Green Infrastructure Evidence and Delivery Plan for Portsmouth

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What is Green Infrastructure (GI)

The National Planning Practice Guidance explains that GI is:

"A range of spaces and assets that provide multiple benefits, at a range of scales. The benefits can include enhanced **health** and wellbeing, **reduced inequalities**, **enhanced biodiversity**, **food** and **energy production**, **urban cooling**, **improved air quality** and the management of **flood risk**."

GI can, for example, include **parks**, **playing fields**, other areas of open space, **woodland**, **allotments**, **private gardens**, sustainable **drainage features**, **green roofs** and **walls**, **street trees** and '**blue infrastructure**' such as streams, ponds, canals and other water bodies."

Introduction

- In order for Portsmouth to **improve its resident's health** and adapt to **changes in its climate** there is a requirement for a planned and managed **green infrastructure programme**.
- **New**, inclusive and equitable greenspace must be provided.
- **Existing** greenspace must be protected, improved and maintained.
- If greening is going to achieve maximum impact in Portsmouth a **mix of approaches** must be used.

High Level Vision for a Greener Portsmouth

- In conjunction with the aim of becoming carbon neutral by 2030 Portsmouth will develop into a climate resilient, healthy, active city.
- We will work to achieve cleaner air and cooler streets with access to green space for health, wellbeing and connecting with nature within a 15-minute walk of all resident's homes.
- Sustainable drainage systems will aid the city's flood defences and biodiversity will increase with the addition of wildlife corridors and nature areas.
- Active travel will become the easiest option within the city, with safe and clean routes between key sights.
- In achieving these goals we will seek to reduce the inequalities faced by Portsmouth's residents and increase the standard of living for all.

