

Green Infrastructure Toolkit

NWDA Sustainability Policy for the Built Environment

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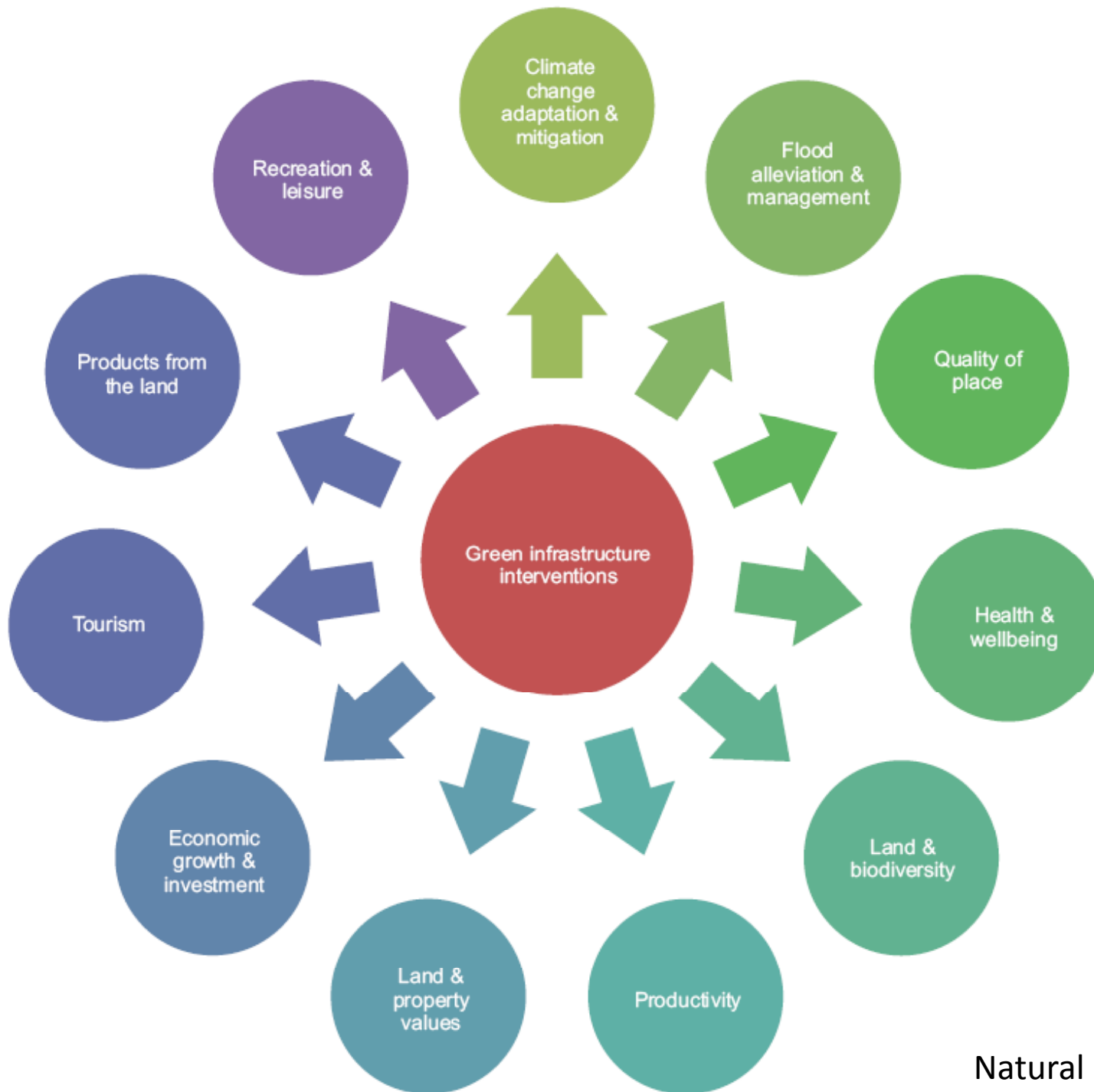
Overview

- NWDA Sustainability Policy for the Built Environment
- GI Toolkit
- GI Score
- GI Interventions



