) have been highlighted as the major areas of inadequate access to green space within the Liverpool City Region as a whole.

3.92 When we look at how people physically travel to Wirral's green spaces, there is significant scope for building on initiatives to improve access to recreational green spaces by walking and cycle. This is outlined in greater detail within **Theme 3: Walking and Cycling**.

3.93 Accessibility, however, goes beyond a simple calculation of quantitative and spatial provision. Studies show that green space use declines the further people are located from it. Furthermore, use also declines if people do not feel their green spaces are accessible – driven by a complex range of factors such as safety, car parking and other users⁴². Public health representatives consulted for this GBI Strategy raised concerns that, despite some areas of strong 'green' provision in the Borough, there appear to be barriers which are preventing communities making use of them, exacerbating health and wellbeing problems.

3.94 A 2010 report by the UK's Design Council⁴³ found that people living in deprived areas recognise and appreciate the value of local green space, however, they underuse the spaces that are most convenient because these spaces are often poor quality and feel unsafe.

3.95 One way of addressing the challenge of accessibility and inclusivity in the Borough's green spaces is to enable real community stewardship of these spaces. The Design Council report highlights that local people are best placed to know the benefits that good-quality green spaces

contribute to their community, but have not always had the opportunity to direct improvements to their local environment. The views of the Black Environment Network (BEN) are also highlighted, noting how it challenges the traditional notion of nature conservation and argues that *"there is no such thing as a purely environmental project – the specific social, cultural and economic context must always be taken into account"*.

3.96 Stakeholders consulted as part of this strategy describe local community groups as a *"huge, untapped reserve"* and that:

"Given the opportunity, most people are willing to freely share these skills and experience to improve the places where they live if doing so would improve quality of life for themselves and their community... but officers need to be willing to work in new ways"

3.97 The Borough's 'back alley greening' projects in streets such as Duncan Street (Birkenhead) are testament to these resources. Consistent support via small grants and removal of barriers to action are required if such initiatives are to thrive.

3.98 A further challenge for Wirral is to address the challenge of ensuring that green spaces are accessible to members of the Borough's ageing population. Dementia in particular is a major concern for policy makers, and is thought to cost the economy annually more than the economic cost of cancer and heart disease combined. Evidence suggests that social interaction and access to the outdoors has an important role for those living with dementia in their quality of life. Suggested interventions include developing dementia-friendly garden spaces and facilitating organised park and woodland walks. There is a range of design guidance and toolkits now available on this topic⁴⁴.

⁴¹ ANGST (the Accessible Natural Green Space Standard) sets out national recommendations for how close people should live to various typologies of accessible natural green space.

⁴² Natural England (2011), 'Green space access, green space use, physical activity and overweight', [Online] Available at: <http://publications.naturalengland.org.uk/publication/40017?category=47004>

⁴³ CABE (2010), Community Green: using local spaces to tackle inequality and improve health [Online] Available at: <https://www.designcouncil.org.uk/sites/default/files/asset/document/community-green-full-report.pdf>

⁴⁴ Natural England (2013), 'Greening Dementia – a literature review of the benefits and barrier facing individuals living with dementia in accessing the natural environment and local green space' [Online] Available at: https://dementiaadventure.co.uk/wp-content/uploads/2018/03/NECR137_edition_1-1-Greening-Dementia-report.pdf

Health and wellbeing

Green space and physical health

3.99 As cited in a report for Natural England, *"recognising the role of the natural environment as a primary determinant of health is in many ways the foundation of modern public health" and, given that "good health and wellbeing is not solely the absence of illness, the role of the environment we live in is hugely important in shaping our lives and, consequently, our health"*⁴⁵.

3.100 The LCR GI Strategy sets out a clear rationale for green and blue infrastructure to tackle health issues 'upstream' of clinical intervention more effectively. In this sense, GBI assets form the building blocks of the 'Natural Health Service'. The Chair of the Academy of Medical Royal Colleges has suggested that *'if physical activity was a drug, it would be classed as a wonder drug'*.

3.101 'Health deficits' within certain areas of Wirral represent a key challenge which the GBI network must respond to. Childhood obesity is a strong indicator of health deprivation, and data from Wirral Intelligence Service (WIS) notes that at age 4 to 5, one in ten Wirral children are obese, with problems concentrated, in particular, in Birkenhead South. It also notes that prevention is the most viable approach to tackling obesity, pointing to the role of embedding active lifestyles among children early. It also calls for a collaborative, whole systems approach to preventing obesity, of which the GBI Strategy should form part.

3.102 Regular physical exercise is a key driver of good health, and some recent studies have suggested that the provision of open spaces for recreation may provide an important health resource, especially in urban areas where gaining access to the open countryside can be difficult⁴⁶.

3.103 In Wirral, although there are many parts of the Borough which are well provided for by high quality green space, this is also where health challenges and health inequalities continue. A report by the Academy of Medical Royal Colleges highlights the importance of ensuring that sport and fitness opportunities appeal to non-traditional participants⁴⁷, underlining the need to

ensure the inclusivity of the Borough's green spaces, as well as looking at metrics of quantitative and qualitative provision.

3.104 Air quality is another issue where the GBI network can play a part, an issue which will be taken up in greater detail under **Theme 3: Walking and Cycling** and **Theme 5: Urban Greening, Placemaking and 'Place-keeping'**.

Green space, mental health and opportunities for interaction with nature

3.105 Studies indicate the educational benefits of learning outdoors and highlight the need to address a 'nature deficit' among young people⁴⁸. Access to outdoor learning enables young people to make experiential connections with the real world outside the classroom through multi-sensory experiences, and helps to develop skills in a meaningful context. Given the need to increase awareness among the next generation of climate change challenges and the vital role played by biodiversity, it is crucial to provide accessible and inclusive opportunities for children and young people to interact with nature.

3.106 As was highlighted in stakeholder workshops, one of the most effective ways to engage people in their natural environment, and educate them about GBI issues, is to start young. Wirral's strong 'Eco Schools' program, which seeks to make environmental issues part of a school's curriculum, provides a strong platform on which to build this agenda. Activities should be targeted at those areas showing the highest levels of health deprivation (see **Figure 3.4**).

Social and 'green' prescribing

3.107 A key opportunity within the 'Natural Health Service' framework is the concept of 'social' or 'green prescribing', rather than relying solely on medicinal intervention. This is becoming increasingly recognised as a way of addressing entrenched health and wellbeing challenges, based on an understanding that health is affected by a whole range of factors and should be remedied more broadly, via a range of interventions. NHS England describe it as a system which enables all local agencies to refer people to a 'link worker', who can connect people to

⁴⁵ UCL Institute of Health Equity (2013), 'Natural Solutions for tackling health inequalities' [Online] Available at: <http://www.instituteoftheequity.org/resources-reports/natural-solutions-to-tackling-health-inequalities/natural-solutions-to-tackling-health-inequalities.pdf>

⁴⁶ Natural England (2011), 'Green space access, green space use, physical activity and overweight', [Online] Available at: <http://publications.naturalengland.org.uk/publication/40017?category=47004>

⁴⁷ https://www.aomrc.org.uk/wp-content/uploads/2016/05/Exercise_the_Miracle_Cure_0215.pdf

⁴⁸ Louv (2010), 'Last child in the woods: saving our children from nature-deficit disorder'.

community groups and activities that are available locally. NHS cite evidence suggesting that 59% of GPs think social prescribing can reduce their workload⁴⁹.

3.108 The related concept of 'green prescribing' is used to describe the social prescription of nature-based interventions. These might include health walks, farming and horticultural activities, among others, and they allow providers of outdoor service to collaborate with healthcare and public health organisations to deliver safe, cost-effective outcomes for patients.

3.109 Stakeholders consulted for this Strategy expressed support for such a 'prescribing' model as being useful, however, they also warned that such programs cannot address the problem on their own.

"Social prescribing programs are potentially a valuable tool, but only one tool in the toolbox. There are lots of ways of reaching people."

(Local stakeholder)

3.110 For social or green prescribing to have significant impact on health and wellbeing, there is the need for a more structured approach to setting up the networks required, between Wirral MBC, health authorities and community groups. This may take the form of a pilot initiative, which seeks to establish new ways of partnership working between the health sector and green spaces teams that will stand the test of time.

3.111 The announcement of the UK government's Obesity Strategy, released in 2020, and the related pilot program for 'green prescribing' are likely to offer opportunities to build on these efforts⁵⁰.

Community Cohesion

3.112 A crucial focus for the GBI strategy is the role of the network in reducing isolation, expanding and deepening social networks, and improving confidence through community projects, particularly in parts of the Borough facing acute deprivation. Emerging evidence

suggests that urban green spaces, in particular, have a role in building community through both casual and organised encounters with different people, against a backdrop of increasing diversity among communities.

3.113 Wirral has a well-established, active Park Friends networks (47 constituted groups as of 2014) and there is a strong feeling among local stakeholders that the community needs to be engaged and to *"take ownership"* of GBI assets. In this way:

"GI can be a 'common thread' within a place... the glue within a community"

(Workshop participant)

3.114 The community group restoring the small-scale Callister Gardens in Oxton were highlighted as one such example of community members taking ownership over valued local green spaces.

Growing communities

3.115 Making space in a city for food growing opportunities is a powerful way of addressing a range of challenges faced by Wirral – addressing acute physical and mental health problems, boosting community cohesion and helping communities to reconnect with where food comes from. The ability to become involved in food growing initiatives at a young age can also be a powerful educational tool, in order to raise a new generation less dissociated with the natural environment around them and how it sustains us – a key part of the challenge of addressing climate change and the biodiversity crisis.

3.116 Food growing opportunities are one platform which is recognised to have great potential for community cohesion, as well as to promote wellbeing and local action on global environmental issues. In a review of projects engaging communities in urban green space, it

⁴⁹ NHS England (2019), Social Prescribing and community-based support: Summary Guide [Online] Available at: <https://www.england.nhs.uk/wp-content/uploads/2019/01/social-prescribing-community-based-support-summary-guide.pdf>

⁵⁰ HM Government (2020), Policy Paper: Tackling obesity: empowering adults and children to live healthier lives' [Online] Available at: <https://www.gov.uk/government/publications/tackling-obesity-government-strategy/tackling-obesity-empowering-adults-and-children-to-live-healthier-lives>

was urban farming and food which stood out as a key method of engagement⁵¹. The Borough has a network of allotment spaces but typically these spaces tend to be used more intensively by wealthier communities. 'Incredible Edible' initiatives, such as in Hoylake, also do important work, and there is scope to make such food growing initiatives more inclusive so that their reach is expanded to neighbourhoods facing greater health challenges.

3.117 However, there is room for a more meaningful approach to ensuring that 'foodways' are integrated into the GBI network. The concept of 'continuous productive urban landscapes' (CPUL) developed by the University of Brighton may provide a framework for this thinking – they seek the coherent integration of urban agriculture into urban space planning, and consider urban agriculture as an essential element of sustainable infrastructure⁵².

Creating GBI employment

3.118 The 'tree lines' project (see **Theme 5: Urban Greening, Placemaking and 'Place-keeping'**) offers the potential to create and expand Wirral's horticultural industry. The Wirral Tree, Hedgerow and Woodland Strategy (2020-30) also requires Wirral MBC to support local communities and groups in setting up tree nurseries using locally collected seed, to reduce reliance on imported tree stock. While the Borough once had a significant stock of horticultural skills in the local area, there is currently a 'vacuum' in horticultural skills, which mirrors wider trends in the UK economy, with 70% of businesses saying in 2014 that they struggle to find the skilled workers they require⁵³. The establishment and growth of plant nurseries would not only provide locally grown tree stock for the Borough's ambitious tree planting strategy (see **Theme 4: Landscape and Seascape and Theme 5: Urban Greening, Placemaking and 'Place-keeping'**) but also provides the opportunity for training and educational opportunities that will help address high unemployment rates.

3.119 Bridging this skills gap calls for collaboration between schools, colleges and green space managers.

Summary of Key Issues

- Areas of acute socio-economic deprivation exist in and around Birkenhead, and significant economic and health disparities are striking between the east and West of the borough.
- Significant shortfalls of various types of green space concentrated in the suburbs of Birkenhead and in urban areas of mid-Wirral.
- Significant under-provision of play space and green space provided for young people across the borough.
- Shortfalls of amenity green space, concentrated in Birkenhead, the Heswall urban area and the West Kirby and Hoylake urban area.
- Generalised shortfall in allotment provision, leading to the need for increased provision to meet food growing demand.
- There is a need to ensure the inclusivity of green spaces and opportunities to interact with nature across a range of communities, including those in the most socio-economically deprived neighbourhoods. This will require greater efforts to ensure local "ownership" over GBI assets and harnessing the strength of local community groups.
- Projections of an ageing population in Wirral will require age-friendly design to be integrated into all green space typologies and across the GBI network as a whole, to help older people stay active and social connected into later life and ease pressure on the health service.
- Food growing presents an opportunity for making use of the natural environment address mental health problems, however current provision of space is scattered and needs better targeting toward areas of acute need.

⁵¹ CABE (2010), Community Green: using local spaces to tackle inequality and improve health [Online] Available at: <https://www.designcouncil.org.uk/sites/default/files/asset/document/community-green-full-report.pdf>

⁵² Viljoen (2005), 'CPULs: continuous productive urban landscapes – the urban agriculture design book for sustainable cities'

⁵³ RHS (2014) 'Horticulture Matters: the growing crisis in UK Horticulture that is threatening our economy, environment and food security' [Online] Available at: <https://www.rhs.org.uk/Education-Learning/PDF/Training/1016-RHS-Hort-Careers-Brochure-V8.pdf>

Theme 3: Walking and Cycling

Wirral's GBI assets derive strength from the network they sit within. Any gaps in that network need to be understood and repaired, in order to enable connected habitats, integrated active travel linkages and a seamless integration between land and coast.

Objectives

Objective 3.1: To link together the severed connection between inland and the coast around Wirral's coastline and to strengthen the 'green links' between Wirral's east and west coasts.

Objective 3.2: To 'knit together' Wirral's spectacular green assets with pedestrian and cycling routes that provide a vantage point to enjoy the peninsula's natural beauty, with a focus on enhancing east-west movements across the peninsula.

Objective 3.3: To support the Transport Strategy in making walking and cycling the 'mode of choice' across the Borough for shorter journeys, among both residents and visitors, and creating attractive walkable communities.

Opportunities for Walking and Cycling

Overview

3.120 While the strategic planning of cycling infrastructure and choice of key routes is beyond the scope of this GBI Strategy, GBI has a crucial role in supporting the provision of cycling routes in two major ways:

1. Prioritising the linking together of key green space assets, to reduce reliance on car travel for reaching those assets.
2. The 'greening' of cycle routes to make them more attractive and encourage their regular use. This often includes projects for off-road routes that have value for recreational cycling as well as functional 'A to B' routes.

3.121 The relationship between active transport infrastructure and the GBI network is a complex one. However, this Strategy aspires for a 'greener' public realm, with the sensory stimulation afforded by green and blue infrastructure encouraging us to move differently through a streetscape or landscape. In this way, GBI is an important complement to 'hard' infrastructure.

3.122 There is significant room for improvement in the Borough's active travel network and Wirral remains significantly car-dependent, with a 60% private car modal share and the vast majority of residents (72%) travelling to work by car or van, which is above the national average. There was a strong feeling among local stakeholders consulted for this Strategy that transport planning remains car-focussed, and that this was an area ripe for change, in order to provide meaningful opportunities for all for walking and cycling, as a key complement to the public transport network.

3.123 There are localised nuances in car ownership. There are areas of deprivation within Birkenhead and Seacombe recording a high percentage of households without access to a car or van, exceeding the national average.

3.124 Wirral Council have invested in walking and cycling schemes through the Sustainable Transport Enhancement Programme (STEP) and Local Sustainable Transport Fund (LSTF) which has focused on the Wirral Waters / dock estate and the A41. Investment in transport schemes has been focussed towards facilitating areas of economic growth.

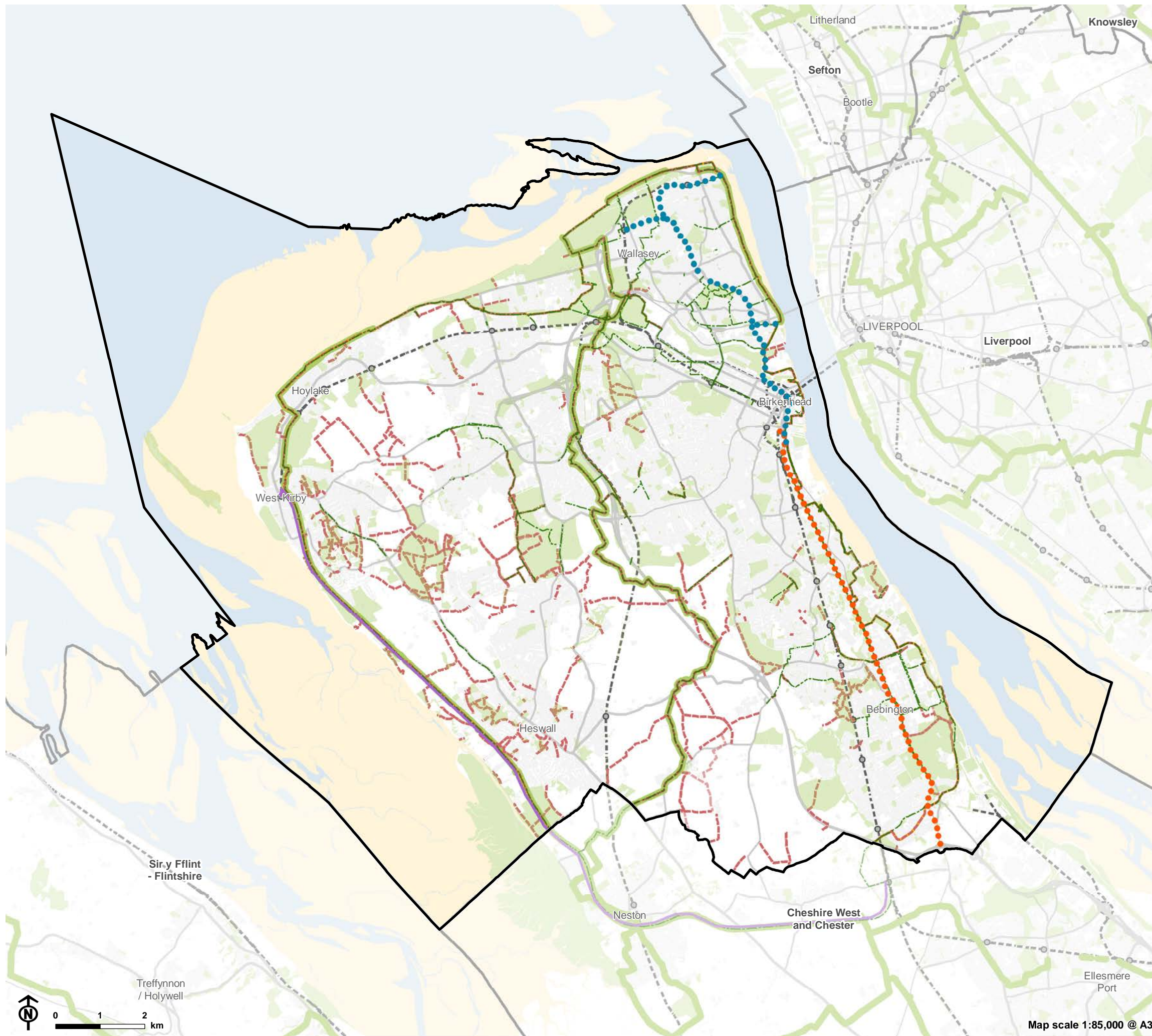
3.125 The 'Cool 2' climate change strategy highlights that 63% of Wirral's carbon emissions come from transport. Poor air quality is also a key health concern as the result of existing private car use – while Wirral has no declared Air Quality Management Areas (AQMAs), stakeholders consulted highlighted that the Borough's air quality was a point of concern.

3.126 The 2020 Covid-19 crisis led to increased attention to modal shifts to walking and cycling, resulting in further central government funding being allocated to active travel and the prospect of a 'step change' in active travel, an opportunity which Wirral must be well positioned to exploit.

Wirral's cycling network and key 'greenways'

3.127 In terms of the cycling network, there is one route of the National Cycle Network (NCN) which crosses the Borough as shown on **Figure 3.7**:

Figure 3.7 Connections:
Walking and cycling network



Map scale 1:85,000 @ A3

- Route 56, a largely on-road route running from Chester to Liverpool (via the Mersey Ferry) via Wirral Country Park, Parkgate, the villages of central Wirral, then Birkenhead, Wallasey and New Brighton. This is known as the Wirral Circular Trail. Stakeholders noted that many areas of this route are currently heavily trafficked and realistic only for more confident cyclists.

3.128 Route 89 is an off-road route on the Regional Cycle Network which connects the promenade at Meols and Hoylake to West Kirby, the Wirral Way, a former disused railway line, and Cheshire West and Chester beyond

3.129 The Wirral Way is an exemplary GBI asset and has seen significant levels of investment to date, with high quality surfacing and a wayfinding strategy. It is envisaged as the 'outer shell' of a network which should stretch across the entire peninsula like a 'spider's web', and laid out in a widely available booklet.

3.130 These 'showcase' routes are supported by a network of local cycle routes, although the quality of this network varies significantly across the Borough, contributing to the low take-up in cycling as a mode of travel. While there has been a steady increase in cycling across the Borough from 2009-17⁵⁴, cycling still remains unpopular and accounts for only a 2% modal share⁵⁵. Walking and cycling levels lag behind the national average.

3.131 Wirral Council are working to widen the network of segregated and off-road cycle routes in order to build the network. Local stakeholders highlighted that:

"there are more cycle routes than there used to be, but all too often coming to a dead end, which makes them functionally useless to many people."

3.132 In particular, connectivity between key towns is poor, an issue exacerbated by the severance caused by the M53, which limits east-west movements, and the major A roads creating barriers to movement from residential areas south of Birkenhead to the centre. Wirral's

Strategic Transport Framework (2018) prioritises a number of these schemes designed to 'mend' broken east-west linkages.

3.133 When looking at priorities for future investments in cycling, the LCR Local Cycling and Walking Infrastructure Plan (LCWIP) highlights three priority 'corridors' to form the focus of provision within Wirral, as indicated in **Figure 3.7**. Further routes will be developed following the priority corridors⁵⁶.

- **New Brighton - Birkenhead:** a partially segregated route connecting the two towns via Wirral Waters site, Liscard, Central Park and other parts of northern Birkenhead.
- **Birkenhead – Eastham:** along the A41 corridor, designated as a route but at a later design stage.
- **Leasowe – Seacombe Ferry Terminal:** connecting the ferry terminal with Leasowe via Wirral Waters.

3.134 The route between New Brighton and Birkenhead will significantly improve access from areas with low car ownership to the dockside at Wirral Waters.

3.135 The route between Leasowe and the Seacombe Ferry Terminal in particular has the potential to be a key GBI corridor, linking up both active travel routes, biodiversity corridors and 'blue links' between the urban area in Birkenhead's former docklands and the River Birket corridor (envisaged as the 'River Birkett Parklands' within Wirral Waters' emerging masterplan).