Benefits of Green Infrastructure

Biodiversity

Physical and Mental Health and Wellbeing

Flood Mitigation

Climate Change and Net Zero

Carbon

Air Quality

Cooling

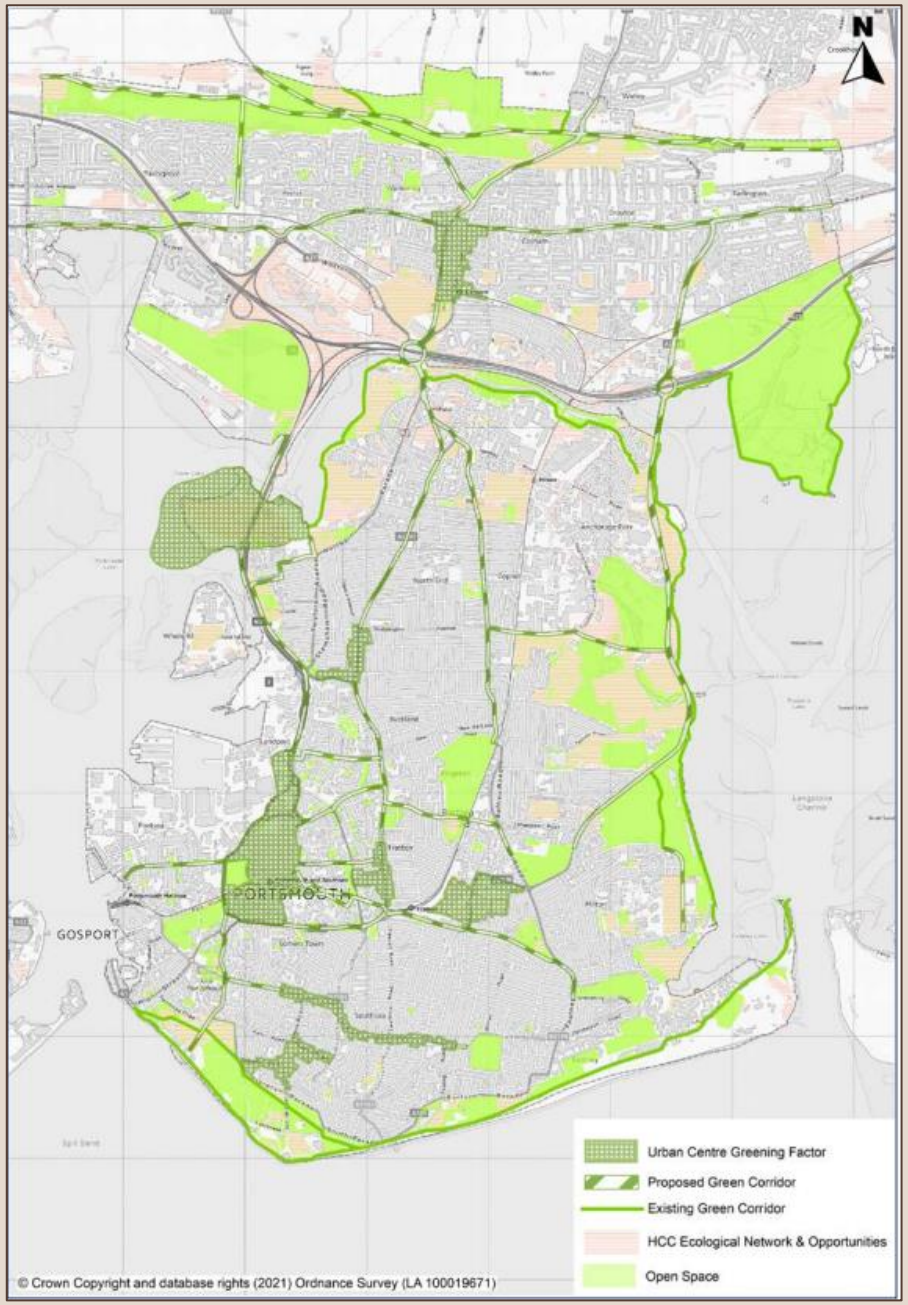
Health Inequalities and Community Gains

Green Infrastructure Objectives

Create	Improve	Protect	Maintain	Connect	Access	Increase	Evaluate
Install new multi-functional GI, prioritising those areas with the poorest access.	Improve and develop existing GI to better suit the needs of the population and wildlife.	Prevent removal of or damage to existing GI during building works.	Ensure areas are well maintained and that plans are in place for effective funding, governance and stewardship of GI to enable long term sustainability.	Improve connectivity of GI within Portsmouth. Reducing habitat fragmentation and improving opportunities for active travel.	Promote and provide healthy, accessible facilities across all social groups and areas of the city.	Increase use of GI by developing activity programs and green social prescribing.	Ensure systems in place for the evaluation of new GI projects so that benefits can be measured and informed decisions can be made in future.

Mapping

Need to map to understand where different GI interventions may be most effective within Portsmouth and to determine priorities for investment.