NWDA Sustainability Policy for the Built Environment – Sept 2010

- Used for European Regional Development Fund projects until 2014
- Set standards for commercial development
- Mandatory targets & reporting mechanisms
- 10 policy objectives including GI
- **NWDA expects to see GI optimised in all developments in order to achieve the 11 economic benefits identified by the NENW project**



Green Infrastructure Objective

- For commercial new build & refurbishment, & built environment projects (covering all civil engineering, land remediation, public realm, & land management projects over £500,000)
- Requirement: **To achieve a GI Score of Very Good using the online GI toolkit**
- Reporting mechanism: **GI Plan & Report detailing the score pre-development & for the planned development (calculated using online toolkit)**

Green Infrastructure Toolkit

- Excel spreadsheet
- Guidance
- Further info
- Worksheets to determine
 - (1) GI Score
 - (2) GI Interventions (to maximise 11 benefits)



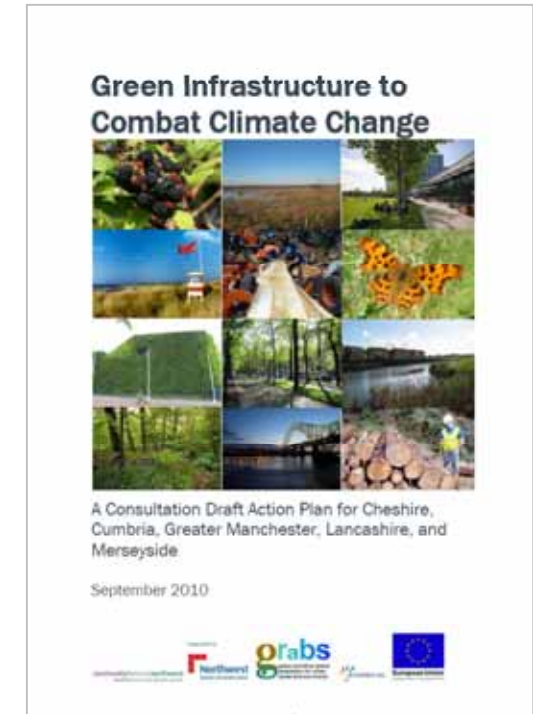
(1) Green Infrastructure Score

- Adapted from...
- Berlin – Biotope Area Factor
 - Also used in Hamburg & other German cities
- Malmo – Green Space Factor
 - Used in Western Harbour Development
 - Part of Malmo & Lund's Environmental Building Programme
- Seattle – Green Factor



Also...

- GI to Combat Climate Change – a consultation draft action plan for Cheshire, Cumbria, Greater Manchester, Lancashire, & Merseyside
 - Action 1h. Incorporate the GI target approach into planning policy
- Liverpool GI Strategy
- London Borough of Sutton & Southampton City Council



(1) Green Infrastructure Score

Surface Type (non-overlapping surfaces)		GI Factor	Area before development	Area for development
A1	Buildings (without green roofs)	0.0		
A2	Buildings (with green roofs)	0.7		
B1	Non-permeable road surfaces	0.0		
B2	Non-permeable footpath surfaces	0.0		
B3	Non-permeable parking / driveway surfaces	0.0		
B4	Semi-permeable surfaces such as stone paving with joints	0.2		
B5	Semi-permeable surfaces such as gravel	0.4		
C1	Vegetated / open soil surfaces (where plants have direct contact with deeper soil)	1.0		
C2	Vegetated / open soil surfaces (where soil depth is more than 60cm but no direct contact with deeper soil)	0.6		
C3	Vegetated / open soil surfaces (where soil depth is less than 60cm & no direct contact with deeper soil)	0.4		
D	Open water surfaces	1.0		

Surface Type (overlapping surfaces)		GI Factor	Area before development	Area for development
E	Shrubs & hedges	0.3		
F	Trees (canopy cover area)	0.4		
G	Green walls (area up to a height limit of 10 m)	0.6		

