

# Nature at Work

## Liverpool City Region and Warrington Green Infrastructure Framework

### Action Plan

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Version 1.2

## Contents

# Introduction

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The Liverpool City Region Green Infrastructure Partnership has worked over the last three years to develop a Framework for the City Region and Warrington.

The Framework is now “owned” by the Liverpool City Region Local Nature Partnership (LNP) and supported by the Cheshire and Warrington LNP.

This work has for the first time assessed the spatial distribution of green infrastructure across Liverpool City Region and Warrington. It has also looked at a range of social and economic factors that affect and are affected by green infrastructure.

- 80% of the area is Green Infrastructure<sup>1</sup>
- 8,000 jobs in the Green Infrastructure sector<sup>2</sup>
- These generate £300m/year GVA for the city region and Warrington<sup>3</sup>
- Green infrastructure provides some of the fundamental services that we rely on for our economy and way of life – worth over £100bn annually – what price The Mersey?<sup>4</sup>

Yet we do not plan it as a critical infrastructure.

Recognising the state of the economy, the Liverpool City Region and Warrington Green Infrastructure Framework shows how green infrastructure supports the economy, health and wellbeing and enables the sustainable use of our natural assets. It looks to link directly to priorities expressed in key city region and Warrington strategies and policies.

Perhaps Lord Heseltine in his report to government did leave a stone unturned<sup>5</sup>. Major cities around the world are looking to make their green infrastructure work harder to support the economic and social aspirations, whilst also safeguarding their natural capital<sup>6</sup>. This framework looks to support the same ambition for Liverpool City Region and Warrington.

It echoes the Health Sector calls for an “Assets” based approach to improving health and wellbeing, using every opportunity and advantage, not just clinical means, to secure better long term health and reduce health inequalities.

It also supports the Ecosystems Services Assessment scenario that was shown to be deliver the greatest positive impacts for the economy – Nature@Work

The Framework does not attempt to designate or zone any area, that is the role of others. It provides an evidence base to support decision making and policy development and a Framework for “smarter” action.

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<sup>1</sup> See Liverpool City Region Technical Document

<sup>2</sup> Regeneris, 2013, Green Infrastructure jobs analysis – prospects for growth, Liverpool Vision

<sup>3</sup> See 2 above

<sup>4</sup> See Liverpool City Region Technical Document - page

<sup>5</sup> Lord Heseltine, 2013, Not Stone Unturned in pursuit of Growth.

<sup>6</sup> See for example [http://www.nyc.gov/html/dep/html/stormwater/nyc\\_green\\_infrastructure\\_plan.shtml](http://www.nyc.gov/html/dep/html/stormwater/nyc_green_infrastructure_plan.shtml)

## Purpose of the Liverpool City Region Green Infrastructure Framework

- For the first time produce an **evidence base** for the city region and Warrington's green infrastructure to help inform decisions about land use, planning and management.
- **Support advocacy** for green infrastructure to be planned and managed as a **critical infrastructure** that can and should be used to help tackle priority issues for the city region and Warrington.
- Identify key activities and **actions at a city region level** that meet identified priorities.
- These can form the basis for a programme of **investment at a city region level** that can bring together organisations from a range of sectors through the Local Nature Partnerships to cooperate, increase their impact, and focus on critical issues which provide mutual benefits.

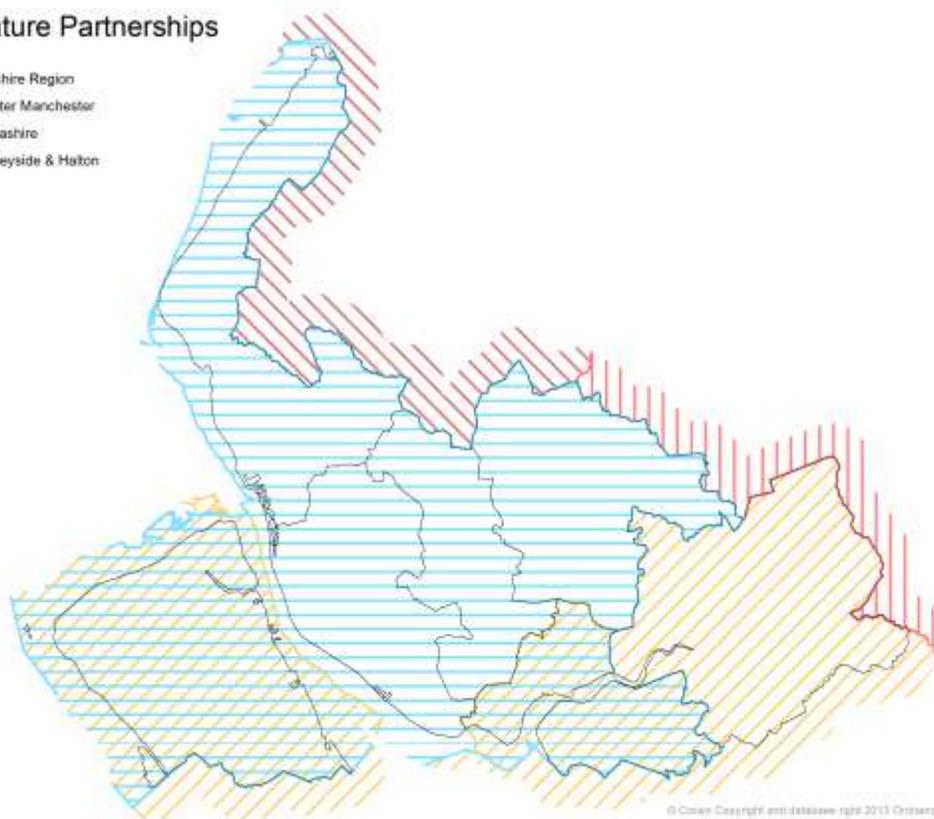
## The Role of Local Nature Partnerships

Local Nature Partnerships (LNP) were set up following the launch of the Environment White Paper in 2010. The Liverpool City Region and Warrington Green Infrastructure Framework overlaps with two Local Nature Partnerships.

- Liverpool City Region LNP
- Cheshire and Warrington LNP

## Map 1 Local Nature Partnerships

### Local Nature Partnerships



“LNPs work strategically to help their local area manage the natural environment. They aim to make sure that its value, and the value of the services it provides to the economy and the people who live there, is taken into account in local decisions, for example about planning and development”<sup>7</sup>

This Framework forms part of the approved work plan of the Liverpool City Region LNP and is supported by the Cheshire and Warrington LNP.

Liverpool City Region LNP own the Framework in the sense of taking a lead and monitoring progress, but close work with the Cheshire and Warrington ensures that there are opportunities to share and develop ideas and resources.

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<sup>7</sup> <https://www.gov.uk/government/policies/protecting-biodiversity-and-ecosystems-at-home-and-abroad/supporting-pages/local-nature-partnerships>

## “It’s the economy …”

At the time of publication of the Green Infrastructure Framework, the UK still has relatively slow economic growth and anticipated long term pressures on business and public finances.

The focus is firmly on jobs and growth as never before. James Carville’s “message” for Bill Clinton’s presidential campaign team in 1992, “[The economy, stupid](#)”, is still a stark reminder that the economic arguments are the most powerful in terms of getting things done.

Green infrastructure is planned, managed and utilised by a myriad of businesses. Sixteen thousand jobs are involved in green infrastructure activity. These businesses generate over £700m of GVA some 3% of the city region and Warrington total. Green infrastructure is important in its own right as a sector, with potential for new jobs, skills improvement and business growth.

Green infrastructure underpins the entire economy. If we really are striving for a knowledge based, high tech, low carbon, more equal, more sustainable economy then ignoring this green infrastructure is as damaging for our future economic wellbeing as ignoring transport, water, energy or waste infrastructure.

Economic value from GI may be delivered in a number of ways:

- **Direct** - Direct jobs and business development related to the creation and management of green infrastructure
- **Indirect** - Green infrastructure creating the setting for jobs and investments (Quality of Place and Quality of Life) and providing the raw materials or basis for other businesses.
- **Reducing Cost** - By using a green infrastructure approach as an alternative for instance to traditional “grey infrastructure” approaches and providing savings in areas such as public health.
- **Reducing Risk** - Green infrastructure mitigating or adapting an area for a given risk

It is perhaps worth bearing in mind the other two strategy summaries from Carville.

["Change vs. more of the same"](#)

["Don't forget health care"](#)

These too are echoed in this framework.

## What is Green Infrastructure?

### Definition

Green infrastructure is:

*"Our life support system – the network of natural environmental components and green and blue spaces that lies within and our towns and city and provides multiple social, economic and environmental benefits."*

### Green Infrastructure Challenges

Green infrastructure planning is not business as usual.

It challenges the “environment” sector to develop and support a robust and coherent framework, link actions effectively to wider key strategic priorities, engage with other sectors over an extended period of time and work with a wide range of organisations involved in land use planning, management and development.

It challenges those who plan, develop and deliver programmes, strategy, policy and traditional infrastructure projects to consider how green infrastructure principles, planning and delivery can help to improve the cost effectiveness, quality, sustainability and wider impact of their investments.

### Green Infrastructure Principles

Eight principles of green infrastructure planning, design and implementation have been proposed<sup>8</sup> to support this framework:

- Identify and protect green infrastructure assets
- Engage diverse people and organisations from a range of sectors
- Linkage is key, connecting green infrastructure components with each other and with people
- Design green infrastructure systems that function at different scales and across boundaries
- Green infrastructure activity must be grounded in good science and planning practice
- Fund green infrastructure up-front as a primary investment
- Emphasise green infrastructure benefits are afforded to all; to nature and people
- Green infrastructure should be the framework for natural environment projects and programmes.

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<sup>8</sup> Benedict, M.A. and McMahon, E.T. (2000) Green Infrastructure. Linking Landscapes and Communities. Island Press, Washington.

### Describing Green Infrastructure

We use a simple logic chain to describe GI. The Framework looks at the type of GI (e.g. grassland, water course); what it does (its function); the benefits provided (e.g. climate change adaptation) and its value.



Figure 1 Green Infrastructure Logic Chain

### GI Framework format

Liverpool City Region Green Infrastructure Framework has four components:

**Green Infrastructure Database** - Held by Mersey Forest Team and made available to partners for use for local planning and strategy development. This contains all of the data sets produced as part of this Framework and a data "information tool" to enable information to be provided for specific sites or areas.

**Technical Document** - Detailed background information, methodologies, evidence and analysis leading to the action plan.

**Action Plan** - This document which provides an overview of the key actions and the opportunities that exist to deliver them.

**Prospectus** – An executive summary focussed on the key issues and actions.

## Priorities

Through extensive consultation six priorities for green infrastructure in the city region and Warrington were agreed. For each priority green infrastructure actions that are most appropriate at the city region level to tackle the identified issues have been suggested. Table 1 shows the high level policy aspiration and vision for each of these priorities.

**Table 1 Overarching policy, priorities and long term vision for GI in the Liverpool City Region and Warrington**

Overarching Policy	Priorities	Long term vision
Green infrastructure will be established as a critical infrastructure through plans, strategies, proposals and schemes as a comprehensive framework contributing to the sustainable development of Liverpool City Region and Warrington through the delivery of six priorities.	<b>Setting the Scene for Growth</b>	As a low carbon economy, Liverpool City Region and Warrington maximises the benefits that are delivered through strategic GI planning to support sustainable economic growth.
	<b>Supporting Health and Well being</b>	The natural environment is seen as a key health asset. People in the city region and Warrington state that the natural environment and their enjoyment of it is a major contributor to their wellbeing.
	<b>Adapting to Climate Change</b>	The city region and Warrington has adapted well to climate change and supports others in making their change.
	<b>Providing recreation, leisure and tourism</b>	The city region and Warrington is a playground, with paths and green routes offering opportunities for sustainable recreation and leisure and encouraging visitors to enjoy the natural beauty of the area.
	<b>Enhancing the Ecological framework</b>	The developing ecological framework is a precious resource, providing critical functions and safeguarding our biodiversity.
	<b>Developing the Rural Economy</b>	An attractive and thriving rural economy is key to the success of city region, providing valuable fuel and food resources as well as the setting for a high tech and knowledge based economy.

**Key Questions** were developed for each of these priorities.

Through analysis of existing city region and Warrington plans and policies, national policy, wider research and assessment of the green infrastructure resource, **Findings** and responses to these key questions were developed.

From these responses, **Actions** were identified and in order to deliver these a much smaller number of key **Activities** were derived. These Activities enable the actions, by providing policy or funding support or by influencing other groups and their strategies.

Each of these Activities has a **lead organisation** identified. Each of the lead organisations is part of the **Liverpool City Region Local Nature Partnership (LNP)**.

This **LNP owns the Framework**, it forms part of its work plan and progress is monitored.

## A Framework of 12 Activities

The technical document<sup>9</sup> provides the background evidence for the 41 actions set out in this action plan.

We have identified 12 key activities to support the delivery of these actions. Some are mechanisms to enable actions, others are funding opportunities. Delivering these activities enables all of the actions and the benefits from green infrastructure that are needed for the city region and Warrington.

These activities and actions are endorsed, championed and promoted by the two local Nature Partnerships and both Local Enterprise Partnerships as well as local authorities and a wide range of public, private and voluntary sector organisations.

The partners involved in developing this green infrastructure framework have a strong commitment to working with communities, which is fundamental to successful delivery of these activities and actions.

The table below describes the 12 key activities, For each activity, the number of actions that it helps to support is identified along with the Local Nature Partnership champion for each.

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<sup>9</sup>

## Table 2 Top 12 Activities

<p>Plan and deliver green infrastructure to help overcome “pinch points” that undermine investment potential. Actions supported 25</p> <p>Mersey Forest/Green Infrastructure Unit</p>	<p>Use the Green Infrastructure Framework to shape the content and delivery of European Structural and rural Development Funds. Actions supported 14</p> <p>MEAS</p>
<p>Engage the non-environmental sector more effectively through the Local Nature Partnership and Local Enterprise Partnership link and Community Environment Fund<sup>10</sup>. Actions supported 19</p> <p>LNP coordination group</p>	<p>Fully utilise Green Infrastructure Planning, delivery and management to reduce health inequalities, promote positive wellbeing and reduce the prevalence of poor mental and physical health in support of the Decade of Health and Wellbeing. Actions supported 9</p> <p>NHS/CHAMPS</p>
<p>Use GI to help adapt our area to projected climate change and assist in the creation of a low carbon economy. Actions supported 23</p> <p>DEFRA</p>	<p>Build the GI Framework into city region and cross boundary plans and strategies. Actions supported 18</p> <p>Local Authorities</p>
<p>Support the aspiration for the Mersey as the cleanest and most ecologically rich urban river in Europe. Actions supported 10</p> <p>MEAS</p>	<p>Create and develop green infrastructure tourism assets such as our coastal areas, large parks, greenways such as Sankey Valley and the Forest Parks. Actions supported 9</p> <p>LNP coordination group</p>
<p>Use the green infrastructure of the city region and Warrington to promote and “sell” the area as a great place to live, work and invest. Use it to help bid for Green Capital. Actions supported 7</p> <p>LNP coordination group</p>	<p>Through green infrastructure planning and delivery enhance the ecological framework through creation of more and bigger areas for nature that are well managed and connected to form an ecological network. Actions supported 18</p> <p>MEAS</p>
<p>Deliver The Mersey Forest Plan, increasing woodland cover in areas of greatest need, deliver “More from trees” and achieve a “Woodland culture”. Actions supported 16</p> <p>Mersey Forest</p>	<p>Use the green infrastructure assets of the city region and Warrington to support increased active travel, walking and cycling for work, recreation and leisure. Actions supported 9</p> <p>MerseyTravel</p>

<sup>10</sup> Community Environment Fund Information at [www.atlanticgateway.co.uk/](http://www.atlanticgateway.co.uk/)

## The Green Infrastructure Framework

For the first time we have an inventory of green infrastructure for the city region. In all 18 different green infrastructure types are mapped.

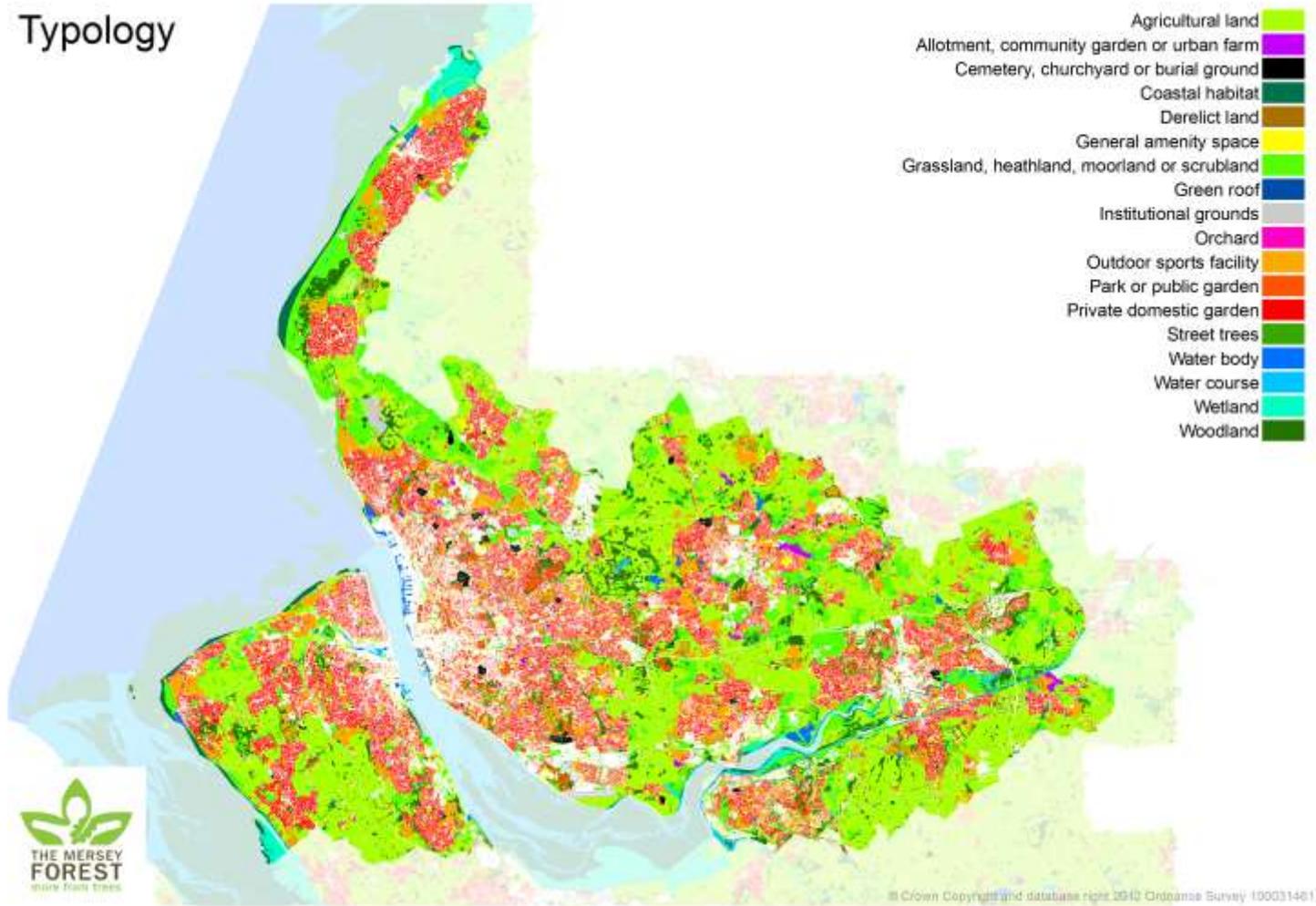
80% of the city region and Warrington is green infrastructure. The data is available at high level of detail so we can zoom into areas of interest.

Typology	Percentage GI
<b>Agricultural land</b>	<b>26.72%</b>
<b>Private domestic garden</b>	<b>14.91%</b>
<b>Coastal habitat</b>	<b>14.72%</b>
<b>Grassland, heathland, moorland or scrubland</b>	<b>13.43%</b>
<b>Outdoor sports facility</b>	<b>6.82%</b>
<b>Woodland</b>	<b>6.66%</b>
Water course	4.73%
General amenity space	4.35%
Park or public garden	2.11%
Institutional grounds	2.03%
Wetland	1.18%
Water body	0.91%
Derelict land	0.43%
Allotment, community garden or urban farm	0.41%
Cemetery, churchyard or burial ground	0.42%
Street trees	0.13%
Orchard	0.02%
Green roof	0.00%

Figure 2 Table of GI typology percentages for Liverpool City Region and Warrington

Map 2 Green infrastructure typology

# Typology



The top six green infrastructure types in the table constitute 80% of the total GI for the city region.