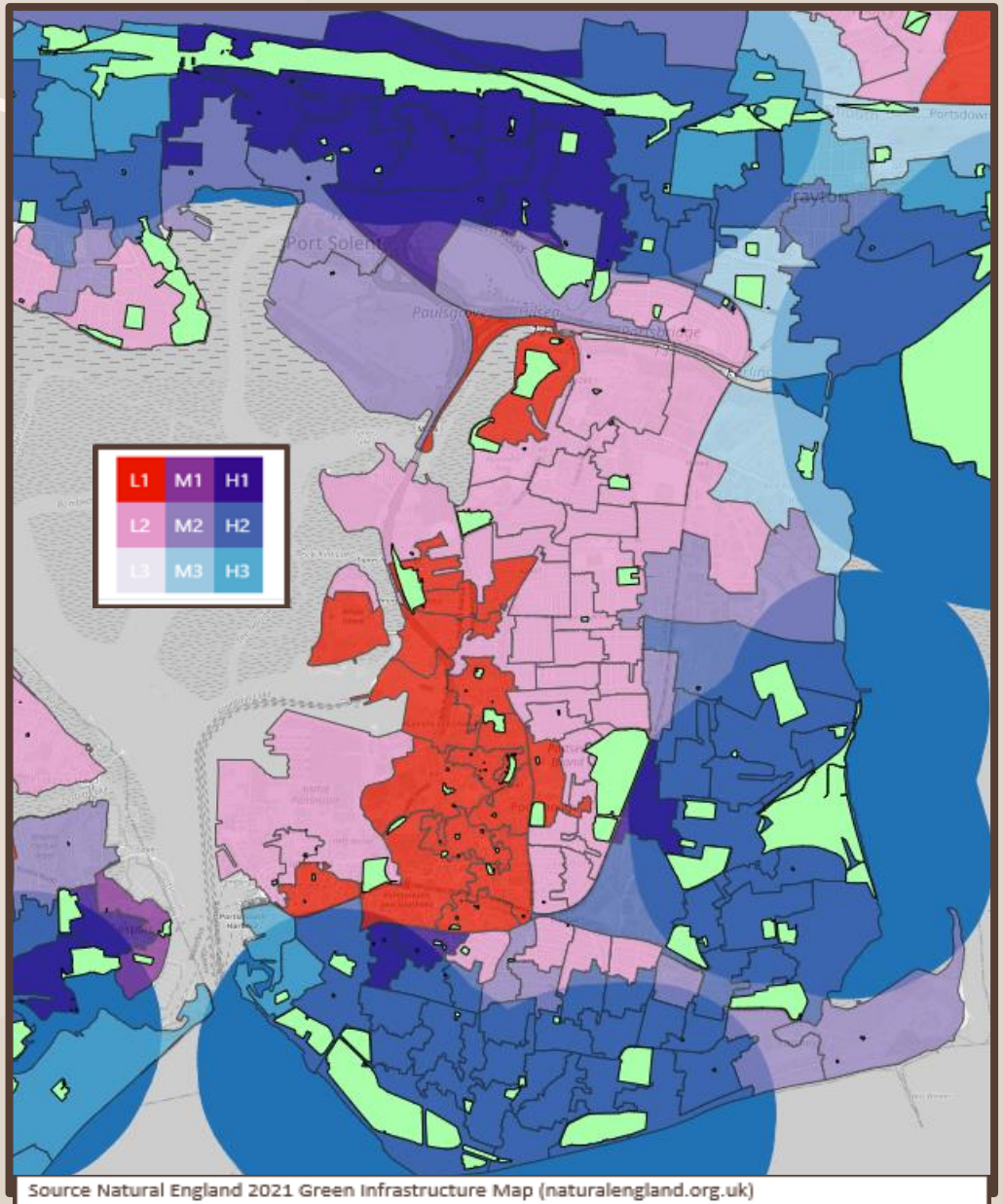


Current and Proposed GI in Portsmouth

- This map is taken from the Portsmouth Local Plan 2038.
- It shows existing and proposed green space and corridors across the city
- Urban Greening Factor Zones

Key Target Areas – Health, Wellbeing and Reducing Social Inequalities

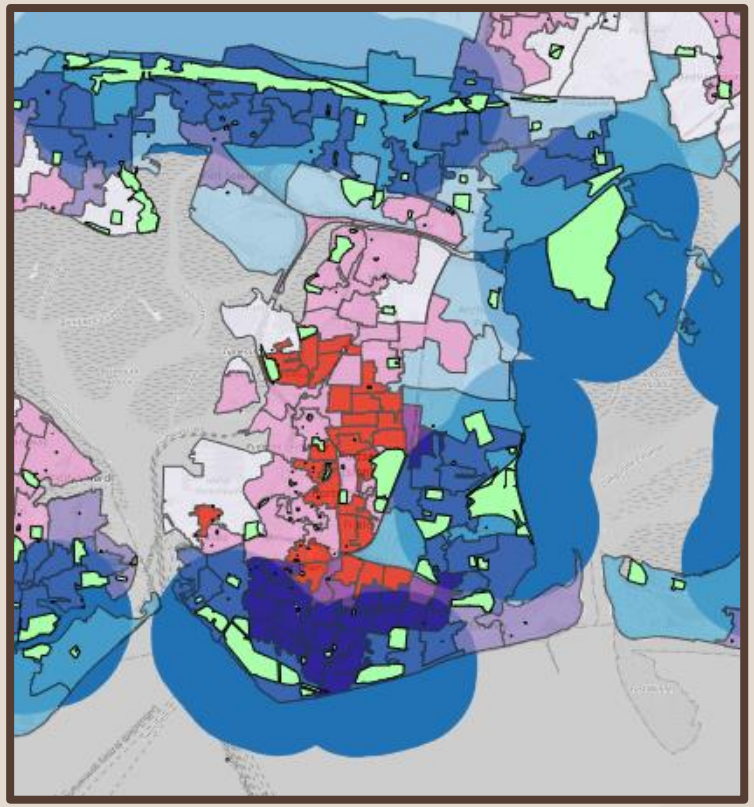
- Accessibility to 'neighbourhood standard' green space benchmark (at least 10 ha within 1km) overlaid with areas of deprivation.
- Areas with high deprivation and low access are highlighted in red.
- **Charles Dickens, Nelson and Cosham wards** are the most affected.