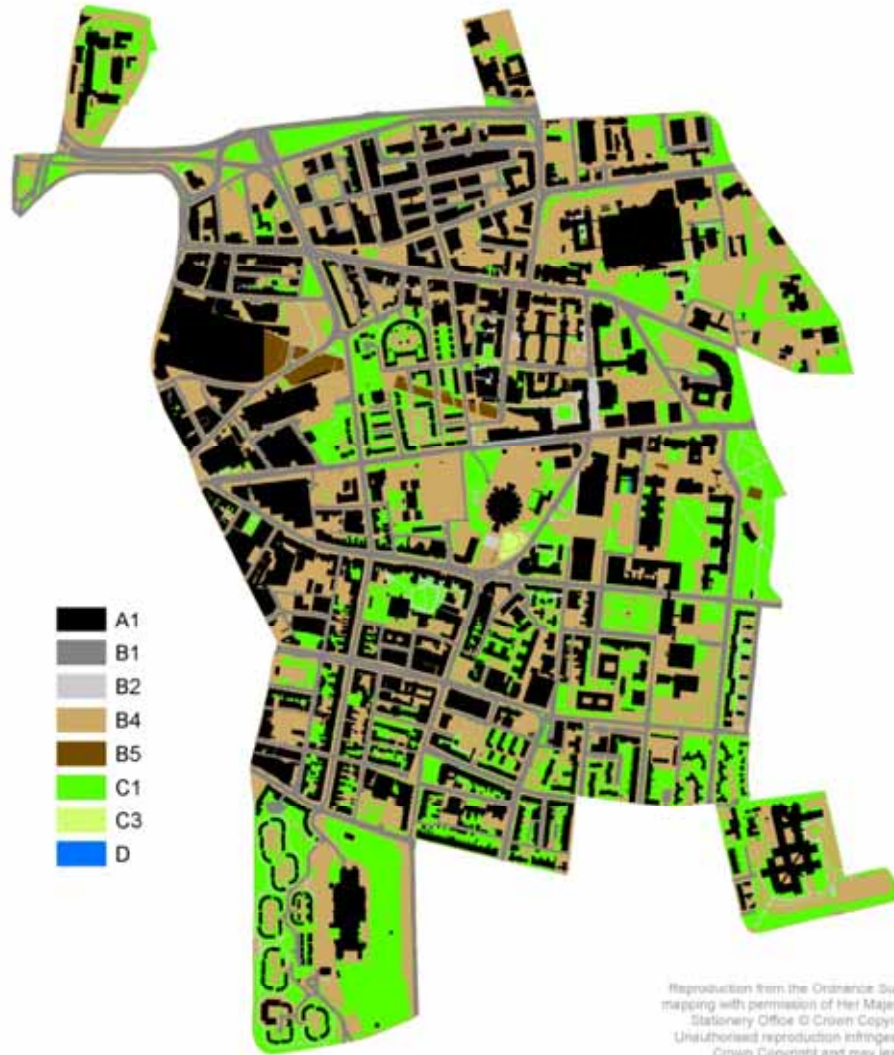
GI Score = Very Good

- Site currently has built structures: reach GI Score that is 0.2 higher than the pre-development score
- Site currently has no built structures: reach GI Score of 0.6