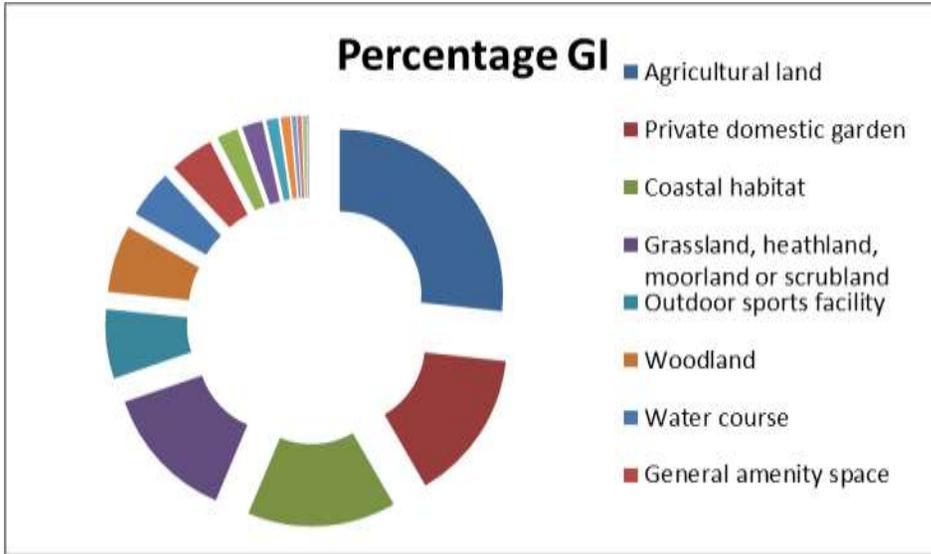


Figure 3 Percentage breakdown of green infrastructure typologies

We can also look at the differences across the local authority areas. (Figure 4)

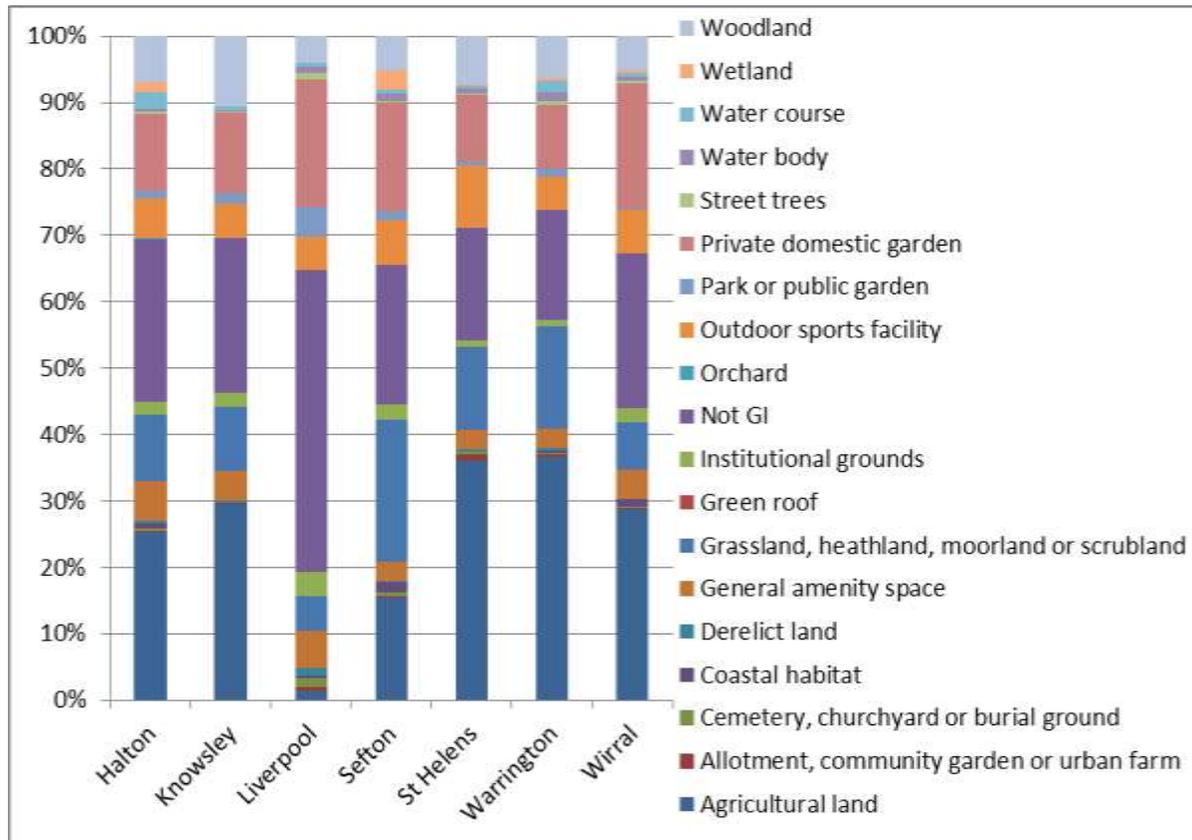


Figure 4 Green infrastructure types in each local authority

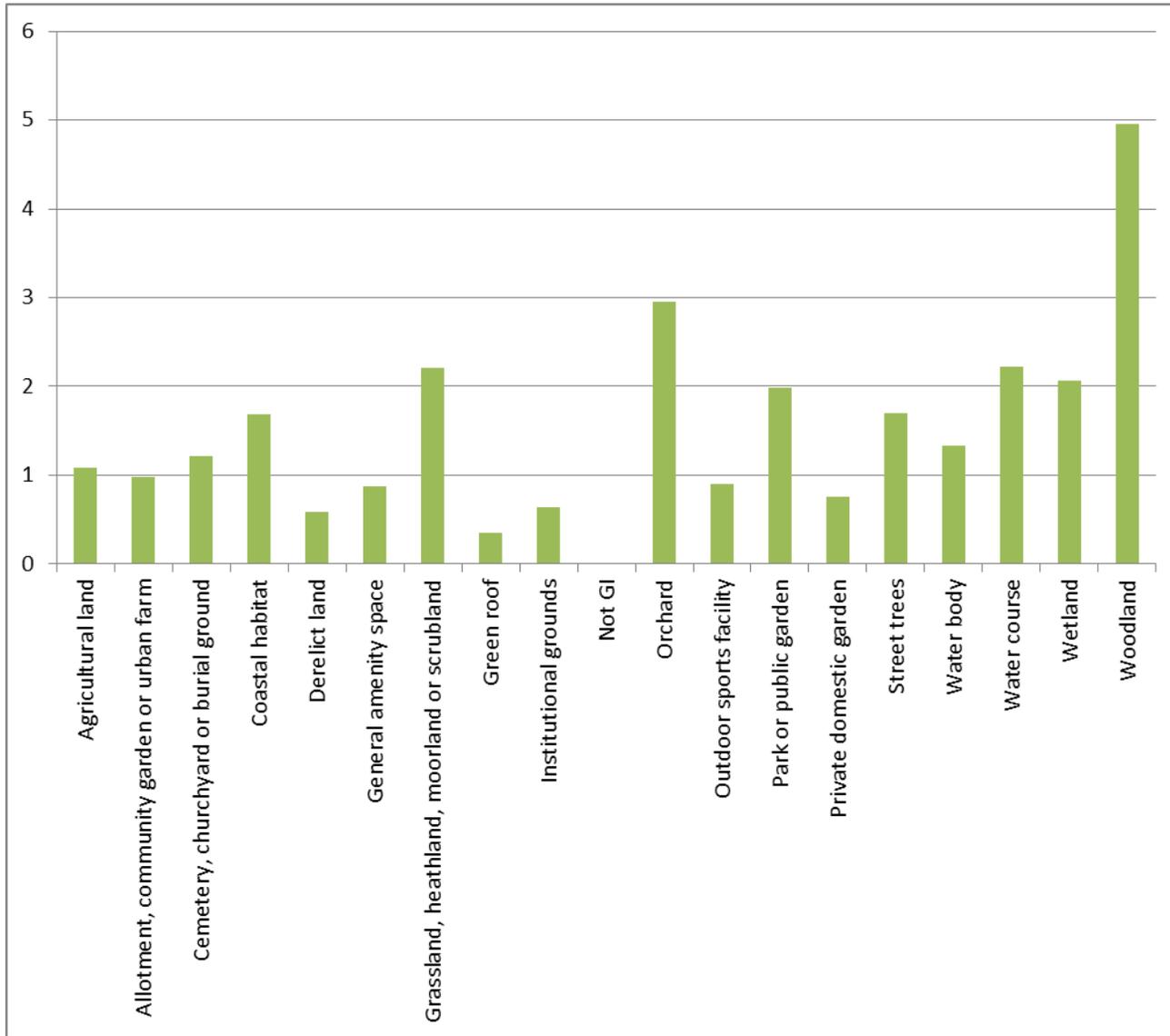


Figure 5 Average number of needs fulfilled per type of green infrastructure

Map 3 shows the major concentrations of green infrastructure across the city region and Warrington with economic priority areas also indicated.

Map 3 Major concentrations of green infrastructure



The following broad conclusions can be drawn:

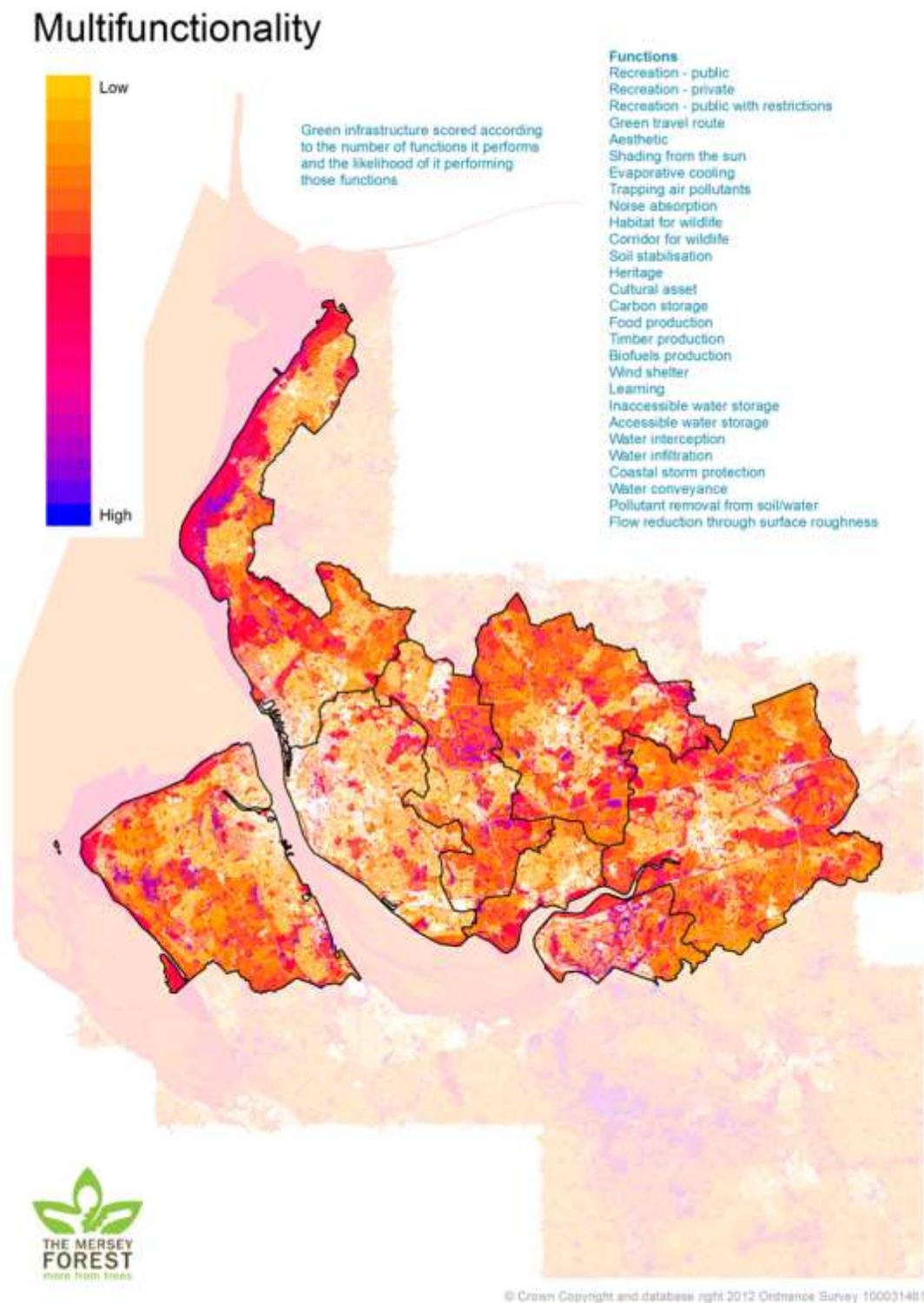
- The close relationship between the economic priority areas and the major concentrations of green infrastructure
- The importance of the Mersey and Dee estuaries.
- The urban areas are surrounded by green infrastructure predominantly agricultural in character with the gaps between settlements being of varying width.
- Importantly there are several corridors of varied typology breaking into and through the urban areas, for example in south Sefton along the Rimrose Valley, at several points along the eastern edge of Liverpool and North West and South East of Warrington town centre.
- The concentration of non-green infrastructure landward of the Mersey in Liverpool.
- The importance of private gardens in the overall green infrastructure mosaic of the city region.
- Reflecting the grain of urban development there is a south-west to north east trend in green infrastructure with the corridor between Knowsley and St.Helens to the north and Halton/Warrington to the south being particularly prominent.

## Functions of our Green Infrastructure

A key element of Green Infrastructure Planning is the assessment of the functionality. This looks at what the green infrastructure is doing. In all 28 different functions are assessed. The full details of the functionality assessment are provided in the Technical Document. Figure 6 provides a picture of the “multifunctionality” of the city region and Warrington. The darker the colour of an area on the map the more functions delivered in that area. From this and even at this scale it is possible to identify particular areas of high levels of multifunctionality.

- The coast, the area around Formby and Ainsdale in particular.
- The major parks and woodlands in Liverpool and the other major towns of the city region and Warrington.
- The areas immediately adjacent to towns and city – the urban/rural fringe - often is shows high levels of multifunctionality.

Figure 6 Multifunctionality of green infrastructure in Liverpool City Region and Warrington



## Priorities and actions.

For each of the six priorities a series of **key questions** were developed. The questions were arose from the review of background information, policy and strategy that related to each of the six priorities from economic, social and environmental perspectives and help to identify issues..

The following section provides an overview of the findings from the green infrastructure mapping and analysis that has been carried out and suggests a range of actions to address these issues.

The following sections do not repeat all of the evidence that was gathered and is found in the Technical Document.

The link between the actions and the 12 Key Activities is shown in Appendix 1.

Figure 7 Extract from Appendix 1 – Key Activities supporting actions

Priority	Action number	Action/Activity	Key Activities							
			Plan and deliver Green Infrastructure to help realise "pinch points" that underpin investment potential	Use the Green Infrastructure Framework to shape the content and delivery of European Structural and Rural Development Funds	Engage Partners: environmental sector more effectively through the Local Nature Partnerships and Local Enterprise Partnership link and Community Environment Fund	Pull across Green Infrastructure Planning, delivery and management to reduce health inequalities, promote positive wellbeing and reduce the prevalence of poor mental and physical health in support of the Secods of Health and Wellbeing	Use GI to help adapt our area to projected climate change and assist in the creation of a low-carbon economy	Build the GI Framework into city region and local authority plans and strategies	Support the aspiration for the Jersey as the cleanest and most ecologically sustainable in Europe	
Setting the Scene for Growth	1	Use the Pinch Points map and methodology to target GI to the areas where it can alleviate pinches and so help to create a setting for investment.								
	2	GI priority (not Green Clothing Theme) in new ERF programme: GI to tackle pinch points highlighted as a priority in RRF and other land management programmes								
	3	safeguard the functions of GI that are strategic assets for the city region and Wexley								
	4	Green Infrastructure policy supporting local action and the work of city region level in all strategic and policy discussions								
	5	Use GI Maps showing areas of greatest need to position a programme of investment in GI actions to reduce water course pollution, and reduce flood risk								
	6	Work closely with Environment Agency and Local Utilities to identify how Green Infrastructure can help to deliver Water Framework Directive outcomes								
	7	Build in measures to improve water quality that are capable of being delivered through ERF and RRF programme								
	8	Programme of enhancement of key routes and major gateways using GI								
	9	Use GI to help create suitable connections								
10	Green key routes between zones of job opportunity and areas of high unemployment									

Each action has suggestions for partners who may assist in delivery and also the mechanisms or funding that may enable delivery. The number of Key Activities that support each activity is also indicated for each action.

Action number	Action /Activity	Partner	Mechanism or funding opportunity.	Number of key activities supporting the actions
1	Use the Pinch Points map and methodology to target GI to the areas where it can alleviate pinches and so help to create a setting for investment.	Local Enterprise Partnership and Local Nature Partnerships joint working Atlantic Gateway Board Local Authorities	City Region Planning Framework Adapting the Landscape	6

## Setting the Scene for Growth

### Long Term vision

As a low carbon economy, Liverpool City Region and Warrington maximises the benefits that are delivered through strategic green infrastructure planning to support sustainable economic growth.

### Key Questions

- What and where are the green infrastructure assets that support economic investment in the sub region?
- What and where are the "pinch points" constraining economic investment in the sub region and Warrington and what are the potential green infrastructure solutions?
- How can green infrastructure support Atlantic Gateway<sup>11</sup> aspirations and deliver aspects of "Adapting the Landscape" or successor plans?
- How can green infrastructure planning and delivery assist in improving the water quality of the River Mersey and its tributaries?
- Where are the cross-boundary transport routes and major gateways that lead to key investment areas and how can they be enhanced?
- Are there green routes that lead from residential to key investment areas (see also Recreation, Leisure and Tourism section below) which could increase opportunities for walking and cycling, active travel to work?
- How can the green infrastructure sector be developed? Providing more jobs, safeguarding business, increasing opportunities, increasing skill levels

## Findings

### Pinch Points, Assets and Atlantic Gateway

Map 2 indicates areas where investment is proposed but where there are Pinch Points, issues/risks (flood, air quality, noise etc.) that will potentially undermine investment and for which there are green infrastructure solutions or where green infrastructure can be part of an integrated plan to reduce the impact of the risk. This work has been carried out at an Atlantic Gateway scale, though the detail is available for every area of Liverpool City Region and Warrington. The key investment areas within Liverpool City Region and Warrington are:

- Daresbury
- Port Seaforth
- 3MG and Mersey Gateway Port
- Mersey Gateway Bridge
- Liverpool Airport Expansion
- Port and other logistics related development
- The Northern Hub
- Innovation Centre and Mersey Tidal
- Wirral Waters

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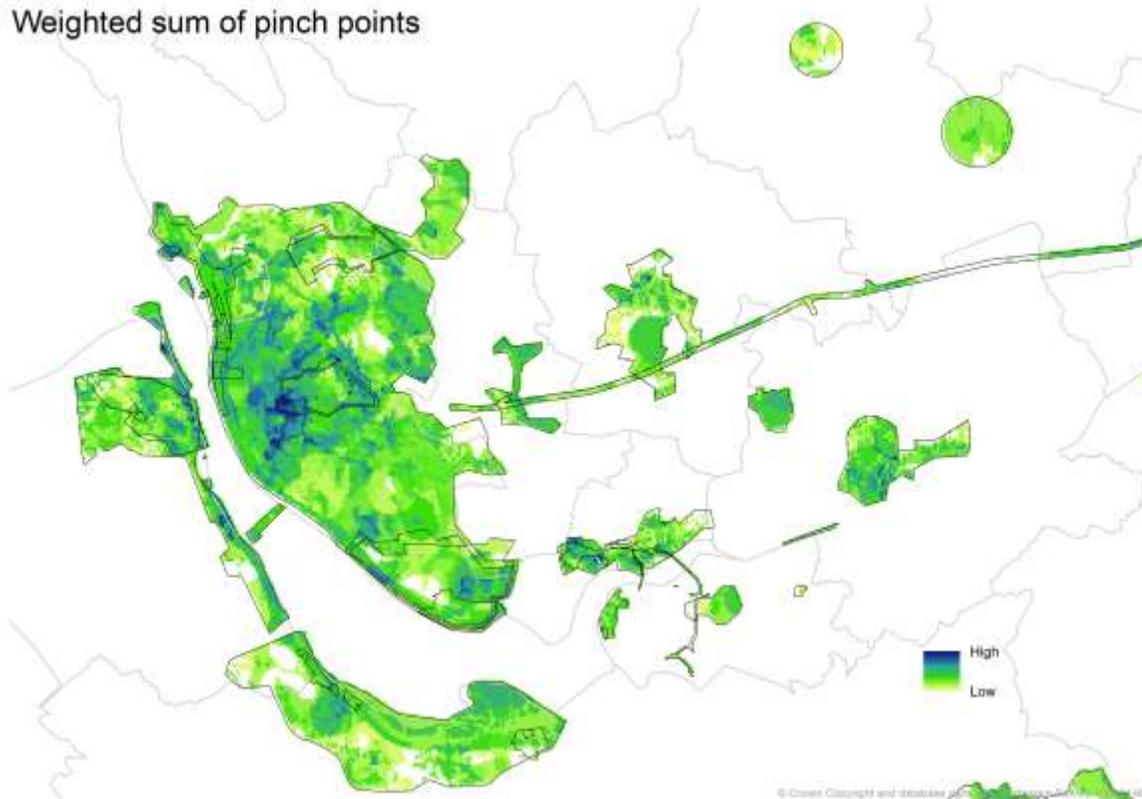
<sup>11</sup> See <http://www.atlanticgateway.co.uk/>

- Liverpool Waters
- Omega
- Liverpool Vision
- Approach 580
- Eastern Approaches
- Speke Garston
- 4M Economic Development Zone
- Huyton-Prescot
- Halebank
- Runcorn and Western Docklands
- St Helens regeneration Corridor
- Widnes Southern, Central and waterfront
- Castlefields and Norton Priory
- Warrington Town Centre and Waterfront
- Wirral Waterfront
- Atlantic Gateway Northshore
- A580 Northern Fringe
- Knowledge Corridor
- Speke Halewood

The pinch issues have been weighted based on the magnitude of the investment risk. So for example the risk of flood is weighed greater than other risks.