3.136 Beyond this, a major emerging opportunity is an initiative to bring back into use a disused railway line, which used to serve Birkenhead Docks, as a greenway (shown on **Figure 3.14**). Given that it lies in a cutting, many local residents may be unaware of its existence. It would require infilling to align with street level and integrate into the surrounding street grid network. It presents a valuable opportunity for connectivity as part of the regeneration agenda, linking Wirral Waters with Birkenhead Town Centre to the south. It has the potential to form the 'green spine' for that agenda, promoting active travel and connecting habitats. It also offers the

⁵⁴ Wirral Intelligence Service (This is Wirral: Transport) Available online: <https://www.wirralintelligenceservice.org/this-is-wirral/transport/>

⁵⁵ Wirral Transport Background Paper 2020. Available online: <https://www.wirral.gov.uk/planning-and-building/local-plans-and-planning-policy/local-planning-evidence-and-research-report-55>

⁵⁶ The LCR LCWIP highlights a network of 31 corridors realised which is expected to encompass up to 600km of cycling and walking routes.

opportunity to boost its industrial heritage profile, accessed through high quality heritage interpretation focussed on the history of the docks.

3.137 Consultation with key stakeholders highlights that, despite gradually improving infrastructure, perceptions of safety remain a key barrier to increasing the modal share of cycling, suggesting the need to provide better connections between valued routes such as the Wirral Way and local connections to residential areas and key destinations. This is reflected on **Figure 3.7**.

3.138 The 'Cycling and walking plan for England' released by the government in 2020⁵⁷, and the introduction of the new funding body and inspectorate Active Travel England, promises to lead to demand higher standards for cycle routes across the country. This should be taken full advantage of, given the identified needs in Wirral. It requires that:

"cycles must be treated as vehicles and not as pedestrians. On urban streets, cyclists must be physical separated from pedestrians and should not share space with pedestrians"

3.139 The reallocation of road space required as part of these emerging policies provides an important opportunity for the integration of 'greening' features including, but not limited to, street trees.

Wirral's walking network

3.140 Wirral's Public Rights of Way (PRoW) network provides a significant heritage feature as well as a major recreational resource, helping people get out into the countryside from urbanised area. Consultation with stakeholders highlighted that this is a highly valued network for accessing a variety of landscapes and exploring the Borough, and was highlighted as *"one of Wirral's real strengths."* However, resourcing constraints in recent years have led to

maintenance difficulties in some areas. The upcoming Public Rights of Way Improvement Plan (PRoWIP) will highlight areas prioritised for enhancement.

3.141 As can be seen in **Figure 3.7**, the density of PRoW along the Dee Estuary is quite strong, however, there is a much lower density of paths, and significantly more fragmentation, along the Mersey Estuary and within Birkenhead. There are also gaps in the network around the historic village of Thornton Hough in the central agricultural landscape. A key priority should be ensuring that, wherever appropriate, gaps in the network along the Mersey Estuary should be filled with publicly accessible routes, including the recovery of 'lost ways' such as the historic footpath along the Estuary north of Eastham Country Park, linking to Port Sunlight River Park.

3.142 Wirral MBC produces a number of high quality leaflets signposting to walking routes (mainly of 3-4 miles long) within the PRoW network (**Figure 3.8**). The annual Wirral Walking Festival, and a series of regular Health Walks across the Borough - looking at the history, heritage and nature of Wirral - are further efforts to encourage those who would not naturally form part of the 'walking community' to discover opportunities on their doorstep. However, there remains work to be done in expanding the appeal of these opportunities to a wider range of communities.

3.143 There have been efforts in the past to better promote the walking network and promotional activities among public health representatives and local GP surgeries, however, greater consistency is required in the links between healthcare providers and opportunities to exercise on the GBI network. Theme 2: People and Communities provides further detail on opportunities for an expanded program of 'social prescribing' or 'green prescribing'.

3.144 A significant upcoming initiative will be the upgrading of coastal routes around the peninsula over 2020 to form a section of the England Coastal Path, which when completed will be the longest coastal path in the world and will constitute a significant visitor economy asset as well as a local resource.

⁵⁷ Department for Transport (2020), 'Gear change: A bold vision for cycling and walking' [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf

Figure 3.8: Wirral's Walking and Cycling routes (from Wirral MBC leaflet)



3.145 A key concern among local stakeholders is ensuring that the PRow network provides 'access to all', including those with limited mobility. Progress was highlighted, such as the replacement of stiles with kissing gates, however the balance between providing accessibility to wheelchair users and preventing motorcycle use along parts of the network requires careful management to ensure no users are excluded from the network.

Making the links: linking active travel routes with key destinations

Public transport hubs

3.146 The significant car dependence in particular areas of Wirral is apparent despite a relatively strong public transport network compared with neighbouring regions, particularly in the north and east, largely thanks to the MerseyRail infrastructure, as shown in **Figure 3.7**. This will help to deliver on the goals of the 2019 Health Impact Assessment (HIA), to ensure that sustainable travel becomes the mode of choice for travel to and around Wirral.

3.147 As a result of past efforts, there are generally well-signed active travel connections between MerseyRail stations and the Wirral Circular Trail, enabling better navigation when moving between public modes and walking/cycling. However, some areas are in need of improvement, such as the need for greater signage between Heswall rail station (on Wrexham – Bidston line), bus station and local destinations, as highlighted by stakeholders. Improved signage and 'wayfinding' was discussed as one way to achieve this.

3.148 It is important that public transport and active travel networks are closely integrated to allow mixed-mode journeys and to allow communities to reach GBI assets and other destinations and amenities by a combination of bus, rail, walking and cycling without relying on the private car.

3.149 The 'greening' of links to transport hubs aligns closely with the Urban Greening agenda discussed under **Theme 5: Urban Greening, Placemaking and 'Placekeeping'**, given that there are also opportunities to enhance these hubs through greening measures, to provide a sense of arrival and 'softness' to these hubs in order to encourage modal shifts, as well as helping to combat localised air quality. Wirral Intelligence Service (WIS) notes that Birkenhead town centre is a key hub for several transport modes but is characterised by car-dominated infrastructure, which results in significant barriers for both cyclists and pedestrians. Improving

the walking and cycling links between Seacombe Ferry Terminal, Wirral Waters and the town centre was also seen as a key opportunity by local stakeholders.

3.150 There is a tangible opportunity within the emerging New Brighton masterplan to better connect the promenade with the local transport hubs, and to enhance these hubs through urban greening to encourage a stronger uptake of active travel measures.

Linking GBI and recreational assets

3.151 There is a need to reduce car dependency in reaching the Borough's most popular recreational assets. Data from the 2020 Open Spaces report shows that the majority of people in Wirral use the private car to access open space provision types, particularly country parks (73%), the coast and beaches (61%) and nature reserves (59%). The only exceptions were more local provision of play provision (75% access by foot) and amenity green space (65% access by foot). Local stakeholders highlighted that moving between green spaces *"often requires using some form of motorised transport to continue your journey"* because linkages are not available, such as Royden Park and Thurstaston green spaces. This is particularly problematic for residents of areas with lower car ownership, such as the wider Birkenhead area.

3.152 There has been investment at locations including Bidston Moss to enhance the walking and cycling routes from Bidston rail station and the National Cycle Network, as well as the integration of the Wirral Way with green space assets such as Thurstaston Common and Caldly Hill. However, given the heavy reliance on the car currently to access many GBI assets, there is room for far more to be done in this area.

'Greening' the school run

3.153 There is a significant opportunity to enhance the 'green links' provided between residential neighbourhoods and primary and secondary schools, as was highlighted by local stakeholders, who suggested interventions such as 'play streets' and traffic calming to address heavy traffic around schools.

3.154 Wirral MBC's 'Bikeability' scheme encourages school pupils to use their bikes to get to school, however GBI can play a key role in ensuring that the greening of routes is prioritised to link schools with surrounding residential areas by 'greenways' that encourage children to put

these skills to good use. These prioritised routes should be integrated into any future development masterplans.

3.155 Historically, school travel plans have sought to encourage active travel, however, these have been subject to funding opportunities. The government's Emergency Active Travel Fund has generated an opportunity for a Wirral 'School Streets' pilot, subject to a successful application.

3.156 Effective wayfinding initiatives can help to accelerate this modal shift along the 'school run', and there is opportunity for more creative, art and play-based interventions to help to make this an exciting part of a child's day. The charity Living Streets works with primary schools on 'route audits' which highlight barriers to safe walking and cycling, many of which are easily addressed once recognised.

'Greening' the commute

3.157 The LCR GI Strategy also calls for green travel routes to be provided between areas of unemployment and areas of investment, which may provide job opportunities. These areas for investment in Wirral – based on Atlantic Gateway Priority Projects - are highlighted as:

- The 'Wirral Waterfront' (focussed on Birkenhead town centre and Wirral Waters site).
- The A41 corridor as a further 'strategic investment area'.

Summary of Key Issues

- Levels of walking and cycling lag behind national levels, with knock-on implications for health and wellbeing in the Borough, as well as carbon emissions.
- The Wirral Way and the Wirral Circular Trail are exemplary GBI assets.
- Other than Wirral Circular Trail/Wirral Way, the cycling network is discontinuous and limited and the route is more fragmented route along the eastern side of the peninsula.
- Active travel links between the Borough's key towns are weak.

- Limited east-west movements by active travel means, exacerbated by the severance caused by the M53.
- Broken links between inland areas and the waterfront along the Mersey Estuary mean that the Borough is not taking best advantage of its coastal landscape asset.
- There is heavy reliance on the private car to reach key GBI assets.
- The Public Rights of Way (PRoW) network is significantly fragmented in the more urbanised east of the Borough, with opportunity to improve connectivity around the emerging Wirral Waters site.
- A recognition that high quality active travel routes for commuting should be prioritised around key areas of investment – Birkenhead town centre, Wirral Waters and associated 'Partnership Neighbourhood Areas,' the A41 corridor and New Brighton.

Theme 4: Landscape and Seascape

Wirral's distinctive landscape and seascape help form its very identity and require careful stewardship. However, both will also need to be increasingly resilient to the impacts of a changing environment, drawing on creative thinking about the diverse purposes the landscape serves.

Objectives

Objective 4.1: To enhance Wirral's ability to act as a 'carbon sink' in order to combat climate change.

Objective 4.2: Ensuring Wirral's landscape and seascape are both resilient to the impacts of climate change, working with natural processes where possible and to seek solutions with co-benefits for biodiversity and recreation.

3.158 Wirral's landscape - and its seascape in particular - constitute both the Borough's most popular asset and simultaneously its most vulnerable. As a result, many of the Borough's landscapes – urban, peri-urban and rural – will need to be repurposed for a new era, with a new set of challenges and demands. Any measures to manage competing pressures on the landscape will also have to strike a careful balance between the diverse expectations of different actors over what functions they can and should deliver. These decisions will not always be easy.

3.159 Upcoming development and growth is likely to put further significant pressure on Wirral's landscape, as will the pressures posed by climate change. As such, the peninsula's landscape is not only a highly valued asset to residents and visitors, but a key resource for resilience in the face of changing climactic conditions, in the country's journey to 'net zero', and as part of the landscape-scale response to addressing the biodiversity crisis. The role the landscape and seascape play as recreational assets, as 'magnets' for the visitor economy, and as part of the placemaking agenda, are described under other Themes. As such, this section will focus on the

role of the landscape and seascape in combatting the dual biodiversity and climate crises facing Wirral.

3.160 The landscape-scale challenges that Wirral is facing, along with the rest of the UK, demand landscape-scale responses. In the context of the Climate Emergency declared by Wirral MBC in 2019, there are two primary fronts on which the way the landscape and seascape are managed which can support these efforts:

1. Climate change mitigation, largely through maximising opportunities for carbon sequestration and storage, and;
2. Increasing resilience to climate change, including extreme flooding, coastal erosion and extreme heat.

3.161 Each of these factors are outlined in greater detail below.

Protecting Wirral's landscape and addressing threats

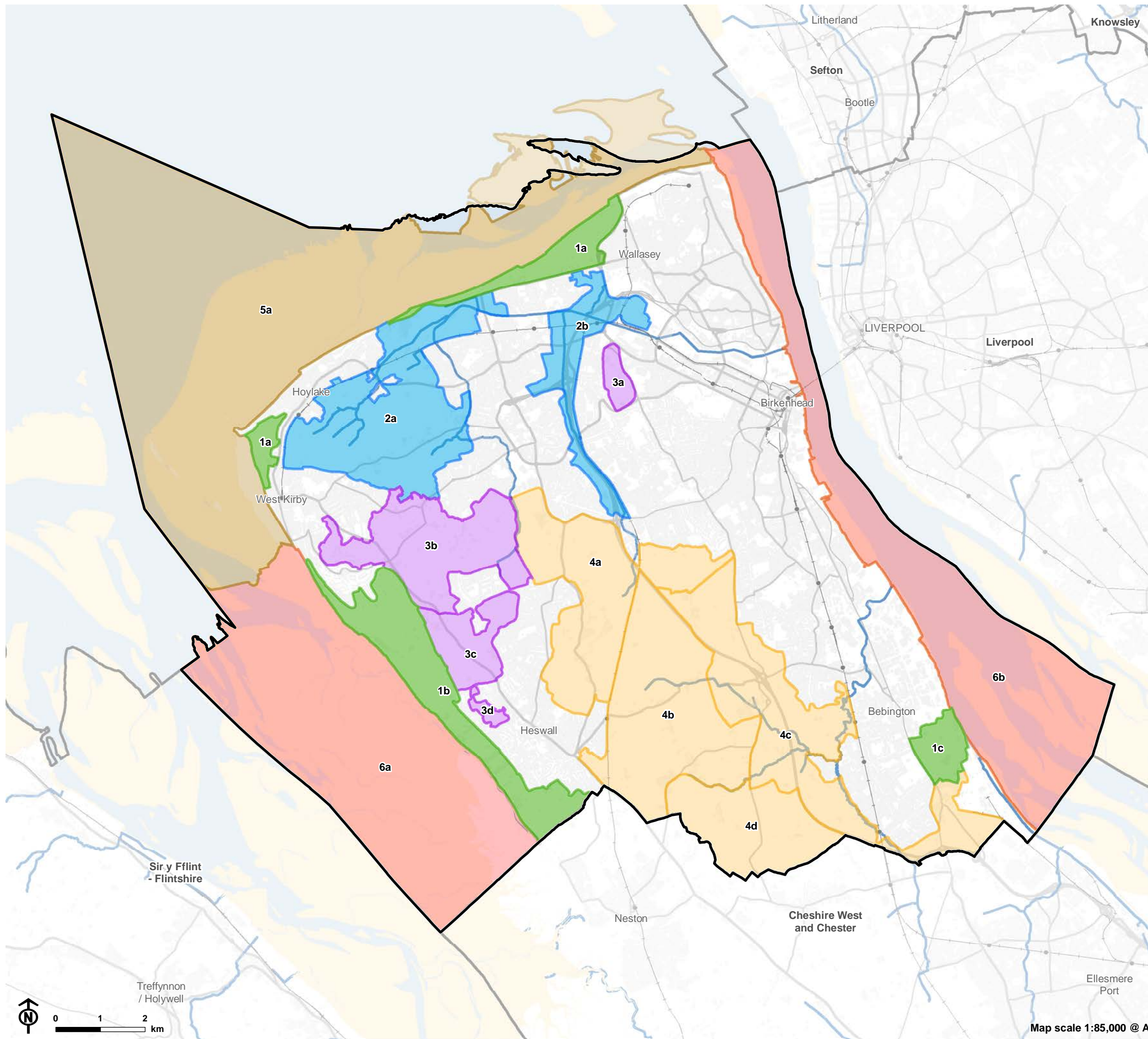
The coastal landscape and seascape

3.162 Figure 3.9 identifies three areas of coastal landscape character, each of which has a distinct role:

- **Coastal/Estuarine Edge** (LCT 1), an open naturalistic landscape of flat or sloping land with expansive views out to sea, home to sand dunes, clay, cliffs, mudflats and saltmarsh, however with strong recreational function, including several golf courses.
- **Coastal Waters** (LCT 5), extending to the borough boundary in Liverpool Bay, with a high tidal range and extensive sand banks and mudflats. The frontage is defended by sea walls and sand dunes provide natural protection to settlements. The wide sandy beaches fronting coastal towns are also tourism draws.
- **Estuaries** (LCT 6), an area of mudflats, sandflats and saltmarsh, hosting internationally important habitats⁵⁸.

⁵⁸ Wirral MBC (2019), Wirral Landscape Character Assessment.

**Figure 3.9 Landscape and Seascape:
Landscape character areas**



3.163 Wirral's seascape is fundamental to the Borough's identity and to its attractiveness as a place to live and to visit. Both the Dee Estuary and the Mersey Estuary are home to internationally important habitats as well as key tourist and recreational destinations. While the waters of the Dee Estuary are in relatively good condition, the Mersey Estuary is in a process of recovery from a legacy of heavy industrialisation and modification over centuries. The seascape is heavily influenced by the presence of sea walls.

3.164 However, the seascape is likely to change as it is subject to multiple pressures. In particular, the threat of coastal erosion and coastal flooding. Nationally, recent research has shown that the UK is on course to lose a quarter of its sandy coast due to human-driven erosion and coastal flooding, likely to be exacerbated by climate change⁵⁹.

3.165 The Liverpool City Region aims to pursue an approach of 'integrated coastal management', and there will be a need to explore a number of mechanisms to help the seascape deal with pressures, which will include an exploration of those which work with natural processes.

3.166 Coastal management around the peninsula is guided by the 2016 Shoreline Management Plan (SMP)⁶⁰. SMP policies will also inform conservation and green space planning inland where 'upstream' measures are required to adapt to changes in sea level rise and flood risk.

3.167 The SMP⁶¹ sets high-level policy for the management of risks associated with natural coastal processes around the Wirral peninsula, considers hard defence measures and some lower intervention, natural process-led approaches. These processes have the potential to alter the character of the landscape and seascape at the coast.

The inland landscape

3.168 As a peninsula, Wirral's seascape and coastline can dominate attention. However, the centre of the peninsula is made up of the following landscape character areas, as shown on **Figure 3.9**:

- **River Floodplains** (LCT 2): low lying land in the north around the Rivers Birket and Fender, surrounded by wetland habitats, popular for recreation but with large areas of underused land.
- **Sandstone Hills** (LCT 3): prominent sandstone ridgelines including Bidston Hill, Thurstaston and Heswall Dales interspersed with rolling farmland, with important woodland and heathland habitats and expansive views.
- **Lowland Farmland and Estates** (LCT 4): gently rolling farmland with a strong estate character and historic country houses and some semi-natural woodland with much of the land owned by the Leverhulme Estate, a key partner in Wirral's landscape since the mid-19th century⁶².

3.169 Altogether, just over one-quarter of land in Wirral is used for agricultural purposes, and is predominantly dairy. The key apparent trend in recent years in agricultural areas is the amalgamation of farms and intensification of the industry. Intensive management of agricultural land, while playing an important role in food production, can also limit the functions of the landscape in a number of ways. Two of these are key:

- Firstly, it can threaten the landscape's ability to store carbon in the soil under the ground, which plays an important role in addressing the climate emergency.
- Secondly, the use of herbicides and pesticides, the removal of hedgerows, and other intensive practices contribute to the ongoing national and global biodiversity crisis. To

⁵⁹ Voudoukas et al (2020), 'Sandy coastlines under threat of erosion', Nature and Climate Change 10, 260-263.

⁶⁰ North West England & North Wales Coastal Group (2016) North West England & North Wales Shoreline Management Plan SMP2: Main SMP2 Document. A partnership project between the Government environment agencies of England and Wales as well as all LPA spanning the coast from Great Orme Head to the Scottish Border. The SMP provides an assessment of, and high-level policy for, the sustainable management of risks to both people and the environment that are associated with natural coastal processes. Wirral's coast lies within sub cell 11a of the SMP.

⁶¹ North West England & North Wales Coastal Group (2016) North West England & North Wales Shoreline Management Plan SMP2: Main SMP2 Document. A partnership project between the Government environment agencies of England and Wales as well as all LPA spanning the coast from Great Orme Head to the Scottish Border. The SMP provides an assessment of, and high-level policy for, the sustainable management of risks to both people and the environment that are associated with natural coastal processes. Wirral's coast lies within sub cell 11a of the SMP.

⁶² Wirral MBC (2019), Wirral Landscape Character Assessment.

illustrate, in the UK, the Farmland Bird Index shows a decline of 48% between 1970 to 2007.

3.170 Any action to address this challenge in Wirral will have to take account of a shifting agricultural policy context.

3.171 There is considerable uncertainty over the post-Brexit policy context for agriculture in the UK, with much awaiting the emerging Agriculture Bill. Currently, agricultural policy provides support to agricultural landowners based on land area, with some scattered 'Countryside Stewardship' grants which reward sustainable practices. However, with the introduction of the Agriculture Bill, the basis for payments is expected to shift to an emphasis on the delivery of 'public goods' – including improved water quality, flood management, recreational benefits and biodiversity. The impacts of these changes at farm level are currently unclear.

Shaping the landscape as a 'carbon sink'

3.172 The UK's 25 Year Environment Plan calls for moves to bolster the country's 'natural capital', in part by sequestering carbon, or 'locking' it up either under the ground or in woody biomass. It is now widely recognised that active carbon sequestration within the landscape will be key to achieving the nation's 'net zero' goals in order to combat the national and global climate emergency. One commonly cited way of achieving this is by expanding tree cover across the Borough. Other landscape types also play an important role in carbon sequestration, notably well-managed grassland and wetlands.

Sequestering carbon through trees and hedges

3.173 Wirral's Trees, Hedgerows and Woodland Strategy (2020-2030) describes trees as our 'natural armour' against climate change, and sets out an ambitious vision of planting 210,000 trees by 2030, with a goal of ultimately doubling the Borough's canopy cover. Expansion of hedges is also recognised as an important and complementary method of carbon capture, in addition to their important role in providing linear habitat corridors (see **Theme 1: Biodiversity**).

3.174 The LCR GI Strategy supports the delivery of the Mersey Forest Plan, with a goal of increasing woodland cover in areas of greatest need, to 'deliver more from trees' and to 'achieve a woodland culture'. The Mersey Forest itself acts as a woodland 'gateway' to connect

with the wider initiative of the 'Northern Forest', which seeks to create an unbroken belt of forest from Liverpool to Hull.