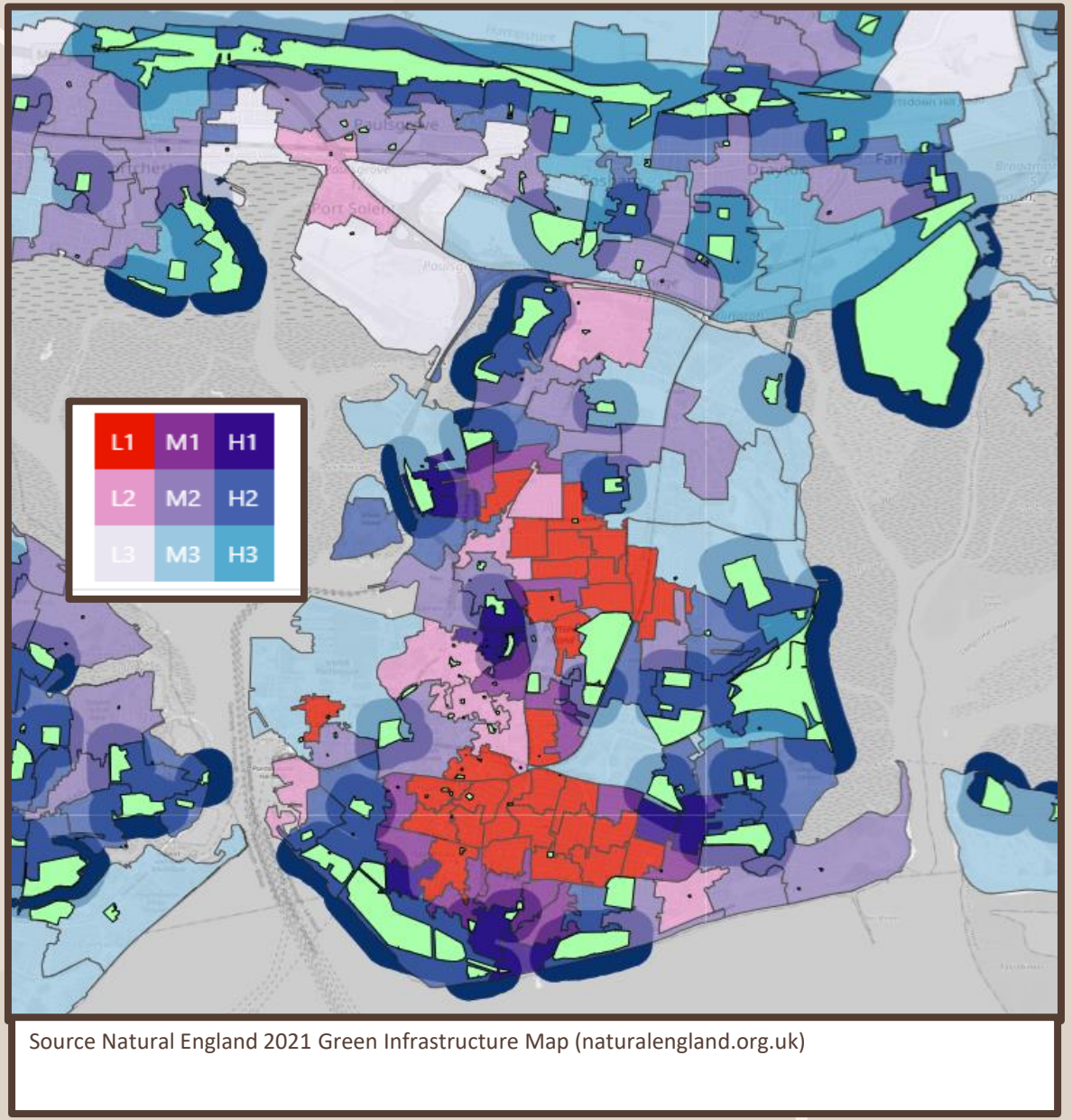


Source Natural England 2021 Green Infrastructure Map (naturalengland.org.uk)

Key Target Areas – Health, Wellbeing and Reducing Social Inequalities

- Accessibility to 'Doorstep standard' green space (at least 0.5 ha within 200m) in relation to population density.
- Areas with high population density and low access are highlighted in red.
- We can see that The areas of high population in **Central Southsea, Fratton and the south west of Copnor** have the worst access per capita.