Now that the data has been gathered this exercise is straightforward to run on any new investment priority as well as the ones identified below. It therefore provides a dynamic tool to enable targeting of resources to support anticipated investment.

Map 4 Weighted sum of pinch points



There are pinch points associated with all of the major investment priority areas identified across the city region and Warrington. In Map 4 the darker colour indicates a higher number of pinches in that area – potentially undermining investment opportunities and future economic returns.

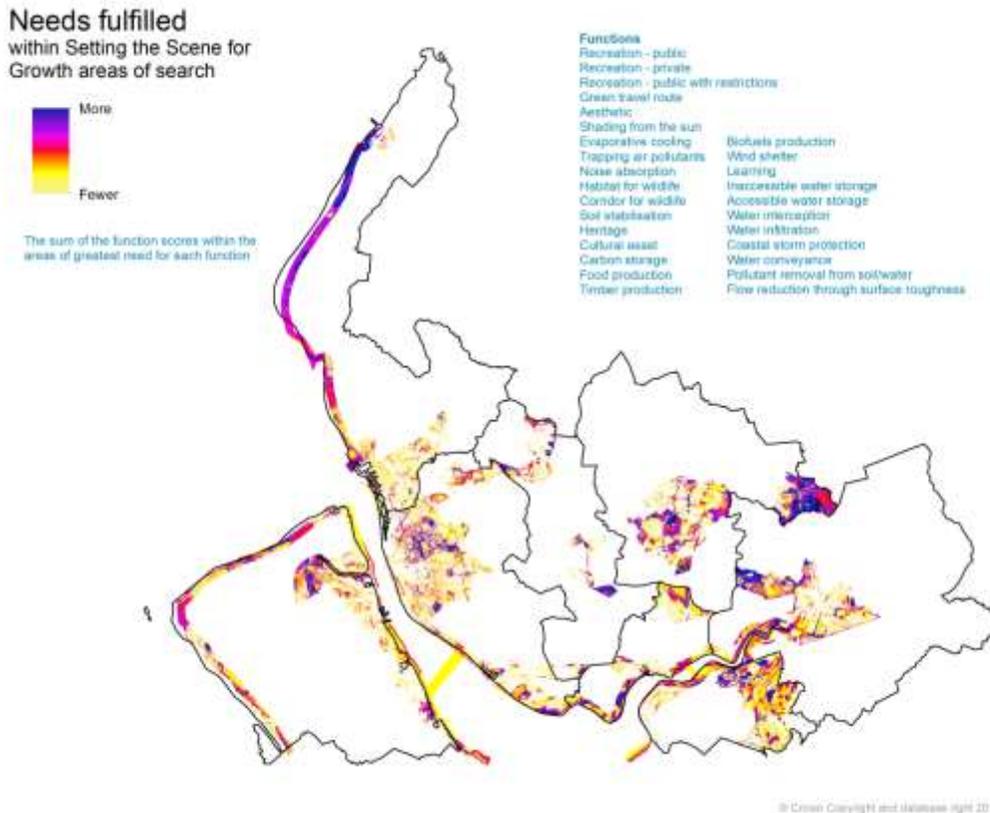
Reducing the risk from these issues, using green infrastructure, will help to enable development with the jobs and local income that this will provide and also safeguard the investment in the longer term.

The new EU Structural Funds and Rural Development programmes should have a significant focus on GI solutions to these pinch point issues.

The Atlantic gateway programme has already recognised this issue and the Community Environment Fund could provide the basis for tackling pinch points.

We can also identify the green infrastructure functions in these key investment areas that are already meeting identified need, they are assets to safeguard and enhance in order that investment potential is realised.

Map 5 Investment area assets



Action	Partner	Mechanism/Funding
Use the Pinch Points map and methodology to target green infrastructure to the areas where it can alleviate pinches and so help to create a setting for investment.	Local Enterprise Partnership and Local Nature Partnerships joint working Atlantic Gateway Board Local authorities	City Region Planning Framework Adapting the Landscape
Green infrastructure priority (not Cross Cutting Theme) in new ERDF programme. GI to tackle pinch points highlighted as a priority in RDPE and other land management programmes.	Local Enterprise Partnership and Local Nature Partnerships joint working Atlantic Gateway Board Local authorities	New programme complements for ERDF and RDPE Atlantic Gateway Community Environment Fund City Region Planning Framework
Safeguard the functions of green infrastructure that are strategic assets for the city region and Warrington.	Local Enterprise Partnership and Local Nature Partnerships joint working Atlantic Gateway Board Local Authorities	Local Plans City Region Planning Framework Atlantic Gateway Mersey Forest Plan
Green Infrastructure policy supporting local action and the work at city region level in	Local Enterprise Partnership and Local Nature Partnerships joint	Local Plans Strategic Regeneration Frameworks

all strategic and policy documents	working Atlantic Gateway Board Local Authorities	Economic and Regeneration strategies City Region Planning Framework Health and Wellbeing Strategies Mersey Forest Plan what about the Local Transport Plan?
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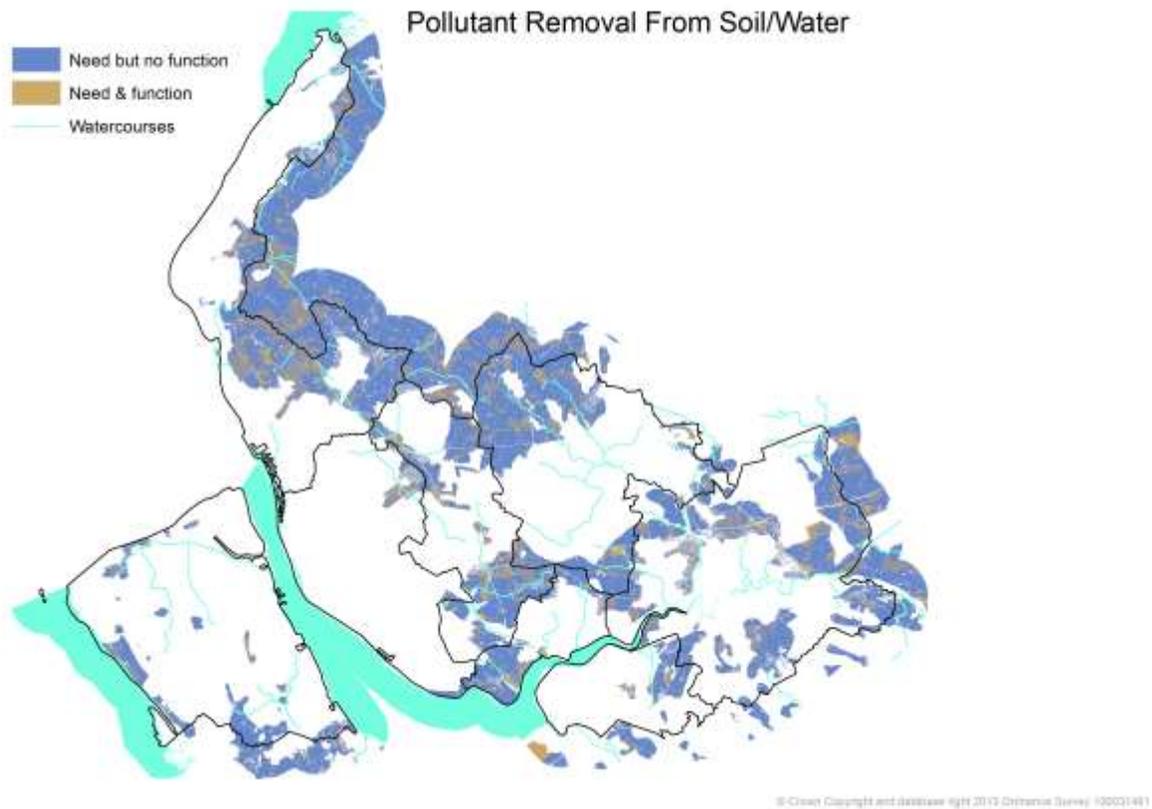
**How can green infrastructure planning and delivery assist in improving the water quality of the River Mersey and its tributaries?**

There is good evidence to show that green infrastructure can play an important role in helping to improve water quality by reducing the amounts of pollution and sediment reaching water courses. This applies particularly in the more open and rural areas of the city region and Warrington. Creating riparian buffers, SUDs, shading of water courses and using green infrastructure Interventions to de-culvert and renaturalise water courses (as has happened at Mab Lane, in Liverpool and is planned for the Alt at Stonecross on the Knowsley/Liverpool boundary) can all help to achieve this target.

This economic aspiration is also aligned with the legislative need to achieve the Water Framework Directive Standards.

The GI Framework has identified where green infrastructure is providing some of the functions (Map 6) that can contribute to an improvement in water quality. Similarly the areas where there is need for additional functionality has also been identified.

Map 6 Pollutant removal from water - indication of need and existing function provided by GI



Action	Partner	Mechanism
Use GI Maps showing areas of greatest need to prioritise a programme of investment in GI actions to reduce water course pollution and reduce flood risk	<p>Local Enterprise Partnership and Local Nature Partnerships joint working</p> <p>Atlantic Gateway Board</p> <p>Local Authorities</p> <p>Environment Agency</p>	<ul style="list-style-type: none"> <li>• LNP</li> <li>• City Region Planning Framework</li> <li>• Environment Agency investment Plans</li> </ul>
Work closely with Environment Agency and United Utilities to identify how Green Infrastructure can help to deliver Water Framework Directive	<p>United Utilities</p> <p>Environment Agency</p> <p>Canal and River Trust</p>	<ul style="list-style-type: none"> <li>• AMP 5</li> <li>• Catchment Restoration Fund</li> <li>• Water Framework Directive</li> <li>• Urban Watershed Forestry Plan</li> </ul>

<b>outcomes</b>		
<b>Build in measures to improve water quality that are capable of being delivered through ERDF and RDPE programmes</b>	<b>Local Enterprise Partnership and Local Nature Partnerships joint working</b>  <b>Atlantic Gateway Board</b>  <b>Local Authorities</b>	<ul style="list-style-type: none"> <li>• ERDF</li> <li>• RDPE</li> </ul>

**Where are the cross-boundary transport routes and major gateways that lead to key investment areas and how can they be enhanced?**

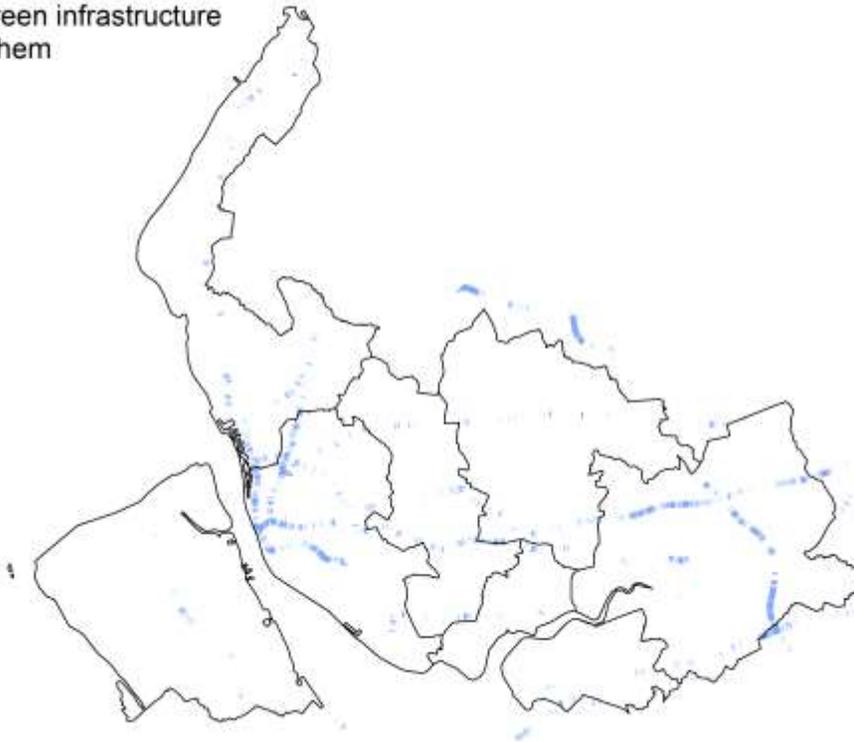
Cross-boundary transport routes and major gateways that lead to key investment areas and identified areas where enhancement in terms of provision of green infrastructure is required have been assessed and mapped. These routes often provide the first impressions of a place and so their aesthetic is important.

Investment decisions are complex, but research has shown that impressions of the quality of a place are a factor in the process.

The Framework did not assess the quality of the existing green infrastructure and so whilst it may be possible to identify areas where there is green infrastructure in place that may help to improve the image of a particular route or gateway, we are not able to say that the function is performed to a high or indeed adequate level as this will be dependent on the quality of the design and management of the green infrastructure.

Map 7 Indication of areas of need for GI Improvements to create an enhanced image for the city region

Stretches of key transport routes with little green infrastructure alongside them



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Action	Partner	Mechanism
Programme of enhancement of key routes and major gateways using GI	Highways Agency Local Authorities Atlantic Gateway Board Mersey Travel	<ul style="list-style-type: none"> <li>• City Region Planning Framework</li> <li>• Local Plans</li> <li>• Community Environment Fund</li> <li>• Community Infrastructure Levy</li> <li>• Liaison with Highways engineers and Highways Agency</li> <li>• ERDF and RDPE</li> <li>• Refreshed “New Approaches”</li> <li>• Mersey Forest Plan</li> <li>• Local Transport Plan</li> </ul>

**Are there green routes that lead from residential to key investment areas (see also Access) which could increase opportunities for walking and cycling?**

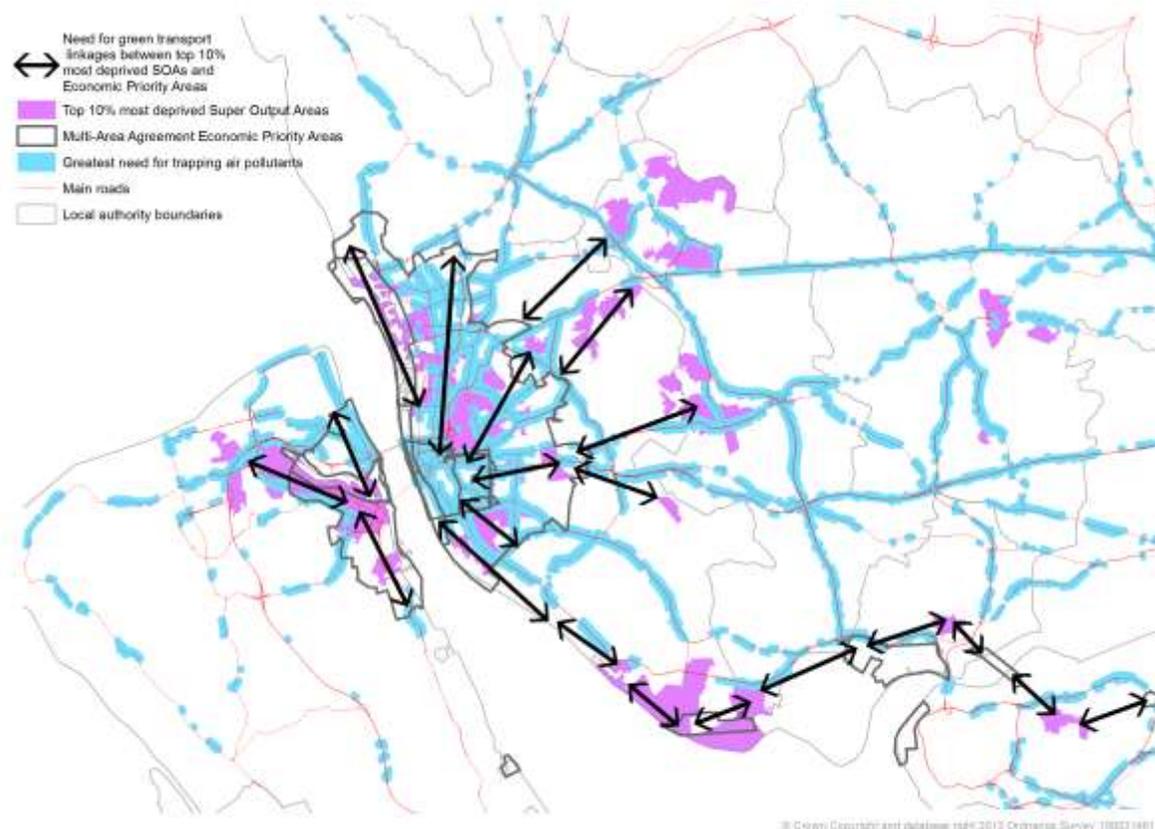
The GI Framework has developed innovative mapping to identify key green routes, highlighting gaps and where there is greatest need to enable more walkable and cycle friendly communities, places where it is easy to not take the car for work or day to day activities.

Baseline work for the Mersey Forest Local Sustainable Transport programme of green infrastructure improvements along key routes to work to encourage more active travel

indicated that 23% of those surveyed would, to a great extent or to some extent, be encouraged to cycle to work if there was a tree lined route<sup>12</sup>.

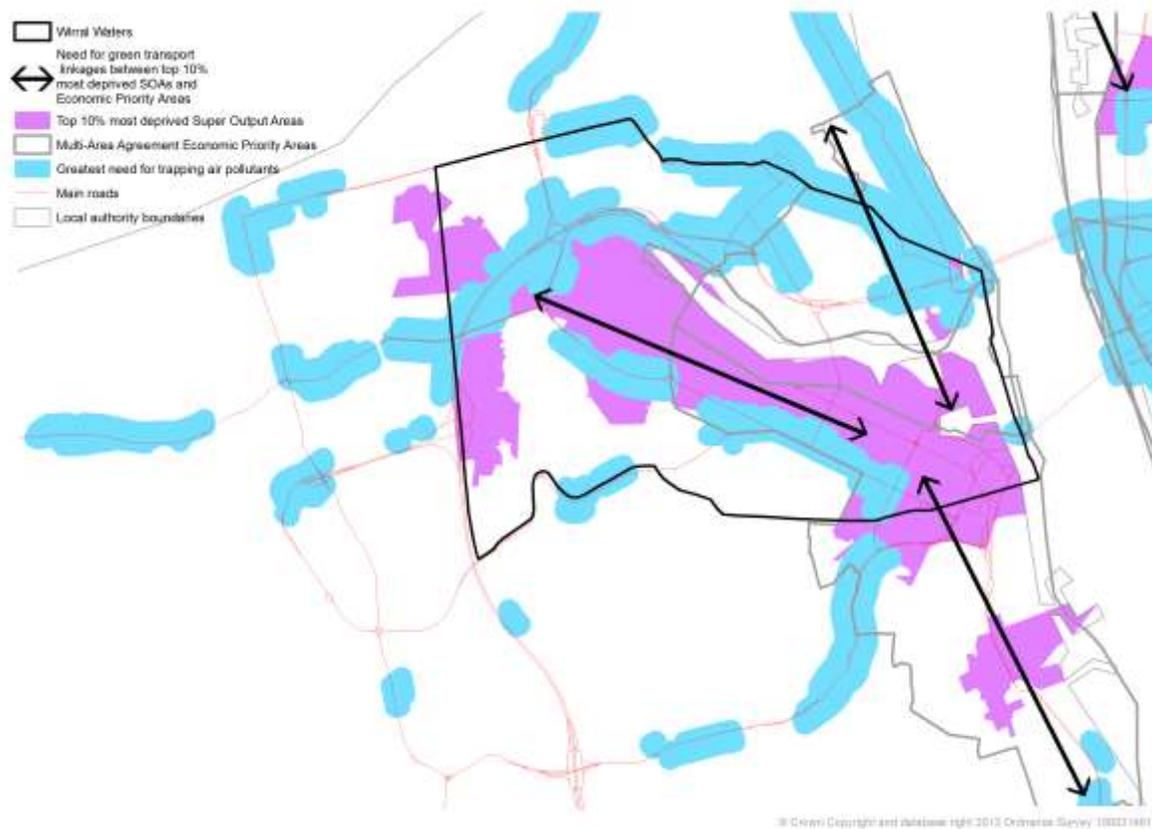
Map 8 shows the key routes where green infrastructure may help to encourage non motor transport, enabling walking and cycling to places of job opportunities.

**Map 8 Linking places of job opportunity to places of high unemployment**



<sup>12</sup> D Murray Assoc, 2013, baseline Assessment of LSTF Programme, Mersey Forest

Map 9 Linking places of job opportunity to places of high unemployment – Wirral Waters



Action	Partner	Mechanism
Use GI to help create walkable communities and encourage cycling	Merseytravel, Warrington Travel	<ul style="list-style-type: none"> <li>Local Plans</li> <li>EU Structural Funds</li> <li>Local Sustainable Transport Fund</li> <li>Local Transport Plan</li> </ul>
Green key routes between places of job opportunity and areas of high unemployment	Liverpool City Region Access Forum Merseytravel, Warrington Travel	<ul style="list-style-type: none"> <li>Local Plans</li> <li>Community Infrastructure Levy</li> <li>Local Sustainable Transport Fund</li> </ul>

**How can the green infrastructure sector be developed - more jobs, safeguarding business, increasing opportunities, increasing skill levels?**

Green infrastructure as a sector has an opportunity to create new businesses and job opportunities. Already more than 16,000 businesses work in the sector<sup>13</sup>.