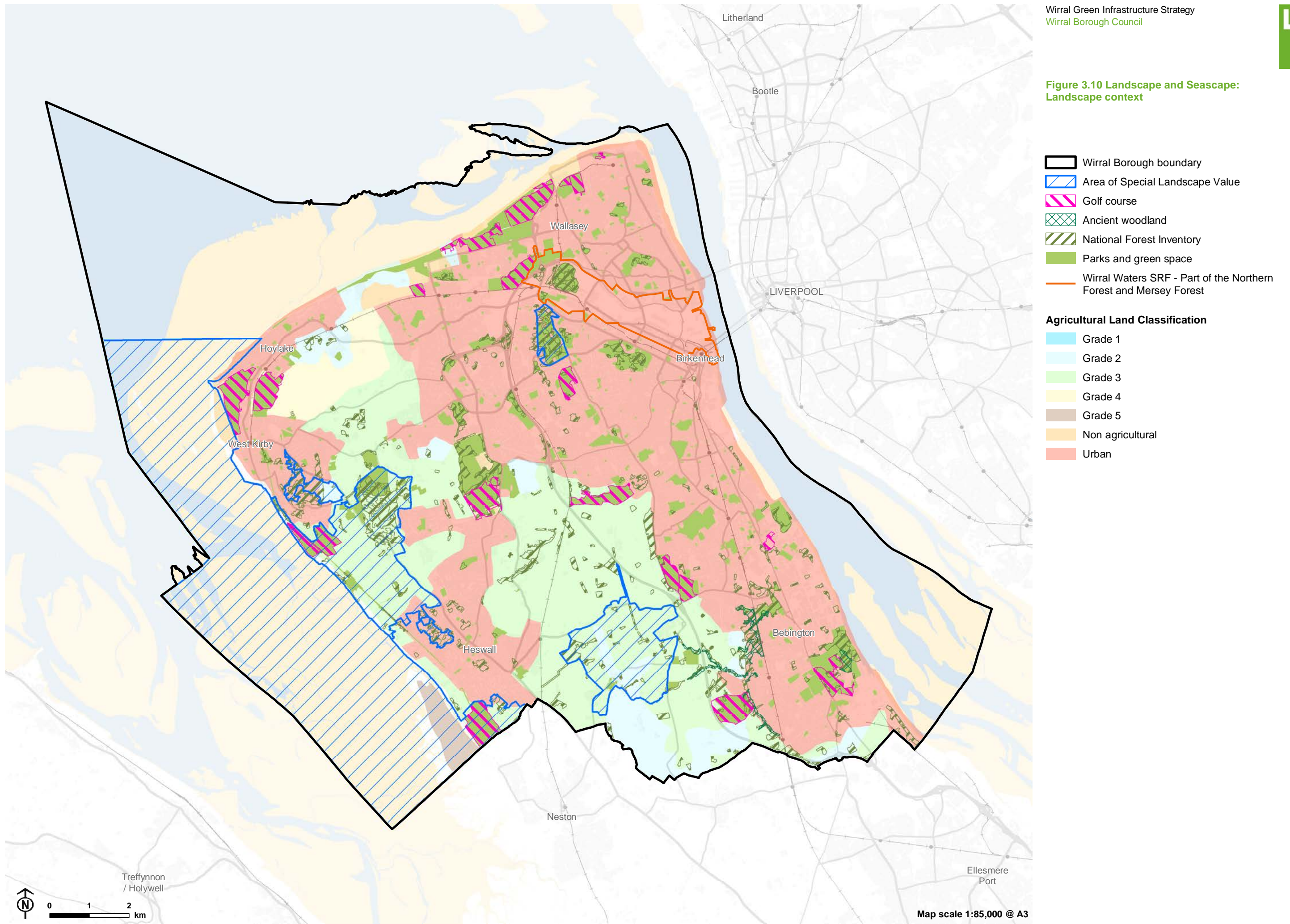
3.175 Wirral Waters forms part of both the 'Northern Forest' and also the Mersey Forest. The wider Wirral peninsula does not form part of the Mersey Forest, but it lies directly on its border. Connecting with the wider context of the Mersey Forest will be important in prioritising woodland expansion and planning for woodland connectivity across the region.

3.176 Woodland cover across Wirral is relatively sparse and fragmented. Overall tree canopy coverage currently stands at an estimated 13%, slightly below the national average of 16%. However, the 2020 Tree, Hedgerow and Woodland Strategy cites measures which show that less than 5% of Wirral is woodland. The most densely wooded areas are found around the sandstone hills of Thurstaston Hill, Caldys Hill and Royden park in the west of the peninsula. Other wooded areas include stretches of 'riparian' woodland along the banks of waterways including Dibbinsdale Brook and Clatter Brook. Data illustrating tree canopy cover (see **Figure 3.10**) highlights particularly low cover in the Wallasey area, as well as in Birkenhead, with highest cover in the south of the Borough. It should be noted that canopy cover would be expected to be lower in coastal settlements.

3.177 These wooded areas provide a valuable contribution to the landscape but are under pressure from challenges including: the loss of mature hedgerow trees; agricultural intensification; lack of appropriate management; and the increasing prevalence of pests and diseases. The latter notably includes the threat posed by 'ash dieback', which is now present in Wirral, is projected to have a significant impact on the nation's stocks of ash trees over coming years and requires urgent action. The Trees, Hedgerows and Woodland Strategy expects losses of between 20 and 35% of Wirral's current trees. One of the best approaches for ensuring woodland resilience is to plan a variety of tree species as part of upcoming planting ambitions, taking these factors into account early on in the design stage, and in allowing for natural regeneration where possible.

3.178 The on-going management of new and existing trees will be key in shaping a resilient landscape. The Trees, Hedgerows and Woodland Strategy adopts a policy of the 'right tree in the right place' and it is vital this is given adequate thought. The focus must not only be on planting new trees, but on leaving space for natural regeneration.

**Figure 3.10 Landscape and Seascape:
Landscape context**



3.179 Wherever woodland expansion is being considered, it is important to ensure that wise decisions are made on where to plant. A 2020 report by the UK's Natural Capital Committee⁶³ has warned that poorly planned trees can 'do more harm than good' but increasing greenhouse gas emissions if planted in the wrong places.

3.180 The detailed site identification strategy required for a planting and natural regeneration program requires the analysis of a number of factors and lies beyond the scope of this study. However, the 2019 Landscape Character Assessment (LCA) highlights a number of broad parameters:

- Increasing native deciduous woodland cover to better integrate the edges of settlement.
- Enhancing and augmenting existing linear copses and woodland along transport corridors, such as along the M53.
- Incorporating woodland to soften industrial development.
- Expanding cover of deciduous woodland habitat within Nature Improvement Areas (NIAs) as directed.

3.181 Expansion of woodland cover in Wirral could also be targeted toward expanding existing woodland assets close to the Cheshire West and Chester boundary. Connecting with woodland in the neighbouring authority would serve as a 'gateway' to connecting in turn with the wider Northern Forest initiative, with habitat connectivity in mind.

3.182 The Trees, Hedgerows and Woodland Strategy highlights certain areas as unsuitable for tree planting, including species-rich grassland such as Wirral Country Park, marshes (such as Bidston Moss), lowland heathland (such as Thurstaston Common), and sand dunes (such as Harrison Park).

3.183 In urban areas, emerging funding opportunities for boosting urban tree cover provide an opening for increasing tree cover, and are covered in more detail under **Theme 6: Tourism, Heritage and the Rural Economy**.

3.184 Increasing woodland cover also brings opportunities to harvest local sources of wood fuel, through sustainable management of woodlands and selective thinning of woodland resources. There is an opportunity to draw on precedent from elsewhere to produce wood from fallen trees, thinnings, cuttings and brash, and to make creative use of these resources, with community involvement.

3.185 Furthermore, the Trees, Hedgerows and Woodland Strategy provides support for the expansion of local tree nurseries in order to provide future tree stock. Currently in 'urban greening' strategies the majority of tree stock is imported. The 'tree lines' proposed project aims to explore the use of 'meanwhile use' land for growing trees, making use of the Borough's derelict sites, engaging both schools and commercial growers.

Sequestering carbon through grassland and wetlands

3.186 The 2020 Natural Capital Committee report notes that, despite the huge publicity given to the UK's tree planting plans, conserving carbon in soils and other parts of the landscape is equally important.

3.187 Unlike forests, grasslands sequester most of their carbon underground, rather than in woody biomass or leaves. As soil is an important carbon store, maximising the coverage of grassland in the Borough helps to build up carbon stocks fixed underground. The 'Resilient Parks' toolkit drawn up for Wirral provides guidance on how the Borough's green spaces can be managed to maximise this benefit⁶⁴.

3.188 Similarly, all forms of wetland are carbon sequestering systems and as such their creation and restoration is supported by the 25 Year Environment Plan and they are among the most important ecosystems to draw on in both global and local responses to climate change. The 'blue' component of the planet's carbon sinks is often overlooked, however some studies

⁶³ Natural Capital Committee (2020), 'Advice on using nature based interventions to reach net zero green house gas emissions by 2050' [Online] Available at: Natural Capital Committee (2020), 'Advice on using nature based interventions to reach net zero green house gas emissions by 2050.'

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878265/ncc-nature-based-interventions.pdf

⁶⁴ Wirral Resilient Parks Project (2015)

find that tidal marshes - which are widespread within Wirral's seascape - and other vegetated coastal habitats rank among the most efficient bio-sequestration systems on the planet⁶⁵.

3.189 Consultation with local stakeholders highlighted concerns over the pressures on Wirral's salt marsh habitats, preventing them fulfilling their potential in the landscape.

Shaping a resilient landscape

Thinking differently about flood resilience

3.190 Given the peninsular landform of Wirral, the Borough is heavily influenced by the water it is surrounded by. As such, and given the influence of climate-change related weather patterns, there is a need for Wirral's landscape to be increasingly resilient to flooding. Consultation with local stakeholders revealed widespread concern about the potential impacts of flooding, particularly along the North Wirral coast and River Birket corridor. This raises the need to think strategically about flood resilience, ensuring that GBI assets of all scales can contribute to helping manage water differently within Wirral's landscape.

3.191 Approximately 11% of the Borough's land area is currently at risk from flooding from the sea and/or watercourses, including river valleys associated with the Fender, Birket, Arrowe Brook and Dibbin. The distribution of flood risk is shown on **Figure 3.11**, and highlights that major areas of risk are centred around the River Birket and River Fender in the north of the peninsula, to the south of Hoylake. The 2019 Strategic Flood Risk Assessment (SFRA) highlights that the Borough also has extensive residential areas near the coast and inland watercourses, primarily along the Mersey coast and east of the M53.

3.192 The SFRA goes on to describe how Wirral is located within the Lower Mersey catchment area of the North West River Basin District (RBD), where river levels tend to rise slowly during heavy rain. However, some places on Wirral experience the combined effects of river and tidal flooding.

3.193 The coastline will need to be actively managed to ensure the risks posed by tidal flooding and coastal erosion are acceptable, however these coastal areas have been under significant pressure in recent years, from both development and recreational pressures.

3.194 The response to these pressures will not in every case demand an exclusively engineered solution but may lead to a more GBI-led solution to flooding pressures. Wirral Coastal Strategy (2013) set out an approach which views the coast as a system rather than isolated areas.

3.195 Wirral's tidal marshes not only act as a carbon sink but are also a key mechanism for keeping pace with sea level rise and in 'buffering' the effects of waves. This is likely to become an increasingly important function as sea levels rise, and as climate change leads to an increased frequency and severity of storms.

3.196 As such, in flood risk strategies produced for Wirral, there is strong support for working with natural processes where appropriate to boost flood resilience. The profiles for the Mersey Estuary NIA notes its role in helping deliver coastal protection through enhanced saltmarsh to reduce coastal erosion and flooding. In some cases. Recommendations in the 2019 SFRA include an investigation, in some places, of a 'managed realignment' of flood defences in order to both create flood storage and to create additional habitat. This process is an opportunity to create a more natural coastline by allowing sediment movement, which provides space for natural landward roll-back of saltmarsh, beaches or dunes in response to ongoing coastal change.

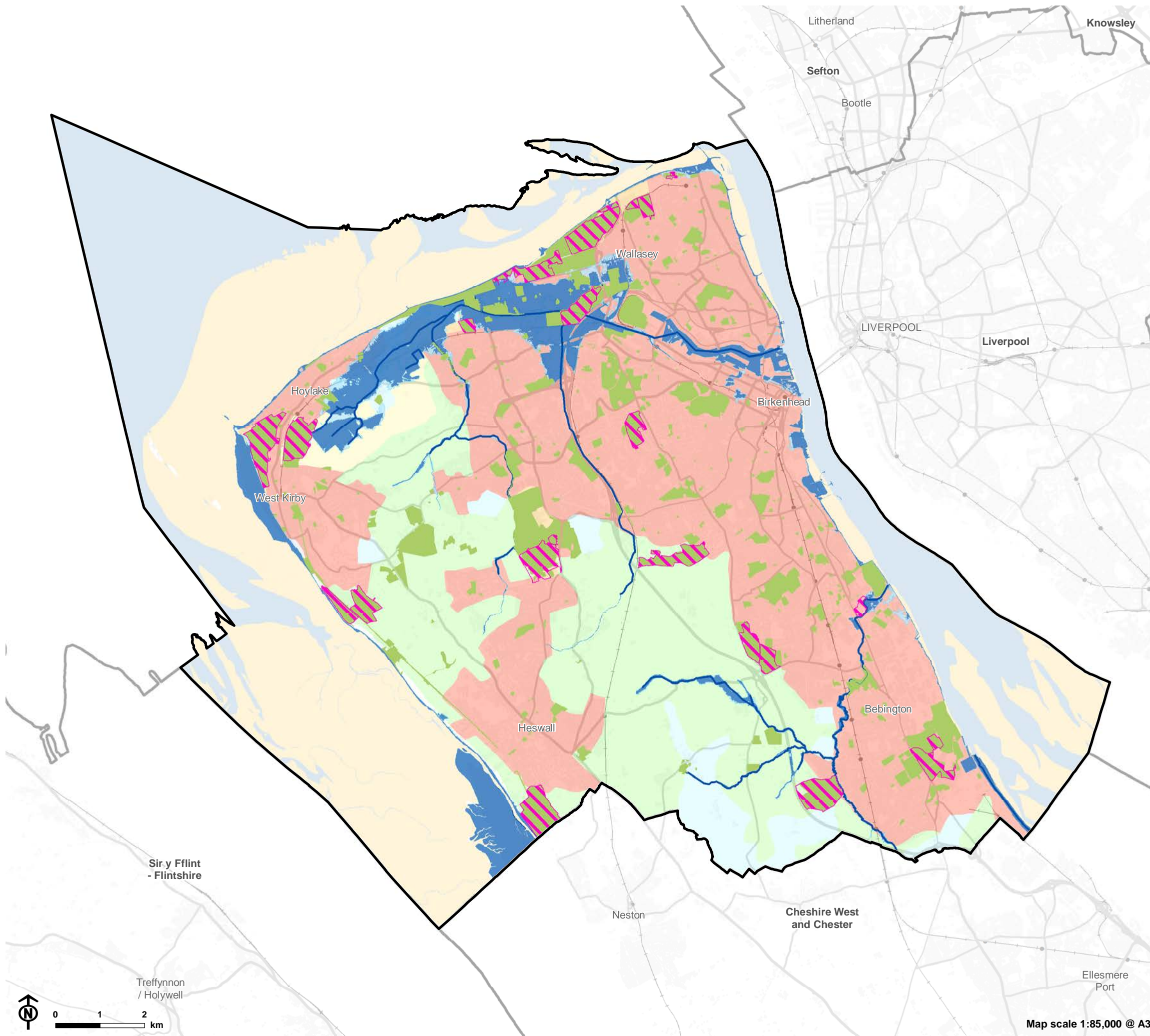
"We need to become more comfortable with water, and celebrate the fact that the land floods. This is not a bad thing, it can bring us taxonomic diversity and create mosaic of habitats."

(Stakeholder consultee)

3.197 Similarly, the naturalisation of river corridors is a nature-led solution to managing flooding. Recommendations for the River Birket NIA include the creation of wetland habitats,

⁶⁵ McLeod et al (2011), 'A blueprint for blue carbon: toward an improved understanding of the role of vegetated coastal habitats in sequestering CO₂', *Frontiers in Ecology and the Environment* 9, 552-560.

Figure 3.11 Landscape and Seascape:
Water assets and drainage



3.198 not only to support existing habitats but also for sustainable storage of surface water. The potential for creation of wetlands as part of flood defence works along the Birket and Fender were raised as opportunities.

3.199 Inland, parks, playing fields and other green spaces can also play an important role, as highlighted by the 'Resilient Parks' report produced for Wirral in 2015. The toolkit which accompanies this report – which recommends measures such as longer grass swards, organic mulches in planting areas, permeable surfacing, filter drains and swales, and waters storage in ponds and wetlands – can be used as a guide for management. The principles should be integrated into site management plans for all of Wirral's green space network.

3.200 In addition, there are a number of golf courses which lie in the vicinity of the River Birket Corridor and have a role to play in water management, notably Hoylake Municipal Golf Course, Leasowe Golf Course, Boston Golf Club and Moreton Hills Driving Range.

Landscape and townscape resilience to heat stress

3.201 The landscape also play an important role in adapting to the higher summer temperatures projected as an impact of climate change. This role will be addressed further within **Theme 5: Urban Greening, Placemaking and 'Placekeeping'**.

Summary of Key Issues

- Wirral's coast is under significant pressure from development and recreational influences, as well as climate change-induced coastal erosion and flooding, and these pressures will have to be carefully balanced over the Strategy's lifetime.
- Wirral's central agricultural landscape is at threat from increasing intensification, in line with national trends.
- There is a need to maximise opportunities for carbon sequestration in the Borough as a contribution to the country's journey to 'net zero', not only through woodland expansion but also the protection, restoration and creation of grasslands and wetlands and allowing carbon to be 'locked up' in soil.
- Increased threats of pests and diseases, including notably 'ash dieback' pose a threat to woodland cover in Wirral and are likely to be exacerbated by climate change.

- The peninsula is vulnerable to climate-related flooding, both coastal and surface-water flooding. Nature-based solutions, and making the most of the peninsula's tidal marshes and river valleys, will be required alongside engineered solutions in order to boost resilience to flooding and sea level rise.
- Parks and green spaces, old and new, should be designed and managed wherever possible with nature-based flood management in mind, drawing on Wirral's existing 'Resilient Parks' toolkit.

Theme 5: Urban greening, placemaking and 'place-keeping'

Woven between some of Wirral's most spectacular landscapes are areas of poor environmental quality, struggling with an industrial legacy where the 'grey' overpowers the green. However, the upcoming development agenda in the Borough's urban areas presents the opportunity to put GBI back at the heart of Wirral's towns.

Objectives

Objective 5.1: To ensure that the GBI framework acts as an 'anchor' on which to build regeneration initiatives in Wirral's struggling urban areas following years of post-industrial decline, and to encourage families to remain in the city.

Objective 5.2: To provide an equal focus on 'placemaking' and 'place-keeping' by integrating GBI assets that will last and thrive in the long term.

3.202 The focus on 'urban greening' efforts will be in the wider Birkenhead area, along with further urbanised areas along the A41 corridor (Rock Ferry, New Ferry, Bromborough, etc). This is not only the area with the greatest challenges in terms of concentrated socio-economic and health deprivation, but will also be the focus of the majority of future development. As such, the GBI network in this location will need to be resilient enough not only to address existing shortfalls but to absorb the pressure stemming from future development.

3.203 The focus on 'place making' through greening features must be accompanied by an equally strong focus on 'place-keeping' to ensure that GBI features will thrive in the long term.

3.204 The key areas of focus, which support identified investment priorities (as shown on **Figure 3.12**) are:

- Birkenhead town centre
- Hamilton Square & Woodside
- Wirral Waters
- The A41 corridor

- Wirral International Business Park
- New Brighton.

3.205 The Wirral Waters site in particular – is transforming the large scale, degraded landscape around the former Birkenhead Docks. It is setting new quality and sustainability benchmarks and is a key delivery vehicle for delivering urban greening in the Borough, particularly those neighbourhoods in most need. Many of the issues and opportunities outlined below provide a 'green' framework for some of the more detailed exploration forthcoming within the Birkenhead Strategic Regeneration Framework (SRF) and other masterplans of urban regeneration.

3.206 The GBI network which supports these regeneration efforts must help to blur the 'red line boundary' drawn around redevelopment sites, and must focus too on surrounding neighbourhoods, to ensure that existing neighbourhoods are not neglected amid the regeneration agenda. This means building in a high quality environment to the Council's 'brownfield first' approach to future development, as well as 'greening' key routes between assets, such as Birkenhead Park in the south and Central Park in the north.

3.207 While this should not be seen as a panacea to social challenges in the Borough's most deprived neighbourhoods, it can certainly provide a strong foundation of health and wellbeing resource on which other policy initiatives can build.

3.208 One of the biggest challenges faced by this locality is the need to attract and retain young families to this area, which will rely on a high quality green space network.

Addressing areas of poor environmental quality

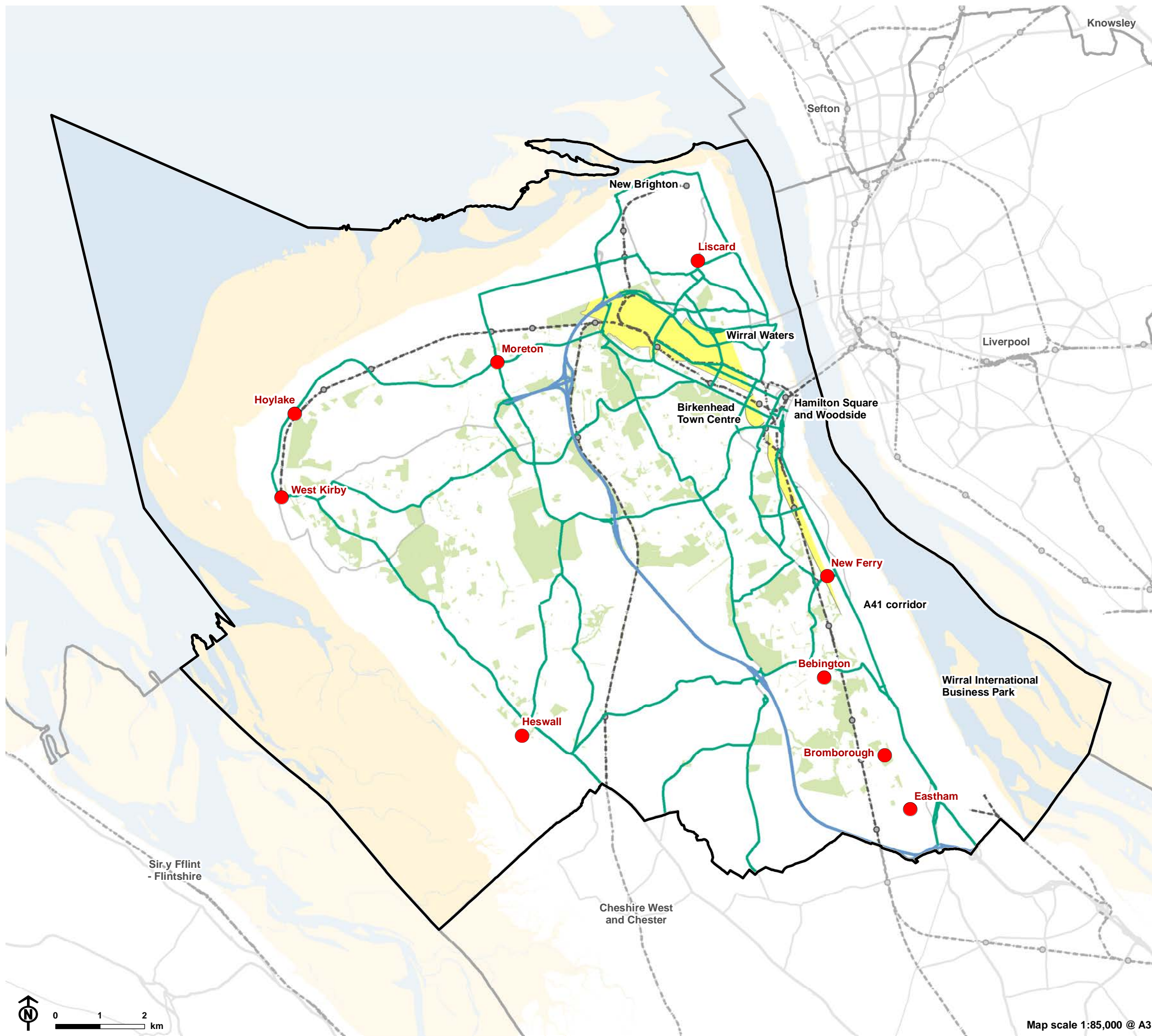
Wirral Waters and surrounding neighbourhoods

3.209 There is a widely shared vision for the Wirral Waters development as an exemplar of sustainability, and GBI has been embedded as a design driver.