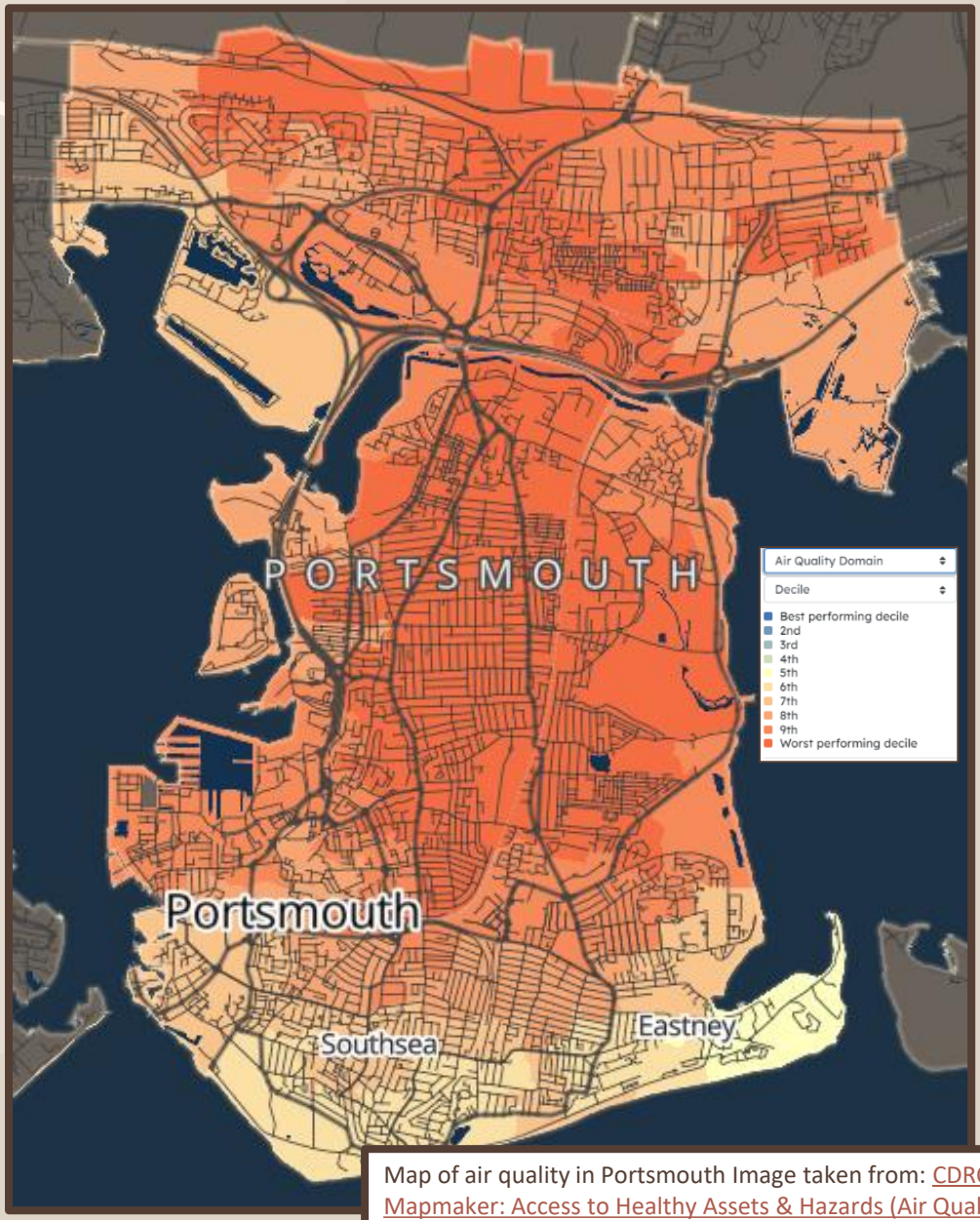


Source Natural England 2021 Green Infrastructure Map (naturalengland.org.uk)

Key Target Areas – Air Quality

This map of air quality in Portsmouth from the Consumer Data research centre shows that the air quality in the centre of Portsea Island is in the worst performing decile nationally with the