The opportunities arise at all levels from apprenticeships through to PhD research, from sole operator through to major contractors and consultants.

<sup>13</sup> Regeneris, 2013, Green Infrastructure jobs analysis – prospects for growth, Liverpool Vision

However, in order to develop a case for investment and therefore achieve job growth, the GI sector will need to demonstrate the economic benefits of developing innovative GI products to address needs in the marketplace, whether that is to reduce flood risk, provide leisure opportunities, supply more local produce food, deliver energy saving, lock up carbon or make us all healthier.

The link between the training bodies such as Myerscough and the green infrastructure sector needs to improve and the areas of good practice in linking the universities to the green infrastructure sector need to be strengthened and expanded.

Clear and detailed information about careers in the GI sector needs to be developed and distributed.

We want green infrastructure engineers to working across the city region.

Action	Partner	Mechanism
<b>Develop closer working with training and education providers</b>	<b>Universities, colleges (HE and FE)</b>	<b>Local Nature Partnership engaging with Universities and training providers</b>
<b>Influence strategic investments and funding to enable more jobs and local training for Green Infrastructure designers and “engineers”</b>	<b>Local Enterprise Partnership and Local Nature Partnerships joint working</b> <b>Atlantic Gateway Board</b> <b>Local Authorities</b> <b>Environment Agency</b> <b>United Utilities</b>	<b>AMP5</b> <b>Procurement policies</b> <b>ERDF and RDPE</b>
<b>Assess opportunities for bespoke job and training models such as that being developed by Liverpool Vision that can be related to strategic investments such as Atlantic Gateway, Liverpool Waters, Wirral Waters etc.</b>	<b>Liverpool Vision</b> <b>Chambers of Commerce</b> <b>Local Enterprise Partnership and Local Nature Partnerships joint working</b> <b>Atlantic Gateway Board</b> <b>Local Authorities</b>	<b>Atlantic Gateway</b> <b>SSFG and LSTF projects</b> <b>GreenPrint for Growth</b>

## Supporting Health and Well being

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### Long Term vision

The natural environment is seen as a key health asset. People in the city region and Warrington state that the natural environment and their enjoyment of it is a major contributor to their wellbeing.

### Key Questions

What and where are the key health and wellbeing issues in the sub region that green infrastructure can assist in tackling;

- Obesity
- CHD
- Air quality
- Mental health
- Inequalities in health
- Post-operative/treatment recovery

How can green infrastructure play a role in supporting the 5 Ways to Health and Wellbeing across the city region?

How can green infrastructure be properly considered as part of the new arrangements for health service commissioning and help "encourage coherent commissioning strategies"?

### Findings

**What and where are the key health and wellbeing issues in the sub region that green infrastructure can assist in resolving? (existing provision and need for provision)**

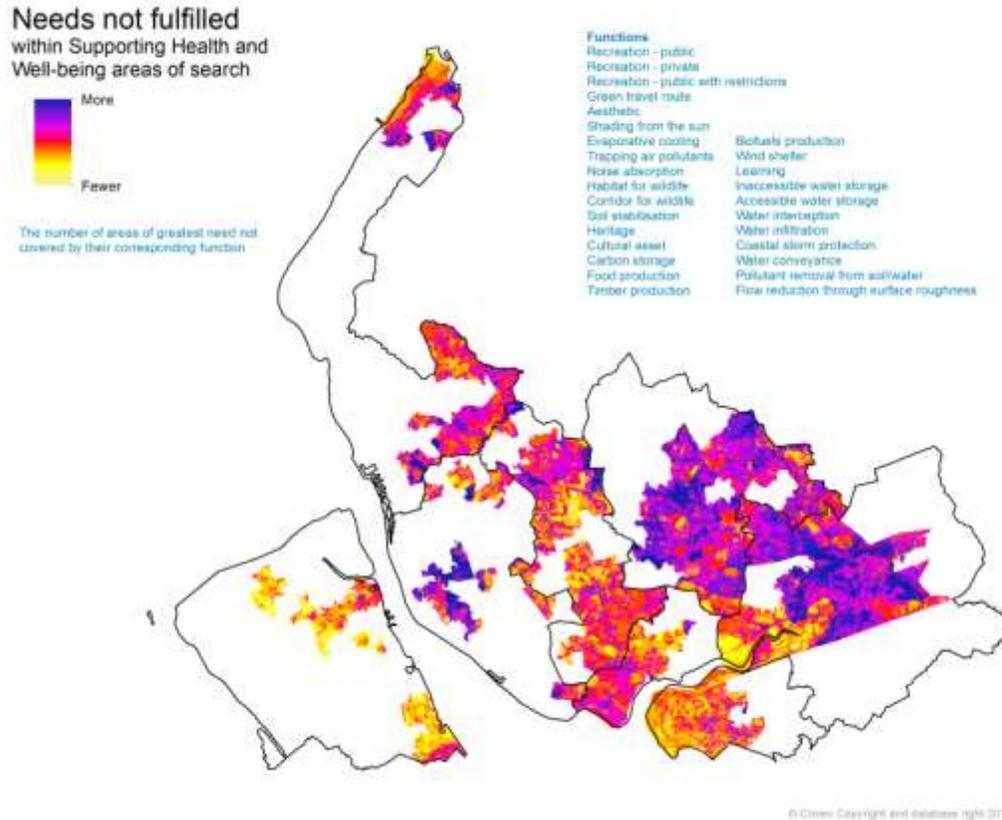
- Obesity
- CHD
- Air quality
- Mental health
- Inequalities in health
- Post operative/treatment recovery

**And**

**How can green infrastructure be properly considered as part of the new arrangements for health service commissioning and help "encourage coherent commissioning strategies"?**

The Pinch Point and Assets maps for the city region provide information on the key areas for action across the city region and Warrington. The areas indicated on the map are the areas which have the "greatest" needs, the areas with the highest levels of obesity or CHD, poorest air quality or greatest inequalities in health.

To



Can clarification be added as to why are there large swathes of white on the map?

Further analysis of the association between green infrastructure and various health parameters provide useful information with policy implications.

Of particular importance is the relationship between green infrastructure and Mental Health Conditions - Hospitalised Prevalence.

Figure 8 shows that as levels of green infrastructure increase the hospitalised prevalence for Mental Health Conditions decreases. The association can be described as "moderate". (Health is Wealth)

Whilst this is not indicative of cause and effect, it does indicate an association and highlights an issue of inequality in the provision of green infrastructure.

The medical evidence points to green infrastructure as being important in supporting the 5 ways to wellbeing, across the city region there is a need to assess how areas with the higher rates of poor mental health as indicated in the chart can benefit from green infrastructure planning and delivery.

Figure 8 Relationship between green infrastructure and Mental Health Conditions, Hospitalised Prevalence

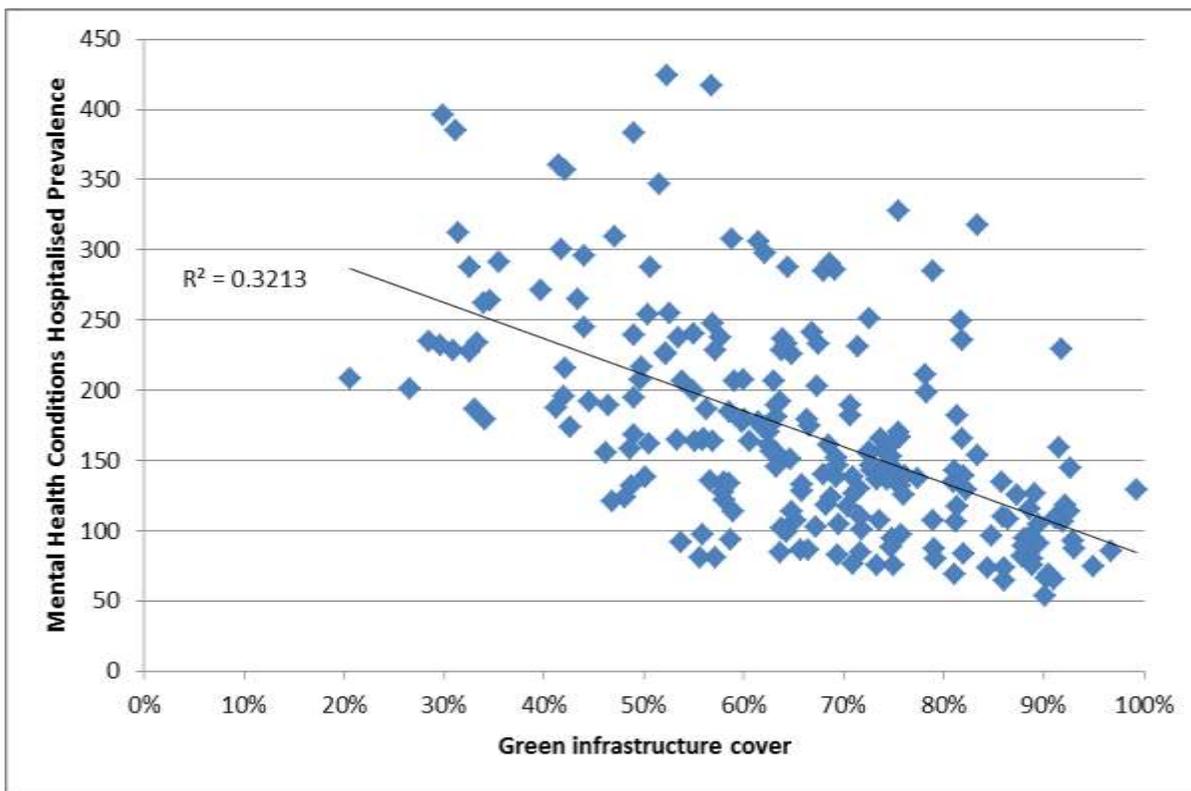


Figure 9 Relationship between green infrastructure and Mental Health Conditions, Hospitalised Prevalence, in urban areas

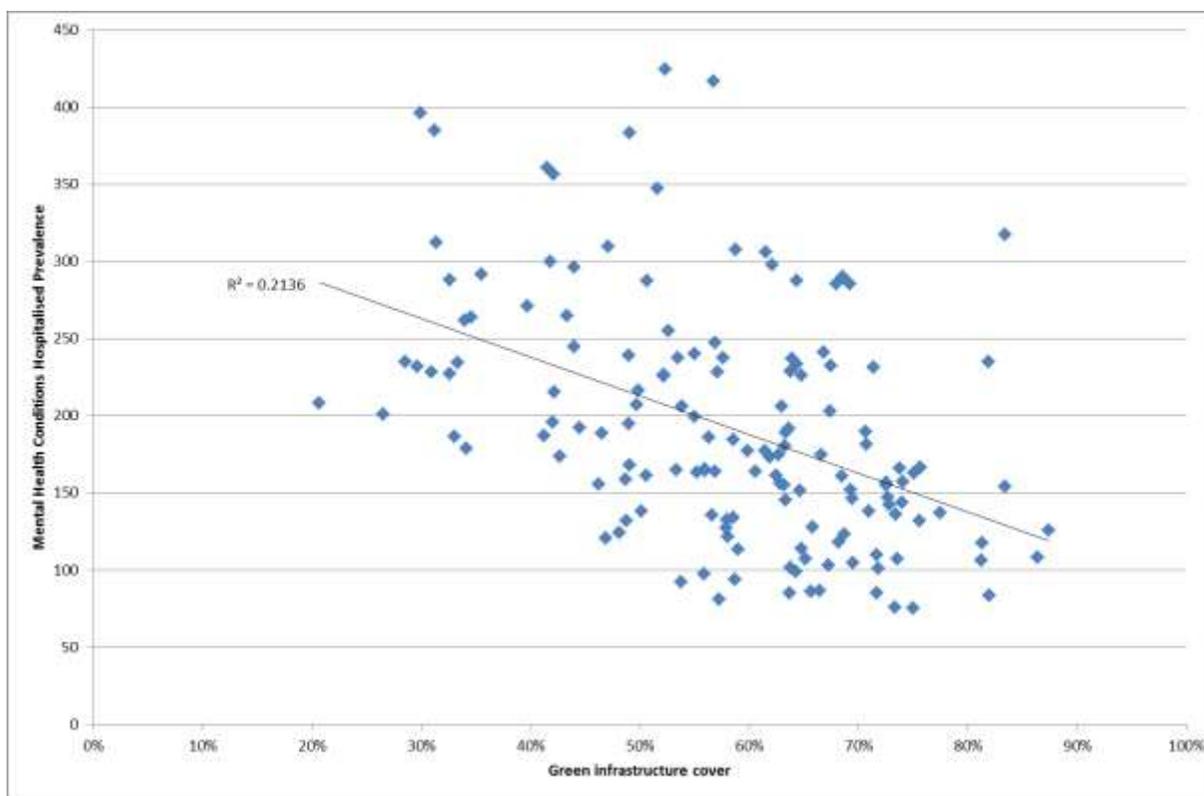
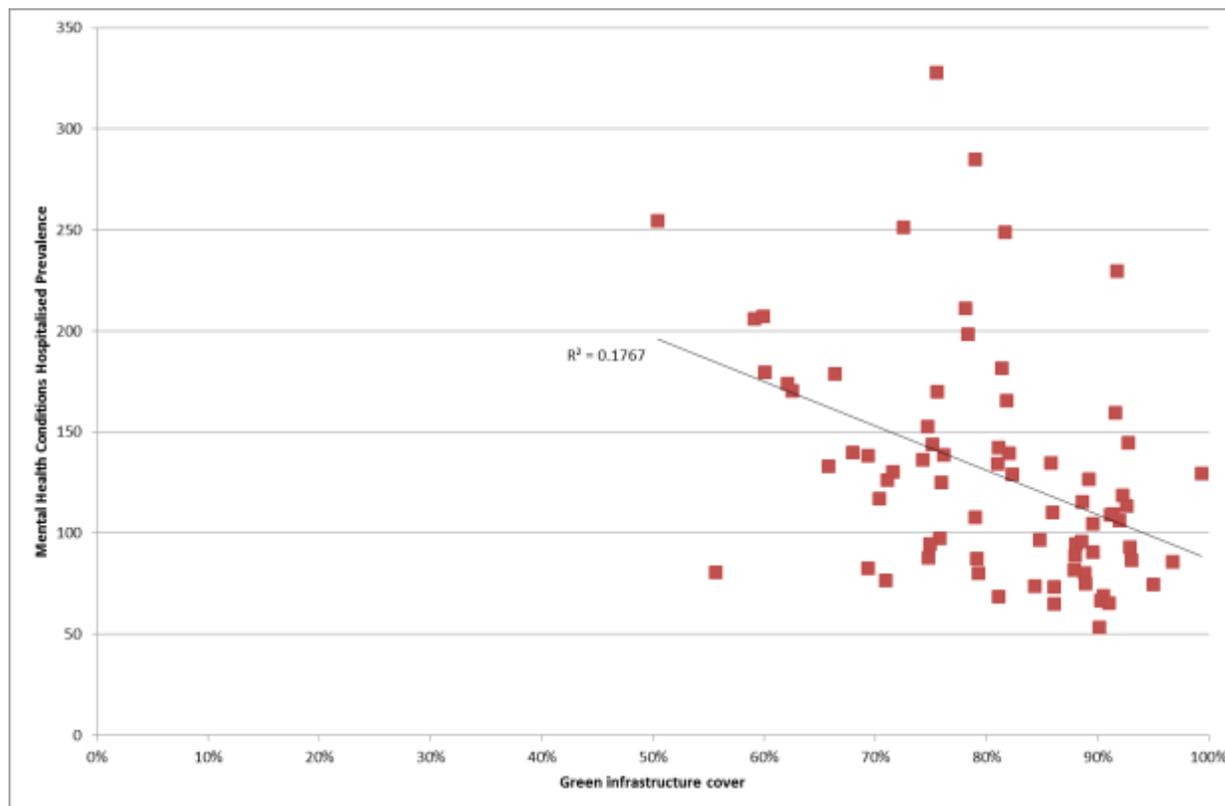
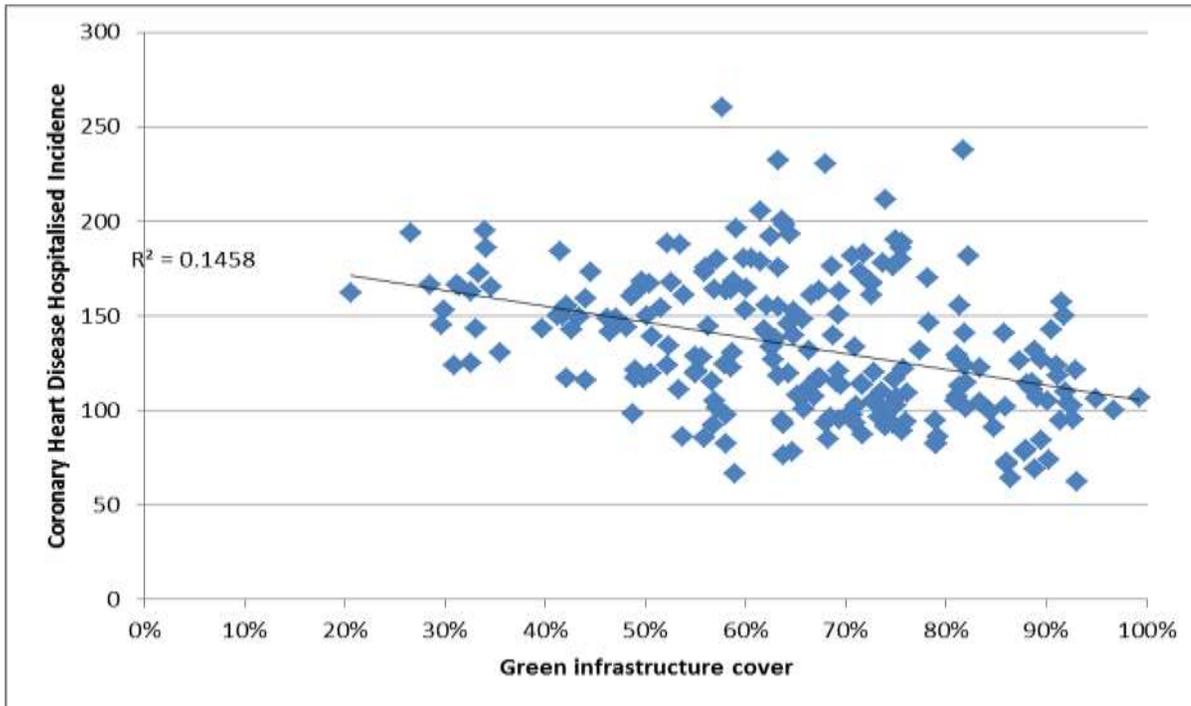


Figure 10 Relationship between green infrastructure and Mental Health Conditions, Hospitalised Prevalence, in rural areas



A similar chart can be produced for green infrastructure and Coronary Heart Disease (Figure 11). In this case the association may be described as statistically weak, but again there are issues of equity raised by the chart.

Figure 11 Relationship between green infrastructure and Hospitalise Incidence of CHD



The technical document sets out a clear rationale for green infrastructure to be used to tackle health issues “upstream” of clinical intervention more effectively. This is supported by health policy and local business plans such as the UK Public Health Outcomes Framework.<sup>14</sup> In Liverpool City Region, Health and Wellbeing Boards have been set up in each local authority, These boards will have to assess how the targets, including use of green spaces, are being met.

The Mersey Forest Team are working with CHaMPs and a range of partners to develop a services that can be commissioned under the new NHS structures to deliver a “Natural Health Service” ([www.naturalhealthservice.org.uk](http://www.naturalhealthservice.org.uk)), using green infrastructure to help tackle:

- Obesity
- CHD
- Mental health
- Post-operative/treatment recovery

Action	Partner	Mechanism
Development and delivery of Natural Health Service to provide a long term and business like link between green infrastructure and the health	CHAMPS, Local Authorities, Natural Economy	NW Investment Forum Health Consortium delivering the Business

<sup>14</sup> <https://www.gov.uk/government/publications/healthy-lives-healthy-people-improving-outcomes-and-supporting-transparency>

sector.	Investment Forum, Social Care agencies, Clinical Commissioning Groups and NHS	Plan working with the new commissioning bodies/frameworks
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**How can green infrastructure play a role in supporting the 5 Ways to Health and Wellbeing across the city region?**

Green Infrastructure can help to support the 5 ways to Health and Wellbeing across the city region and support initiatives such as Liverpool’s Decade of Health and Wellbeing. Some examples are provided in the table below. An excellent review and assessment of examples how green infrastructure enables the 5 ways to Health and Wellbeing comes from Liverpool’s “Natural Choices” project<sup>15</sup>.



<i>Evidence and examples point to the importance of innate connections between people and nature, sometimes termed Biophyllia. Lack of contact with nature by young people may be a particular issue. Connections between people as part of green</i>	<i>Green Gym, Forest School, Health Walks, a walk in the park or on the beach all contribute to a more active lifestyle. The green infrastructure framework looks at how planning and design can increase opportunities for more active travel – to work or local</i>	<i>The changing seasons are an obvious focus for taking notice. Environemnt based projects that use the natural environment as the focus for cultural activities, writing, drawing, dance also increase our awareness.</i>	<i>Developing new skills and gaining new information about places that we visit all help us to keep learning.</i>	<i>The most obvious example related to the natural environment is time “given” to support projects and places by volunteers. Each year tens of thousands of people volunteer to support their local environemnt.</i>
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<sup>15</sup> Dr Carly Wood\*, Rachel Bragg and Dr Jo Barton, 2013, Natural Choices for Health and Wellbeing, Report for Liverpool PCT and Mersey Forest

<p><i>infrastructure projects are also crucial. Reducing isolation, increasing social networks and capital improving confidence are often cited as outcomes of community projects. There is strong evidence to support this as being important for reducing mortality<sup>16</sup>.</i></p>	<p><i>amenities – creating more walkable communities</i></p>			
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Green Infrastructure projects that have a health focus often deliver across several of the 5 ways.