"This is a river valley landscape, and the goal is to uncover that underlying landscape character"

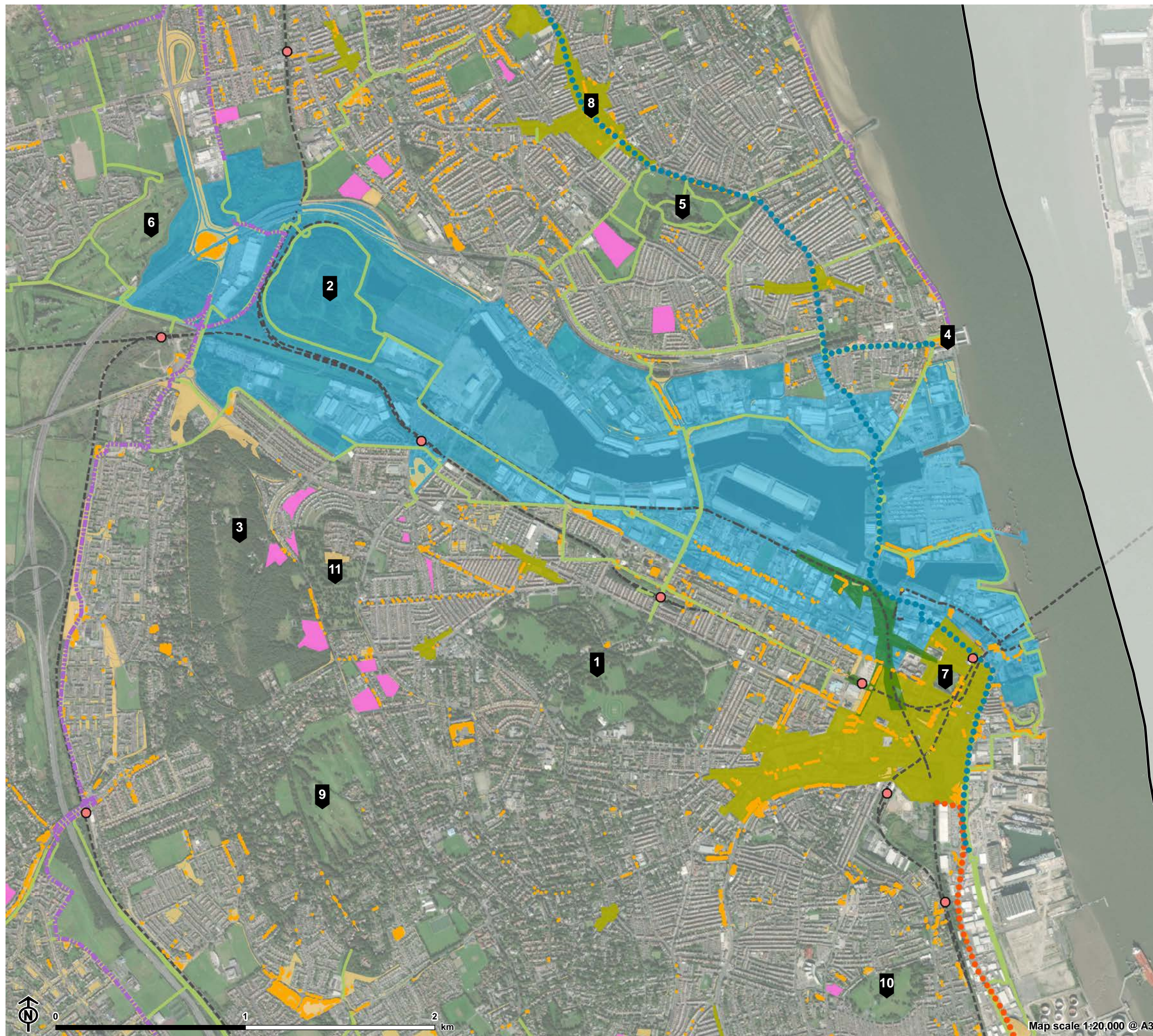
(Workshop consultee).

Figure 3.12 Urban Greening:
Regeneration and placemaking priorities



- Wirral Borough boundary
- Green blue infrastructure asset
- Local town centre spatial priority area
- Spatial priority area
- Motorway
- Strategic road
- Merseyrail network

Figure 3.13 Urban Greening:
GBI in the Birkenhead area



- Wirral Borough boundary
- Wirral Waters site
- Green corridor proposal
- Road verge
- Street tree
- Railway station
- Railway track
- Local cycle route
- National Cycle Network
- Retail centre
- Allotment

LCR Cycling and Walking Strategic Corridors

- New Brighton to Liscard
- Birkenhead to Ellesmere Port

- 11 Parks and key destinations

1. Birkenhead Park
2. Bidston Moss
3. Bidston Hill
4. Seacombe Ferry Terminal
5. Central Park
6. Bidston Golf Club
7. Hamilton Square
8. Liscard town centre
9. Wirral Golf Course
10. Mersey Park
11. Flaybrick Memorial Gardens

Map scale 1:20,000 @ A3

3.210 From a 'network' perspective, the Wirral Waters development will play an important role as a 'connecting piece' in two key urban GBI corridors, as shown in **Figure 3.13**:

- East-west between the waterfront via the docks and linking to the River Birket Corridor ('River Birkett Parklands'), taking in Bidston Moss. This would be centred on the 'City Boulevard', running along the current Beaufort Road, and later linking to run alongside the River Birket.
- North-south between north Birkenhead, Birkenhead Central and beyond to link with the A41 corridor toward the south of the Borough.

3.211 However, it is key that the effects of these transformation 'leak out' beyond the site boundaries to surrounding neighbourhoods - many of which are among the most deprived in the Borough. Vittoria Street (also shown on **Figure 3.13**) has been highlighted within the regeneration framework as a priority area for greening, as it runs through an area of high deprivation and forms the north-south link between Birkenhead Park and the Wirral Waters development site.

Regenerating Birkenhead town centre

3.212 The Strategic Regeneration Strategy describes Birkenhead town centre today as "*confused, fragmented, sterile and inflexible*" and the masterplan for a regenerated centre seeks to "*put the heart back in Birkenhead*".⁶⁶

3.213 A successful GBI network will be vital to delivering this transformation. Plans for the 'Sustainability Central' agenda include 'rediscovering' routes in and out of the central core and waterfront, as well as natural landscape features, and to bring a 'human scale' back to the central area. By weaving the GBI network through the centre, it can provide key support for the economic regeneration agenda.

3.214 Wirral Growth Company are developing proposals for the regeneration of Birkenhead town centre which seek to build on the town's existing strengths, assets and maritime location,

to create a dynamic centre. Opportunities should be sought to ensure GBI lies at the heart of regeneration acknowledging the significant role of urban greening (green walls, SuDs, tree planting, etc).

3.215 The growing evidence base on the impact of GBI shows that a healthy green-blue network cannot only deliver climate resilience, habitats and wellbeing but also prosperity – in part because business leaders deciding where to locate their organisations will choose places that attract highly skilled workers – and highly skilled workers want to live in attractive green places. Tourists too are attracted by green places and likely to spend their money in them, in addition to benefits for employee productivity⁶⁷.

Deteriorating air quality

3.216 Wirral has never declared any Air Quality Management Areas (AQMAs). However, due to declining air quality, several parts of urbanised areas are now "*on the cusp*" of needing to declare, according to stakeholders consulted.

3.217 The impacts of poor air quality are well documented, and Public Health England have described it as "*the largest environmental risk to public health in the UK*".

3.218 The GBI network can contribute in a variety of ways to tackling poor air quality – largely by providing greenways and active travel routes which reduce reliance on the private car, by providing walking and cycling links to public transport nodes, and due to the ability of some types of vegetation to capture particles of air pollution and reduce public exposure in urban areas⁶⁸.

Street trees

3.219 Wirral's Trees, Hedgerows and Woodland Strategy (2020-2030) notes that trees are not only invaluable on a landscape-scale for carbon sequestration and other ecosystem services, but are equally important to Wirral's sense of place, for public perceptions of the Borough and inward investment into it. As such, it sets ambitious goals for protecting and increasing the

⁶⁶ Available online:

<https://www.wirral.gov.uk/sites/default/files/all/business/Regeneration/Strategic%20Regeneration%20main%20report.pdf>.

⁶⁷ TCPA (2019), 'Green Places, Successful Places: why local leaders are prioritizing investment in making towns and cities greener'.

⁶⁸ See Mayor of London (2019), 'Using Green Infrastructure to Protect People from Air Pollution' [Online] Available at: https://www.london.gov.uk/sites/default/files/green_infrastructure_air_pollution_may_19.pdf

Borough's 'urban forest' and the role it plays in softening the urban environment, filtering particular matter and creating healthier places.

3.220 Consultation with key stakeholders revealed a strong desire to increase canopy cover in urban areas and to support the Tree Strategy and to provide stronger protection for existing local trees, suggesting that:

"too many trees are felled for spurious safety reasons..... or because of perceived problems."

3.221 To date, 1500 trees have been planted within the Wirral Waters area, as part of the Setting the Scene for Growth Tree Planting Programme, Northbank Streetscape Project and Tower Road Streetscape Project. This has been achieved through a variety of funding streams. There are also plans for tree planting along the Leasowe to Seacombe corridor at Wallasey Bridge Road and Beaufort Road.

3.222 Funding from the government's Urban Tree Challenge (UTC) grant will be used to increase street tree cover at 15 sites in urban and peri-urban areas, and includes establishment costs for a 3 year period.

3.223 However, it is vital that the Borough's street tree planting strategy must go beyond a focus on numbers. Trees in urban spaces face a difficult environment and in hard landscaped areas it is notoriously difficult to establish healthy trees which provide strong canopy cover and thus provide the multiple benefits we expect from them (cooling, shading, capturing particulates etc). Even if the quantity of street trees delivered is lower, it is important that sufficient investment is made in high volume tree pits which will allow trees and their roots to properly establish in the long term. This is because a large portion of urban trees that are planted do not reach maturity.

3.224 A 'design guide' for street tree planting may be required to accompany the 2020 Trees, Hedgerows and Woodland Strategy, which sets out parameters for designing for the long term for Wirral's trees in urban areas. The guide should also set out appropriate locations for specialist SUDS tree pits, the use of which should be maximised to allow the infrastructure to deal with stormwater runoff without the pit becoming waterlogged.

Beyond street trees: rain gardens, urban meadows, green roofs and green walls

3.225 There are a myriad of options for 'greening' streetscapes in urban areas, and together they can form a mosaic of urban GBI providing a rich range of ecosystem services:

- **Linear rain gardens or 'bioswales'** capture stormwater runoff, relieving pressure on the sewer system and acting as a natural water filter. In a linear form they can fit in the space between pavements and curb as part of a wider 'walkability' and public realm enhancement agenda, supporting traffic calming and acting as physical 'buffers' from traffic where appropriate.
- **Urban meadows** provide a burst of colour to enliven the public realm, can be incorporated into small 'forgotten' spaces and support the National Pollinator Strategy.
- **Green walls** serve as striking features in the streetscape and fulfil a range of functions, including biodiversity, urban cooling and air purification, but can be high-cost.
- **Green roofs** utilise neglected areas to aid both stormwater runoff, support wildlife habitats and pollinators, and boost thermal performance. The city of Utrecht installed green roofs on over 300 bus stops.
- **'Parklets' or 'pocket parks'** can make use of under-used pockets of urban space for sitting, eating and interaction and can incorporate planting. By creating parklets in former parking spaces, they can also address the dominance of parked cars in a streetscape like Birkenhead.

3.226 The reconfiguration of transport infrastructure which often comes with regeneration offers an important opportunity to 'design in' green elements.

Greening key 'gateways'

3.227 'Gateway' locations which link to public transport hubs – including ferry terminals, Merseyrail stations and Birkenhead bus station - should be the focus of greening efforts. Not only will public realm improvements at key gateways will create an improved sense of arrival,

but green and blue infrastructure can also aid legibility and wayfinding within an urban environment which will aid walking and cycling.

3.228 The area around Birkenhead Central Railway Station, and the adjacent Hind Street mixed-use development is a complicated and unwelcoming environment with poor quality public realm and 'severance' barriers to walkers and cyclists. As part of the regeneration context in Birkenhead, there are plans to regenerate this area, and it is crucial that GBI assets are successfully woven into this site, as the 'green gateway' to Birkenhead.

3.229 'Greening' interventions around key gateways can be successfully combined with public art interventions to help create a sense of place that is deeply rooted in the local community. This can be found in the series of public murals in New Brighton's Victoria Quarter installed to bolster the town's regeneration and involve local artists. Public art can also be used to deliver an environmental message that supports the 'green' messaging and engages local people in debate about the landscape around them.

Greening key 'corridors'

3.230 Equally, key 'corridors' will also need greening, with a focus on strategic routes. The A41 corridor in particular (see **Figure 3.13**) currently offers poor environmental quality, limiting its attractiveness as a cycling and walking corridor, and is an area of particularly poor air quality. Urban greening can help to address both of these challenges, and complement traffic calming initiatives, as are being developed by the transport authorities.

3.231 Similarly, it is important that a green corridor is opened up around the dock waterfront at the heart of Wirral Waters site.

Rewilding Wirral's 'lost spaces': road verges and derelict sites

3.232 Wildflowers on road verges are an area where there is increasing precedent across the UK for both boosting biodiversity and linear habitat connectivity, and providing an aesthetic improvement to townscapes in urban areas. Derelict sites, which proliferate across Wirral's

urban landscape, also offer an appropriate opportunity for injecting wildflower landscapes into the streetscape.

3.233 Guidance on 'Wildflowers for Transport Projects' was produced by the Merseyside Transport Partnership in 2010. The guidance provides advice on site selection for wildflower verges, including local soil types, health and safety considerations and site selection.

3.234 In turn, these wildflower interventions can improve the image of an area, assisting in the shift in perceptions of Birkenhead from 'grey' to 'green', and the use of 'wildflower trails' for leisure purposes can also boost the tourism economy (see **Theme 6: Tourism, Heritage and the Rural Economy**)

3.235 Given the legacy of Birkenhead's industrial development and subsequent industrial collapse, many central neighbourhoods are littered with derelict sites, which offer an opportunity for urban greening, whether in the form of urban meadows, food growing opportunities or woodland planting. Several areas of land around the former Birkenhead docks are likely to be suitable locations for these initiatives, as the various phases of Wirral Waters masterplan are built out.

3.236 Rather than simply 'walking away' from these sites as their previous use is no longer viable, there is significant opportunity to recycle derelict land and allocate it for uses which help to tackle the climate emergency and provide a health and wellbeing dividend.

3.237 Theme 4: Landscape and Seascape discusses the potential for using derelict land for woodland planting – in some cases even contaminated land can provide an opportunity for increasing tree cover, as a 'soft' end use that requires less stringent remediation than building residential properties. Trees are also effective at stabilising contaminated land by reducing soil erosion and off-site particulate migration⁶⁹. However derelict land can also be repurposed for community food growing initiatives, with a wealth of case studies available where this has been achieved, including the Shettleston Community Growing Project in Glasgow, where land previously used for building materials is contaminated but is used for raised beds for local residents.

⁶⁹ Forestry Commission (2002), 'Information Note: The Opportunities for Woodland on Contaminated Land'.

3.238 Theme 2: People and Communities provides more detail on the 'growing for health' agenda. Other opportunities include using this land for renewable energy generation, where GBI assets can also be weaved in.

Climate-proofing urban areas

3.239 Within the Liverpool City Region, Birkenhead has been highlighted as one of the areas at risk of heat stress, and GBI is able to help counter that effect by cooling high summer temperatures.

3.240 With increasing risk of flooding in urban areas, increasing the amount of permeable land use as part of new development will become increasingly important, as will features such as 'rain gardens' which can better manage surface water run-off.

'Place-keeping'

"Placemaking is the easy bit, but 'place-keeping' has been neglected"

(Stakeholder consultee.)

3.241 Street trees can create great value for a streetscape, however, streets can offer a very unnatural environment for tree, and so need special care and protection. While a focus on increasing the number of trees is understandable, this must be balanced against the need for sufficient up-front investment in planting materials and tree pits, to ensure the tree will be able to reach maturity and provide a full range of ecosystem functions. By providing high quality tree pits, the opportunity also arises to integrate the 'blue', by using the pit to intercept rain and store water (see **Theme 4: Landscape and Seascape**).

3.242 For example, when trees are planted alongside highways, it is vital that budget is in place for the Highways Agency to maintain the trees on their land.

3.243 To date there have been insufficient funds allocated for longer term maintenance of the Borough's tree stocks, and this challenge will only be heightened by the scale of the Borough's tree planting ambitions.

Turning back toward the water

3.244 Wirral's 'blue' network provides the framework and setting for developments within the peninsula, and is what Wirral is known for. However, several areas of the Borough's waterfront are currently not maximising their potential, particularly in and around Birkenhead on the Mersey Estuary. A process of 'turning back toward' the city's waterfront, including its docklands, should form the basis for regeneration efforts. Indeed the Borough's Strategic Regeneration Framework (2020) seeks to *"use the unique water assets of the city to driver growth"*, including for *"play and placemaking"*, and Wirral Waters development has ambitions to be the most sustainable Economic Zone in the country.

3.245 The 2022 launch of the new family-focussed Eureka! Mersey visitor attraction as a renovation of the Seacombe Ferry Terminal – along with the adjacent waterfront green space - presents an opportunity to provide greater connections which open up the waterfront on the Mersey Estuary. Local stakeholders were supportive of growth *"starting at the waterfront"*, as has been the strategy across the waterfront in Liverpool. In particular, stronger links to the 'gateway' at Seacombe Ferry terminal were supported. There was a clear view that Wirral does not currently exploit its waterfront enough:

"We need to create a waterfront to match that of Liverpool to encourage business"

(Stakeholder consultee.)

3.246 Aside from coastlines and waterfronts, the integration of wetland habitats into new development also presents an opportunity to provide a high quality landscape setting for new development and to provide ecosystem services. The Wirral Waters development lies directly to the west of Bidston Moss and the wider wetland habitats along the River Birket Corridor. The development provides an opportunity to integrate into and enhance an important blue corridor through the north of the Borough.

Summary of Key Issues

- Wirral's urban areas suffer from a number of areas of very poor environmental quality.

- Wirral Waters is landscape-led and brings a unique opportunity for a dramatic GBI-led transformation of 'forgotten' areas of north Birkenhead. Projects delivered to date set new benchmarks in design quality and sustainability. Support is vital across the associated 'Partnership Neighbourhood Areas.' Wirral Waters must be accompanied by 'green grid' measures within the wider neighbourhood.
- 'Urban greening' measures should include street trees, but should also look beyond trees to a 'mosaic' of greening options including urban meadows and bioswales.
- Key 'gateways', including public transport nodes, representing important greening opportunities.
- A number of 'key green corridors' through urban areas must be maximised and lie at the centre of regeneration initiative as multi-functional GBI assets.
- 'Place-keeping' is a challenge and requires equal attention to the 'placemaking' agenda.
- Urban areas must be 'climate-proofed' by ensuring opportunities for intercepting stormwater and dealing with summer heat stresses.
- The wider Birkenhead area has historically 'turned away' from the waterfront, neglecting an important green-blue asset.
- The in-between 'lost spaces' of road verges and derelict sites are an under-used resource and represent an opportunity for wildflower meadows, either as permanent or as 'meanwhile use'.
- Air quality is deteriorating in Wirral, and the GBI network and 'urban greening' initiatives will have a role both in capturing particulate matter and encouraging walkable neighbourhoods and cycling as a modal choice.

Theme 6: Tourism, Heritage and the Rural Economy

Wirral's 'visitor offer' is dominated by the peninsula and the unique landscapes it offers. A well-connected GBI network offers the opportunity to support the Visitor Economy strategy by maximising these assets and helping to put Wirral 'on the map' as a beacon of sustainability, as well as by making the most of Wirral's valuable heritage assets, many of which are currently overlooked. Equally, the rural economy in the centre of the Borough is underpinned by the health of the environment that underlies it, and different management approaches offer the opportunity for this area to be a 'playground' for urban areas, a successful part of the local economy, and somewhere nature can thrive alongside agriculture.

Objective 6.1: To establish Wirral as a sustainable tourism destination by setting a benchmark in resilient, engaging and biodiverse tourist landscapes.

Objective 6.2: To ensure the GBI framework contributes to the Borough's network of heritage assets strengthening Wirral's role as a tourist destination.

Objective 6.3: To create greater harmony between the rural agricultural economy and the wellbeing of the environment through support for agri-environment stewardship schemes.

3.247 The Wirral Growth Plan highlights the 'strong visitor economy' as a key strength in Wirral and the Borough set an ambition of growing the visitor economy to £450 million by 2020.

3.248 Specifically, the peninsula draws visitors from a wide area because of its landscapes and reputation for an outdoor lifestyle. The character and quality of those landscapes will have a significant influence on the success of the Borough's visitor economy ambitions. The LCR GI Strategy highlights that some of the region's strongest tourism brands are based on the quality of the natural environment, particularly in areas such as the Dee Estuary.

3.249 There are a number of different 'landscape experiences' across the Borough, which need to be identified and enhanced through the GBI network, in support of the tourism and investment strategy.

Key destinations for nature tourism

3.250 Figure 3.14 highlights key nature tourism assets in Wirral.

3.251 Wirral's parks, beaches and countryside play an important role in the visitor economy. Annually around 6 million visitors come for the day and around 750,000 stay over, with 68% of those questioned in the 2011 Wirral Visitor Research Study citing the Borough's natural assets as the reason they viewed Wirral as better than the average location.

3.252 The Hilbre Islands Archipelago are an important draw for tourists, and tourists can travel by foot from West Kirby during summer months. However, the islands are protected by various conservation designations, including the Dee Estuary SSSI and being a Local Nature Reserve (LNR) themselves.

3.253 Wildlife tourism – and particularly birdwatching – are a key draw along the Dee Estuary and makes a significant economic contribution to the Borough.

3.254 The Borough's active travel network, and particularly 'greenways' like the Wirral Way and the proposed disused railway route in central Birkenhead, are a key tourist attraction in themselves. Visit Wirral provides a high quality set of resources to publicise cycle routes in different parts of the Borough for visitors.

3.255 The creation of a re-animated water's edge across Wirral Waters together with a new leisure-led recreational and sports hub at Bidston Dock (linked with Bidston Moss) also shows potential for encouraging the visitor economy, as well as contributing to the health and wellbeing agenda.

Recreational pressure

3.256 The popularity of Wirral's natural assets among visitors is a double-edged sword, given that the peninsula's most vulnerable habitats are today suffering from recreational pressure, which is causing a deterioration in their condition. This threat is discussed in greater detail in **Theme 1: Biodiversity** along with potential mechanisms for easing pressure.

