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Heseltine Institute for Public Policy, Practice and Place

BLUE SPACE IN LIVERPOOL CITY REGION

REALISING THE WELLBEING POTENTIAL

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Contents

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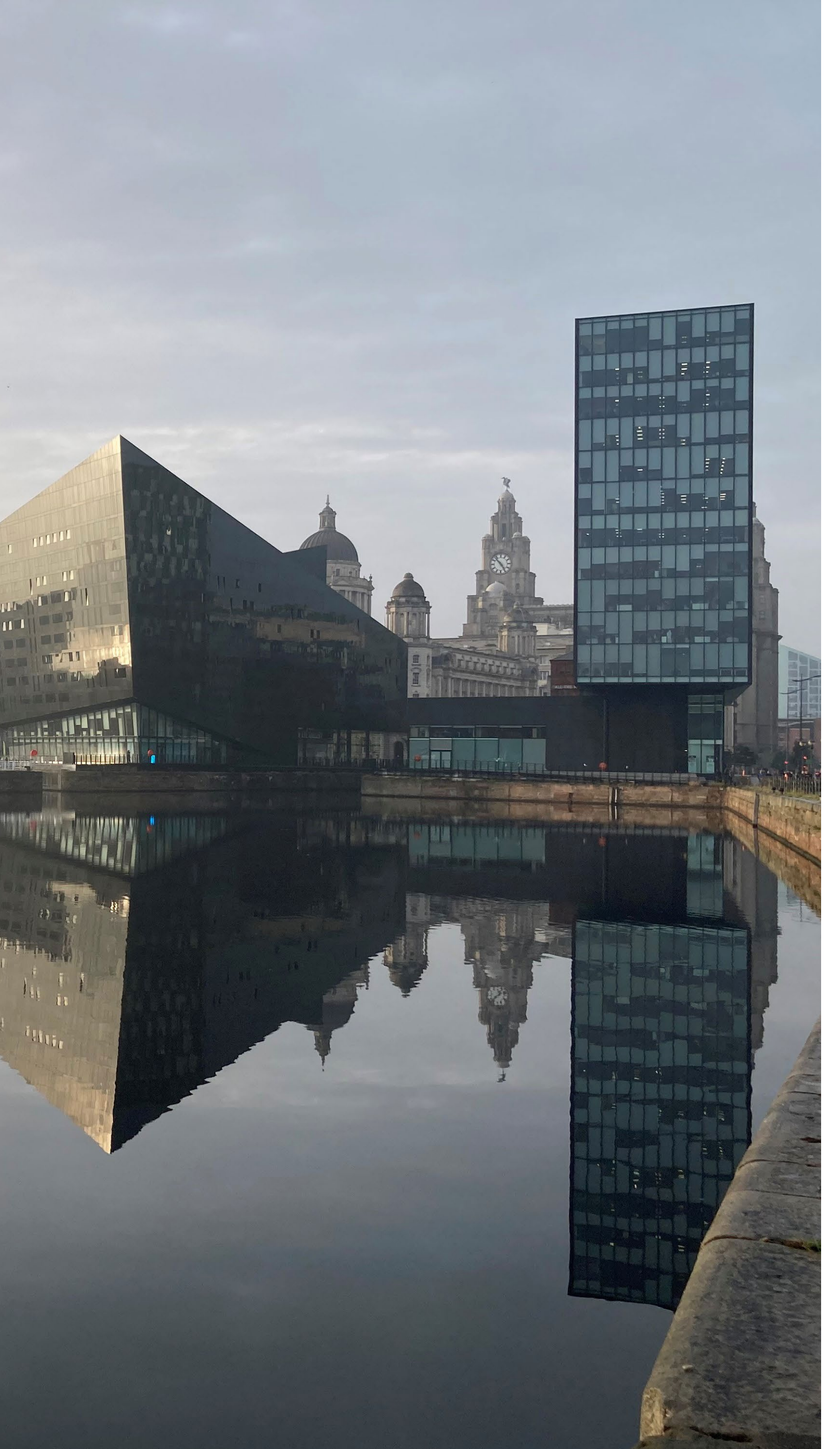
WELLBEING BENEFITS OF BLUE SPACE



What is blue space?

