

Grey to Green — Sheffield's Retrofit SuDS Scheme Turning a Dual Carriageway into Rain Gardens (UK)

PES & Nature-Based Solutions · Good practice · United Kingdom

Quality score: 53/100

Evidence strength: Observational / pre–post

Summary

Sheffield turned a redundant dual carriageway into the UK's largest retrofit SuDS scheme (2014-2022): swales cut peak flow up to 80% in storms, divert ~24,000 bathtubs of water yearly from sewers, and roughly quintupled measured biodiversity value.

Key dimensions

Dimension	Score
Carbon — sequestration / storage, evidenced	0/3
Biodiversity — conservation / improvement, evidenced	3/3
Water & soil — retention, infiltration, erosion control	3/3
Fire resilience — risk reduction, evidenced	0/3
Governance, certification & transferability	2/3

Evaluated by C-NAPSE

Data sources

[C-NAPSE web research](#) — accessed 2026-09-13

[Sheffield City Council, with Green Estate Ltd and the University of Sheffield \(design lead: Prof. Nigel Dunnett\); funded by the South Yorkshire Mayoral Combined Authority, European Regional Development Fund, Sheffield City Council, Canal & River Trust and Yorkshire Water](#) — accessed 2026-09-13

[UK100 — Grey to Green: Mitigating Flood Risk and Regenerating Sheffield's City Centre](#) — accessed 2026-09-13

[Connected by Water — Grey to Green case study](#) — accessed 2026-09-13

[susdrain — Grey to Green Phase 1, Sheffield case study](#) — accessed 2026-09-13

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