Figure 3.14 Tourism and the rural economy:
Key nature and heritage tourism assets

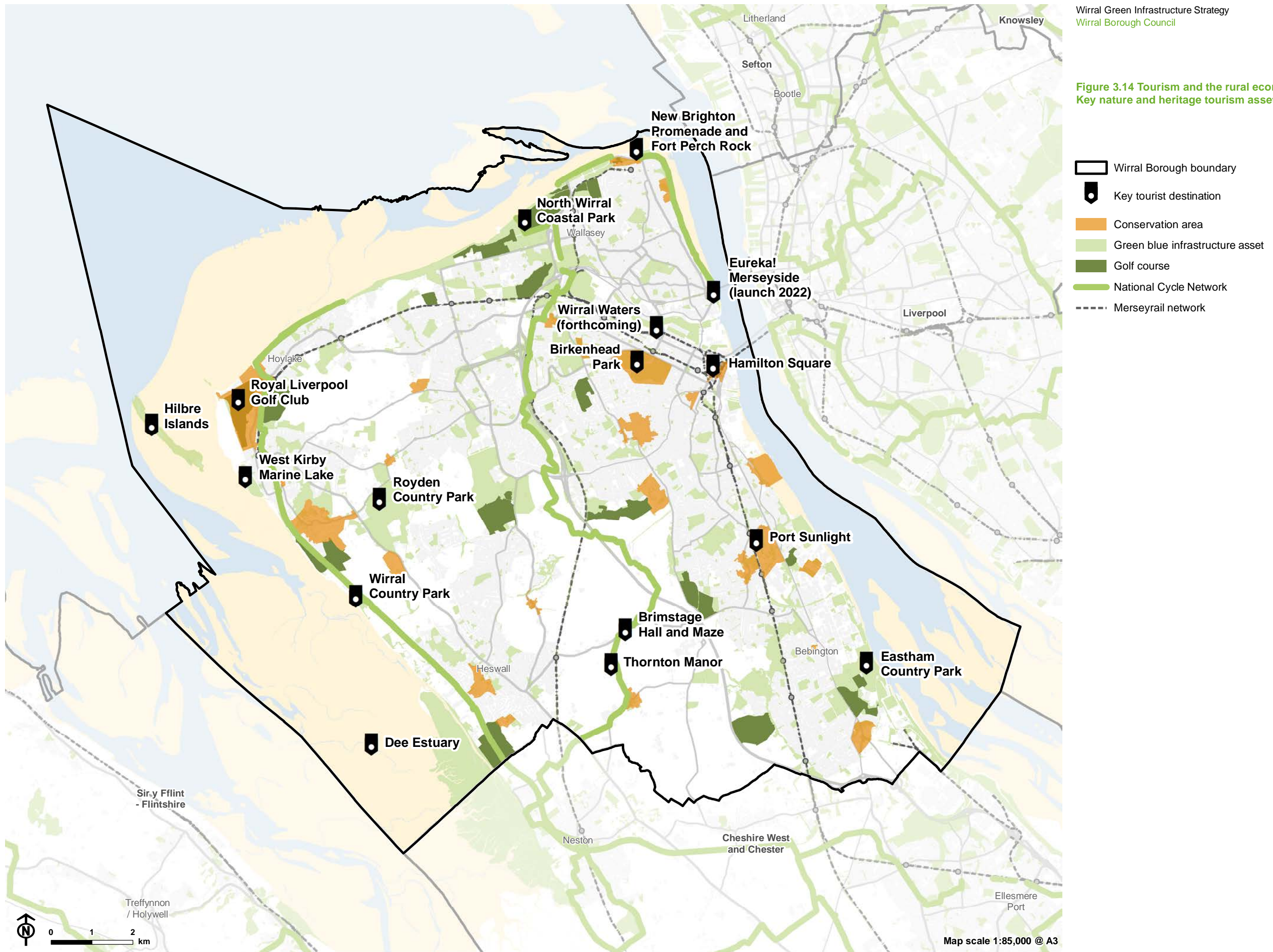
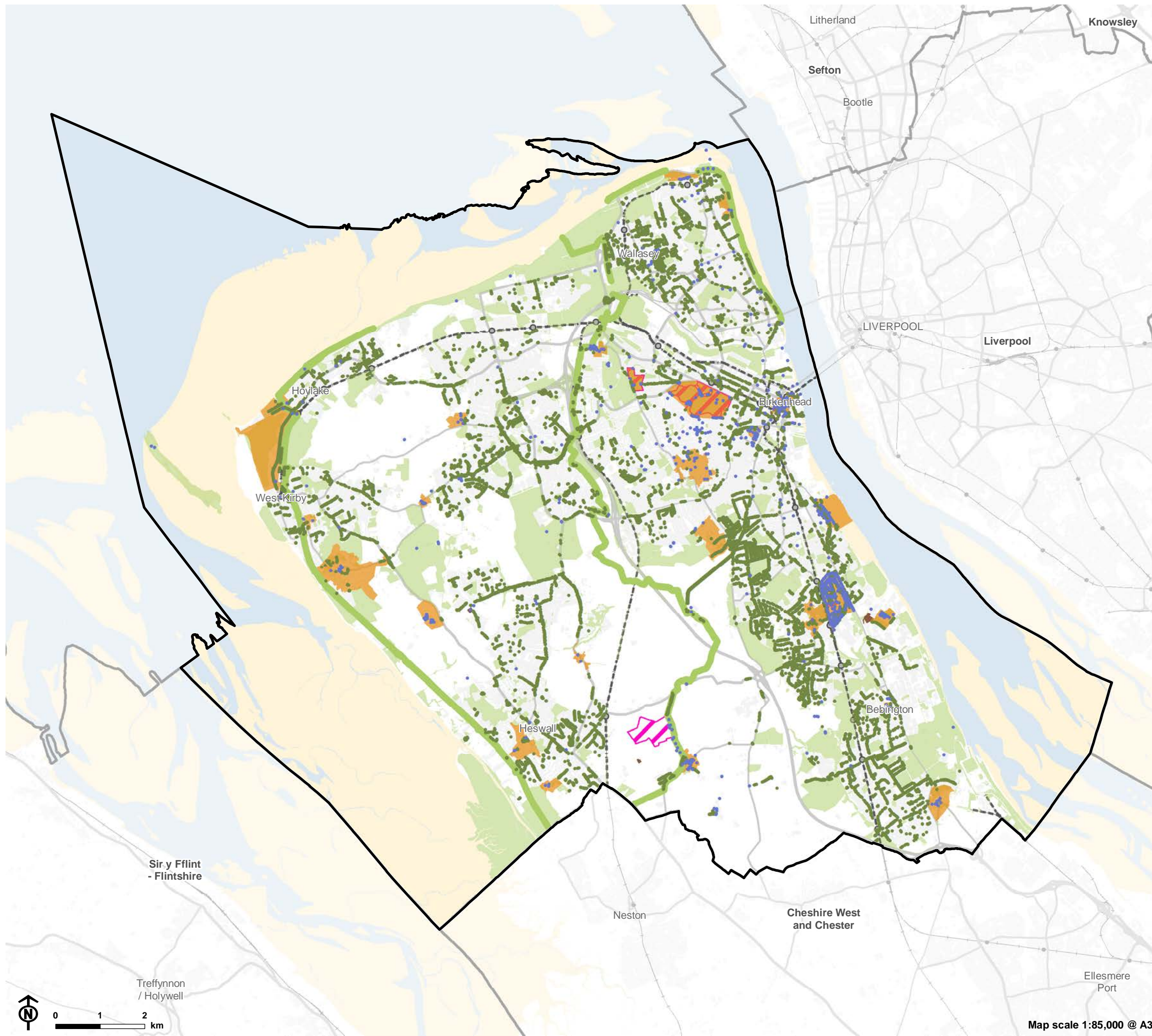


Figure 3.15 Tourism, Heritage and the Rural Economy:
Key heritage tourism assets



- Wirral Borough boundary
- Street tree
- Listed building
- Conservation area
- Scheduled monument
- Registered Parks and Gardens
- Green blue infrastructure asset
- National Cycle Network
- Merseyrail network



Map scale 1:85,000 @ A3

Heritage-led tourism

3.257 Many of Wirral's key GBI assets have an important role in the heritage of the peninsula – from Birkenhead Park to historic estates, coastlines and Port Sunlight Village. Many of the

3.258 Borough's registered Parks and Gardens are flagship heritage assets. These are referenced on **Figure 3.15**.

3.259 Port Sunlight draws visitors from far away and is well linked with both the public transport network and the Wirral circular trail / Wirral Way.

3.260 In Wirral's 'rural heartlands', historic villages also attract visitors, with Thornton Manor forming a key draw. As shown on **Figure 3.15**, the central part of the Borough is home to a number of conservation areas, centred on the historic villages of Thornton Hough and Barnston, and leading further north to Frankby and Saughall Massie via Arrowe Country Park.

3.261 A series of promoted walks through Wirral Conservation Areas and Heritage Trail is available online, which helps to guide both visitors and locals through the Borough's historic environment, which includes the Borough's 26 conservation areas and 40 key heritage assets, using the PRoW network.

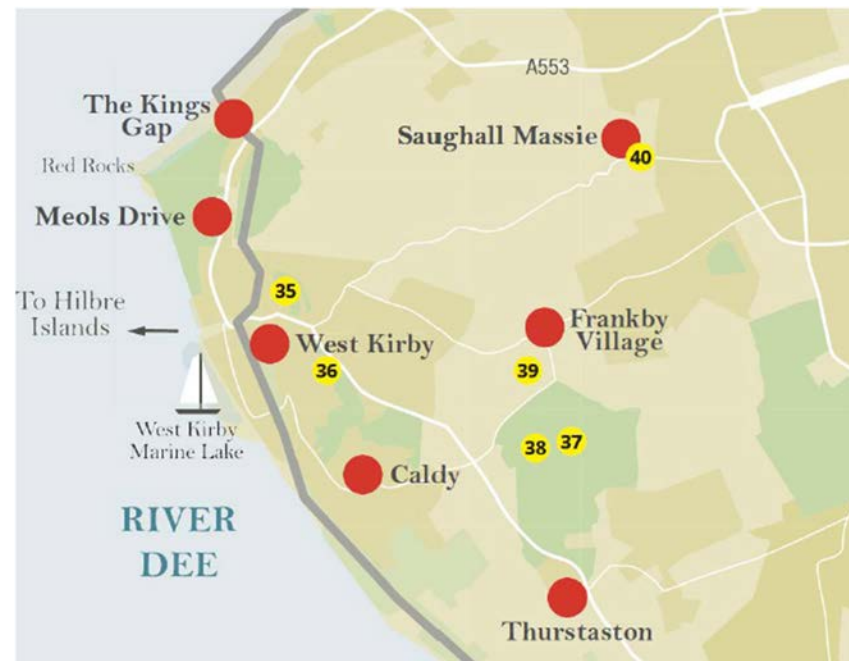
3.262 The Integrated Regeneration Strategy includes a vision for Birkenhead to also be 'firmly established on the tourist trail', maximising the town's cultural heritage assets. These include the world's first public park, Hamilton Square and views across to the Liverpool waterfront. The North East Section of the Conservation Areas and Heritage Trail illustrates connections between these assets. The regeneration plans, and 'urban greening' initiatives which support them (described under **Theme 5: Urban Greening, Placemaking and 'Place-keeping'**) will be key in enabling this tourism potential to be rediscovered.

3.263 Consultation highlighted that better access was required for 'out of the way' assets such as Birkenhead Priory, overlooked due its incongruous position amongst industrial units and functioning docks. Although the Priory is located along the Wirral Circular Trail, the trail in this location lacks character, aligning with an access route through an area of light industry. Birkenhead Priory is also a prime example of how the Borough's assets have historically turned their back to the water. This is explored further in **Theme 5: Urban Greening, Placemaking and Place-keeping**.

3.264 'Out of the way' tourist destinations, such as Williamson Art Gallery and Museum should also be better integrated into active travel networks and other destinations such as Birkenhead Park and Wirral Waters.

"Birkenhead Priory is a fantastic building, but many don't realise it's there."
(Stakeholder consultee).

Figure 3.16: Wirral Conservation Areas and Heritage Trail: North West section



3.265 The Wirral Waters site is envisaged as a key 'node' in the Borough's tourist trail of the future, and benefits to the visitor economy have been highlighted given the plans for an attractive waterfront environment with parks and green routes. The blue infrastructure is central to the creation of 'sense of place.'

3.266 Seacombe Ferry Terminal is a key gateway and heritage asset which is positioned to engage with the Mersey waterfront. The development of Eureka! Mersey heralds an opportunity to build upon the prominence of blue infrastructure within the Wirral Waters placemaking. There will be particular benefits in repairing links to and from the Mersey Estuary in this location in order to build on the successful Liverpool tourist market which includes 'super ferry' onshore tours.

3.267 Other opportunities for bolstering the Borough's heritage trail and the GBI network it supports include:

- The emerging 'Battle of Brunanburh' site. Following retrieval of a significant number of buried artefacts, Wirral Archaeology have developed a project entitled 'The Search for the Battle of Brunanburh.' Exhibitions showing the collected artefacts has the potential to bring in visitors to the area to learn about Wirral's viking heritage and generate tourism income.
- There is scope for further development of Wirral's Viking Age heritage as a tourism asset, a potential 'Viking coast' heritage route running from the Welsh border to Cumbria.

The Rural Economy

3.268 Theme 4: Landscape and Seascape highlights the trend for intensification of the agricultural industry in Wirral and its limitations on the landscape by way of reducing carbon sequestration and loss of biodiversity (through use of pesticides and herbicides and removal of hedgerow).

3.269 Currently, agricultural policy provides support to agricultural landowners based on land area, with some scattered 'Countryside Stewardship' grants which reward sustainable practices. However, with the introduction of the emerging Agriculture Bill, the basis for payments is expected to shift to an emphasis on the delivery of 'public goods' – including improved water

quality, flood management, recreational benefits and biodiversity. The impacts of these changes at farm level are currently unclear.

3.270 Theme 3: Walking and Cycling indicates the need to improve east-west movement caused by the severance of the M53 and gaps in the network around the historic village of Thornton Hough. Improved access into the central agricultural landscape through improved permissive routes has the potential to increase visitor numbers into this area and enable rural tourism and farm diversification.

3.271 The Mersey Rural Leader Fund, which ends in 2020, provided a stream of support for rural tourism, which was highlighted as of great importance for the visitor economy. As part of this programme, the Department for the Environment, Food and Rural Affairs outlined six priorities including increasing farm productivity; micro/small enterprises and farm diversification; rural tourism; rural services; culture & heritage; and increasing forestry productivity.

3.272 This will be replaced by a new Environmental Land Management Scheme. Consultation with the National Farmers' Union highlighted that *"positive engagement with farmers and landowners will be key"* to realising this opportunity.

3.273 Agricultural diversification can bring benefits to the wider local economy and placemaking. Wirral's Culture and Visitor Economy team promote and support local food providers through events such as the 2019 Food and Drink festival at Birkenhead Park which is also planned for 2021.

Wirral's 'golf coast'

3.274 Wirral has 14 golf courses and the golf heritage runs deep in the Borough, with Wallasey golf course being the birthplace of the 'Stableford scoring system'.

3.275 The Royal Liverpool course, which hosted the Open Championships in 2014, is a significant destination and has a large economic impact on the Borough's visitor economy.

3.276 However consultation with local stakeholders highlighted a concern that golf courses may be over-provided for, and that falling demand in line with demographic changes may lead to the need to rethink golf courses as a dominant land use, particularly in areas suffering from deficits in access to publicly accessible space.

3.277 There is an opportunity to further boost the 'golf coast' brand as part of the encouragement of more ecologically friendly management regimes discussed under **Theme 1: Biodiversity**.

Key destinations as 'nodes' in the GBI network

3.278 One key way in which the GBI network can support a sustainable visitor economy is to ensure that key destinations are linked as 'nodes' and are accessible via greenways or by active travel modes wherever possible.

3.279 These destinations may provide opportunities in themselves. For example, the 2022 launch of Eureka! Mersey at the Seacombe Ferry Terminal provides an opportunity to re-enliven the waterfront (see **Theme 5: Urban Greening, Placemaking and 'Place-keeping'**) along the Mersey Estuary, enhance the 'sense of arrival' and to re-connect fractured links.

3.280 It will also require a focus on active travel linkages between public transport nodes and key tourism assets, as illustrated on **Figures 3.14 and 3.15**.

Summary of Key Issues

- The strong visitor economy is a key asset in Wirral and there are ambitions to grow it. The borough's natural and coastal landscapes are a key draw.
- However, the popularity of these natural assets for visitors are putting pressure on the peninsula's most vulnerable habitats, which needs careful management.
- Wildlife tourism, particularly along the Dee Estuary and destinations such as the Hilbre Islands, are central to the Borough's visitor economy.
- The Borough's heritage assets play an important role in the tourism offer. Many of these lie outside the major urban areas, however, there are ambitions to draw tourists to the urban and industrial heritage assets in the Birkenhead area, including the regenerated Wirral Waters site and waterfront offer.
- Particular attention should be paid to integrating out of the way heritage and tourism assets such as Williamson Art Gallery and Birkenhead Priory into the active travel network.

- Some heritage assets are overlooked due to surrounding poor quality urban industrial areas.
- The rural agricultural economy is in a state of flux due to a shifting policy context. There are opportunities for diversification but this needs to be supported by active travel connections and greater appetite for agri-environment stewardship schemes.
- Wirral's 'golf coast' is a key draw, however there are opportunities to further develop its reputation as a sustainable industry.
- Better connections through active travel and 'greenways' will enhance the experience for visitors and tourists by better linking together key destinations, including at key 'arrival points' on the Mersey Estuary.

Appendix A: List of consultees

Consultee	No response	Consultation Hub response	Workshop attendance	Email	1-to-1 interview
<i>Neighbouring Authorities</i>					
Cheshire West and Cheshire Council	✓				
Sefton Council		✓	✓		
Liverpool City Council	✓				
Knowsley Council	✓				
St Helens Council	✓				
Halton Council	✓				
West Lancashire Council	✓				
Flintshire County Council	✓				
<i>Local Authority</i>					
WBC Tennis/Health Development Officer			✓		
WBC Policy Officers			✓		
WBC Planning Officers			✓		✓
WBC Tree Officers			✓		✓
WBC Sustainability Liaison Officer			✓		✓
WBC Environment Commissioner					✓
WBC Public Health					✓
WBC Green Spaces					✓
WBC Coastal Rangers			✓		✓
Merseyside Environmental Advisory Service					✓

Consultee	No response	Consultation Hub response	Workshop attendance	Email	1-to-1 interview
Merseyside Environmental Records Centre			✓		✓
WBC Flood Officer	✓				
Visit Wirral (WBC)				✓	
Wirral Wise / Eco Schools (WBC)			✓		
WBC Strategic Transport Infrastructure / Sustainable Transport Co-ordinator					✓
WBC Public Rights of Way Officer			✓		✓
Ward councillors		✓	✓	✓	
<i>Key national and regional bodies and Interested parties</i>					
Liverpool City Region (Walking and Cycling)			✓		
Liverpool City Region (Highways)	✓				
Nature Connected (LCR LNP)	✓				
The Environment Agency			✓		
Highways England			✓		
Canal and River Trust		✓			
Sustrans North West		✓	✓		
Historic England		✓			
National Trust	✓				
RSPB (Policy)		✓	✓		
CPRE (Cheshire, Lancashire, Liverpool City Region and Greater Manchester)		✓			

Consultee	No response	Consultation Hub response	Workshop attendance	Email	1-to-1 interview
Mersey Forest		✓			✓
Natural Health Service (Cheshire/Merseyside)			✓		
National Farmers Union		✓			
Forestry Commission (Yorkshire)	✓				
Marine Management Organisation	✓				
Cycling UK		✓			
Living Streets		✓	✓		
Cheshire Wildlife Trust			✓	✓	✓
Wirral Wildlife		✓	✓		
Mersey Rivers Trust					
Environment Bank			✓		
Community Action Wirral	✓				
Cool Wirral Partnership	✓				
Faiths 4 Change	✓				
Wirral Initiative Trees	✓				
Port Sunlight River Park	✓				
Dee Estuary Birding	✓				
Friends of Hilbre	✓				
Healthy Wirral	✓				
Dee Estuary Conservation Group	✓				

Consultee	No response	Consultation Hub response	Workshop attendance	Email	1-to-1 interview
Leasowe Nature Group	✓				
Greasby Greenbelt Action Group		✓			
For Trees Wirral	✓				
XR Wirral		✓	✓		
Defend Wirral's Green Spaces		✓			
The Heswall Society		✓	✓		
Wirral Tree Wardens		✓			
The British Horse Society		✓			
Greasby Community Association		✓			
Barnston Conservation Society		✓			
Hoylake Vision Community Planning Forum		✓			
Conservation Areas Wirral		✓			
Irby, Thurstaston and Pensby Amenity Society		✓			
ITPAS		✓	✓		
Hoylake Village Life CIC		✓			
Wirral Environmental Network		✓			
Friends of Heswall Dales		✓			
The Friends of Playbrick		✓			
The Friends of Wirral Parks Forum		✓			
The Friends of Heswall Dales			✓		

Consultee	No response	Consultation Hub response	Workshop attendance	Email	1-to-1 interview
Wirral Green Space Alliance		✓			
Wirral Active Travel Forum		✓			
Rethink Now CIC		✓	✓		
Birkenhead North End Cycling Club		✓			
The New Brighteners		✓			
Wirral PRoW User Group		✓			
The Wirral Society		✓			
Wirral Footpaths and Open Space Preservation Society			✓		
Friends Forum			✓		
<i>Major landowners, developers and housebuilders</i>					
Magenta Living	✓				
Leverhulme Estates			✓		
Alan Baxter Associates			✓		
Avison Young					✓
Avison Young, on behalf of Taylor Wimpey		✓			
Alpha	✓				
Anchor	✓				
Family Housing Association	✓				
Forum Housing	✓				
Heylo Housing	✓				

Consultee	No response	Consultation Hub response	Workshop attendance	Email	1-to-1 interview
Housing 21		✓			
Inclusion Housing	✓				
Onward Homes	✓				
Jigsaw Homes	✓				
Legal & General Affordable Homes	✓				
Prima Group	✓				
Pine Court	✓				
Plus Dane	✓				
Regenda	✓				
Redwing Living	✓				
Riverside	✓				
Sanctuary Housing Group	✓				
Sovini	✓				
Torus	✓				
Wirral Methodist	✓				
Peel Energy	✓				
Peel Ports	✓				
Parkinson Inc, for Wirral Waters and Peel L& P			✓		✓
Wirral Growth Company (Muse)	✓				
Riverside Housing	✓				

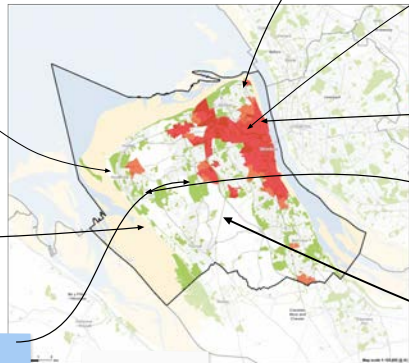
Consultee	No response	Consultation Hub response	Workshop attendance	Email	1-to-1 interview
THI North West Ltd	✓				
Elan Homes	✓				
Bellway Homes	✓				
Taylor Wimpey	✓				
One Vision Housing	✓				
Chamber of Commerce	✓				

Appendix B: Feedback from interactive workshops



Wirral Green and Blue Infrastructure Strategy: Welcome to our Virtual Workshop

Theme 2: People and Communities



A 'Delivery Plan' needed to accompany the Strategy

Very important to create local partnerships within the Plan

Can community groups be given greater responsibilities re maintenance... use of power tools to be reviewed?

A lot of 'hoops' have to be jumped through just to undertake litter picking. A genuine issue that inhibits the involvement of enthusiastic groups

There is a lot of very keen allotment owners... and big waiting lists

Existing conflicts on cycle routes / the Wirral Way. Safety issues

A lot of visual detractors along Heswall coastline

There is an "incidental" footpath network linked to Arrowe Park Hospital but there is poor awareness

Can we introduce adverts in, for example, GP's surgeries to increase awareness of the existing GI assets

Existing links need to be built on. New links need to supplement the network

Creation of a 'user guide' - inc. maps, cycle routes, what will you see (like nature), bin locations, benefits of health benefits, toilets. Communication infrastructure

Input from local tourism and parks team

SUSTRANS in N.Wales is an excellent precedent to refer to

A lot of existing and active community groups - can we bring this together and incorporate into plan

Bring "soft" and "hard" together

Events with families helps to increase footfall to area

RSPB to be engaged. Annual Wirral Wader Festival growing initiative

Existing project to link communities around the estuary. Collaboration and links required - to investigate further

Landscaping should always be incorporated from the outset, and not just a planning condition

Introduce environmental projects with schools - e.g. walking + new hedgerow planting

Wirral has the highest nr of Green Flag schools in the country. Must be aware of school seasonality re growing foods etc.

Wirral's rural centre: how well do communities/schools use this space? How can connections be improved?

The planning needs to be "people-proofed" and linked... works on the ground, and not just 'on a map'

Blue must not be forgotten within the GBI strategy!