The term ‘blue space’ has become common in urban design and public health, alongside ‘green space’.

In green space, vegetation is dominant, but blue space is an environment ‘where water is at the centre’.[1]

We have used the following definition from an Environment Agency report:[2]

> **‘Outdoor environments – either natural or manmade – that prominently feature water and are accessible to humans either proximally (being in, on or near water) or distally (being able to see, hear or otherwise sense water).’**

1 Britton et al., 2020
2 Brown, 2020; adapted from Grellier et al., 2017

The evidence for wellbeing benefits

While research into the health benefits of green space is widespread,[1] evidence for the health benefits of blue space is growing.[2] This evidence is strongest for benefits to mental health and wellbeing.[3]

Our focus here is on wellbeing benefits. However, it should be noted that there are also wellbeing risks associated with blue space, e.g. from flooding, safety hazards, poor quality, disease.

The risks and benefits for any blue space will vary over time, e.g. because of climate change.

1 White et al., 2020
2 Gray et al., 2023
3 Gascon et al., 2017

A systematic review of evidence on behalf of the Environment Agency found:

- Some evidence in England that self-reported levels of mental health increase in proximity to the coast
- Evidence from qualitative studies that coastal environments are associated with the opportunity for restorative experiences
- Some evidence of blue space increasing the opportunity for beneficial social interaction
- People who use blue space say they gain psychological benefits from the experience
- Blue space can be important for people's attachment to place.

The benefits of blue space are not experienced equally:

- Half the British population interacts with blue space at least once a month
- However, people from minoritised ethnic groups are less likely to visit blue space
- In England, older people are more likely to visit blue space and younger adults less likely.

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WELLBEING POTENTIAL OF BLUE SPACE IN LCR

Need and opportunity in Liverpool City Region

Health can be defined as 'the ability to adapt and self-manage in the face of social, physical, and emotional challenges'.[1]

- There is substantial evidence that living close to the coast is associated with better health and wellbeing[2]
- However, in England, coastal communities are some of the most deprived across all domains including health[3]

Therefore, in coastal areas, there is **both need and opportunity** for improvements to wellbeing.

1 Huber et al., 2011
2 White et al, 2020
3 Whitty, 2021

All 6 Liverpool City Region (LCR) boroughs are in the 20% most health-deprived in England. They have features in common including, compared to national averages:[1]