areas towards the south coast improving towards the fifth decile.

The areas to the North of the city around Paulsgrove and Cosham are also in the worst performing decile nationally



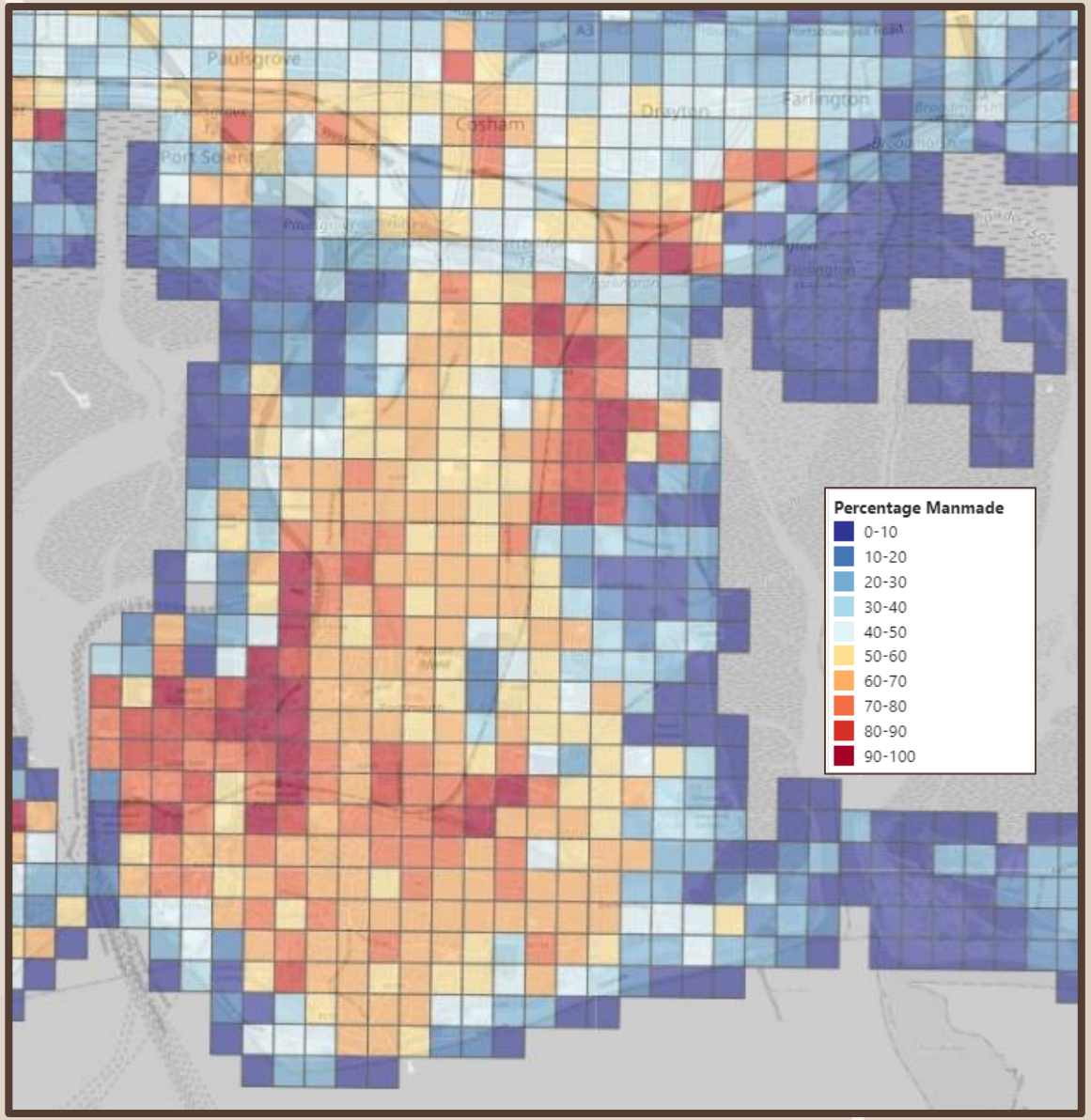
Map of air quality in Portsmouth Image taken from: CDRC Mapmaker: Access to Healthy Assets & Hazards (Air Quality Domain)