The key to this joint work is developing longer term, close relationships with the new health agencies and departments within local authorities.

Action	Partner	Mechanism
<p><b>Develop relationship between LNP, local authority Public Health and CHAMPs focussing on promoting green infrastructure as one element of commissioning for improving health and wellbeing, delivering across all of the 5 ways to health and Wellbeing</b></p>	<p><b>Local Authority Public Health, CHaMPs, Social Care agencies, Clinical Commissioning Groups and NHS</b></p>	<p><b>Local Nature Partnership, Health and Wellbeing Boards, CHaMPs Business Plan</b></p>

<sup>16</sup> Holt-Lunstad J, Smith TB, Layton JB (2010) Social Relationships and Mortality Risk: A Meta-analytic Review. PLoS Med 7(7): e1000316. doi:10.1371/journal.pmed.1000316



## Climate Change

### Long Term vision

The city region has adapted well to climate change and supports others in making their change.

### Key Questions

What are the key cross boundary actions from the Green Infrastructure to Combat Climate Change<sup>17</sup> work already published for the city region and Warrington?

What is climate change functionality in relation to the green infrastructure near to critical grey infrastructure (emergency plans)?

How can green infrastructure help to deliver aspects of the sub regional low carbon economy plans?

Where are the most vulnerable areas of the city region and Warrington - is the city region resilient to projected climate change for impacts on:

- Health - vulnerable communities
- Economy - damage to property/investment
- Ecology - species migration and existence habitat loss

### Findings

Key cross boundary actions from “Green infrastructure to tackle climate change”, What is climate change functionality in relation to the green infrastructure near to critical grey infrastructure (emergency plans)? And, how can green infrastructure help to deliver aspects of the sub regional low carbon economy plans?

What are impacts likely to be

Low carbon focus

From the “Green infrastructure to Combat Climate change”<sup>18</sup> document we can select the actions that have been identified at the “pan authority” level. These are key actions that have been identified as being important at the city region level.

By its very nature many of the actions have impacts across the Green Infrastructure Framework priorities. These actions also cover the other key questions for this priority.

A table of the actions for all of the key questions is provided at the end of this section.

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<sup>17</sup> <http://www.greeninfrastructurenw.co.uk/climatechange/>

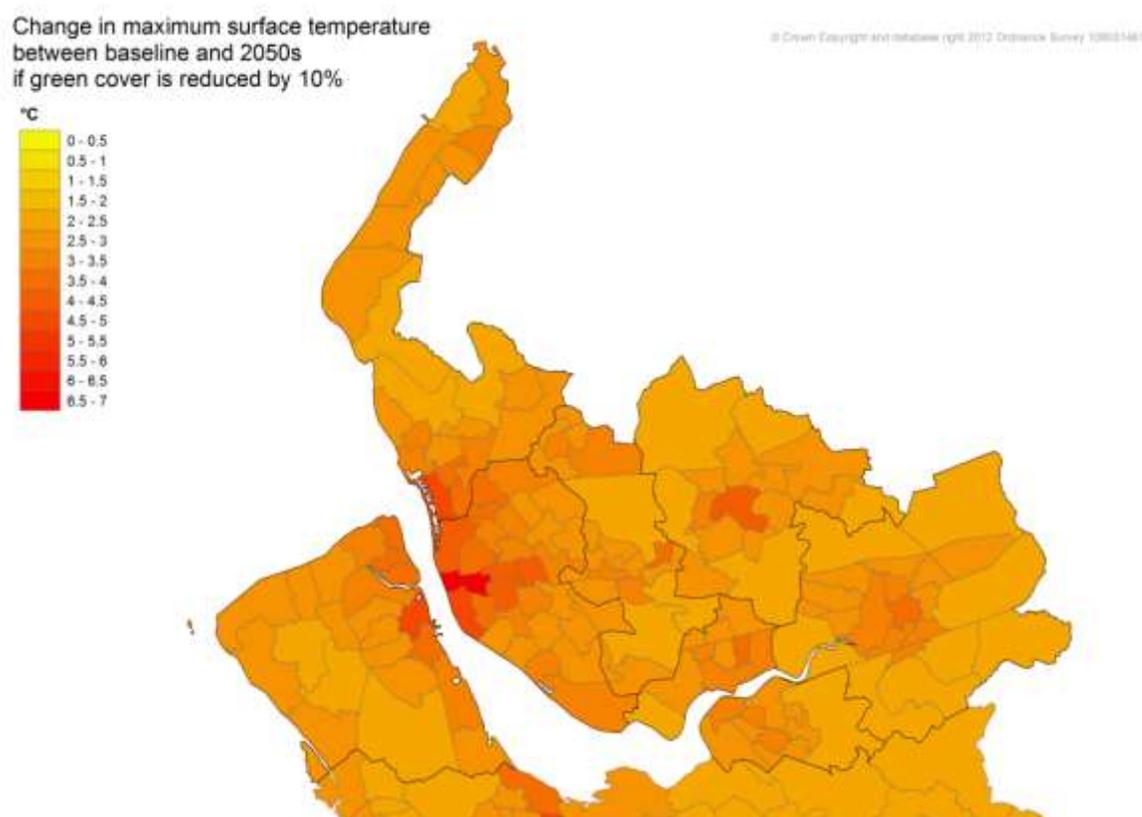
<sup>18</sup> See 16 above

### Is the city region and Warrington resilient to projected climate change?

The GRaBS Interreg Project developed a pair of online assessment tools (the STAR tools) that can be used to evaluate future maximum surface temperatures and runoff based on models and the assessment of current green infrastructure. The STAR tools<sup>19</sup> have been used to calculate temperature values for the city region and Warrington based on UK Climate Change projections.

One of the STAR tools was run to show the impact of increasing or decreasing green cover on maximum surface temperature across the city region and Warrington.

#### Map 10 Implications on maximum surface temperature of reducing GI by 10%



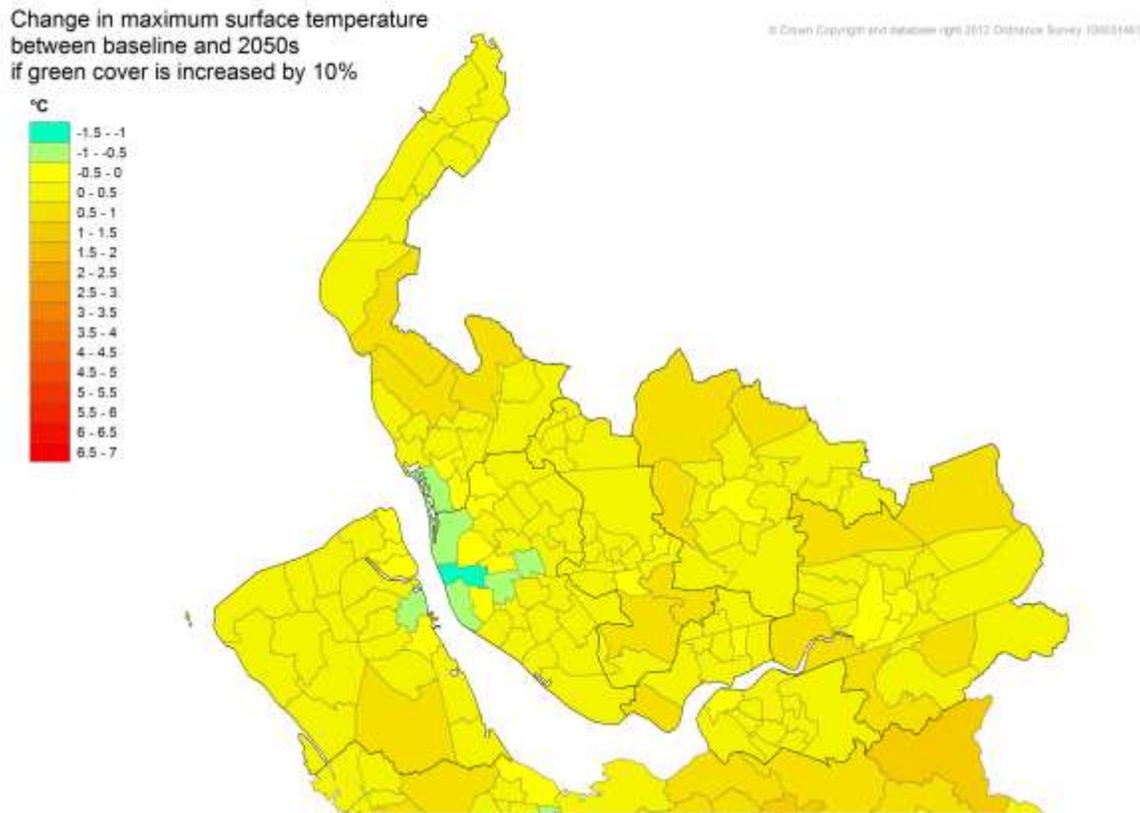
Decreasing green cover by 10% increases maximum surface temperature across all areas, but the increase is particularly significant in urban areas.

This is important for day and night time comfort. Birkenhead and Liverpool's coastal location reduces the impact, but only on days where there is a breeze. Other areas such as Warrington and St Helens town centres, and the area in and around Knowsley Industrial Estate also see significant temperature rise.

In contrast increasing cover by 10% keeps temperatures close to the current levels.

<sup>19</sup> <http://www.ginw.co.uk/climatechange/startools>

### Map 11 Increasing green infrastructure by 10% - impact on maximum surface temperature



Map 3 is an example of one of the green infrastructure assessments that looked at access to green space and the potential need for additional access based on projected population increases. The Access to Natural Green Space Target (ANGST) has been used as the basis for this assessment.

### Where are the most vulnerable areas of the city region and Warrington - is the city region resilient to projected climate change for impacts on:

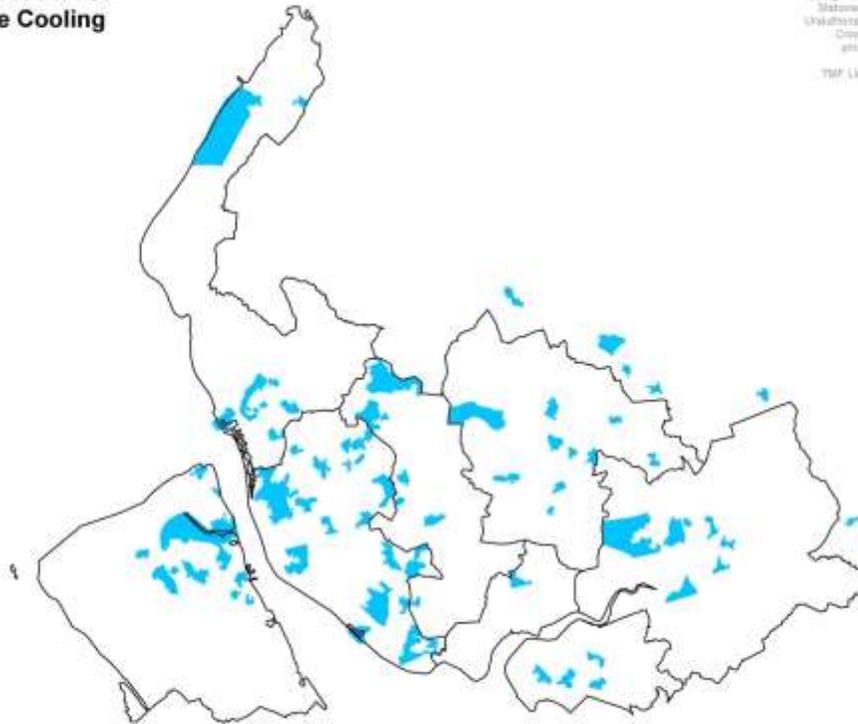
The impacts of projected climate change are not equal across the city region and Warrington.

- **Health** - vulnerable communities; The NHS Heatwave Plan identifies four groups within the population who are most at risk of becoming ill or increased risk of death during heatwaves. We can map these populations to identify areas where action to help reduce urban heat island or provide greater amounts of shade may be most important.

Figure 12 shows the distribution of the communities at most risk from Heatwave. Map 10 indicates where, within these area levels of GI that can provide most evaporative cooling and shade are lowest.

Figure 12

### Greatest Need for Evaporative Cooling



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- **Economy** - damage to property/investment. The most obvious example is economic losses due to flood. This issue has been covered in the “Setting the Scene for growth” Priority above where overcoming pinch points that impact on the economy is an action.

(Flood pinch and main investment areas map)

- **Ecology** - species migration and existence habitat loss. As climate changes the species tend to move northward and also to higher elevations to stay within their preferred climatic zone. For Liverpool City Region and Warrington, this means that connected green infrastructure is important not only in the north south direction, but also west to east as species look to move toward the Pennines. Transport corridors have been shown to important in this movement, as have river corridors and more generally the matrix of green infrastructure that includes the less well recognised green infrastructure types such as private gardens.

(need to explain maps 10 then add main green infrastructure Corridors –s-n and w-e)

Figure 13

**Greatest Need for  
Corridor For Wildlife**



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The following table is taken from the Green Infrastructure to Tackle Climate Change document. They cover all of the key questions set in the introduction to this section. The table has been updated to reference Local Plans rather than Local Development Frameworks and Local Nature Partnerships have been added as partners.

Action	Partner	Mechanism
Professional stakeholder training on the role of green infrastructure in combating climate change and engagement on their role in delivering this Framework.	Sub-Regional GI Partnerships; GI Unit; Groundwork; Wildlife Trusts; Environment Agency; Natural England; Local Authorities; Improvement Network; CPRE; RTPI; CIRIA; Local Nature Partnerships	Sub-Regional GI Frameworks; Professional Networks; NW Forestry Framework; NW Forum for the Built Environment

<p>Sub or city-regions to select an area of strategic importance to act as an exemplar, showcasing partnership working and community engagement to deliver multifunctional green infrastructure, with optimised climate change services. For Liverpool City Region and Warrington the Pinch Point areas should be the exemplar.</p>	<p>All; Sub-Regional GI Partnerships; Local Enterprise Partnerships; Local Nature Partnerships; Local Authorities; Environment Agency; Forestry Commission; Natural England; United Utilities; GI Unit; Developers</p>	<p>Sub-Regional GI Frameworks; Natural Economy Investment Forum; Regional Growth Fund; Capital Spend</p>
<p>Deliver the Mersey Forest Plan, including native woodlands. The Ecological Site Classification software developed by Forest Research could guide tree species selection and appropriate woodland communities for sites.</p>	<p>NWFF Partnership; Local Nature Partnerships; Forestry Commission; Woodland Trust; Woodland Initiatives; Land Owners and Managers; BTCV; Local Authorities; Businesses</p>	<p>NW Forestry Framework; Environmental Stewardship and EWGS; MOREwoods; Local Plans; CIL, S106, Planning Conditions; Neighbourhood, Parish and Town Plans; Big Tree Plant; Ecological Networks and Restoration Zones; Integrated Biodiversity Delivery Areas</p>
<p>Collect and regularly update GIS data on urban and rural green infrastructure, including quantity, types, functions, and where it is needed for different socio-economic and environmental reasons</p>	<p>Sub-Regional GI Partnerships; Local Authorities; GI Unit</p>	<p>Sub-Regional GI Frameworks; GI, Open Space and Tree Strategies/Plans</p>
<p>Target areas to retrofit Sustainable Drainage Systems into existing green infrastructure and to create new green infrastructure for its role in surface water management (link to pinch points). Take all other opportunities that arise to increase this functionality in existing and new green infrastructure.</p>	<p>Local Authorities; Local Nature Partnerships; Environment Agency; United Utilities; Woodland Initiatives; Faiths4Change; BTCV; Woodland Trust</p>	<p>Surface Water Management Plans; CIL, S106, Planning Conditions; Big Tree Plant; MOREwoods</p>
<p>Gather data on wind direction and air flows into cities and larger towns, especially under temperature inversions. Use this in conjunction with green</p>	<p>GI Unit; Local Authorities; Research Institutions;</p>	<p>Sub-Regional GI Frameworks; Local Plans</p>

<p>infrastructure mapping (see action 1i) to determine the most important parts of the green infrastructure network for cool air flows.</p>	<p>TCPA; RTPi; Forestry Commission; Resilience Forums</p>	
<p>In areas with the highest carbon densities, which are often on peat soils, new development should be avoided where possible, taking into account other relevant issues and land management change that would result in soil carbon losses (e.g. agricultural change such as grassland to tillage or arable) should be avoided where possible. Embed within planning policy and/or decision making. Seek to any carbon lost by increasing or managing carbon stores elsewhere.</p>	<p>Local Authorities; Developers; Natural England; Farmers and other landowners</p>	<p>Local Plans; CIL, S106, Planning Conditions; Environmental Stewardship and EWGS; Integrated Biodiversity Delivery Areas;</p>
<p>Encourage appropriate land use and management, including agricultural practices, in the upper catchments of rivers to reduce flood risk and impacts of spate flows, reduce soil erosion and maintain base flows to rivers.</p>	<p>Environment Agency; Forestry Commission; Woodland Initiatives; Local Authorities; Land Owners and Managers; Woodland Trust; Natural England; United Utilities; National Parks Authorities; Landscape Partnerships; AONBs; Farmers; FWAG; National Farmers Union; BTCV; Wildlife Trusts</p>	<p>Catchment Flood Management Plans; Local Biodiversity Action Plans; Local Plans; CIL, S106, Planning Conditions; Environmental Stewardship and EWGS; Catchment Sensitive Farming; Ecological Networks and Restoration Zones; Integrated Biodiversity Delivery Areas; River Basin Management Plans; Peatland Projects; MOREwoods; Single Payment Scheme; Big Tree Plant</p>
<p>Identify and prioritise river stretches for rehabilitation and restoration (e.g. reconnecting rivers to their floodplains). Take opportunities to de-culvert and re-naturalise rivers to provide space for water as well as wildlife, including floodplain forestry, wet meadows, and saltmarsh.</p>	<p>Environment Agency; Forestry Commission; Developers; Local Authorities; Woodland Initiatives. Wildlife Trusts</p>	<p>Local Plans; Neighbourhood, Parish and Town Plans; Ecological Networks and Restoration Zones; Integrated Biodiversity Delivery Areas; Environmental Stewardship and EWGS; Water Framework Directive; NW River Basin Management Plan</p>

Support innovation and entrepreneurship in developing new products and market opportunities, ensuring that any value added processing is carried out locally.	Woodland Initiatives; Local Enterprise Partnerships; EFIP; ConFor; NWFF Partnership; Businesses; Academic Institutions; CCI	NW Forum for the Built Environment; Renewable Heat Incentive; RDPE; Renewable Building Group
Cultivate conditions under which bioenergy can develop as a viable and self sufficient energy source . This includes advocating the establishment of 'Microgeneration Certification Scheme' accredited installers, creating supply chains to make adoption of biomass boilers more feasible, working with public and private sector partners to develop a sustainable local bioenergy industry (including biofuels for transport), encouraging the utilisation of material in currently under-managed woodlands, new biomass planting (e.g. woodlands, miscanthus, short rotation coppice and other energy crops) where there are no other constraints , and energy generation from other renewable sources (e.g. hydro and wind).	Forestry Commission; Natural England; Envirolink; Woodland Initiatives; Local Enterprise Partnerships; EFIP; ConFor; Envirolink; Businesses; NWFF Partnership; Local Authorities; Transport Planning Organisations; Developers	NW Forestry Framework; UK Renewable Energy and Biomass Targets; Renewable Heat Incentive; Management Plans; Environmental Stewardship and EWGS; Energy Crops Scheme; Local Plans
Develop planning policies that promote renewable energy in new developments Biofuels should be included as part of this.	Local Authorities	Local Plans; Renewable Heat Incentive; Building Regulations (Approved Document J)
Implement the guiding principles and associated actions set out in 'Conserving Biodiversity in a Changing Climate' and recommendations in the Lawton Review.	Local Authorities; Land Owners and Managers; Natural England; Forestry Commission; Environment Agency; Wildlife Trusts; National Trust; Woodland Trust	Local Plans; Local Biodiversity Action Plans; Management Plans; Environmental Stewardship and EWGS; Ecological Networks and Restoration Zones; Integrated Biodiversity Delivery Areas; NW River Basin Management Plan

<p>Implement measures and consultation on the natural development of coasts; allowing natural processes of erosion and deposition to take place. Manage existing coastal habitat appropriately to ensure their continued functionality as a flood defence mechanism (important coastal habitats include wetlands, saltmarsh, and dune systems). Implement realignment of coastal flood defences to restore inter-tidal coastal habitats and natural transition zones between coastal and terrestrial habitats. Such measures are beneficial for biodiversity and can reduce the long-term costs of maintaining coastal defences.</p>	<p>Local Authorities; Natural England; Environment Agency; National Trust; NW Coastal Forum; Wildlife Trusts; Land Owners and Managers</p>	<p>Shoreline Management Plans; Local Biodiversity Action Plans; Integrated Coastal Zone Management; Management Plans; Ecological Networks and Restoration Zones; Integrated Biodiversity Delivery Areas</p>
<p>Plan and manage for a potential increase in visitors to coastal areas with climate change, so that increased visitor pressure does not result in damage to coastal habitats important for managing coastal flooding and for biodiversity.</p>	<p>Local Authorities; Tourism Managers; NW Coastal Forum; Land Owners and Managers; Green Space NW</p>	<p>Integrated Coastal Zone Management; Shoreline Management Plans; Local Biodiversity Action Plans; Management Plans; Green Flag Awards; Blue Flag Award; Ecological Networks and Restoration Zones; Integrated Biodiversity Delivery Areas</p>

## Recreation leisure and tourism

### Long Term vision

The city region is a playground offering opportunities for recreation, leisure and visitors to enjoy the natural beauty of the area.