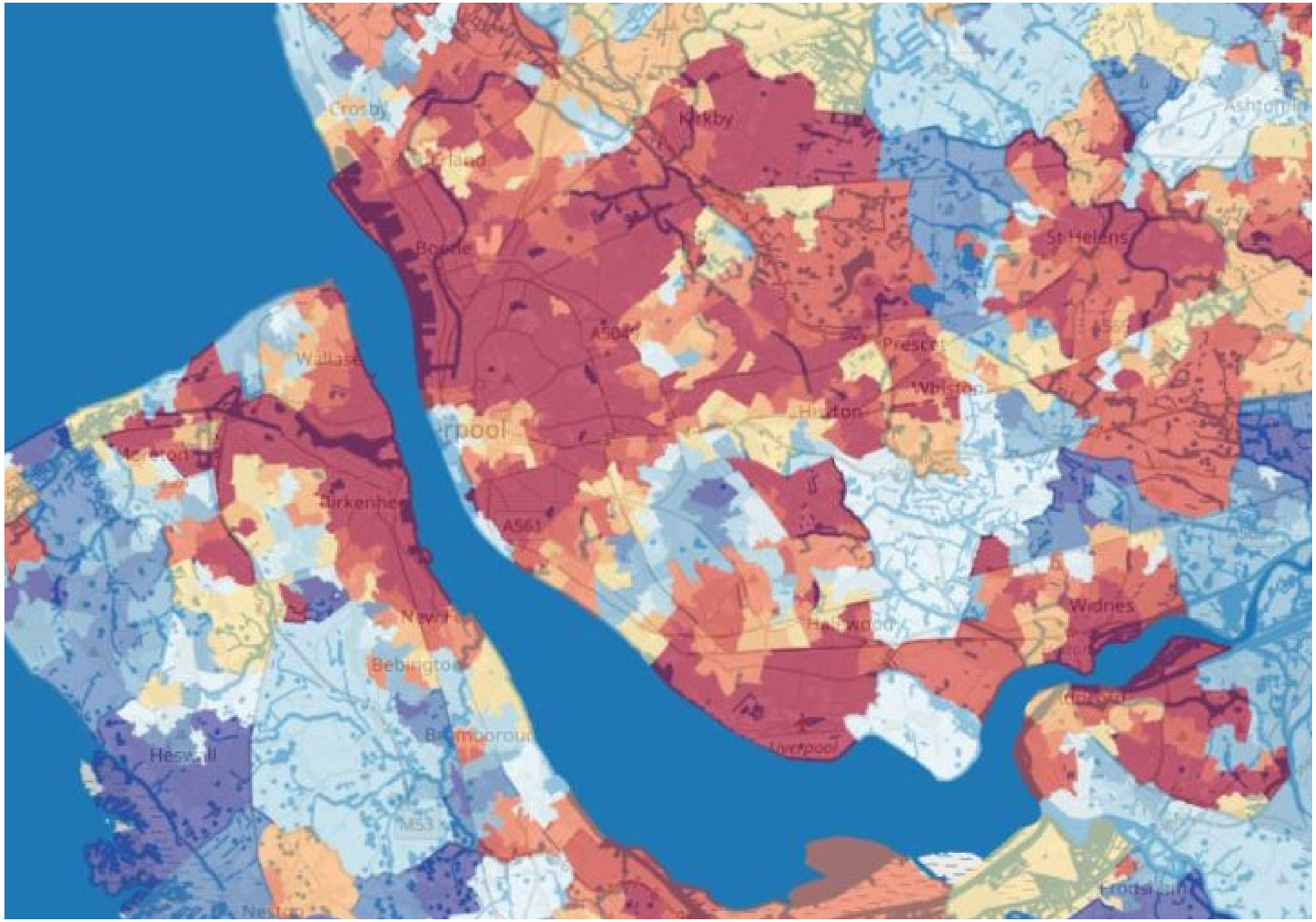
- Lower life expectancy and healthy life expectancy
- Higher levels of obesity in both children and adults
- Lower levels of engagement in physical activity
- Higher levels of mental ill health

1 Higgins, no date

Health inequalities are 'avoidable, unfair and systematic differences in health between different groups of people'.[1] In LCR:

- Some of the most deprived areas are situated close to the estuary or coast[2]
- Within them are hotspots of poor mental health that are some of the worst in England[3]
- There is widespread commitment to addressing health inequalities based on a social model of health and wellbeing that recognises a range of determinants[4]

1 The King's Fund, 2022
2 Natural England, 2024
3 Local Insight, 2024
4 Marmot et al., 2022



Indices of Multiple Deprivation 2019 decile

1
2
3
4
5
6
7
8
9
10

Deprivation and blue space in urban areas of Liverpool City Region

From Natural England's Green Infrastructure Map.[1]

1 Natural England, 2024

Hotspots of poor mental health in urban areas of Liverpool City Region

Small Area Mental Health Index (SAMHI) data from 2019, displayed at Middle Super Output Layer level. The SAMHI combines data on mental health from multiple NHS and DWP sources. A higher score indicates that an area is experiencing high levels of mental health need. Shaded areas are those whose SAMHI score is in the top 20% in England.[1]

1 Local Insight, 2024

- 2.51–6.00 (top 1%)
- 2.09–2.50 (top 1–5%)
- 1.85–2.08 (top 5–10%)
- 1.63–1.84 (top 10–15%)
- 2.51-6.00 (top 15–20%)

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OUR RESEARCH

Workshop

We held a workshop in Liverpool in March 2024 on the topic of 'Urban blue space and public health'.