Historic England to be engaged

Lots of heritage assets not referenced within the Wirral (eg. Irby), that could be brought into the green economy

Local Housing Associations - engagement to be followed up

Wirral Older People's Parliament - engagement to be made

Local WI, Rotary Clubs, Local Halls... lots of very active people and groups

Some barriers to overcome

Lots of existing initiatives that could be linked to, for example guided walks, hedge laying... lots of volunteers

There needs to be a 'better menu' to pick from... more structure required... clear steps

Air quality in 'red area' is terrible and worse in winter.

Seacombe - no ferry after work / bus on Sunday - needs better 'gateway'. Can GBI help?

This area is highly used by people from East of peninsula. Important E-W links

Let's make the most of the views and the Wirral Heritage site. Make a 'gateway' effect

GI needs to have seasonal resilience

'Linked' cycle links are imperative (linked in a strategic way). GI should support this

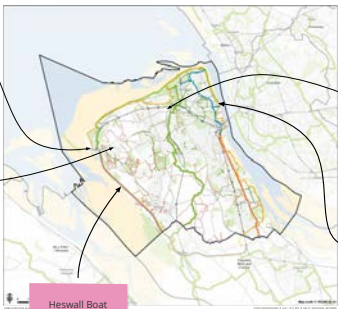
New Brighton has 'coned' cycle routes. Let's use hedgerows / planting in new cycle routes

If a 'green pathway' is introduced - the associated infrastructure also needs to be incorporated, e.g. lighting, seating etc.

Momentum is increasing behind social prescribing of GI

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Theme 3: Connections



West Kirby:
Chicanes and
inaccessible
infrastructure

Frankby area to
Arrowe Park -
Arrowe Brook Road
is very restricted
and as such
preventing access

Wirral Way:
limited
signposting to
landmarks

Heswall Boat
Yard: impossible,
neglected,
unsignposted and
yet popular.

Over-abundance
of golf courses -
do not support
connectivity, how
are they
managed?

Delivery
dilemma;
Finite funding
to make
adjustments

Birkenhead Park:
no joining up with
network
connecting to
Bidston Moss,
Wallasey.

Lack of
confidence
with on-route
cycleways

Routes around
Bidston train
station:
challenging

What is
considered a
reasonable
adjustment?

Equality Act 2010:
reasonable
adjustment to
make accessible
for all.

All routes
should be
accessible

Conflict between
managing anti-
social behaviour
and promoting
access for all

Motorcycle
barriers which
don't exclude
wheelchair
users

Radar keys are
a good
mechanism for
improving
access

Pasture Road
PRoW - barrier
across affecting
movement and
circulation, incl.
nearby farmers

Design of cycleways
important, particularly
in rural locations.
Needs to take
wheelchair users into
account, alongside the
safety of all road users

Accessibility of
routes, taking
out of A frames.
Needs police
resource

Are the disabled
community able to access
the PROW network?

Standard
specifications for all
barriers along PROW
and how those with
access needs can
manage them.

The Unmapped
PROW: PROW that
have been closed or
paths that are used
by the public but
aren't designated.

Absence of
circular routes
within the Wirral.
Attendee to send
across in writing.

Bidston Hill
woodland, not
accessible for
wheelchair
users.

Valuable
opportunity
to link up at
key nodes

Wirral
Waters:
street cars to
connect with

Great opportunity
for cycle and
footpath link from
Rock Ferry Station
to Bidston Dock:
former freight line

Many
footpaths with
potential to be
upgraded to
cycle routes

Opportunities for
integrating GI into
transport infrastructure
projects/funding?

Segregated
cycle routes
with greening
infrastructure
(flower pots?)

Need to talk to
CaCW where
footpaths / cycle
routes cross the
boundary

Maintenance
concerns on
PROW

Maintenance
backlog
within
Heswall Dales

Path through
the woods to
the Dungeon:
poor quality

Thurston Country Park
through to coast
(Tinker's Dell) :
poor quality
footpaths

What is the
English coastal
path? Will it be
integrated with
what is there?
(Robin Tutchings)

How can GBI support
the 'liveable streets'
agenda post-Covid 19?

Moving towards London
design standards
incorporating cycling and
walking in a joined up and
efficient way, and
connected to Green and
Blue

Parked cars on
pavements
prevent access
and would limit
effectiveness of
the network

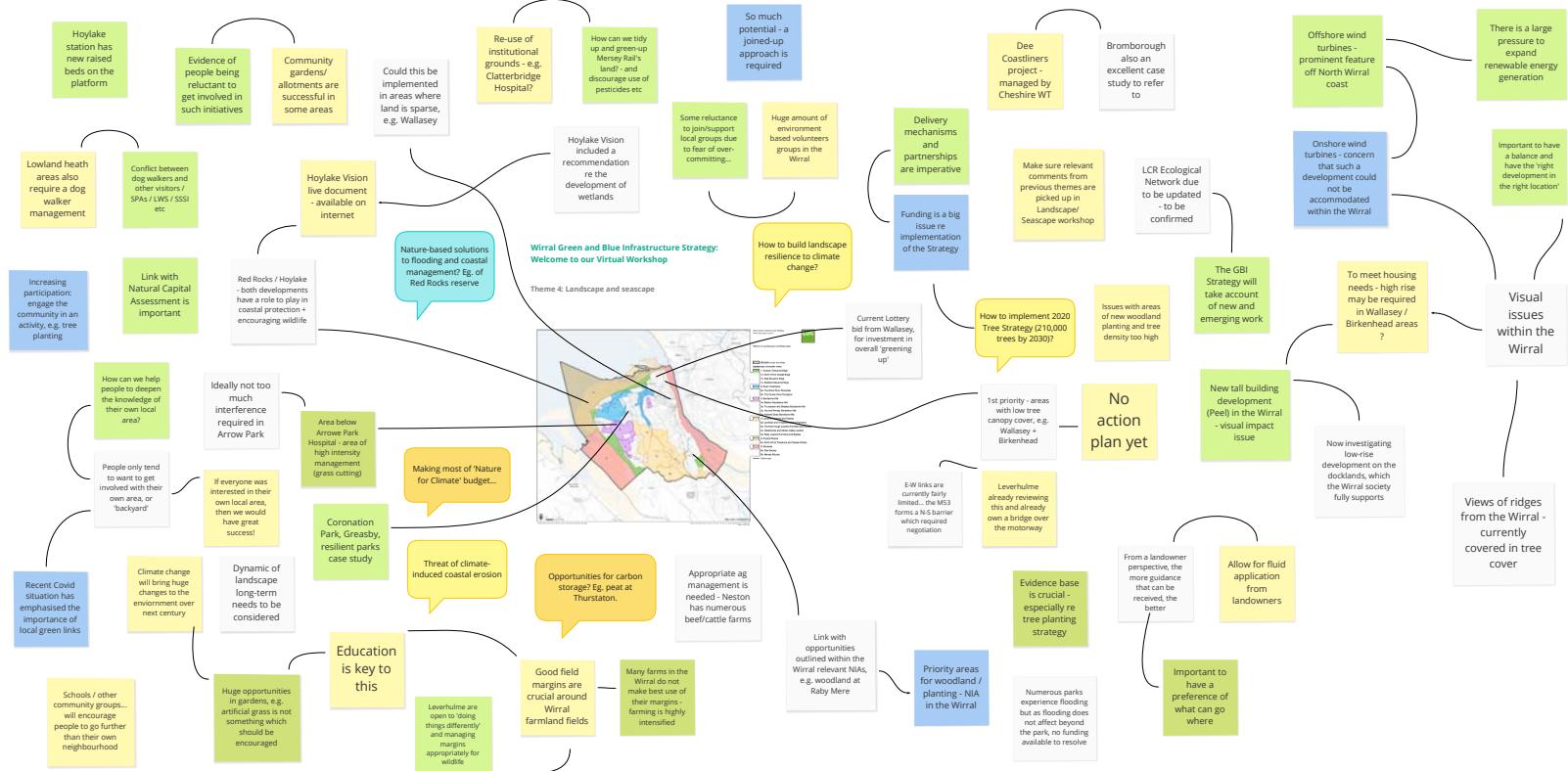
Austria case studies
- cyclists have
dedicated routes,
safe and welcoming,
cycle storage. Lots
to learn.

Improved east-west green links?
eg. via Lever Causeway + heritage
links (Battle of Brunanburgh?)

Absence of east
west routes
generally -
walking, cycling,
road users

Room for
improvement
for links through
Leverhulme
Estate

Leverhulme are
looking at
improving
connections
within their
landownership



Wirral Green and Blue Infrastructure Strategy: Welcome to our Virtual Workshop

Theme 5: Urban Greening, Placemaking and 'Placekeeping'



Potential to grow trees

Growing locally = really important for resilience to disease. We are looking at this

Use connections with local health colleges - to find resources. Might be good place to start...

We don't have many any more - but there is a plan for Wirral Park. Can value for growing green's - let's look what we have locally.

Policy of allowing people to buy trees/plants - an option - positive

Adoption scheme might be better - to give ownership

Where does funding come from?

Any potential for hypothecated tax as part of Council Tax? Rather than additional levy

CL = difficult. Builders use an 'double taxation' (along with S106) - need to build homes.

Historic reliance on S106 funding, but need to look seriously at CL

Tree Strategy - how is it enforced? Builders known to take down before build

Several members raised this as a problem - need to get handle on this at development sites. Needs more draconian measures.

Tree Strategy will make it more difficult for developers to remove trees - but needs protection at national level

Tree planting at schools - problems with neighbours taking down, needs greater enforcement.

Strong support for some kind of re-use of golf courses (see Lancashire/Seaside golf)

New Brighton - importance of community ownership

Community gardens

Lots of dense housing planned to meet national targets - this brings important opp for this. Allow people to participate/look after

Cost of adopting quite considerable - so left hanging

Great potential as wildlife corridors also

Back alley green spaces - seen as a liability these days (rubbish dumped/needs clearing etc.). But can be real asset if looked after.

Most alleyways not adopted - Council doing good job at enabling this. This is hidden part of Birkenhead that could flourish.

Some initiatives to plant up etc - doesn't always work without strong buy-in from residents. But if residents themselves initiate... (seen quite a lot during lockdown)

Initiative of 'Neat Streets' - blight on communities how they are left

Tram system is vital - can't blossom without transport system

Amazing examples of community efforts during lockdown.

Can we identify where this is and support it? Council has done this during lockdown...

Any comments on Wirral Waters opportunity?

Imposed corridor through to Birkenhead Park

Development likely to bring more traffic - need to look at A41 as main artery. Heavily congested as it is (98% capacity?).

In danger of having too many cars if not careful

Large number of car journeys are over short distances - don't need car.

We have a good rail network (to be improved), especially for development along A41. We must encourage this.

How much space given over to cars? More to cars = less for GBL. Need to be brave at design stage - 20th century mindset will lead to 20th century problems.

BRF very closely linked to the Local Plan. All must link together.

Some interesting/good opps - needs further developing eg. planting/greening/making it a community

Need for walkable local centres - eg. Ebenezer Howard!

Important green corridors through city - coming through as part of BRF. Now brought together as masterplan

Kingsgate Building/river build (BREEAm etc). Streetscape. But this is all about viability.

= very fine balancing act

Strong feeling about this - majority of our housing stock is existing - not new with SuDS etc. Could be devastating for flooding.

Need to look at right type of tree in urban areas - are apple trees appropriate?

Loss of private gardens to driveways - need to do better

Needs at least more porous material (flooding alleviation)

Trams/trolley cars in original plan. Missing link is Hamilton Square - New Brighton. This would alleviate traffic.

We are failing as Authority because not promoting sustainable travel

Knock-on impact on air quality

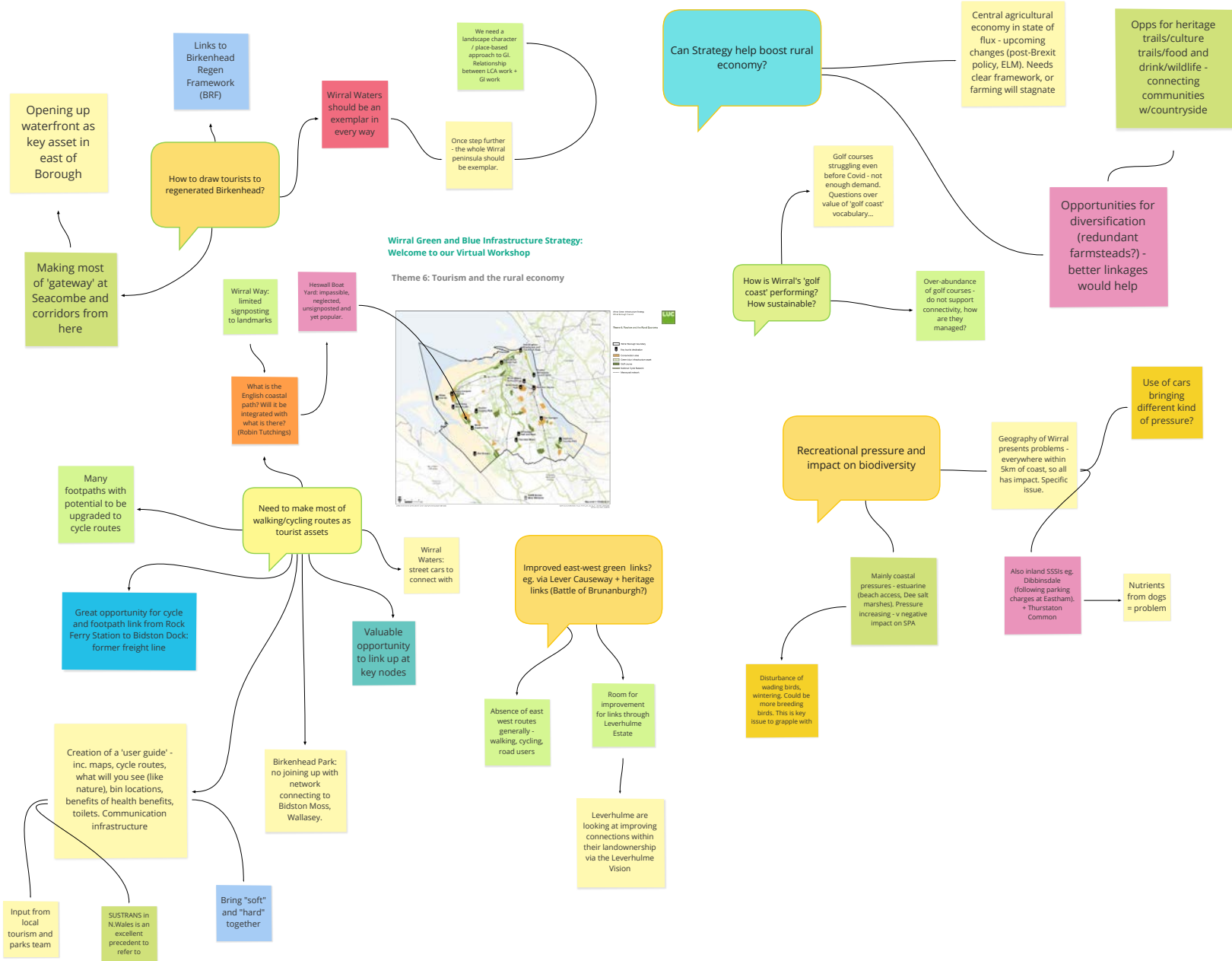
Planting of edibles as part of UG - tend to be less damaged eg. Incredible Edible

Also - education as to where produce comes from

Lynn Struve work eg. planted windowsills/planters outside

Density shouldn't stop community gardens etc

Integration with Local Plan



Appendix C: Policy and Strategy review

Document	Purpose	Key issues to highlight
National policies and guidance		
Conservation of Habitats and Species Regulations 2017 (as amended)	Legal protection of European Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) designated for habitats (Annex I) and species (Annex II).	<ul style="list-style-type: none"> Requires Habitat Regulation Assessment (HRA) of the potential effects of development (as may arise from any future Local Plan) on the qualifying features for which European site is designated, including SACs (Annex I habitat types and Annex II species) and SPAs (Annex I birds and regularly occurring migratory species not listed in Annex I). Also captured under HRA are Ramsar sites (reasons for listing under the Convention).
25 Year Environment Plan (2018)	Sets out what the UK government will do to improve the environment within a generation and represents an important shift in thinking towards long term positive action to improve people's lives and the environment. Sets out a series of targets for policy following the country's exit from the EU to which the government will be legally bound.	<ul style="list-style-type: none"> The Plan commits to embed the principle of 'environmental net gain' to development, such as housing and infrastructure, and calls for 'Nature Recovery Areas' as important parts of developing Ecological Networks. Ambitions of the Plan include the creation or restoration of 500,000ha of wildlife-rich habitat outside the protected site network. Sets out the Government's support for habitat creation, multi-functional sustainable urban drainage systems (SuDs), and natural spaces close to where people live and work. Views the planning system as a key mechanism for delivering upon its ambitions.
Draft Environment (Principles & Governance) Bill (2018) (last updated July 2019)	Landmark bill that sets out to place the ambitions of the 25YEP on statutory footing by creating a new governance framework for the environment. Introduced to Parliament in 2020.	<ul style="list-style-type: none"> Provisions require Biodiversity Net Gain (BNG) to be demonstrated through new development. Provision for off-site provision of biodiversity enhancements may also provide an additional funding mechanism for GI improvements. Schedule A will be added to TCPA – general conditions for BNG 10% & for 'Biodiversity Plan'. Biodiversity Plan will have to cover developers plans to minimise impacts, the pre & post development biodiversity value and any offsite credits. Bill also supports establishment of 'Nature Recovery Strategies' and gives communities a greater say in the protection of local trees. Section 6 – proceeds to contribute to strategic ecological networks, provide long-term environmental benefits and be additional to existing requirements i.e. ss7 – excludes enhancement where requirement/s to deliver already exist e.g. favourable condition of SSSI. Clause 92 – Secretary of State can sell Biodiversity Credits. Funds may only be used for prescribed works – purchasing interests, carrying out works, etc. Finances to be publicly published annually.
Agriculture Bill (emerging)	Reintroduce to parliament in early 2020 and set to provide an updated framework for UK agriculture policy and environmental stewardship arrangements following the country's exit from the EU. New provisions be phased in over a seven year period from 2021.	<ul style="list-style-type: none"> Key delivery mechanisms for creating more sustainable and resilient agricultural landscapes, including support for agroforestry and restoration of hedgerows. Intends to shift emphasis from direct payments to farmers based on land area (as is the case with EU CAP policies) to a focus on the delivery of 'public goods' ie. improved water quality, flood management, recreational services and biodiversity. Incentives for farmers (key partners in GI delivery) to deliver environmental benefits on the land they manage.

Document	Purpose	Key issues to highlight
Revised National Planning Policy Framework (2012) (last updated February 2019)	Sets out government planning policy for England. Updated (to 'NPPF2') in July 2018, in order to translate the provisions of the 25YEP into national planning policy.	<ul style="list-style-type: none"> – Sets out that strategic policies in plans should set out an overall strategy that makes sufficient provision for the conservation and enhancement of green infrastructure (Paragraph 20). – requires that planning policies should aim to achieve healthy, inclusive and safe places, including through the provision of 'safe and accessible green infrastructure' (Paragraph 91) and should plan positively for the provision of shared spaces and community facilities, including open space (Paragraph 92). This need should be established through up-to-date assessments of open space need (Paragraphs 96 and 97). – Regarding new development, the NPPF requires that it be planned in a way that avoids increased vulnerability to the range of impacts arising from climate change, particularly in vulnerable areas, and states that risks can be managed through the planning of green infrastructure (Paragraph 150). – Paragraph 170 states that role of the planning system should... Protect & enhance valued landscapes, sites of biodiversity... Minimise impacts on, and providing net gains in, biodiversity (the term 'where possible' has been taken out of the latest NPPF). – Paragraph 171 of the NPPF also requires that a strategic approach is used to ensure that, within a plan area, networks of habitats and green infrastructure are maintained, and that planning is undertaken for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries. – Existing open space is protected by the NPPF, and Paragraph 97 sets out the only circumstances under which an open space can be developed for different uses. The NPPF also provides a mechanism by which local authorities can protect some open spaces under a 'Local Green Space' designation (Paragraphs 99, 100 and 101) and states that such areas should be managed by policies which are consistent with those for Green Belt. – Paragraph 174 requires plans should identify and pursue opportunities to secure measurable net gains for biodiversity. – Paragraph 175(d) defines 'irreplaceable habitats' and references mitigation hierarchy.
Revised Planning Practice Guidance (PPG): Natural Environment 2016 (last updated July 2019)	Adds further context to the NPPF and it is intended that the two documents should be read together.	<ul style="list-style-type: none"> – The PPG aspires for planning authorities, neighbourhood planning bodies and other partners to "work collaboratively with other partners to develop and deliver a strategic approach to protecting and improving the natural environment based on local priorities and evidence". It states that together "they need to consider the opportunities that individual development proposals may provide to conserve and enhance biodiversity and geodiversity, and contribute to habitat connectivity in the wider area including as part of the Nature Recovery Network [as described in the 25 Year Environment Plan; described under the relevant subheading below]". – Features of the natural environment to be considered within the network range from the underpinning geological and bio-geographical character to the location and extent of designated, priority and irreplaceable habitats; from existing landscape features and potential new corridors that support migration, dispersal and gene flow, to areas

Document	Purpose	Key issues to highlight
		<p>identified for habitat enhancement or restoration. By its nature, such a network would serve help biodiversity adapt to, and increase resilience against, climate change.</p> <ul style="list-style-type: none"> Regarding the network of locally designated sites, the PPG recognises LWS as “areas of substantive nature conservation value”, important for their contribution to ecological networks and nature’s recovery, as well as wider benefits including climate mitigation and ecosystem services. “National planning policy expects plans to identify and map these sites, and to include policies that not only secure their protection from harm or loss but also help to enhance them and their connection to wider ecological networks”. Encourages a strategic approach to implementing green infrastructure through policies that use an evidence-based approach identifying existing GI networks and any gaps in provision. The multiple benefits that green infrastructure can provide are highlighted through this guidance, notably via ecosystem services derived from natural systems and processes – services benefiting the individual, for society, the economy and the environment. The guidance states that authorities should collaborate when developing policies with neighbouring authorities and other stakeholders, including Local Nature Partnerships, Health and Wellbeing Boards and Local Enterprise Partnerships.
Natural Environment & Rural Communities Act 2006		<ul style="list-style-type: none"> The NERC Act 2006 requires planning authorities to consider impacts on “species of principal importance for the conservation of biodiversity” when determining planning applications. The Council has an obligation to ensure that in exercising its functions, it has “regard... to the purpose of conserving biodiversity” (Section 40(1)). Section 41 lists habitats and species of principal importance in England (‘S41’ habitats and species), which are to be considered, irrespective of whether they are covered by other legislation. Section 42 (3)(a) requires that the Council “take such steps as appear to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section” or, Section 42(3)(b), “promote the taking by others of such steps”..
City region-level policies and strategies		
Liverpool City Region and Warrington Green Infrastructure Framework (2013)	<p>Produced across 7 local authorities to produce an evidence base to inform decision making on GI, to advocate for GI as critical infrastructure, and to identify actions that meet key priorities. The Framework was prepared at a time of great change in order to coordinate activity across administrative boundaries, and to support the region in attracting investment.</p> <p>The accompanying Action Plan sets out 12 key activities and 41 actions to deliver, which uses the concept of ‘pinch points’ to identify key areas where needs are not met by green infrastructure.</p>	<ul style="list-style-type: none"> Six priorities identified were: growth and investment; health and wellbeing; recreation, leisure and tourism; rural economy; ecological framework; and climate change. Close relationship between the economic priority areas and major concentrations of GI. Importance of Mersey and Dee Estuaries. Threat to landscape from agricultural intensification and lack of management. There are opportunities to expand tree cover identified. Historic legacy of popular areas of parkland with link to Victorian era with investment in recreation. Lack of access to the coastal landscape in places. Intrusive impact of M53, including air pollution and aural intrusion.