### Key Questions

Where in the city region are the Access to Natural Green Space targets (ANGSt) not achieved, and how may this change given proposed housing growth and projected population growth?

What opportunities exist for cross-boundary cooperation on the provision of open space for recreation?

What future potential can be fulfilled by the key strategic access routes such as the Trans Pennine Trail, Sankey Valley and coastal trails? Can they link areas of need to opportunity?

Where are the woodlands that play a key cross-boundary role and how do they meet Woods for People standards?

## Findings

### Access to natural green space

Because of the links to a number of other priorities (Setting the scene for growth, Health) a great deal of work on access to green infrastructure was undertaken in the development of the Green Infrastructure Framework.

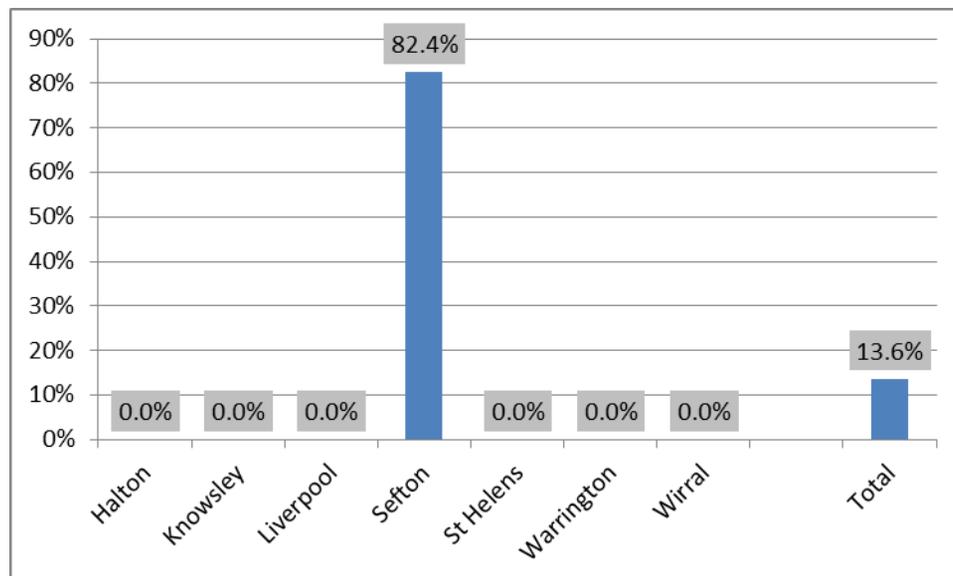
Whilst not statutory, the Access to Natural Greenspace Standard (ANGSt) provides a basis for both comparing access provision across the city region and Warrington and also for assessing the possible implications of an increasing population on the need for additional accessible green spaces.

Adherence to the standard is usually measured by measuring distance from provision. A method for considering the standard independently from provision has also been developed, referred to as a 'reverse ANGSt' assessment. This measures distance from population instead.

The targets are for access to a range of different sizes of sites within a set distance. For example, one target is for everyone to be within 10km of a large, 500ha area of accessible greenspace (Sefton Coast as an example).

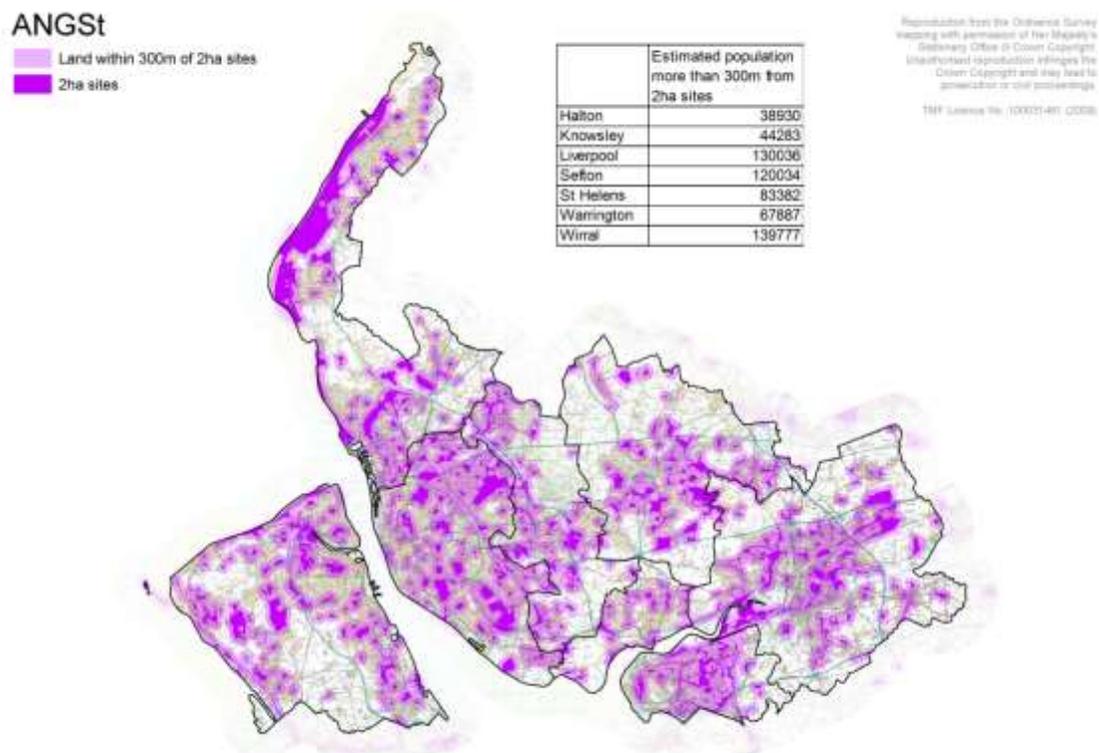
Figure 14 Shows how the percentage of residents in the local authorities that have this level of access.

Figure 14 Percentage of the population of each local authority within 10km of a 500ha site



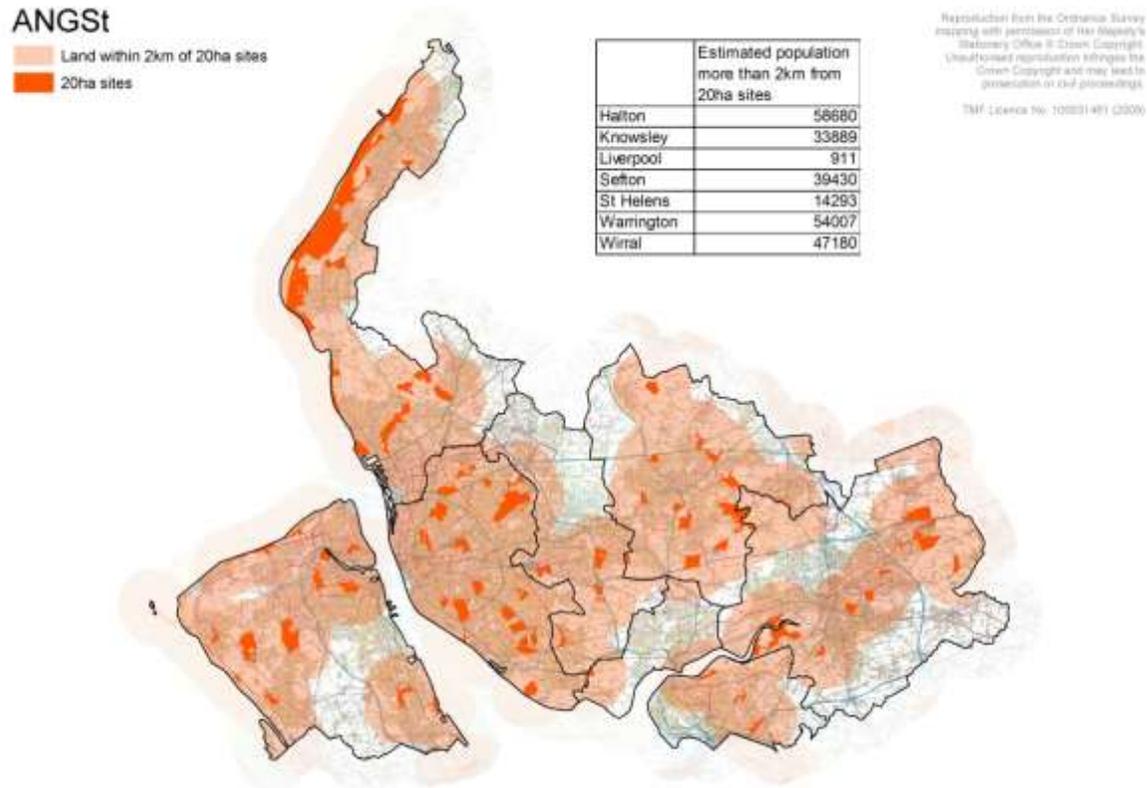
At a smaller scale the standard for a 2ha site is 300m. Map 12 shows the areas of the city region and Warrington that meet or do not meet the standard. The table also gives an estimate of the population in each authority that is more than 300m from a 2ha site. These figures have been calculated in a way that takes into account the uneven distribution of population across each authority area.

## Map 12 ANGSt 2ha standard



For a 20 ha site the standard is 2km. Map 13 shows the areas of the city region and Warrington that meet or do not meet the standard. The table also gives an estimate of the population in each authority that is more than 2km from a 20ha site. These figures have been calculated in a way that takes into account the uneven distribution of population across each authority area.

### Map 13 ANGSt for 20ha sites

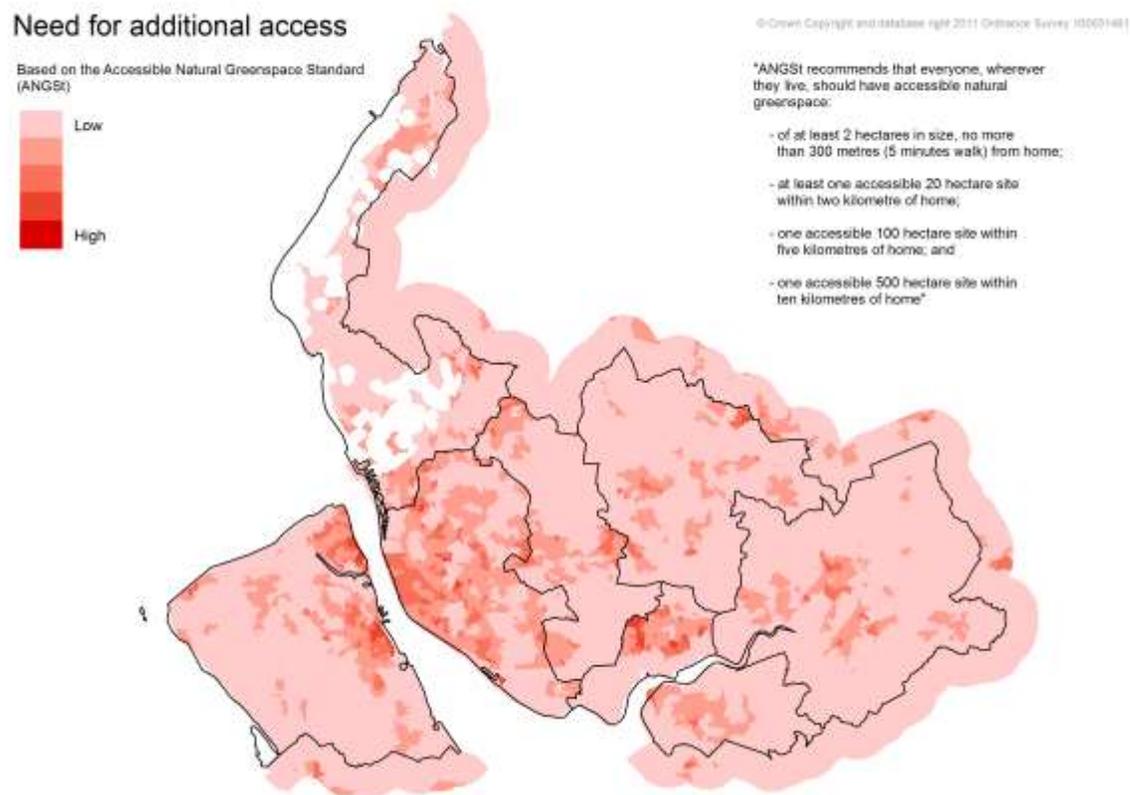


Using data for projected population change we can assess the extent and type of under provision of accessible green space up to 2024.

The main areas of under provision are around Widnes, Liverpool and Birkenhead.

There is more work to do in order to drill down into the data and identify the types of under provision. It is striking to note that in some areas of 80% green infrastructure cover; the standard is not being met due to a lack of green infrastructure areas open to the public. This additional work may be taken forward with the support of the Local Nature Partnership.

**Map 14 Need for additional access, based on both the number of ANGSt criteria fulfilled and the projected population density in 2024**



Action	Partner	Mechanism
Look for opportunities to improve access to natural green spaces in line with ANGSt and identify the types of under provision of open access.	<p><b>Local Nature Partnership</b></p> <p><b>Atlantic Gateway Board</b></p> <p><b>Local Authorities</b></p> <p><b>Access Fora</b></p>	<p><b>Community woodlands</b></p> <p><b>Forest Parks</b></p> <p><b>Local Plans requiring the provision of open space with funding for long term management and maintenance</b></p>

Could also look for opportunities for green infrastructure provision in densely populated areas and more innovative approaches may be required.

**What opportunities exist for cross-boundary cooperation on the provision of open space for recreation?**

Finding solutions across boundaries will be a key in addressing the issues raised in the previous section. It is already the case across the city region that the provision of some of

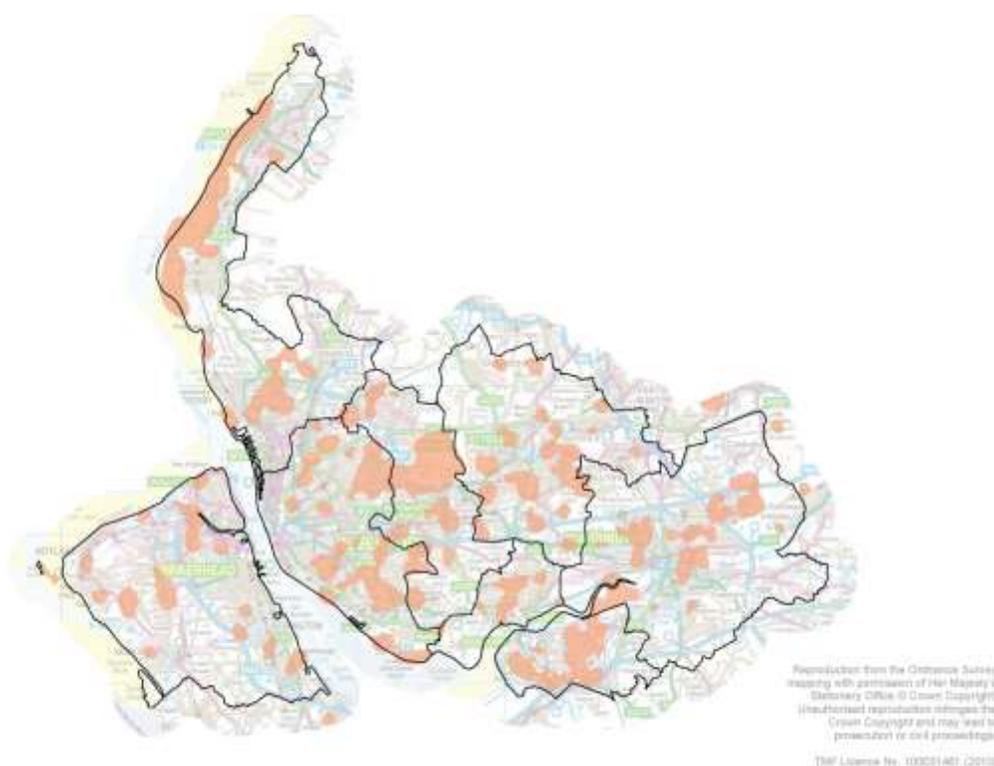
the key sites that enable ANGSt to be met are cross boundary, for example Sefton and Wirral Coast.

Projected population changes will increase the need for additional accessible greenspace and a city region approach to provision, where necessary cross boundary, can assist in supporting high quality and sustainable places.

Projected climate change and studies on the impacts on tourist needs for the natural environment point to the coastal areas as becoming even more important, providing a city region (and beyond) resource, but also needing cross boundary cooperation to plan and manage the change effectively and in particular assist in diverting recreational pressure away from Natura 2000/Ramsar sites off the Sefton and Wirral coasts.

For example, The Habitat Regulations Assessment Report for the Liverpool Core Strategy highlighted the issue of recreational pressure on the Sefton SAC arising from population growth in Liverpool. Para 6.266 in the Core Strategy sets out that enhancing green infrastructure assets within the City will assist in diverting pressure away from the Sefton SAC.

**Map 15 Main concentrations of accessible and partly accessible green infrastructure**



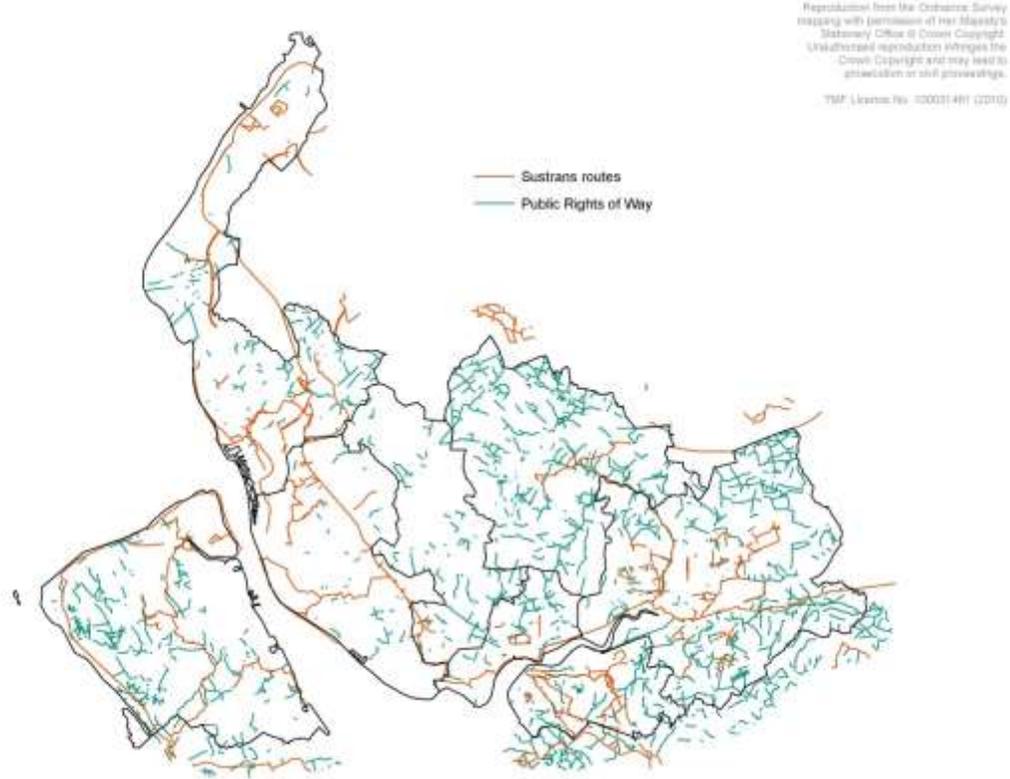
Access to and within these coastal areas as well as perhaps other large scale accessible natural areas such as the larger urban parks and the developing Forest Parks should encourage non-motor transport with green infrastructure planning and delivery helping to create the opportunities to attract and cater for larger numbers of people.

Action	Partner	Mechanism
Highlight key green infrastructure that plays a role in achieving ANGSt across the city region and Warrington.	Local Nature Partnership Local authorities Access Fora	LNP Support/safeguard in local plans City Region planning board City Region access forum
Strategic approach to access for city region communities to the coastal areas and other accessible (or potential) green infrastructure. – see comment above re recreational pressure and integrity of Natura 2000/Ramsar sites.	Local Nature Partnership Atlantic Gateway Board Local Authorities Access Fora	City Region Housing and Spatial Planning board City Region Spatial Priorities Framework Local Plans City Region access forum

**What future potential roles can be fulfilled by the key strategic access routes such as the Trans Pennine Trail, Sankey Valley and coastal trails?**

There are number of strategic cross boundary routes that already have an important function in providing long distance foot and cycle access and linking to local paths and cycleways.