It was attended by researchers, policy makers, practitioners and organisations from the VCFSE sector (voluntary, community, faith and social enterprise). Speakers included Engage Liverpool, Canal and River Trust, Paddle UK, and researchers from the GroundsWell and Melting Metropolis projects.

Discussions confirmed a desire for local collaboration on blue space issues, and suggested many possible areas of focus for research, including:

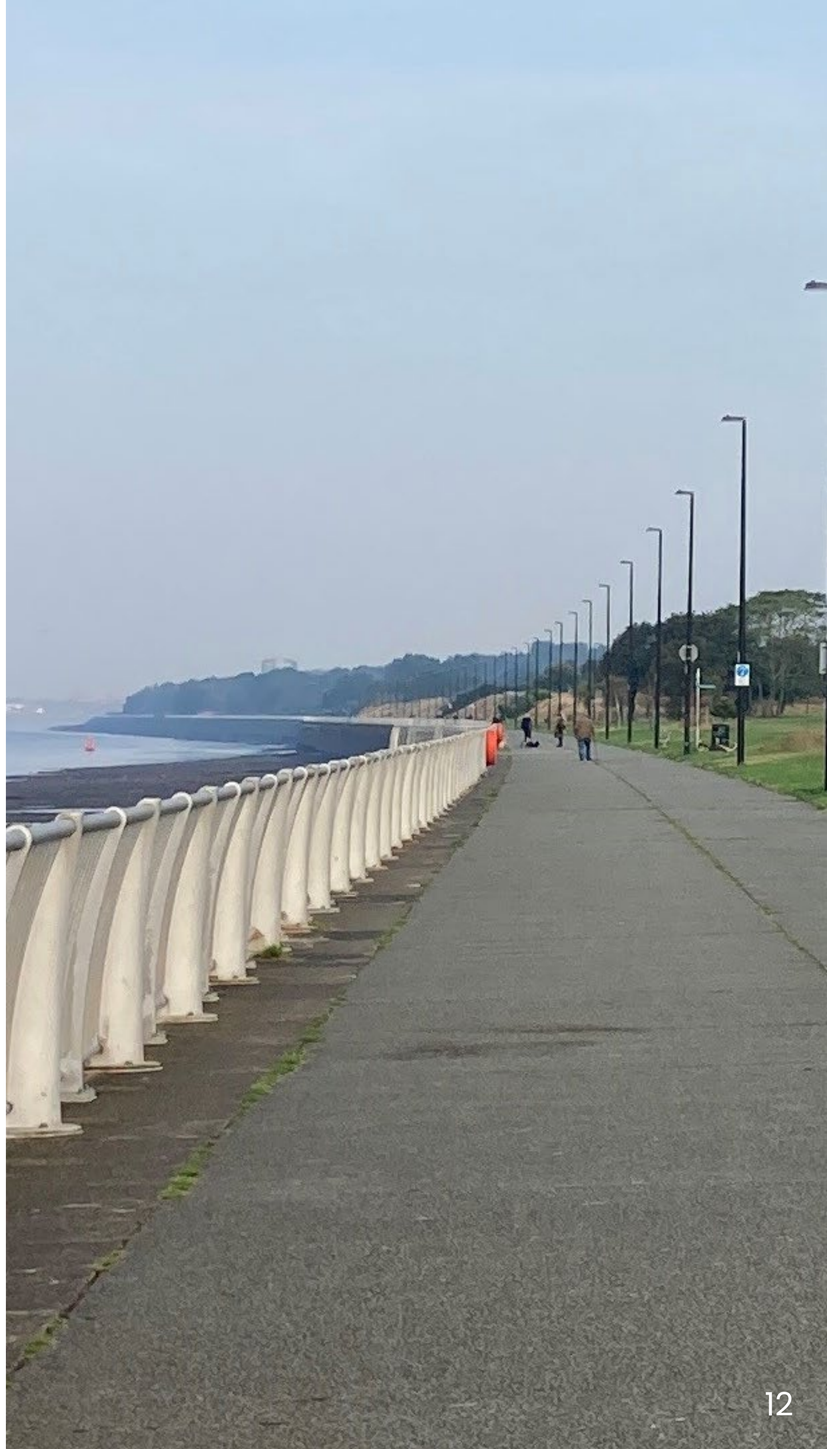
- Who uses blue space and how?
- Who is responsible for healthy place-making?
- Should blue and green space be treated the same in policy?