- Liverpool Knowledge Quarter
Example

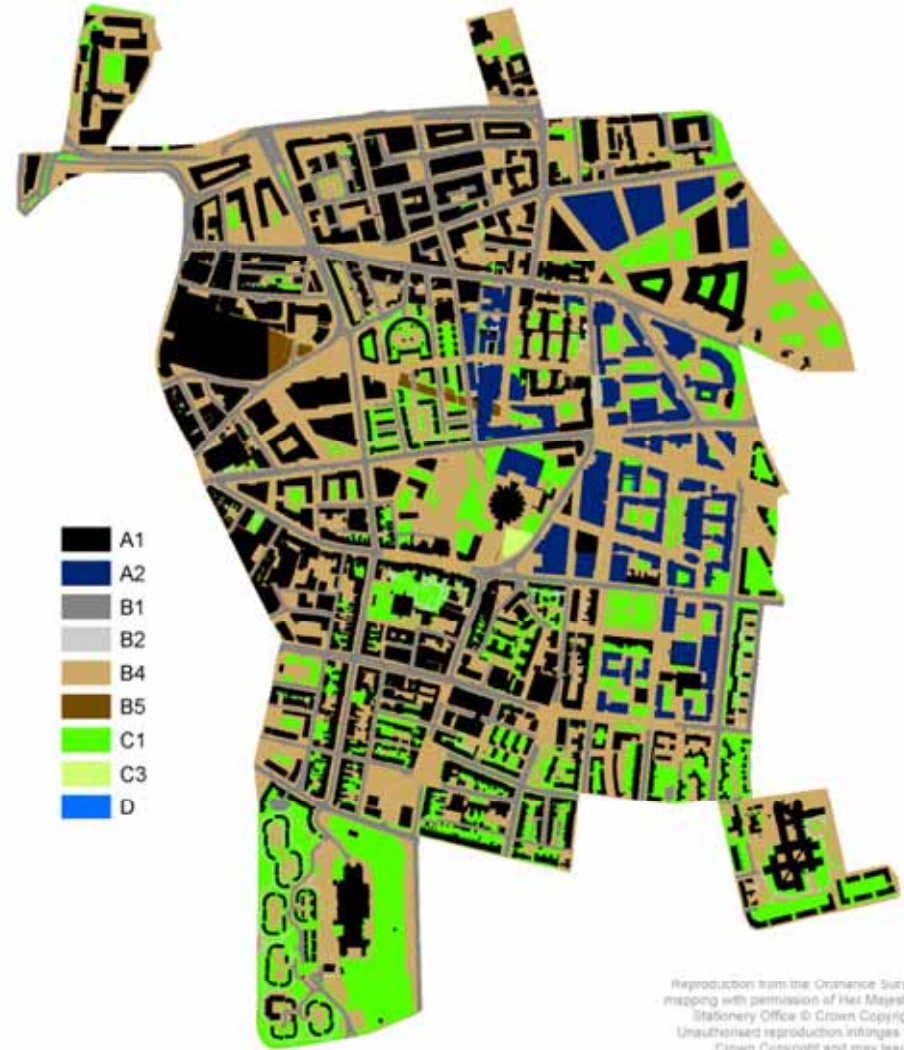
Current



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Proposed (revised climax plan)



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Current



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Proposed (revised climax plan)



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Liverpool Knowledge Quarter Example

- Site currently has built structures
- GI Score
 - Current = 0.29
 - Proposed (revised climax plan) = 0.32
- “Please alter surface areas to improve GI Score for planned development to be least 0.2 more than GI Score before development”

(2) GI Interventions (to maximise 11 benefits)

- GI Score
 - Ensures GI included
- GI Interventions
 - Ensure GI is designed & managed for desired benefits
 - Adapted from Malmo's 'Green Points' used in Western Harbour Development to supplement 'Green Space Factor'



Desired benefits

- Consult GI Plan / Strategy
- Consult documents
 - LDF – Core Strategy, SPDs, Area Action Plans
 - Biodiversity Action Plans
 - Green Space, Open Space, & Tree Strategies
 - Strategic Flood Risk Assessments & Catchment Flood Management Plans
 - Climate Change Strategies & Action Plans
 - Air Quality Management Areas
 - Landscape Character Assessments
- Consider localised needs / benefits



	Suggested GI intervention	Economic Benefit											Your planned development	
		Economic growth & investment	Land & property values	Labour productivity	Tourism	Products from the land	Health & well-being	Recreation & leisure	Quality of place	Land & biodiversity	Flood alleviation & management	Climate change adaptation & mitigation	Has GI intervention been used?	Comment on how it was used
1	Increase tree cover on site	X	X	X	X	X	X	X	X	X	X	X		
1.1	Select a mixture of native species (to provide food & habitat for wildlife)									X				
1.2	Select species to improve air quality						X		X					
1.3	Select species to provide shade (e.g. that will have large canopies when mature) & plant in areas where people walk & gather							X				X		
1.4	Select broadleaf species & plant to provide shade to buildings (e.g. on south facing facades)			X								X		
1.5	Select species with large canopies to capture rainwater									X				
1.6	Select species (e.g. conifers) & plant to provide wind shelter								X					

Green Infrastructure Toolkit

- Currently being finalised
- www.sbnw.co.uk & www.ginw.co.uk
- Please try toolkit for your developments & send us feedback & worked examples
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