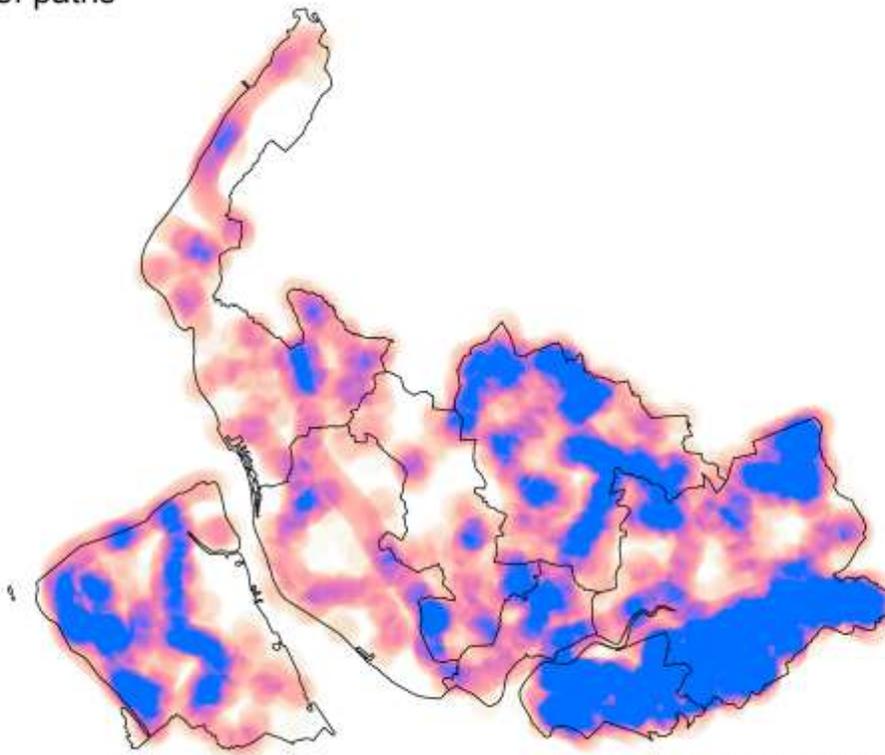
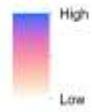
## Map 16 Rights of way and national trails



The eastern side of the city region and Warrington has a greater concentration of public rights of way. The long distance Sustrans routes are most prevalent from Sefton down through Liverpool and then along the Mersey.

- 19% of paths are on agricultural land
- 79% of paths are within major concentrations of green infrastructure
- 18% of paths are within Core Biodiversity Areas

### Density of paths



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The GI Framework assesses the potential future additional roles that can be played.

- Helping to meet ANGSt given projected population change.
- Providing green travel routes<sup>20</sup> between areas of unemployment and areas of investment that may provide job opportunities. This also contributes to the delivery of a low carbon economy.
- Helping to address the action set out in the Setting the Scene for Growth Priority – Creating walkable communities and encourage cycling - and also the actions related to the development of the “Natural Health Service” in the Health and Wellbeing Priority.

Action	Partner	Mechanism
<b>Additional work with Sustrans and local authorities to identify how the extensive network of green routes can be harnessed to best effect to meet city region and Warrington priorities.</b>	<b>Sustrans Local Authorities</b>	<b>Local Plans City Region Planning Framework Atlantic Gateway Access Fora</b>

<sup>20</sup> Green travel routes are walking or cycling routes that are within a green infrastructure setting, so may be tree lined roads or may be off road access such as footpaths or bridleways.



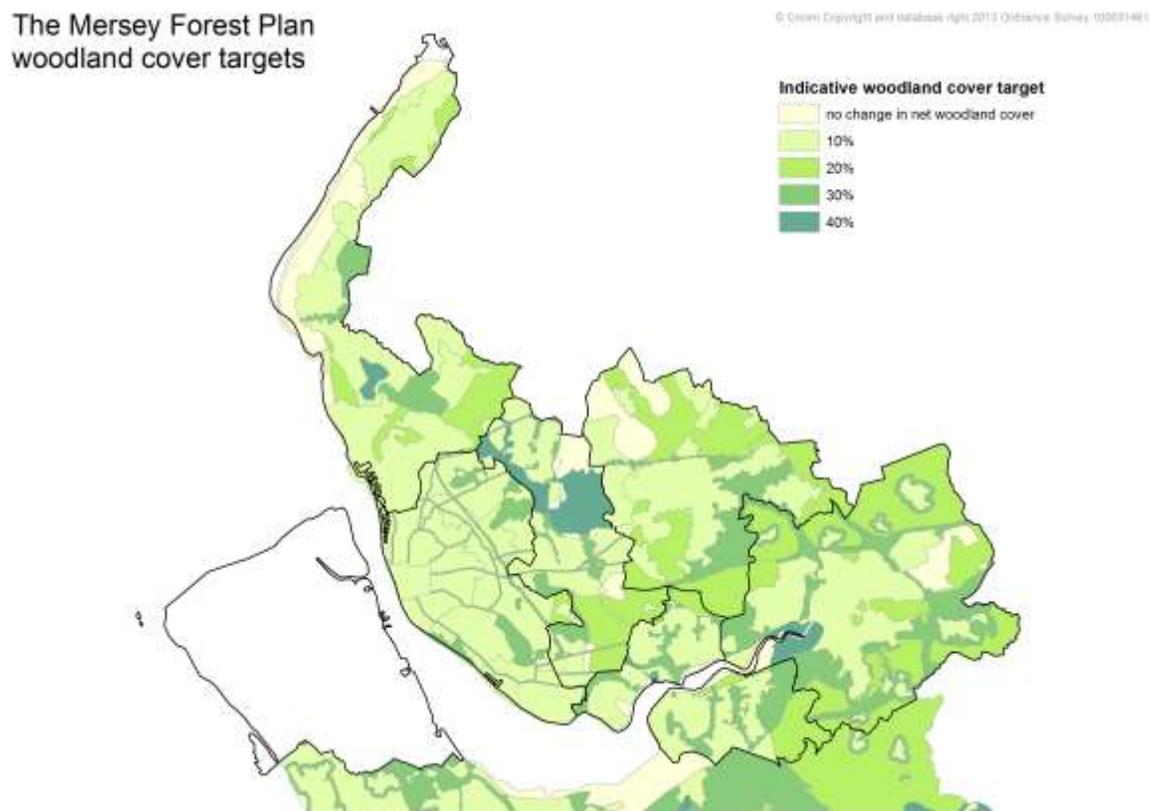
**Where are the woodlands that play a key cross-boundary role and how do they meet Woods for People standards?**

The Woods for People standard was introduced by the Woodland Trust in 2003. It is non-statutory but does help to benchmark the provision of accessible woodlands and identify areas of greatest need.

The Mersey Forest Plan, refreshed in 2012 with support from the EU Interreg IVb GIFT-TI project, continues to provide a government approved strategic plan for woodland creation across the city region and Warrington. Delivery of the Forest Plan to date has increased the level of accessible woodland.

Figure 15 The Mersey Forest Plan woodland cover targets shows proposed woodland cover across The Mersey Forest as shown in the 2012 refresh of the Forest Plan.

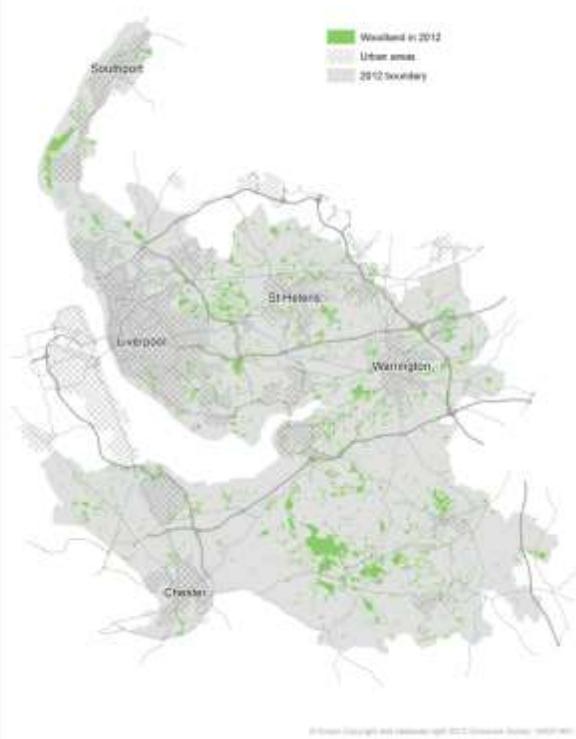
**Figure 15 The Mersey Forest Plan woodland cover targets**



**Woodland cover 1991**  
(only mapped within 1994 boundary)

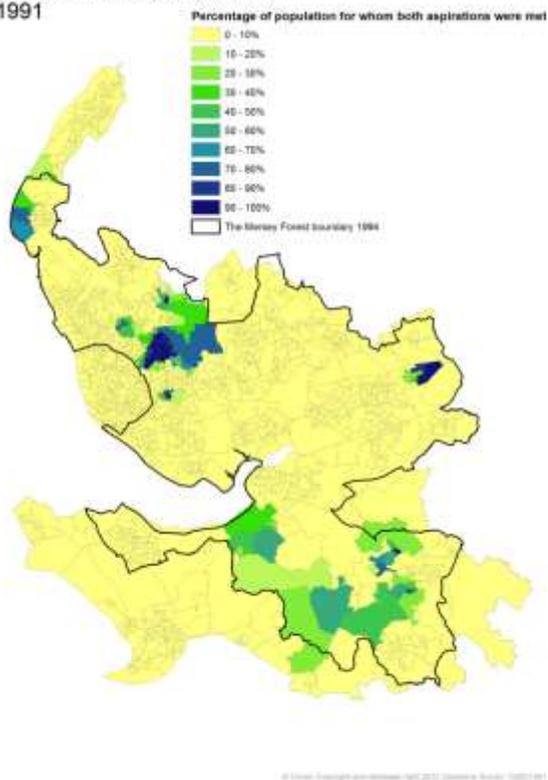


**Woodland cover 2012**

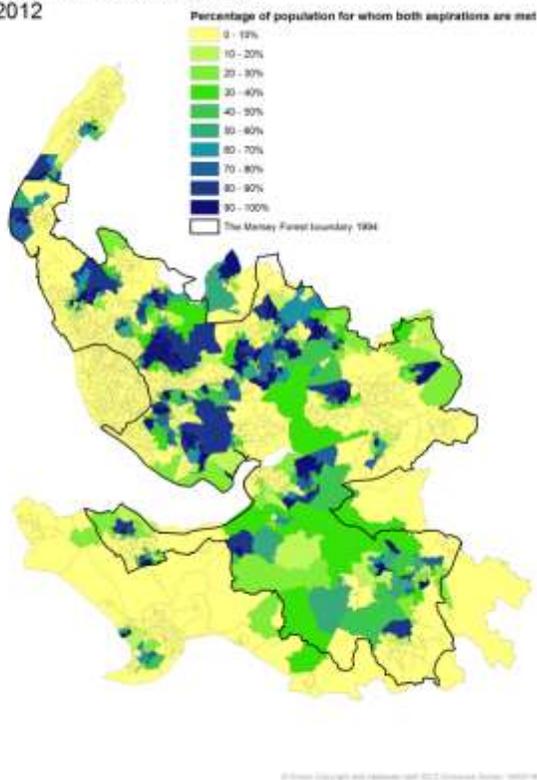


Woodland cover has increased by 74%,

**Woodland Access Standard 1991**



**Woodland Access Standard 2012**



Access to woodland has increased significantly, (how much and where)

However, there are still gaps in provision of accessible woodland, especially in Liverpool and parts of both Sefton and Warrington.

Action	Partner	Mechanism
<b>Continue to create new woodlands that have open access close to people</b>	<b>Mersey Forest Partnership</b>	<b>Mersey Forest Plan Local Plans Community Environment Fund Community Infrastructure Levy ERDF and RDPE EWGS</b>



## Ecological framework

### Long Term vision

The developing ecological framework is a precious resource for the City Region, providing critical functions and safeguarding our biodiversity.

### Key Questions

- What and where in the city region are the key elements of the ecological framework and how do they relate to the wider green infrastructure framework?
- How can green infrastructure planning help to safeguard and improve the provision of the ecosystem services that are critical for the city region<sup>21</sup>?
- How do we ensure green infrastructure actions lead to biodiversity benefits?
- How can the green infrastructure framework assist in reducing visitor pressure on sensitive international ecological sites?
- How can funding such as RDPE and EWGS, as well as Community Infrastructure Levy be better targeted to achieve biodiversity and ecological framework gains and meet local need?

## Findings

### Key elements of the Ecological Framework

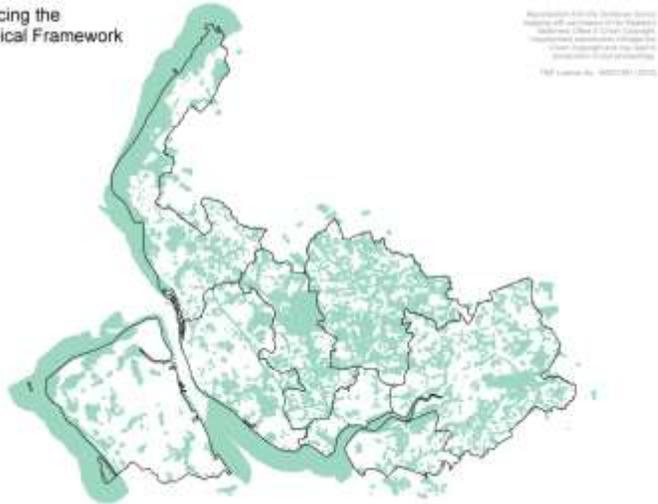
The ecological framework prepared by MEAS is a key part of the Green Infrastructure Framework. We have applied the principles used by MEAS to extend the work into Warrington. Map 17 shows the biodiversity core areas

### Map 17 Ecological Framework – Core biodiversity areas

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<sup>21</sup>This issue is in effect asking how all of the GI actions can be implemented so that they have a positive biodiversity impact.

Enhancing the Ecological Framework



In terms of developing linkage between core biodiversity areas, the extensive water course systems within the city region and Warrington provide an important network that could be used as the basis for interventions for land use management change. They may also form the basis for new Nature improvement Areas. LNPs are able to identify and support these areas.

Linkage along motorway and rail corridors has been shown to be important in studies of species movement particularly in urban areas.



Action	Partner	Mechanism

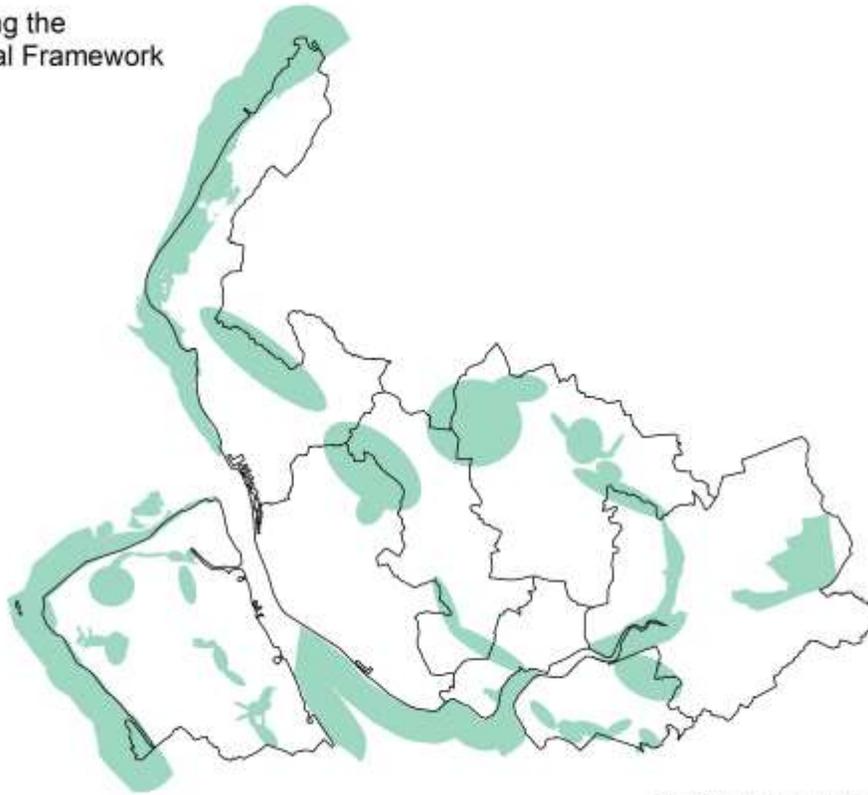
<p><b>Through strategic planning at local and city region level ensure core areas are safeguarded and where possible enhanced</b></p>	<p><b>Local Nature Partnership, Local authority, developers, DEFRA</b></p>	<p><b>GI Framework, Atlantic Gateway Community Investment Fund, Local Plans, CIL</b></p>
<p><b>Whilst working on individual site based projects, look to identify opportunities to provide additional linkage, buffering and habitat quality improvements in and around the core biodiversity areas</b></p>	<p><b>Local Nature Partnership, Local authority, developers, DEFRA</b></p>	<p><b>GI Framework, Atlantic Gateway Community Investment Fund, Local Plans, CIL</b></p>

**What and where in the city region are the key elements of the ecological framework and how do they relate to the wider green infrastructure framework?**

The Liverpool City Region ecological Framework sets out a number of key geographic areas for the ecological framework.

These provide the basis for work at the city region level.

Enhancing the Ecological Framework



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Action	Partner	Mechanism
<b>LNP to focus attention on the improvements to management of the Strategic Opportunities identified in the Liverpool City Region Ecological Framework – with similar activity taken forward for Warrington through the Cheshire and Warrington LNP</b>	<b>Local Nature Partnership, Biodiversity Partnerships</b>	<b>RDPE, NIA?</b>

**How can green infrastructure planning help to safeguard and improve the provision of the ecosystem services that are critical for the city region?**

Green infrastructure planning is an ecosystems based approach. The Technical Document provides details of how the benefits derived from green infrastructure and the four types of services used to categorise ecosystems services are related.

We have used and developed the concept of “pinch points” to identify the key areas across the city region and Warrington where there are needs not met by green infrastructure. Previously the pinch point idea was only used for areas of economic investment, but we have extended this to now be able to identify these areas for all of the six priorities in this Framework.

In addition, we can use the same type of method to identify key assets, areas that are currently delivering important green infrastructure benefits/ ecosystems services that are meeting identified need. These are areas to safeguard and enhance.

Action	Partner	Mechanism
<b>Promote the value of green infrastructure and improve understanding of how green infrastructure benefits support the city region and Warrington’s sustainable development aspirations.</b>	<b>Local Enterprise Partnerships and Local Nature Partnerships joint working, Mersey Forest Partnership, Atlantic Gateway</b>	<b>LEP and LNP publications, Mersey Forest Delivery Plan, Atlantic Gateway delivery plan</b>

**How do we ensure green infrastructure actions lead to biodiversity benefits?**

A central point of green infrastructure implementation is that all actions ought to maximise biodiversity benefits by choosing appropriate green infrastructure types, species and delivery methods and also looking to link or provide stepping stones to nearby habitats. Highlight the Biodiversity Duty from Natural Environment and Rural Communities Act 2006?

Action	Partner	Mechanism
<b>Promote biodiversity by design and green infrastructure and biodiversity guidance to project funders, planners and delivery agencies</b>	<b>Local Nature Partnership</b>	<b>All funding and development agencies.</b>

## How can the green infrastructure framework assist in reducing visitor pressure on sensitive international ecological sites?

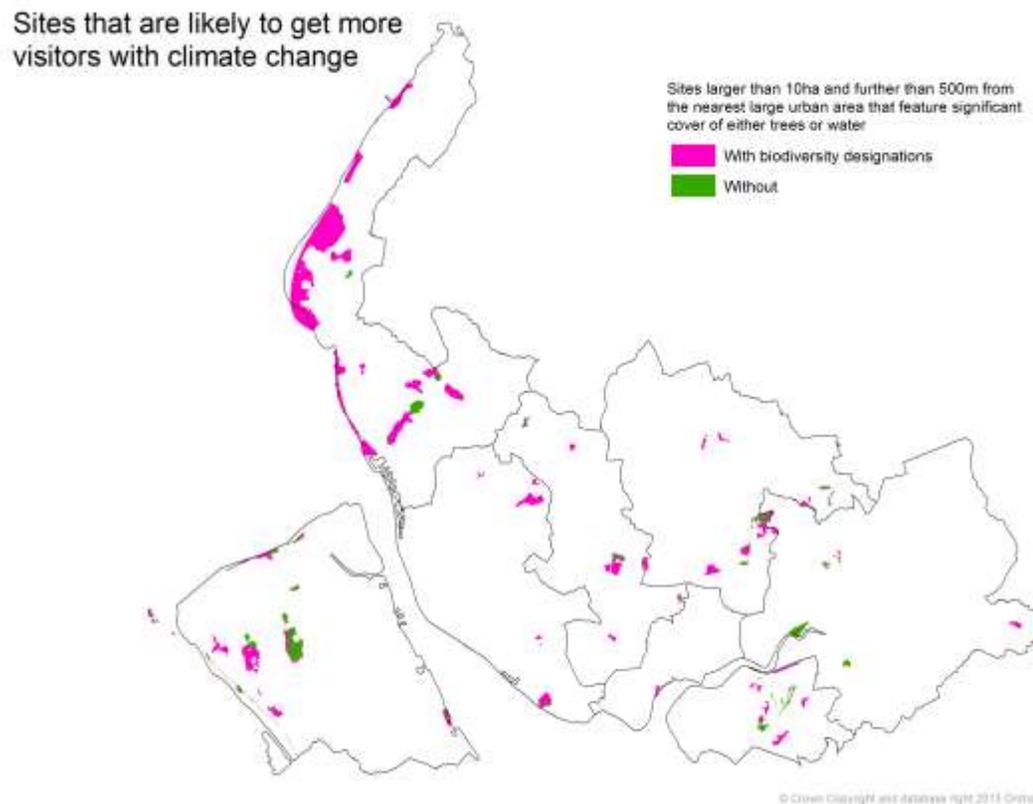
The section on Access and Recreation provides details on the areas across the city region and Warrington where additional opportunities for accessible green infrastructure will be needed due to increasing population and potentially due to projected climate change leading a more outdoor lifestyle.