Visitor survey

In July 2024, we carried out a survey to further explore the wellbeing potential of blue space in LCR. We focused on urban estuarine and coastal blue space, and sought to better understand how it is used and valued by people.

The survey locations were New Brighton Marine Lake in Wirral (left) and Otterspool Promenade in Liverpool (right). These locations share certain features:

- They are outside the city centre, in urban but largely residential areas
- Although adjacent to a beach or green space, they are ‘hard-edged’ blue spaces.



Survey results

Who were the visitors?

Of the 138 survey respondents:

- 51% were women (the same as in LCR as a whole)
- 93% were from a White ethnic group (compared with 92% in LCR)
- 70% were in age groups from 55 to 84 (compared with 30% in LCR).

The survey took place over two consecutive Fridays, during the day.

How did they travel?

Of the journeys taken:

- 60% were by personal vehicle (car or motorcycle)
- 7% were by public transport
- The remaining 33% were by walking (30%), wheeling (1%) or cycling (2%).

And:

- 60% were less than 15 minutes (including 65% of car journeys)
- 23% were between 16 and 30 minutes
- 8% were between 31 and 60 minutes
- 8% were more than 60 minutes.

Where were they from?

Around half of visitors were from the nearest postcodes. However, both locations also had wider appeal, with visitors from elsewhere in LCR and even further afield.

Why were they there?

Most people were visiting for leisure purposes. For over half, being **by the water** was a main reason for their choice of destination.

There were common themes relating to the wellbeing benefits people perceived from visiting these locations and blue spaces in general.

‘Passive’ themes

Rest and relaxation – A strong theme was of water being relaxing, offering respite from life’s stresses and strains. A ‘sense of space’ was a factor for many: people linked it to a ‘sense of freedom’ and ‘space to think’.

‘it’s nice to feel you’re not in a city when you’re in a city’

Sensory experience – Sensory qualities were mentioned as invoking positive feelings. These included the ‘changing vistas’ created by tides, weather and port-related activity, the smell of seaweed, the rhythmic sounds of the water and the feel of ‘fresh air’.

‘it’s like when you’re on holiday, you can hear the waves’

Sense of identity – Many people linked the water to their sense of self, their daily lives and habits, their memories, or their feelings about home. For some it was symbolic of a wider human identity, or a connection between all life on earth.

‘it wouldn’t be Liverpool without it’

‘Active’ themes

Leisure destination – Blue spaces are somewhere to go, whether for a coffee, a day out, or a holiday. They are settings for hobbies and exercise. Many people were out with friends or family.

‘it’s nice to come somewhere different’

Accessible outdoors – ‘To get out’, ‘for fresh air’ and ‘for a walk’ were frequently cited reasons for visiting. Over 65% of participants mentioned some form of movement or exercise, and several highlighted the suitability of the straight route or flat surface. At the same time, blue spaces were seen as natural places.

‘it’s the closest nature to home’

Focus for community – Blue space was a focus not only for spending time with loved ones, but also for connecting with a wider community. We heard about various groups, organised around caring for the environment, water-based activities or other hobbies such as photography.

‘it’s a place to be social’

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REALISING THE POTENTIAL

How are wellbeing benefits derived?