Key Target Areas Surface Water Flood Risk

This is a 250m greenness grid based assessment of the % manmade area (surface that is not water, vegetation or soils) within the grid squares.

The areas with a higher percentage of manmade area will have less opportunity for surface water to drain naturally and will rely entirely on the sewerage system to remove any rainwater.

When looking at introducing sustainable drainage systems areas with a high proportion of man made surface area would be a good initial target.



Greenness grid of Portsmouth, source Natural England 2021 Green Infrastructure Map (naturalengland.org.uk)

Key Priority Areas for GI and Health

- Charles Dickens
- Nelson
- Cosham
- Central Southsea
- Fratton
- South West Copnor

Good Practice in Initiating Urban Green Space Interventions

- Establish **many urban green spaces** throughout the city, there should be a **variety of types** and sizes to fulfil differing primary goals.
- Interventions should be **based on the needs of the area** which should guide the type of intervention, the function of the green space, and the type of vegetation applied.
- **Early engagement with user groups** and the local neighbourhood community helps to assess their needs and demands (and to potentially inform evaluation procedures).
- A **multidisciplinary team** is needed for adequate designing, long term planning and managing of the urban green space interventions.
- Design the urban green space intervention within the **context of the whole urban area** and surrounding environment. Consider the **connectivity** of the intervention with other green spaces and urban destination points.
- Opportunities must be taken **to integrate GI together** into core elements of new and **existing grey infrastructure**.
- Provide **practical design** of urban green spaces, take into account seasonal variation.
- As urban green spaces develop overtime, **long-term perspectives** are needed for both maintenance and management, and the respective funding.
- Enhanced and **visible access points** and use features can be highly effective and cost-efficient for improving use of the green space.
- The WHO intervention review suggests **dual approaches** including both **physical changes** to the urban environment and **promotional/engagement activities** have the most impact on health.

Summary

- GI is a vital tool for improving health, reducing social inequalities, increasing biodiversity and tackling climate change.
- There are many types of GI with different primary aims, however the majority can have multiple benefits in a way that other interventions do not.
- Mapping the city enables us to determine key priorities for GI interventions.
- Key to all interventions is multidisciplinary collaboration and stakeholder engagement, for many community participation will be vital.
- Long term funding and maintenance plans alongside evaluation procedures must be established.
- We must strive to make GI a consideration for all Local Plans and strategies moving forwards. Engagement between sectors will ensure that GI usage can be maximised and beneficial to society.

Thank you

Any Questions?