The following map is an attempt to identify sites that are likely to get more visitors as climate change hits and people want to flee the urban heat island effect. It shows open space sites that meet the following criteria.

- Area greater than 10ha
- Open to the public
- More than 500m from the nearest large urban area
- Feature significant cover of either trees (for shade) or water (for its cooling effect)

Sites with biodiversity designations are highlighted, as they are likely to be most sensitive.

**Figure 16 Sites that are likely to get more visitors with climate change**



More work at a local level is needed to identify the sensitivity of these areas to potential additional visitors and recreation use.

The “Climate Change and the Visitor Economy” report<sup>22</sup> suggests that the coast areas may be a particularly important area to assess for the impacts of increased visitor numbers with projected warmer summers and also that woodlands have a greater holding capacity for visitors and are less sensitive to visitor pressure.

Action	Partner	Mechanism
<b>Work with tourism and recreation bodies at city region and local level to promote less sensitive sites for access and recreation</b>	<b>Tourism. Biodiversity Partnership, Mersey Forest Partnership. Local Nature Partnership</b>	<b>Tourism and access websites, literature and marketing info</b>

**How can funding such as RDPE and EWGS, as well as Community Infrastructure Levy be better targeted to achieve biodiversity and ecological framework gains and meet local need?**

The pinch point and assets maps developed as part of this framework provide the basis for targeting and aligning sources of funding from a range of sources in order to maximise impact.

Action	Partner	Mechanism
<b>Build opportunities for “smart conservation” into all green infrastructure plans that are proposed for EU Structural Funds and all other strategic funds</b>	<b>Local Nature Partnership</b>	<b>Local Nature Partnership board</b>

Projected climate change creates challenges for biodiversity. Actions that try to enable species movement in response to changing climate niches are identified in the section on Climate Change above.

<sup>22</sup> <http://www.greeninfrastructurenw.co.uk/climatechange/>

## Rural Economy

### Long Term vision

An attractive and thriving rural economy is key to the success of city region, providing valuable fuel and food resources as well as the setting for a high tech and knowledge based economy.

### Key Questions

- Who can act as the strategic advocate for the rural economy?
- What are the key actions to take forward from the Merseyside Rural Economic Assessment?
- What opportunities exist to contribute to the reduction of carbon emissions and storage of carbon?

How can green infrastructure help secure achieve targets of EU funding through the new RDPE?

How do we maximise the use of local food and timber products?

How can support for rural areas through programmes such as ERDF, Leader and Axis 1, 2 and 3 of RDPE to be coordinated better to deliver a wider range of objectives e.g. Water Framework Directive

Where are the key sub-regional areas for natural tourism?

Forest parks

Local Nature Reserves

- How can rural areas help to tackle "pinch points"? How is this resourced? (PES section in funding?)

### Findings

#### Strategic Advocate

The ICEP and Leader programmes have been effective in delivering support and resources for the rural economy. (how much )

The Merseyside Leader Advisory Group is predominantly private sector led.

The LEPs and LNPs should provide overarching strategic advocacy and support the Leader Advisory Group to develop strategy, programmes and delivery mechanisms for the next round of EU Rural funding.

The LEPs should ensure that the city region and Warrington continue to get a significant proportion of rural funding and should support the Leader group in achieving this.

Action	Partner	Mechanism
LEP to ensure Leader Group has best	DEFRA, Local	Leader and next

possible support to enable significant RDPE programme for the city region	Enterprise Partnership, Mersey Rural Leader	round of RDPE
Report from Leader Group chair to LEP board	Local Enterprise Partnership	Mersey Rural Leader

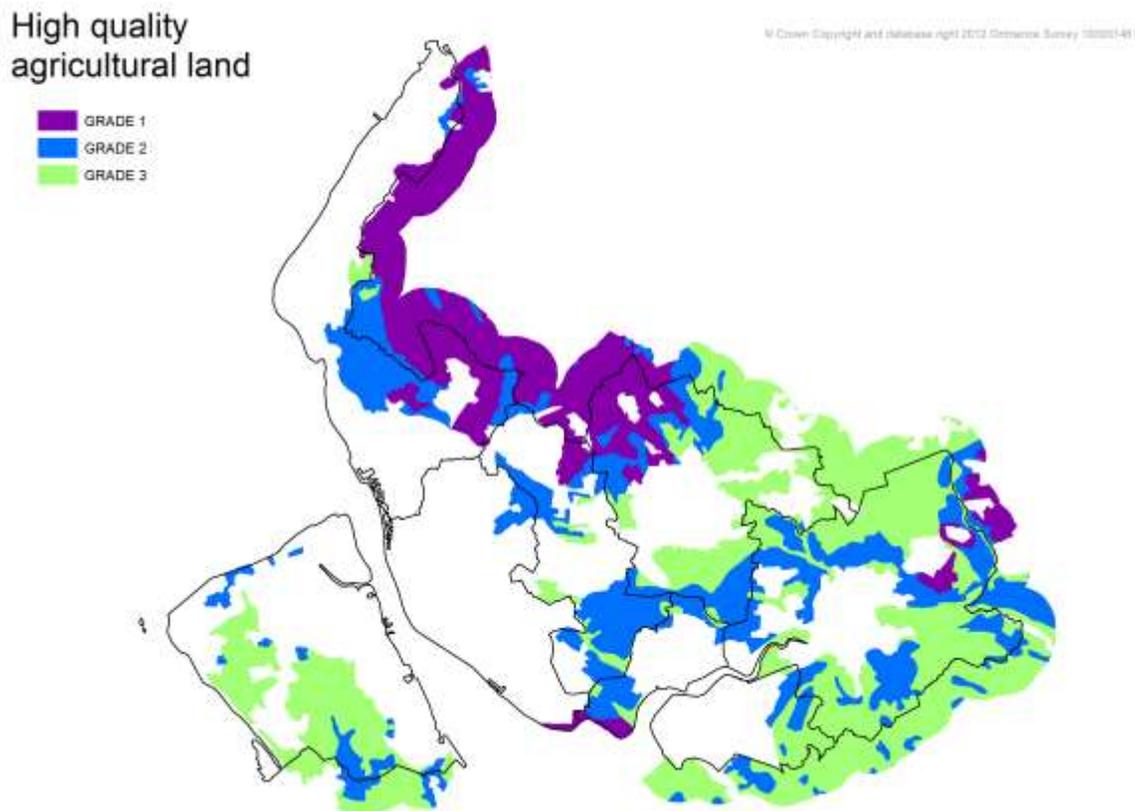
**What are the key actions to take forward from the Merseyside Rural Economic Assessment?**

And

**How do we maximise the use of local food and timber products?**

The Green Infrastructure Framework can support many of the key actions from MREAP. However, the key challenge at the moment is to help shape the EU Structural and Rural programmes, influence Local Plans and engage the rural economy effectively within the LEP. Map 18 identifies the areas of high quality agricultural land across the city region and Warrington, areas of great importance for the economy and also the sustainability of the area.

**Map 18 Areas of High Quality Agricultural Land**



The Green Infrastructure Framework identifies a need for increasing local food and timber products within the city region. Again the key actions are now to influence a range of plans

and strategies so that procurement policy can be targeted within a wide range of sectors to start to promote a greater level of cost effective local purchasing. These activities are covered across other areas of the Green Infrastructure Framework.

The Social Value Act 2012<sup>23</sup> may also provide an opportunity to push this agenda more effectively as it becomes more widely used.

**How can green infrastructure help secure achieve targets of EU funding through the new RDPE?**

See **Strategic Advocate**

**How can support for rural areas through programmes such as ERDF, Leader and Axis 1, 2 and 3 of RDPE to be coordinated better to deliver a wider range of objectives e.g. Water Framework Directive?**

See above.

The best opportunity to influence land management in rural areas of the city region and Warrington is through the Rural Development Programme for England. The city region has operated RDPE programmes successfully for the past 12 years, most recently through the Merseyside Rural Leader Programme.

In addition to Leader Natural England operate the Entry Level and Higher Level Stewardship Schemes that aim to improve environmental stewardship on farmland.

The next round of RDPE is currently being developed and the Green Infrastructure Framework should be used to help shape the programme.

Action	Partner	Mechanism
<b>Integrate elements of the Green Infrastructure Framework into the Liverpool City Region and Cheshire and Warrington programmes for RDPE. Assess opportunities for an integrated programme across Atlantic Gateway</b>	<b>Merseyside LAG, Local Enterprise Partnerships, DEFRA, Atlantic Gateway</b>	<b>RDPE, CEF</b>

**Where are the key sub-regional areas for natural tourism?**

In this Green Infrastructure Framework the city region coastline has been identified as a key resource for a number of priorities including for the projected increase in opportunities for recreation and tourism. However as has been identified previously, these coastal areas are

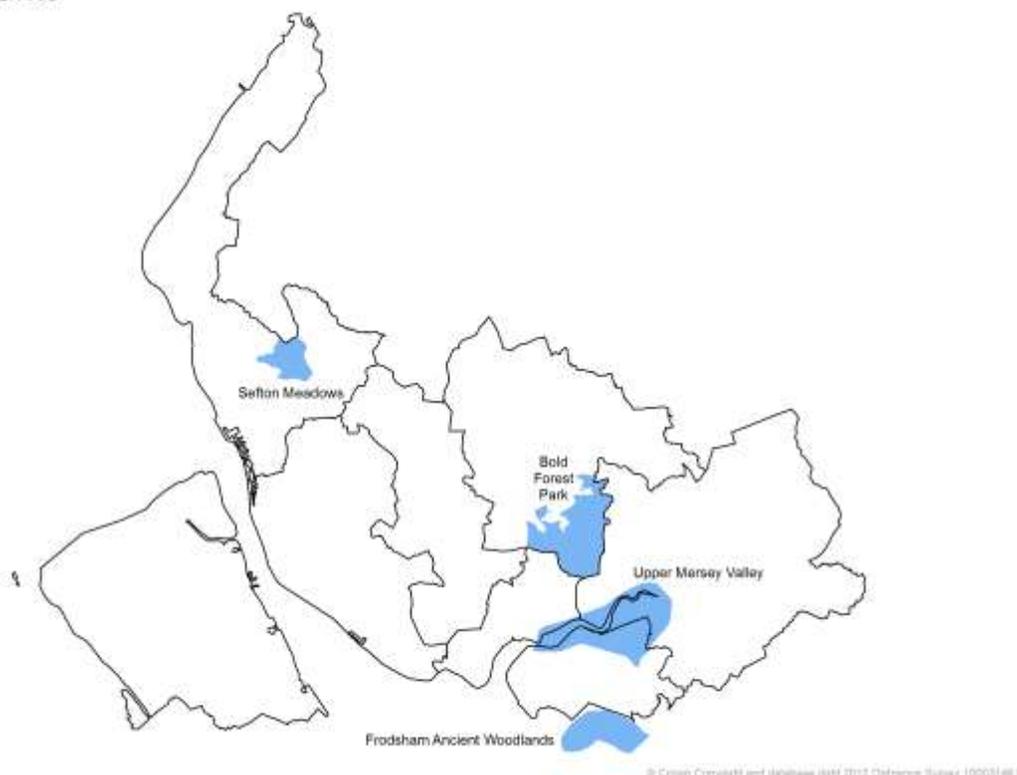
<sup>23</sup> Public Services (Social Value) Act 2012

also sensitive and important habitats, with Ramsar and Natura 200 designations in many areas. These areas require sensitive planning and consideration of the wide range of green infrastructure benefits that are provided (see Figure 6).

In addition the key recreation trails, large parks, green corridors and the establishing Forest Parks all provide opportunities to develop increased tourism opportunities (Forest Parks, Map 19).

**Map 19 Forest Parks**

**Forest Parks**

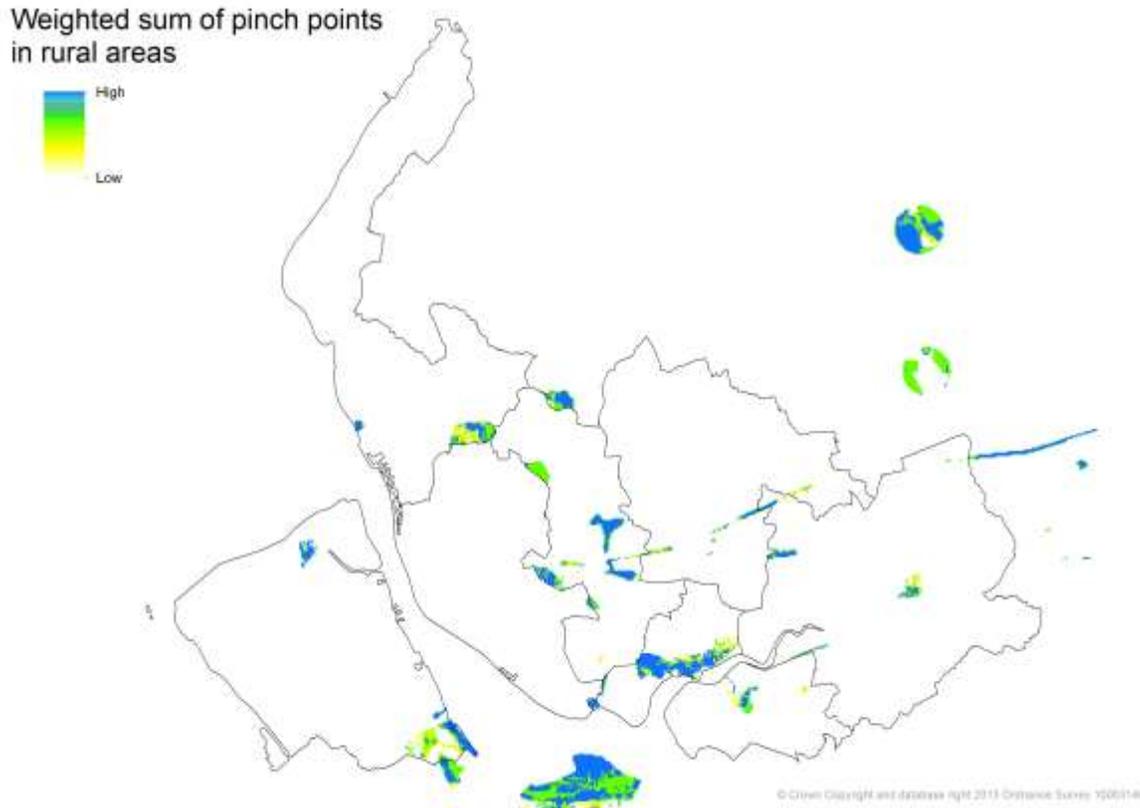


Action	Partner	Mechanism
Promotion of the natural tourism opportunities to tourism agencies in the city region and Warrington so that they are considered as part of the offer for the area.	Landowners, local authorities, Local Nature Partnerships, Atlantic Gateway, Local Enterprise Partnerships	Tourism Strategies, ERDF, RDPE

**How can rural areas help to tackle "pinch points"?**

8% of the identified pinch points for the city region and Warrington are in rural areas. Land use planning and management strategies and plans should take into account these pinch points and where possible enable them to be tackled. This integrated approach means that several objectives can be addressed through a single intervention – a key role for green infrastructure planning and delivery.

**Map 20 Weighted sum of pinch points in rural areas**



Similarly, 15% of the rural area has been identified as an Asset at the city region and Warrington scale. A similar approach to safeguard and enhance the functionality of these areas will ensure that the benefits provided are sustained.

Action	Partner	Mechanism
<b>Within the new RDPE programme highlight opportunities to develop integrated solutions that improve rural business competitiveness and also assist in tackling wider “pinch points” that impact on the sustainable development of the city region and Warrington</b>	<b>Ensure that the city region and Warrington have strong RDPE programmes that are well funded reflecting both the success of rural business delivery to date and the opportunities that exist to</b>	<b>RDPE, ERDF, Local Plans</b>

	<b>develop further.</b>	
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## Coordinating and Funding

### Coordination

It is proposed that the partnership that developed the Green Infrastructure Framework continues to take forward the actions, and in particular the 12 key activities.

We also propose that a joint mandate from the LNP and LEP provide the strategic support for this work to enable activity.

Progress on the actions will be reported to the LNP Board.

### Funding

As part of the LNP architecture a resources group will be established and if the LNP approved their role in mandating the Green Infrastructure Framework this group should also support the funding aspirations set out in this Action Plan for the city region and Warrington Green Infrastructure Framework.

In addition we will seek to work closely with the Natural Economy Investment Forum to take forward several of the actions. For example work is already well advanced on the Natural Health Service Business Plan and has started on the influencing of post 2014 EU Structural and Rural funds.

As a third strand of action we will look to work closely with the National GI Partnership to both promote the work being carried out locally and also to learn from other parts of the country, In particular we have started to explore the opportunities for Payments for Ecosystem services.

Key funding targets are:

- Payments for Ecosystem Services
- EU Structural Funds
- Community Infrastructure Levy
- Section 106 through Local Plans
- Community Environment Fund (matched by elements of the above)
- Landfill tax
- Lottery Funds

## Updating

It is proposed that the actions are reviewed annually by the Liverpool City Region and the Cheshire and Warrington Local Nature Partnerships.

This also provides the opportunity to update and amend actions and as date allows the basic data upon which the Framework is based.

The Mersey Forest Team has offered to help to keep the plan updated in this way.

# Appendix 1 – Relationship between 12 Key Activities and 41 Actions

Priority	Action number	Key Activities												Number of key activities supporting the actions
		Plan and deliver Green Infrastructure to help overcome	Use the Green Infrastructure Framework to shape the content	Engage the non environmental sector more effectively	Fully utilise Green Infrastructure Planning, delivery and management to	Use GI to help adapt our area to projected	Build the GI framework into city region and cross boundary	Support the aspiration for the Mersey as the	Create and develop Green Infrastructure	Use the Green Infrastructure of the city region and	Through Green Infrastructure planning and delivery enhance	Deliver The Mersey Forest Plan, increasing	Use the Green Infrastructure assets of the city region and	
Setting the Scene for Growth	1	+	+		+	+	+	+	+	+		+	+	6
	2	+	+		+	+	+	+	+	+		+	+	2
	3	+	+		+	+	+	+	+	+		+	+	12
	4	+	+		+	+	+	+	+	+		+	+	1
	5	+	+		+	+	+	+	+	+		+	+	7
	6	+	+		+	+	+	+	+	+		+	+	6
	7	+	+		+	+	+	+	+	+		+	+	6
	8	+	+		+	+	+	+	+	+		+	+	7
	9	+	+		+	+	+	+	+	+		+	+	4
	10	+	+		+	+	+	+	+	+		+	+	2
	11	+	+		+	+	+	+	+	+		+	+	2
	12	+	+		+	+	+	+	+	+		+	+	2
	Health	13	+	+		+	+	+	+	+		+	+	2
14		+	+		+	+	+	+	+		+	+	9	
15		+	+		+	+	+	+	+		+	+	1	
Climate Change	16	+	+		+	+	+	+	+		+	+	2	
	17	+	+		+	+	+	+	+		+	+	5	
	18	+	+		+	+	+	+	+		+	+	12	
	19	+	+		+	+	+	+	+		+	+	5	
	20	+	+		+	+	+	+	+		+	+	5	
	21	+	+		+	+	+	+	+		+	+	1	
	22	+	+		+	+	+	+	+		+	+	3	
	23	+	+		+	+	+	+	+		+	+	5	
	24	+	+		+	+	+	+	+		+	+	3	
	25	+	+		+	+	+	+	+		+	+	1	
	26	+	+		+	+	+	+	+		+	+	3	
	27	+	+		+	+	+	+	+		+	+	2	
	28	+	+		+	+	+	+	+		+	+	2	
	29	+	+		+	+	+	+	+		+	+	4	
	30	+	+		+	+	+	+	+		+	+	4	
	Recreation, Leisure and Tourism	31	+	+		+	+	+	+	+		+	+	6
32		+	+		+	+	+	+	+		+	+	2	
33		+	+		+	+	+	+	+		+	+	7	
34		+	+		+	+	+	+	+		+	+	4	
Ecological Framework	35	+	+		+	+	+	+	+		+	+	5	
	36	+	+		+	+	+	+	+		+	+	6	
	37	+	+		+	+	+	+	+		+	+	6	
	38	+	+		+	+	+	+	+		+	+	1	
	39	+	+		+	+	+	+	+		+	+	9	
Rural Economy	40	+	+		+	+	+	+	+		+	+	4	
	41	+	+		+	+	+	+	+		+	+	1	
	42	+	+		+	+	+	+	+		+	+	1	
	43	+	+		+	+	+	+	+		+	+	4	
	Number of green infrastructure actions supported	25	14	19	9	32	19	10	9	7	18	16	9	
	LNP Board Champion for each activity	MP	MEAS	LNP coordination group	FRWB, CHAMPS	DEPRA	LAs	MEAS	LNP coordination group	LNP coordination group	MEAS	MP	Merseytravel?	