Document	Purpose	Key issues to highlight
		<ul style="list-style-type: none"> – Presence of sea walls cause visual intrusion on the coastal edge. – Importance of private gardens in the overall GI mosaic of the city region. – Particular areas of 'multifunctionality' highlighted as: the coast, major parks and woodlands, and the urban/rural fringe.
Green Infrastructure Framework for North East Wales, Cheshire and Wirral (2011)	The framework addresses the natural environments within both the urban and rural locations of Denbighshire, Flintshire, Wrexham, Cheshire West and Chester, Cheshire East and the Wirral and sets out a vision of how a healthy natural environment can help sustain economic growth and self-supporting communities. It grew out of the identified need for infrastructure planning along the Dee Estuary.	<ul style="list-style-type: none"> – Identifies gaps within the PRow in Central Wirral. – Highlights cross boundary initiatives such as Mersey Forest and the Mersey Partnership. – Sets out Needs and Opportunities across Wirral Coast & Wirral Way, Birkenhead & Wallasey housing renewal areas, Wirral Waters development, Mersey Shore (Ellesmere Port to Seacombe).
Local Plan policy documents		
Wirral Unitary Development Plan (2000)	Old-style development plan adopted in February 2000. Emerging Local Plan policies are to replace those in the existing Development Plan.	N/A (too out of date)
Wirral Growth Plan (2015)	Council worked with partners to produce five year Growth Plan with a focus on the long term vision for the Wirral, to attract and guide investment into Wirral. Sets out key ambitions and goals and provides the strategic framework in which place shaping will be taken forward.	<ul style="list-style-type: none"> – Four key spatial areas highlighted as focus for growth in short to medium term: Wirral Waters; Birkenhead town centre; Birkenhead Hinterland; and A41 corridor. – Highlights a strong visitor economy as a key strength. – Highlights 'poorly performing town centres' as a weakness, opening up opportunities for urban greening to enhance environments. A rejuvenated Birkenhead is seen as a key opportunity. – High numbers of residents suffering health problems, and out of work as a result.
Cross-cutting theme: Climate Change		
Cool 2 – A Strategy for Wirral in the face of the global climate emergency (2020)	Produced by the Cool Wirral Partnership, which coordinates local action on climate change and is supported by, but independent of, Wirral Council. Seeks to speed up the action needed to tackle climate change by coordinating actions at the community level. Local groups are encouraged to identify their 'Locally Determined Contributions'.	<ul style="list-style-type: none"> – The largest sources of CO2 emissions in Wirral is from homes (42.5%) but 32.2% come from transport. – Strategy is designed not only to reduce emissions but 'to ensure a climate resilient Wirral adapted to cope with existing change and further unavoidable disruption'. – Measures <i>to reduce emissions</i> include: clean travel; and storing more carbon (by increasing woodland cover and protecting soils) – To ensure <i>a climate-resilient</i> Wirral, strategy calls for putting natural GBI in place, including urban greening measures such as green roofs and green walls. – Identified next steps relevant to GI include: 1) developing a Tree Strategy for Wirral, to increase carbon capture; 2) promote the 'Sustainability Central' initiative within

Document	Purpose	Key issues to highlight
		<p>regeneration opportunities at Wirral Waters and Birkenhead, to ensure they create exemplars of the transition to a 'zero carbon' and 'climate ready' place; and 3) work with the 'Cool Schools' and 'Cool Communities' program to encourage community-level action.</p> <ul style="list-style-type: none"> Strong focus on partnership working and creating opportunities for people and organisations to connect to share and develop initiatives, within and beyond Wirral.
Theme 1: Biodiversity and Ecological Connectivity		
Wirral MBC Biodiversity Audit (2009)	<p>Commissioned to develop an evidence base for the Local Development Framework and to review and update selection criteria for Local Wildlife Sites.</p> <p>Includes the identification of potential wildlife corridors and linkages, assesses the distribution of priority species and identifies critically important areas for maintaining favourable conditions, including potential areas of habitat expansion.</p>	<ul style="list-style-type: none"> Primary future priority identified was the need for urgent quality checking of the record database to remove inaccuracies. Calls for the identification of ecosystem services within the network of green spaces, to enable the creation of multi-functional GI. Identifies high priority areas for green expansion around Bidston Moss and north Birkenhead, along with various coastal areas, including New Brighton and coastal sites between Birkenhead and New Brighton. 'Trigger areas' highlight the need for connections in the habitat network around Key Existing Biodiversity Areas, many of which are focussed around the coast, but with others inland around areas of semi-natural green space.
Merseyside Environmental Advisory Service RAG Screening (2019)	Provides a red, amber and green-based screening assessment of potential urban site locations and Green Belt parcels that were identified for further investigation in the 2018 Development Options Review, against information held on MEAS environment databases.	N/A
Nature Improvement Area (NIA) profiles	Each profile outlines existing ecological features, ecological priorities, ecological opportunities and how it can support wider priorities.	N/A
Liverpool City Region Wildflower Planting Strategy (8-9 years ago)		
Theme 2: People and Communities		
Wirral Parks and Open Spaces Strategy (2014-2024)	Designed to provide direction over a 10-year period, anticipating a period of financial challenge and necessary change. Addressing open spaces over 0.2 ha in size. Strategy is designed to provide direction for service planning and targeting of resourcing.	<ul style="list-style-type: none"> Wirral peninsula known for its attractive parks, coast and countryside sites, and key attraction for residents and visitors and in supporting health and wellbeing. To cater for population growth, it is important that Wirral has accessible, high quality parks and open space. Most of the Borough has good/satisfactory access to parks and open spaces, but some deficits need to be remedied.

Document	Purpose	Key issues to highlight
		<ul style="list-style-type: none"> Importance of Wirral's statutory biodiversity duty to conserve and promote the ecological interest of designated sites. Parks have role to play in educating people about the importance of the environment. Parks also have role in addressing health 'hotspots' Need for parks to adapt to changing weather patterns as a result of climate change, including adapted management regimes.
Wirral Playing Pitch and Outdoor Sports Strategy (2016)	Produced in order to comply with new guidance from Sport England and provides the strategic framework for the maintenance and improvement of existing outdoor sports pitches and ancillary facilities between 2016-22, of various typologies. Designed to inform future land use decisions, support external funding bids and maximise support for outdoor sports facilities. Acts as an evidence base for the emerging Local Plan and to inform site allocations and the consideration of planning applications.	<ul style="list-style-type: none"> Highlights the health and social cohesion benefits of pitch sports against a backdrop of financial austerity and public sector budget reductions. Outlines a goal to reduce the level of Council subsidy of pitch provision. Current and future shortfalls identified in football provision across most of the Borough, with poor provision hindering growth due to significant demand. Only minor current and future shortfalls identified in cricket provision, however Wirral described as a 'cricket hotbed'. Existing sites to be protected. Current and future shortfalls identified in rugby union provision, requiring protection of existing pitches. No significant unmet demand for hockey, bowls and tennis provision.
Wirral Allotments Partnership Strategy (2015)	The Strategy is a joint agreement between Wirral MBC, Allotment Site Secretaries, tenants/plot holders and other societies, working together to raise the profile of allotments and optimise their use, to suit the needs of all sections of the community. It is supported by, Wirral's Parks and Open Spaces Strategy 2014-24.	<ul style="list-style-type: none"> In Wirral, allotment gardening has formed an important part of many peoples' lives for generations, and there are more sites in the historically more built up east of the peninsula. One suggestion for reducing waiting lists is to pilot cost effective methods of bringing unusable plots back into productive use. Longer term aims (1-5 years) include: developing a health agenda for allotments that focusses on improving the health of the borough; and highlighting their role in encouraging biodiversity and conservation.
Draft Open Space Assessment Report (2019)	<p>Provides detail on open space provision in the Wirral, its condition, distribution and overall quality. Using research, consultation, site assessments, data analysis and GIS mapping, and breaks down spaces by typology. Also considers future requirements based on population distribution, planned growth and consultation findings.</p> <p>This Assessment acts as an evidence base to help inform developer contributions through Section 106 agreements and other mechanisms. To be read in conjunction with the Playing Pitch Strategy (PPS).</p>	<ul style="list-style-type: none"> Most popular forms of provision to visit are: coast and beaches (90%); and parks and gardens (88%). Majority of individuals use a private car to access most types of provision (other than play space and amenity green space). Generally good level of quality across all open space sites. Rural areas in particular are well provided and the 'Birkenhead commercial' area is generally quite deficient. Generally strong provision of parks and gardens. Potential quantity shortfalls of semi-natural spaces in higher density urban areas.

Document	Purpose	Key issues to highlight
		<ul style="list-style-type: none"> – Potential quantity shortfalls of amenity green space in urban areas (Birkenhead area, Heswall, West Kirby and Hoylake) – Shortfalls in access to play spaces in Birkenhead, Heswall and Bromborough/Eastham areas. – Allotment waiting lists suggests shortfall in supply. – Coastal sites are not assessed but recognised that they help to meet gaps in other forms of provision.
Draft Open Space Standards Paper 2019	Sets out proposed local standards recommended for Wirral. Uses community surveys to assess how far people are willing to travel locally.	<ul style="list-style-type: none"> – Paper recommends using Fields in Trust (FIT) standards for each typology
Wirral Air Quality Annual Status Report (2019)	Prepared to meet Wirral MBC's Local Air Quality Management (LAQM) obligations under the Environment Act, to review and assess local air quality.	<ul style="list-style-type: none"> – Wirral has not declared any AQMAs, given no breaches of the UK Air Quality Objective levels for air pollution. However there is need to utilise all opportunities to improve air quality. – Major focus is on Nitrogen Dioxide, associated with road traffic. Levels did not change significantly from 2017 to 2018. – Highlights opportunity to improve air quality through the planning process, particularly at key regeneration sites such as Wirral Waters. – Wirral's 'Clean Air Campaign' will help to engage the public and build awareness.
Interim Health Impact Assessment 2019	Summarises the context and potential health impacts of Wirral MBC's emerging Local Plan.	<ul style="list-style-type: none"> – Assessment highlights an imbalance in trees/GI between east/west as a result of the Local Plan, with biggest impact in east/urban centres. – Highlights complex barriers to use of Borough's green asset (including cultural), which calls for developing a greater sense of 'ownership' of assets by all sections of the community.
Theme 3: Connections		
Liverpool City Region Local Cycling and Walking Infrastructure Plan (LCWIP)	Sets out the long-term vision for cycling and walking in the city region, by creating a safe, integrated and well linked network of walking and cycling routes. Outlines 31 key routes needed across city region which are needed.	<ul style="list-style-type: none"> – In Wirral, the 3.7km Leasowe-Seacombe Ferry Terminal Corridor will be implemented as part of Phase 1, with a second corridor linking New Brighton and Birkenhead via Liscard and a third corridor connecting Birkenhead to Eastham.
Wirral Strategic Transport Framework Action Plan (2018)	Drafted based on the Wirral Transport Pipeline developed in 2016, in order to enable this growth and ensure the transport network is fully aligned with Wirrals' regeneration plans/proposals. This allows the highest priority and most advantageous schemes to be further developed to establish their feasibility, so that business cases can be produced in order to secure appropriate funding sources.	<ul style="list-style-type: none"> – Identifies 9 schemes under the 'Expanding Active Travel' package, including improvements to the Wirral Circular Trail, active travel routes across the M53, residential road streetscapes and active travel connectivity to local centres.

Document	Purpose	Key issues to highlight
Wirral Transport Background Paper (2020)	Provides overview of the transport evidence to date and the existing transport context of the borough.	<ul style="list-style-type: none"> – Wirral is a net exporter of commuters, and most popular travel mode is private car. – Selection of key issues relating to active travel provision: <ul style="list-style-type: none"> a. Severance created by M53 limits east-west movements. b. Routes are poor quality in places, decreasing attractiveness of modes. c. Low rates of people walking and cycling at least 3 times per week. d. Cycling rates are low, with around 2% of all trips made by bicycle. e. Off-road and segregate cycle routes are limited and discontinuous, other than Wirral Circular Trail. f. Limited cycle parking facilities. g. Major A roads create barriers to movement from residential areas south of Birkenhead into the town centre. h. Severance created in A41 north are by the flower around the Queensway tunnel entrance. i. Walking and cycling could be better used as modes of choice for shorter journeys.
This is Wirral: Transport (2019)	Produced by the Wirral Intelligence Service, as part of a collected evidence set.	<ul style="list-style-type: none"> – Despite onset of electric cars, there is window of opportunity to advocate for increased investment in active travel. – Clear links between transport and social exclusion. – Vast majority of residents still travel to work by car or van (72%). – Birkenhead town centre is key hub for several transport modes but characterised by car-dominated infrastructure, which result in significant barriers for cyclists and pedestrians.
Wirral Rights of Way Improvement Plan (2018)	Used by the highways authorities as the prime means to identify changes to be made	<ul style="list-style-type: none"> – Total of 671km of PROW in Liverpool City Region. – District Actions in the Wirral 2008-17 include: 1) the 'stiles to gates' project, replacing around 90 stiles with kissing gates, making Wirral mainly stile-free; and 2) the 35-mile Wirral Circular Trail, funded through the European Regional Development Fund and Local Transport Plan. – Goals include; improved health and wellbeing; improved sustainable travel opportunities; more shorter journeys by walking and cycling; improved tourism and visitor economy; better-connected communities; and increased awareness of PROW network.

Document	Purpose	Key issues to highlight
		<ul style="list-style-type: none"> 5 ROW Improvement Committed Schemes outlined for Wirral, with estimated costs: 1) Croft Retail Corridor; Wirral Waters Connectivity – North Bank East; Port Sunlight Connections; 4) Wirral Waters Connectivity – Duke Street; and 5) Wirral International Business Park Connections. In addition, there are over 20 further 'proposed schemes' for Wirral, including a number along the Wirral Circular Trail.
Theme 4: Landscape and seascape		
Wirral Landscape Character Assessment (2019)	Provides a landscape character assessment for all land outside defined settlements, and intended to inform work on policy development and development management, guiding development and land management that is sympathetic to local character and the special qualities of the borough. Forms part of the evidence base for the emerging Local Plan, and is also intended to promote an understanding of how landscapes are changing as a result of natural, economic and human factors, and how they can be strengthened in response.	<p>The LCA summarises major pressures on the landscape in general as:</p> <ul style="list-style-type: none"> Climate change: a major pressure on rural landscapes and will require agriculture to adapt and will affect important habitats, particularly river and wetland habitats throughout the borough, as well as increased risk of fire on heathland habitats. Flood risk is also highlighted. Coastal processes: the coast is a major asset for tourism and influence on the Borough's character and for urban regeneration. Intensive flood engineering in places like West Kirby and New Brighton are visually prominent and coast lines likely to be under increasing pressure. Spartina grass is continuing to colonise the Dee Estuary and to the north of Hoylake, altering the coastal environment. The coastline should be viewed as a system rather than isolated areas. Agricultural change: a considerable influence on the landscape. Intensification is resulting in field enlargement, eroding rural character. Land management: decline in traditional woodland management practices putting pressure on trees and woodland, as well as neglect of hedgerows as a result of agricultural intensification. Connected pond landscapes are also being lost on agricultural land, which have ecological importance, and network of streams and rivers are vulnerable to diffuse pollution. Development pressure: will challenge existing landscape character, risking urbanisation of rural villages. Strategic infrastructure development may also lead to fragmentation of the landscape and loss of tranquillity. Additional pressures come from the growing visitor economy and associated development, and renewable energy development will influence the seascape.
Wirral Landscape Sensitivity Assessment (2019)	Provides an assessment of the extent to which the character and quality of the Wirral's landscape would, in principle, be susceptible to change as a result of the introduction of built development. Considers the landscape sensitivity of 53 sites identified for further investigation by the Council.	<ul style="list-style-type: none"> While not directly of relevance to the GBI strategy, it is possible that in areas of high landscape sensitivity, GBI interventions can help to support and enhance landscapes of particularly high sensitivity. Particularly sensitive areas highlighted in the report include: the site of the Royal Liverpool Golf Club on the edges of West Kirby; the environs of Eastham Country Park and nearby Carlett Park; Caldy Hill, along with land lying adjacent to the east of the Hill; and land surrounding Saughall Massie.

Document	Purpose	Key issues to highlight
Shoreline Management Plan 2 North West England and North Wales (2010)	<p>Provides a large scale assessment of risks associated with erosion of flooding at the coast, and presents policies to help manage risks. Sits at the top of a hierarchy of Strategy and Scheme plans that the Environment Agency and Local Authorities use to plan their work to manage coastal risks.</p> <p>Policy options recommended range across; 'Hold the line', 'Advance the Line', 'Managed Realignment' and 'No active intervention'.</p>	<ul style="list-style-type: none"> – The Wirral coast line lies in Sub-Cell 11a within this study. – The SMP2 aims to achieve sustainable risk management by working with natural processes wherever possible. – Building larger defences to protect against rising sea levels will produce a change in the nature of the coast, with prominent sea wall structures and smaller beaches. The SMP2 recommends some opportunities to use alternative management techniques such as beach management to help maintain the beaches. – Along Dee Estuary, the long term plan is to continue to manage risk, but also to allow more natural evolution where appropriate. – Along the North Wirral coast, the Wallasey embankment provides a flood risk management function, and the long term plan is to continue to provide protection to residential areas and infrastructure, but the sustainability of doing so requires further investigation. – On Mersey Estuary, long term plan is to maintain the status quo regarding protection, while allowing natural evolution of the shoreline where there are currently no defence present. In the Upper Mersey, 'managed realignment' was assessed as an alternative policy to offset loss of habitat elsewhere.
Wirral Coastal Strategy (2013)	Designed to provide a strategic level assessment of coastal hazards across Wirral, both present and future. Based on the need to identify sustainable arrangements for future management of flood and coastal erosion risk. Identifies a preferred set of management arrangements for Wirral.	<ul style="list-style-type: none"> – Significant investment in improving coastal defences in 1970s and 1980s but no major capital investment since 2001. – Assesses alternative approaches for future management of the coastline of Wirral.
Strategic Flood Risk Assessment for Wirral (2019)	Update to the 2009 Level 1 SFRA using up to date risk information, with the aim of identifying the number and spatial distribution of flood risk sources throughout the authority area. This will aid MBC in allocating land and providing part of the evidence base for the Local Plan.	<ul style="list-style-type: none"> – Borough has extensive residential areas near the coast and inland watercourses, primarily along the Mersey coast and east of the M53; – Main river catchments are River Birket and Dibbinsdale Brtook, which drain into the Mersey Estuary; – Properties near Rivers Birket and Fender are protected by flood defences. – Some places on Wirral experience combined effects of river and tidal flooding. – Some support for setting back defences for habitat creation opportunities and flood reduction benefits, as part of more natural flood management solutions.
Wirral Preliminary Flood Risk Assessment 2011 (and 2017 update)	High level screening exercise which collects information on past and future potential floods, and using it to identify Flood Risk Areas.	<ul style="list-style-type: none"> – No historically significant surface water flooding occurred, but some following high intensity storm events or extended periods of heavy rain, leading to the overloading of the public sewerage system.

Document	Purpose	Key issues to highlight
	Supports the Lead Local Flood Authorities (LLFAs) in managing local flood risk in line with the European Floods Directive.	<ul style="list-style-type: none"> Coastal fringes to the east, northeast and northwest of Wirral could be susceptible to groundwater flooding (when the natural water table rises to ground level). Risk likely to increase due to significant reduction in industrial abstraction, and flooding poses risk to three Mersey Tunnels. No indicative flood risk areas identified within Wirral, but some areas identified where flood risk may be an issue, largely clustered along the eastern coast of the peninsula.
Wirral Local Flood Risk Management Strategy (2016)	Produced by Wirral Council as the Lead Local Flood Authority (LLFA) as a requirement under the Flood Water and Management Act (FWMA) 2010. Assesses risk from: the sea; groundwater; watercourses (including lakes/ponds); and surface runoff.	<ul style="list-style-type: none"> No significant local flooding occurred in past, however since 2011 a number of rainfall and coastal surge events have occurred, flooding 221 properties. This is likely to be exacerbated by the impacts of climate change. The government has not identified any indicative Flood Risk Areas within Wirral. A key principle for managing risk will be, where possible, working with natural processes which aim to enhance the environment. By adopting a more sustainable approach, Wirral aims to greatly improve the environmental condition of rivers, wetlands, coastal areas and the social and economic circumstances around local settlements. Strategy recognises that reducing flood risk can have multiple benefits, including preventing loss and damage to habitats and heritage assets and reducing pollution. Support for Sustainable Urban Drainage (SuDS) systems.
Wirral Water Cycle Study (2013)	<p>Designed to identify any constraints on housing and employment growth planned for the area up to 2027 that may be imposed on the water cycle, and how these can be resolved. Also provides a strategic approach to the management and use of water.</p> <p>The report tested three potential growth scenarios.</p>	<ul style="list-style-type: none"> No 'show stoppers' identified but several issues to monitor and address. There are 4 waste water treatment works in Wirral, and assessment suggests that additional capacity will be required only in the North Wirral (Meols) catchment area given additional waste water generated as a result of growth. The sandstone aquifer underlying most of Wirral is at the limit of available resources without causing adverse impact on the environment. Further water abstraction is therefore unlikely to be acceptable. Management of surface water run-off is key, and SuDS systems are considered to be essential.
Wirral Resilient Parks Study	Considers the impact of climate change on parks and open spaces in the Wirral and provides guidance on adaptation and mitigation measures to improve resilience. Provides specific recommendations for Wirral's five parks, based on research and public consultation, and includes a public toolkit.	<ul style="list-style-type: none"> Provides a toolkit for how Wirral's parks can become more resilient and multi-functional GI assets, including: changes to moving regimes of amenity grassland; establishing more meadows and heathland, and including wildflowers; increased planting of trees and shrubs; provision of growing sites, orchards and woodfuel; reducing hard surfacing; protecting soil as a carbon store; use of timber for seating; and creating naturalised, permeable play areas.
Trees, Hedgerows and Woodland Strategy 2020-2030	Commissioned on the back of Wirral MBC declaring a climate emergency in July 2019, and aims to guide and influence tree and hedgerow planting across Wirral by: providing a good estimate of tree cover and help to set standards; monitoring canopy cover;	<ul style="list-style-type: none"> Highlights trees as our natural 'armour' against climate change and calls for a shift in attitude to one that views and thinks about trees as public assets, rather than liabilities. Vision for next ten years is 210,000 trees to be planted (at least 21,000 per year). This will ultimately see a doubling of tree canopy cover in the Borough.