The conceptual model on the following page describes the processes linking blue space to wellbeing benefits. It was developed as part of a review of evidence[1] and builds on earlier models of green space and wellbeing. In the model:

- **Exposure** to blue space leads to outcomes of improved human and planetary health and wellbeing
- It does so by the **mechanisms** of mitigation, restoration and instoration

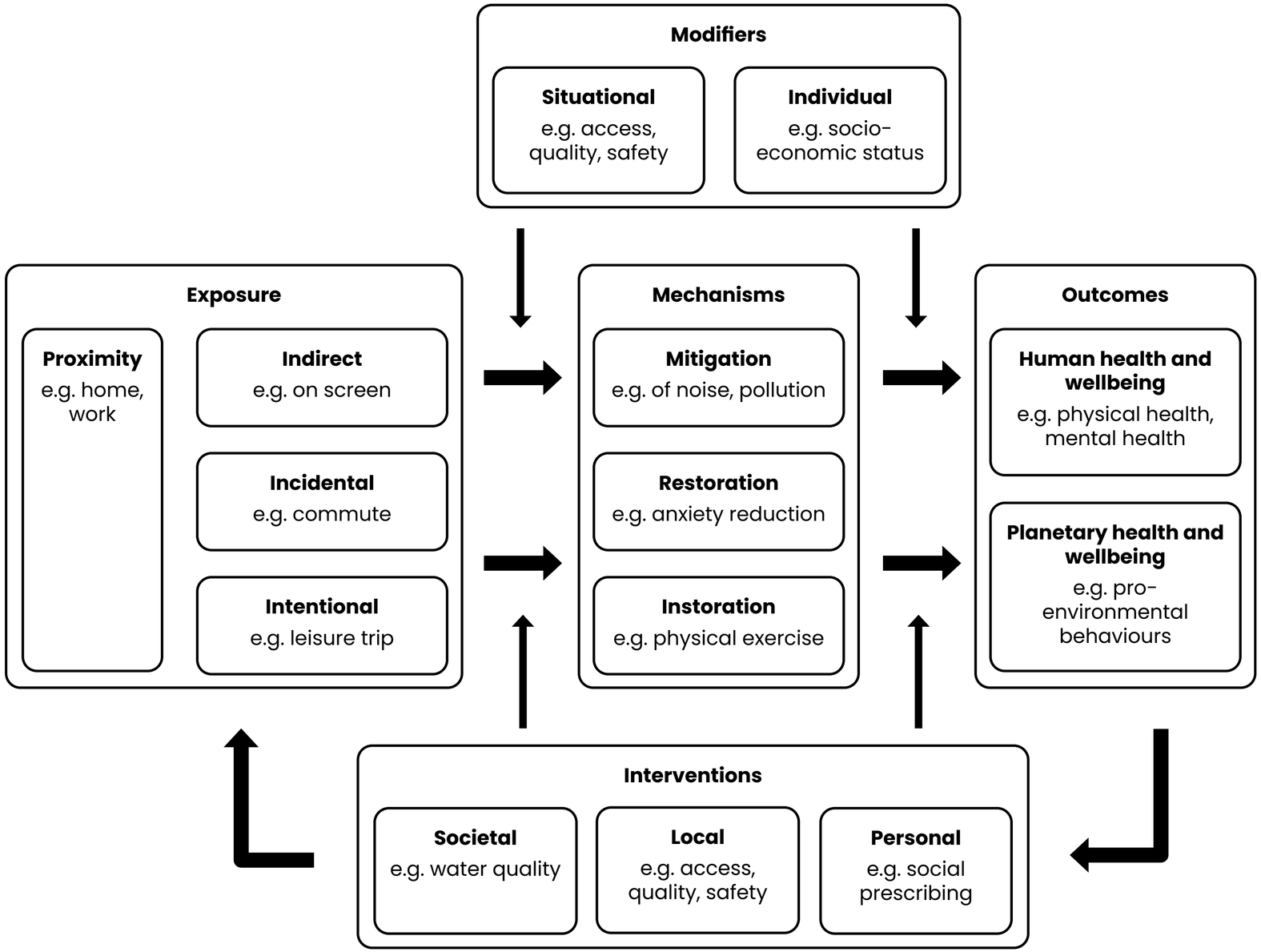
  - Mitigation is the reduction of negative external influences such as noise
  - Restoration is the replenishment of capacity for health and wellbeing, e.g. by reduction in anxiety
  - Instoration is the building of capacity for health and wellbeing, e.g. by physical exercise or social interaction