Document	Purpose	Key issues to highlight
	<p>helping to deliver the aims of the government's 25-year Environment Plan; and to better focus urban forestry.</p> <p>The major focus is to actively protect and increase the Wirral's 'urban forest' and it was produced in partnership with the Wirral Initiative on Trees (WIT), a forum of local community groups.</p>	<ul style="list-style-type: none"> – Strategy adopts the principle of 'the right tree for the right place' in order to ensure a resilient tree population. – Wirral MBC will work constructively with individuals and groups to deliver vision. – Ash dieback is now on the Wirral and demands urgent action. – Trees are also vital to Wirral's 'sense of place', for public perception and inward investment into the Borough.
Theme 5: Urban Greening and Placemaking		
Birkenhead SFR (emerging)	Designed to support the emerging Local Plan, and 'brownfield-first' approach by producing a visionary framework for the regeneration of Birkenhead. Accompanied by detailed and spatially specific Delivery Action Plans (DAPs) to guide regeneration.	N/A
Integrated Regeneration Strategy for Birkenhead and Wirral Waters (2010)	Single, integrated regeneration plan to establish the policy context in support of a wide platform of investment. Designed to establish a role for Birkenhead and Wirral that will complement higher order centres and make active contribution to the City Region.	<ul style="list-style-type: none"> – Recognises that Birkenhead has 'dropped in the void' between Liverpool and Wirral/North Cheshire/North East Wales and must find a 'new reason to exist'. – Wirral Waters viewed as unique opportunity, albeit with delivery difficulties. – Birkenhead needs to 'rediscover' connections and natural landscape features, and provide improved connections between places and 'stranded islands' of green space. – Objectives include: a focus on health and wellbeing, access to public recreational facilities and encouraging healthy lifestyles, as well as a pedestrian-focussed public realm. – Divides plan area into various Focus Areas and provides recommendations for enhancing. – Notes that Wirral Waters in isolation will not resolve wider problems, given the scale of the challenge in regenerating Birkenhead and the need to reverse the decline, which will take a generation of effort.
Setting the Scene for Wirral Waters: a Green Infrastructure Investment Framework (2011)	Produced by the Wirral Waters Green Infrastructure Steering Group – a partnership of Wirral MBC, Peel Holdings, the North West Development Agency (NWDA), the Forestry Commission and Mersey Forest. Sets out plans to ensure Wirral Water brings about a positive transformation in the environmental quality of inner Wirral, through a portfolio of early, medium and long term projects.	<ul style="list-style-type: none"> – Current site is large scale, degraded industrial landscape enclosed by some of the most deprived wards in the UK. – Priority projects include: green streets and gateways along important approaches and arrival points; meanwhile planting of trees to produce a biomass crop in 3-5 years; planting of woodland along greenways and green spaces; improving connections to Bidston Moss.

Document	Purpose	Key issues to highlight
		<ul style="list-style-type: none"> 'City Boulevard' will be a new strategic greenway connecting Bidston Moss and the deprived neighbourhoods of Birkenhead North and East Float, Birkenhead Town and Hamilton Square.
Wirral Waters: Indicative Economic Assessment (2011)	A quantification and valuation of the economic benefits of a proposed programme of improvements to the GI in areas around the development of Wirral Waters.	<ul style="list-style-type: none"> GI will underpin the quality of place and life in and around Wirral Waters. While the approach is not a panacea, it can play an important part in ensuring development does not exacerbate current problems. While the intrinsic value of a rare species, cultural landscape or tranquil area may be considered 'priceless', there is a danger that this can lead to them being 'valueless' in economic assessment, to a GI valuation toolkit was developed. Overall the toolkit used shows a net present value for the project of interventions of £29.5 million, making the initial investment of £2m a sound one based on this assessment.
Town centre action plans for various towns	23 action plans have been produced to 'keep local town centres at the heart of our communities', including identification of potential environmental improvements.	N/A
Theme 6: Tourism and the rural economy		
Wirral Visitor Economy Strategy 2017-2020	Produced to deliver a pledge made in the Wirral Plan to grow the visitor economy, ensuring it is worth £450 million by 2020, as part of a longer term vision of £550 million by 20205.	<ul style="list-style-type: none"> Tourism inextricably linked to other sectors, including transport and design. Wirral has built reputation on quality and distinctiveness, with award for beaches, green flag parks and heritage. Wirral part of England's gold coast, with 14 golf courses. Renaissance of New Brighton has seen increase in day visitors. Port Sunlight Village and Birkenhead Park as key heritage assets. Opportunity to harness the power of well-known brand such as Birkenhead Park, Cammell Laird and Port Sunlight to raise awareness and reinforce sense of place.
Study of Agricultural Economy and Land in Wirral (2019)	Reviews the current agricultural practices and land use in the Wirral, looking at viability for traditional enterprises, the socio-economic impact of farming, soils and geological information and capturing the views of agricultural stakeholders, including farmers. Designed to inform the development of the emerging Local Plan.	<ul style="list-style-type: none"> Nearly 27% of land in Wirral still used for agricultural purposes. Threats come from amalgamation of farms and intensification. The Leverhulme Estate is a key actor, holding extensive land in a largely unchanged rural landscape in centre of Borough. Horse grazing increasingly prevalent on the rural fringe. Viability of farming is challenging.

Document	Purpose	Key issues to highlight
		<ul style="list-style-type: none"> – Uncertainty over upcoming changes to the agricultural policy framework and the impact this will have on the agricultural landscape, but likely that agri-environment activities will increase in the future.

Appendix D: Glossary

Term	Description
Adaptive management	<i>"Modification of activities in light of experience form rigorous monitoring"</i> (CIEEM, 2018 ¹).
Agri-environment schemes	<p>Voluntary agreements that provide annual payments to farmers and land managers to ensure they manage their land in an environmentally sensitive way that goes beyond the minimum required of them by regulation.</p> <p>Under the Agricultural Bill, ELMS (see below) is proposed to provide a results-based payment scheme, anticipated to be in place in 2024.</p>
ANGSt (Accessible Natural Green Space Standards)	<p>Published by Natural England in 2010, ANGSt recognises the value of greenspaces, principally in relation to the 'cultural' ecosystem services of health, wellbeing, etc. ANGSt recommends that everyone, wherever they live, should have access to natural greenspace as follows:</p> <ul style="list-style-type: none"> • Of at least 2ha in size, no more than 300m (5min walk) from home; • At least one accessible 20ha site within 2km of home; • One accessible 100ha site within 5km of home; • One accessible 500ha site within 10km of home; plus • A minimum of 1ha of statutory Local Nature Reserve (LNR) per 1,000 population.
B-Line	Strategic corridors for focus of enhancement for pollinators identified nationally by invertebrate conservation charity Buglife.
Biodiversity	The variability among all living organisms - terrestrial and aquatic - and the ecosystems that they are part of. Biodiversity includes the diversity within species, between species and of ecosystems (CIEEM, 2018).
Biodiversity Action Plan (BAP)	<p>The UK BAP was drawn up to reflect the UKs commitment to the Rio Convention 1992. Habitat and species to be prioritised for conservation were described, with actions and typically delivery partners identified. Local BAPs reflect local priorities.</p> <p>The UKs commitment is now embedded in legislation through the NERC Act 2006. Section 41 lists the habitats and species of Principal Importance. However, local BAPs remain of value in the identification of actions and delivery partners, and to enable monitoring of progress.</p> <p>Within Wirral, the LCR BAP includes the habitats and species prioritised for action in the Cheshire BAP or North Merseyside BAP.</p>
Biodiversity metric	A proxy measure or index of biodiversity to allow comparison over time or space. Metrics are used in recognition that it is not possible to finitely inventory the state of all biodiversity present.

¹ CIEEM (2018) Guidelines for Ecological Impact Assessments in the UK & Northern Ireland, 3rd Ed. CIEEM Winchester, UK

Term	Description
	In relation to development, the metric is used as a measure of predicted impact(s) on habitats and how much new or restored habitat, and of what type, is required to deliver sufficient net gain. Use of metrics does not replace the need for a detailed biodiversity assessment (as would accompany any individual planning application) or monitoring.
Biodiversity Net Gain (BNG)	<i>“Development that leaves the environment in a measurably better state than beforehand”</i> (DEFRA, 2018 ²). The point at which the quality and/or quantity of habitats or species increases in comparison to the original condition or baseline i.e. enhancement over and above the level required to mitigate or compensate for detrimental impact. <i>“BNG must be defined relative to an appropriate reference scenario”</i> (BBOP, 2018 ³).
Biodiversity off-set	Compensation for the unavoidable and immitigable loss, fragmentation or other detrimental effect on an ecological receptor. Off-setting seeks to ensure that no net loss in ecological value is achieved.
Biodiversity Opportunity Area (BOA)	BOA were originally identified at county or regional scale. Some LPA, including Wirral, have now progressed a more refined Ecological Network (see below) which identifies 'Opportunity Areas' therein. Both have a common aim though scale and age of data is different. BOA remain relevant esp when considering cross-boundary and wider strategic connectivity
Blue infrastructure	Green infrastructure relating to aquatic habitats such as rivers and canals.
Compensation	The protection of biodiversity assets should be achieved through avoidance and mitigation wherever possible. Compensation, the next step in the hierarchy, should only be used in exceptional circumstances and as a last resort, after all options for avoidance and mitigation have been fully considered. Compensatory measures should, therefore, only be used to address any residual impact that cannot be avoided or mitigated.
Conservation covenants	Voluntary but legally binding agreements under the Environment Bill between a landowner and a designated “responsible body” such as a conservation charity, public body or for-profit body to conserve the natural or heritage features of the land.
Core Biodiversity Area	Comprises designated sites and priority habitats.
Ecological network	Ecological networks consist of sites containing diverse areas of habitat that support species and have ecological connections between them that enable species to move. They provide a range of ecosystem service benefits to society and in doing so underpin sustainable economic activity, allow

² Taken from a DEFRA consultation. Available online: <https://consult.defra.gov.uk/land-use/net-gain/>

³ BBOP (2018) Business Roadmap to Biodiversity Net Gain. Business & Biodiversity Offset Programme, Forest Trends Association, Washington DC, USA

Term	Description
	<p>biodiversity assets to recover from losses and provide resilience to climate change impacts.</p> <p>Within Wirral, the network includes component Biodiversity Core Areas. Buffers, Corridors, Stepping Stones & Opportunity Areas. Opportunity Areas are described as 'Nature Improvement Areas' (NIA).</p> <p>Maintaining and improving habitat connectivity is important in ensuring the long-term survival of biodiversity in a fragmented landscape and with a changing climate The National Planning Policy Framework specifically states that local authorities should '...identify and map components of the local ecological networks...' in their Local Plans (MEAS, 2016)⁴.</p> <p>NB: Contrast the term 'nature network' which serves both nature and people as interdependent functions.</p>
Ecosystem	A dynamic complex of plant, animal and micro-organism communities, and their non-living environment interacting as a functional unit (CIEEM, 2018).
Ecosystem services	<p>Benefits provided to people by natural capital (ecosystems and the biodiversity they contain). Services broadly comprise:</p> <ul style="list-style-type: none"> • Provisioning services e.g. food, fibre, fuel and clean water; • Regulating services e.g. climate control, flood regulation, carbon storage, pest control and pollination; • Cultural services e.g. recreation, spiritual, educational, intrinsic and aesthetic value. <p>Supporting services (e.g. soil formation, photosynthesis, biodiversity) originally distinguished are now typically seen as functions or processes associated with natural capital 'stocks'.</p> <p>Ecosystem services may be described as 'flow'.</p>
Effect	The effect (e.g. population decline) of a given impact (e.g. habitat loss) on an ecological receptor. Effects may be beneficial or detrimental.
Environmental Land Management Scheme (ELMS)	<p>Founded on the principle of "public money for public goods", ELMS will be the cornerstone of agricultural policy now the UK has left the EU. The Agriculture Bill will provide the underpinning legislative framework for the ELMS. ELMS will provide farmers, foresters and other land managers with an opportunity to secure financial reward in return for delivering environmental benefits.</p> <p>ELMS is currently undergoing testing but is anticipated to be in place in 2024.</p>
European Protected Species (EPS)	Plants or animals that are legally protected in the UK and Europe. They are listed on Annex II and IV of the Habitats Directive.

⁴ MEAS (2016) Liverpool City Region Ecological Network Final Report

Term	Description
Favourable conservation status (of a species)	When " <i>Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats; and the natural range of the species is neither being reduced nor is likely to be reduced in the foreseeable future; and there is, and will probably continue to be, a sufficiently large habitat to maintain its population on a long-term basis</i> " (Habitats Directive, Article 1(i)).
Fragility	One of the Ratcliffe criteria (Ratcliffe, 1977 ⁵) used to describe nature conservation value. <i>"Some habitats and geological features are more sensitive to change and are at greater risk of being lost or damaged due to the direct or indirect impacts of climate change, human activities or other influences"</i> (MHCLG, 2019 ⁶).
Geodiversity	The variability of rocks, minerals, fossils, landforms, geomorphological processes and soils which collectively underpin the habitats and species which develop thereon. Protection of geodiversity and biodiversity typically sit together, for example, protection of SSSI under the Wildlife & Countryside Act 1981 or protection of non-designated assets in the NPPF.
Green infrastructure (GI)	<i>"A network of multifunctional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities"</i> (NPPF, 2019 ⁷). <i>"A strategically planned and delivered network comprising the broadest range of high quality green spaces and other environmental features. Designed and managed as a multi-functional resource capable of delivering those ecological services and quality-of-life benefits required by the communities it serves and needed to underpin sustainability. Its design and management should also respect and enhance the character and distinctiveness of an area with regard to habitats and landscape types"</i> (NE, 2010 ⁸). <i>"Green infrastructure is the ecological framework for environmental, social, and economic health – in short, our natural life support system"</i> (Benedict & McMahon, 2006 ⁹).
Habitat potential map	Identifies " <i>the potential for an area to support specific habitat creation. Shows areas of lost habitat that need to be restored</i> " (NERR082, 2020).
Habitats Regulations	Implement the Habitats Directive in UK law. The Conservation of Habitats and Species Regulations 2010 (as amended) sets out the steps to consider when

⁵ Ratcliffe, D.A. (1977) A Nature Conservation Review. Cambridge University Press

⁶ MHCLG (2019) Planning Practice Guidance: Natural Environment – Standard Criteria for LWS <https://www.gov.uk/guidance/natural-environment>

⁷ MHCLG (2019) National Planning Policy Framework. Ministry of Housing, Communities & Local Government, London, UK <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

⁸ NE (2010) Nature Nearby: Accessible Natural Greenspace Guidance

⁹ Benedict, M.A. & McMahon, E. (2006) Green Infrastructure: Linking landscapes & communities. Island Press, Washington DC.

Term	Description
	making decisions that affect internationally important sites and EPS.
Impact	The impact (e.g. habitat loss) which causes an effect (e.g. population decline) on an ecological receptor. Impacts may be beneficial or detrimental.
Integrity	In relation to a designated site, 'integrity' refers to the "...coherence of ecological structure and function...that enables it to sustain the habitat, complex of habitats and/or levels of populations of species for which it was classified" (ODPM Circular 06/2005: Biodiversity and Geological Conservation ¹⁰). In relation to species or habitats, 'integrity' refers to the maintenance of the conservation status of a habitat or species population at a specific location or geographical scale.
Landscape character area	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse ¹¹ . Identified through a Landscape Character Assessment - the process of identifying and describing variation in the character of the landscape. It seeks to identify and explain the unique combination of elements and features (characteristics) that make landscapes distinctive.
Liverpool City Region (LCR)	Liverpool City Region – may also be referred to as "the City Region".
Local ecological network	<i>"Local ecological networks can make a significant contribution to developing the [national] Nature Recovery Network. Local ecological networks can be identified and mapped as a part of the plan-making process, with policies identifying appropriate levels of protection and opportunities to create, restore or enhance habitats or improve connectivity."</i> (MHCLG, 2019 ¹²)
Local Nature Partnership (LNP)	LNP bring together local organisations, businesses and people who want to improve their local natural environment. Established in the vision of the Government's 2011 'Natural Environment White Paper', there are 47 LNP across England. In the City Region, the LNP is 'Nature Connected'.
Local Nature Recovery Strategies (LNRS)	LNRS are a new system of spatial strategies for nature under the Environment Bill, covering the whole of England. Locally led by an appropriate "responsible authority", these will identify the opportunities and priorities for enhancing biodiversity and supporting wider objectives such as mitigating or adapting to climate change in an area.
Mitigation	Adverse effects that cannot be avoided should be adequately mitigated.

¹⁰ ODPM (2005) Government Circular: Biodiversity & Geological Conservation – Statutory Obligations & Their Impact within the Planning System. Office of the Deputy Prime Minister, London, UK www.gov.uk/government/publications/biodiversity-and-geological-conservation-circular-06-2005

¹¹ Natural England (2014) An Approach to Landscape Character Assessment. Defra

¹² MHCLG (2019) Planning Practice Guidance: Natural Environment – How do local ecological networks relate to the Nature Recovery Network? www.gov.uk/government/collections/planning-practice-guidance

Term	Description
	Mitigation measures negate the adverse impact of a plan or project, during or after its completion. In respect to development, mitigation should form part of the development proposal, but additional measures can be imposed by the decision-maker. All mitigation measures should be secured through the use of planning conditions or planning obligations ¹³ .
Mitigation hierarchy	The mitigation hierarchy underpins planning policy and decision making. It requires that potential adverse impacts be avoided or, where this is not possible, mitigated and, as a final resort, compensated (off-set).
Natural capital	<i>"The elements [assets or 'stocks'] of nature that directly and indirectly produce value or benefit to people [i.e. ecosystem services. Natural capital may include] ...ecosystems, species, freshwater, land, minerals, the air and oceans, as well as natural processes and fluctuations"</i> (NCC, 2016 ¹⁴).
Naturalness	One of the Ratcliffe criteria (Ratcliffe, 1977) used to describe nature conservation value. <i>"The degree to which a site supports natural features, including rock exposures revealing underlying geology, or demonstrates active or past natural processes"</i> (MHCLG, 2019 ¹⁵).
Nature Improvement Area (NIA)	<p>"Large, discrete areas that are intended to deliver a step change in nature conservation, offer significant improvements for wildlife and people through the sustainable use of natural resources, provide opportunities to restore and create wildlife habitats, and enhance connectivity between local sites" (MEAS, 2016¹⁶).</p> <p>NIA were originally identified at the national scale (launched 2012 to be run with the aid of Local Nature Partnerships). Some LPA, including Wirral, have now refined to local targets i.e. serving as the Opportunity Areas within an Ecological Network (see above).</p> <p>NIA (or part of an NIA) may focus on a particular habitat or strategic natural asset. There are 17 NIA in the City Region and 7 within or immediately adjacent to Wirral.</p> <p>Note that NIA are distinct from the nature recovery areas identified as part of the Nature Recovery Network (NRN) in the Government's 25 Year Plan. Nevertheless, the Monitoring & Evaluation of NIA Report (2012-15)¹⁷ remains the primary reference for the NRN.</p>

¹³ BS 42020:2013: Biodiversity. Code of practice for planning and development

¹⁴ NCC (2016) Natural Capital Protocol. Natural Capital Coalition, London, UK www.naturalcapitalcoalition.org/protocol

¹⁵ MHCLG (2019) Planning Practice Guidance: Natural Environment – Standard Criteria for LWS <https://www.gov.uk/guidance/natural-environment>

¹⁶ MEAS (2016) Liverpool City Region Ecological Network Final Report

¹⁷ Collingwood Environmental Planning (2015) Monitoring & Evaluation of NIA: Final Report (2012-15). DEFRA Natural England <https://www.gov.uk/government/publications/nature-improvement-areas-improved-ecological-networks/nature-improvement-areas-about-the-programme>

Term	Description
Nature network	A nature network may be distinguished from an 'ecological network' as, in addition to the primary role to support thriving wildlife, <i>"a nature network should also enhance natural beauty and conserve geodiversity and opportunities should be taken to deliver benefits for people, such as flood alleviation, recreational opportunities and climate change adaptation and mitigation. These joint aims... are at the heart of nature networks and they are inter-dependent: networks for wildlife that also deliver benefits to people also tend to be more valued by people"</i> (NERR082, 2020).
Nature Recovery Network	<p>The NRN, as identified in the 25 Year Plan (2018), is an expanded, enhanced and increasingly connected network of places that are richer in wildlife and more resilient to climate change, that is key to delivering the Government's Nature Strategy outside of designated sites. <i>"It comprises a core network of designated sites of importance for biodiversity and adjoining areas that function as stepping stones or wildlife corridors, areas identified for new habitat creation and up to 25 nature recovery areas [at landscape or catchment scale] for targeted action"</i> (MHCLG, 2019¹⁸). Benefitting wildlife and people, the NRN will provide an integrated approach to nature recovery.</p> <p>The NRN national delivery partnership will be led by NE (launch late 2020), supported by local partnerships. Local Nature Recovery Strategies (LNRS) will be piloted in 2020/21.</p>
Nature Strategy	<p>Introduced under the 25 Year Plan (2018), the Nature Strategy sets out the Government's approach to deliver our commitments under the Convention on Biological Diversity. The strategy will set the overall ambition and specific goals for habitat and species recovery over ten years:</p> <ul style="list-style-type: none"> • restoration of 75% protected sites to favourable condition by 2042, • create or restore 500,000ha of wildlife-rich habitat outside of protected sites as part of a Nature Recovery Network, • take action to recover threatened, iconic or ecologically important species, • increase woodland cover, • improve soil health and restore peatlands.
Offsetting	Biodiversity offsets are distinguished from other forms of ecological compensation by the formal requirements for measurable outcomes: the losses due to impact, and gains achievable through the offset, are measured in the same way, even if the habitats concerned are different ¹⁹ .

¹⁸ MHCLG (2019) Planning Practice Guidance: Natural Environment – How do local ecological networks relate to the Nature Recovery Network? www.gov.uk/government/collections/planning-practice-guidance

¹⁹ DEFRA (2012) Biodiversity Offsetting Pilots. Technical Paper: the metric for the biodiversity offsetting pilot in England.

Term	Description
Planning conditions	The Town and Country Planning Act enables the local planning authority to grant planning permission to impose “ <i>such conditions as they think fit</i> ” to ensure delivery as agreed. This power should be interpreted in light of material considerations such as the National Planning Policy Framework.
Planning obligations	Planning obligations are legal obligations under Section 106 of the Town and Country Planning Act entered into to mitigate the impacts of a development proposal by a person with an interest in the land and the local planning authority.
Priority habitats &/or species	These are of Principal Importance in England and are listed in the Natural Environment and Rural Communities (NERC) Act 2006 Section 41 (s42 in Wales). The list includes UK BAP habitats and species (identified in response to the 1992 Rio Convention during the interim period until legislation came into place). Of the s41/42 species, many are also protected under UK legislation.
Position in the ecological mosaic	One of the Ratcliffe criteria (Ratcliffe, 1977) used to describe nature conservation value. The relationship or connectivity of a site or habitat parcel to adjacent areas of nature conservation value. This reflects not only contribution to a functional ecological resource but recognises the ecological character of the locality, county or region.
Potential value	Sites or habitat parcels which could, through appropriate management or natural progression, develop greater nature conservation value.
Rarity	One of the Ratcliffe criteria (Ratcliffe, 1977) used to describe nature conservation value. Rarity relates to the frequency of occurrence, or abundance, of a habitat, species or community. Rarity may be considered at a range of scales – local, county or national, for example.
Recombinant ecology	Flora and fauna not directly representative of an ‘original’ assemblage at a given locale but are nevertheless locally-appropriate in the current context, or indeed as future target for management objectives.
Replacement	Creation of an acceptable substitute habitat for that which has or would be lost, fragmented or otherwise detrimentally affected.
Restoration	The process of assisting the recovery of an area or ecosystem that has been degraded, damaged or destroyed. The aim of ecological restoration is to re-establish the composition, structure and function to a close approximation of its pre-degraded state.
Strategic natural assets	The most important strategic natural assets in the city region include (MEAS,

Term	Description
	<p>2016²⁰):</p> <ul style="list-style-type: none"> • Coasts and estuaries including the land and water features; • Water courses and wetland habitats such as bogs, mosses and ponds; • Lowland heath; • Ancient semi-natural woodland; • Lowland meadows; • Agricultural land.
Typicalness	<p>One of the Ratcliffe criteria (Ratcliffe, 1977) used to describe nature conservation value.</p> <p><i>“Areas that exemplify a type of habitat, geological feature, or a population of a species, that is characteristic of the natural components of the landscape in which they are found”</i> (MHCLG, 2019²¹).</p>
Zone of influence	<p>Area over which ecological features may be impacted by a given project or project activity.</p>

²⁰ MEAS (2016) Liverpool City Region Ecological Network Final Report

²¹ MHCLG (2019) Planning Practice Guidance: Natural Environment – Standard Criteria for LWS <https://www.gov.uk/guidance/natural-environment>