- These mechanisms are influenced by **modifiers**, which may be situational or individual
- **Interventions**, including policy interventions, can act on exposure and modifiers to influence outcomes.

1 White et al., 2020

Conceptual model

Adapted from White et al.[1]



1 White et al., 2020

Exposure to blue space: proximity

Although **quantity and location** of blue space are largely fixed, planning and environment policy can have an impact through projects such as:

- New infrastructure, e.g. Mersey Gateway bridge, Mersey Tidal Power
- Dock infill, e.g. Bramley Moore Stadium
- Nature-based interventions for flood management, e.g. Alt River restoration
- Development of waterfront sites for housing, employment or recreation

Spatial Development Strategies are required to have regard to health. The draft SDS for LCR contains policies that expressly recognise the wellbeing potential of blue space:

- LCR SP6 Green and Blue Infrastructure
- LCR SP8 River Mersey and the Coast

The National Planning Policy Framework requires local planning authorities to have a Local Plan adopted or reviewed within the last 5 years. Local Plans within LCR are at different stages of the process but will be expected to align with the SDS.

Exposure to blue space: access

The **extent of access** to blue space depends on ownership, access rights, and any restrictions such as safety restrictions that may be in force. Access to the coast has been boosted by the creation of the King Charles III England Coast Path, a new national trail. In LCR:

- The trail runs from the northern border of Sefton to the southern border of Wirral, crossing the estuary at the Mersey Ferry
- It diverts inland around the Liverpool Waters development site (as well as Altcar Rifle Range and the Port of Liverpool)
- Benefits to LCR could be enhanced by linking and improving local walking and cycling routes, e.g. inland along the estuary.

The **ease of access** to blue space is affected by provision of parking and public transport; in our survey, nearly 40% of all visits were by car journeys of less than 15 minutes.

Wellbeing benefits are not restricted to direct, intentional, proximal access; they can also derive from exposure that is distal (being able to see, hear or smell water), incidental (e.g. a view from a commute), or indirect (e.g. a view through a window).

Situational modifiers

Wellbeing mechanisms are affected by the specific **qualities** of each blue space. For example, for our survey locations, the following were significant.

‘Passive’ themes, or restorative mechanisms	Rest and relaxation	Low noise levels, open aspect, not too busy
	Sensory experience	Views, sounds, smells, air quality
	Sense of identity	Port activity, maritime heritage features
‘Active’ themes, or instorative mechanisms	Leisure destination	Amenities, signage, cleanliness
	Accessible outdoors	Parking, public transport, hard surfacing, flat and straight routes, traffic-free, shelter, water quality, wildlife
	Focus for community	Organised groups, opportunities for people to come together to care for the environment, safety

Policy interventions can protect or enhance these qualities. Multiple policy areas may be relevant, e.g. nature, transport, neighbourhoods, culture, heritage. The essential role of day-to-day management and maintenance should not be neglected.

Individual modifiers

Individual modifier effects such as poverty, disability, age, or ethnic group may mean people are less **likely to visit** blue space.[1] Targeted policy interventions might aim to reduce this inequality of access. Evidence-based guidance on inclusive blue space is being developed, e.g. by GroundsWell and Natural England.[2,3]

The NHS Long Term Plan commits to more action on avoiding preventable illness, promoting wellbeing, and reducing health inequalities.[4]

Social prescribing enables healthcare professionals to refer people to a range of local, non-clinical services, typically provided by organisations in the voluntary, community, faith and social enterprise (VCSFE) sector. Both green and blue social prescribing have been found to be effective and cost-efficient at improving wellbeing.[5,6]

1 Gray et al., 2023
2 GroundsWell Consortium, 2023
3 Natural England, 2023
4 NHS, 2019
5 Britton et al., 2020
6 Haywood et al., 2024

Policy gaps and conflicts

Policy at national, city-regional and local level has begun to recognise blue space as distinct from green space, but **inconsistently**, which could lead to opportunities for wellbeing benefits to be missed, particularly in some urban locations where blue and green space do not overlap.

A wide range of factors interact to enable these benefits, which may give rise to policy conflicts. Potential such challenges include:

- Increasing housing density and maintaining a sense of openness
- Promoting economic use and protecting heritage features
- Providing amenities and allowing opportunity for peace and quiet
- Encouraging active travel and retaining accessibility.

Coordination is required between different levels of government, between different policy areas, and with key local partners such as the NHS and VCFSE sector.

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CONCLUSIONS AND RECOMMENDATIONS

Recommended actions

How can we work together to realise the wellbeing potential of blue space in LCR?

Our recommendations are in three areas:

- Policy
- Networks
- Research

Policy

In future, Strategic Authorities such as LCRCA will have a greater stake in improving local health outcomes, taking a **health in all policies** approach.

- Consider how to maximise wellbeing outcomes from blue space when developing strategies and plans, e.g. Local Growth Plan, Local Transport Plan, Spatial Development Strategy, Local Nature Recovery Strategy, Get Britain Working Plan, Local Skills Improvement Plan
- Choose and define terms carefully to ensure that the potential of 'hard-edged' urban blue space ('grey-blue' space) is not neglected.

Networks

At our workshop, there was a clear desire for more **collaboration** locally on blue space issues.

Research has found that the public has relatively little input into how urban space can be used to benefit health,[1] and 'the potential to use urban blue space regeneration as a community-based health intervention has yet to be realised'.[2]

- Consider how local blue space collaboration could be enhanced through new or existing forums e.g. Active Travel Network, Local Nature Recovery Strategy working groups, LCR Listens.

1 Black, 2024
2 Hunter et al., 2023

Research

Our research to date has demonstrated how a conceptual model relating urban blue space to wellbeing outcomes might be applied in Liverpool City Region. However, the study was small-scale. Further **exploration** might include:

- Incentives and barriers for different groups interacting with blue space
- Effectiveness of existing blue space policy for 'grey-blue' space
- Measuring health and wellbeing benefits of blue space
- Micro-interventions, i.e. day-to-day management and maintenance
- Balancing wellbeing benefits and risks, e.g. due to climate change.

Summary

LCR's extensive blue space – its coast, estuary, and inland water bodies – is a wellbeing asset that can be utilised to address its significant health inequalities.

Blue space leads to wellbeing outcomes through a combination of factors, influenced by multiple policy areas. Effective policy will be developed from detailed understanding of how this complex system operates in place, which will vary over time, e.g. because of climate change. Policy can influence quantity and qualities of blue space, access to blue space, and use of blue space.

Among the qualities that lead to improved wellbeing are qualities that are distinct to or heightened in blue space comparative to green space. There is a risk that the potential of blue space is obscured in research and policy that considers it only in combination with or under the umbrella of green space. This is especially true of urban 'hard-edged' blue space that does not overlap green space. Policy should define its terms and distinguish between blue and green space.

The urban estuarine and coastal blue space in LCR is more than its obvious leisure destinations. It can be considered as a series of neighbourhood wellbeing assets – docks, marine lakes and promenades – that link to create an opportunity of city-regional significance for the wellbeing of residents.

Realising this opportunity requires a city-regional policy framework supported by understanding of the mechanisms for doing so at local and hyper-local scale developed collaboratively with those who currently do and do not use and benefit from these blue spaces.

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