Guangming District Sponge City Pilot — Shenzhen's Runoff-Control Retrofit

PES & Nature-Based Solutions · Good practice · China

Quality score: 47/100

Evidence strength: Moderate

Summary

Shenzhen's Guangming District retrofitted roads and drainage with permeable pavement, swales and constructed wetlands under China's national Sponge City pilot. Runoff-control rates rose from below 30% to about 72%, with documented pollutant-load reductions.

Key dimensions

Dimension	Score
Carbon — sequestration / storage, evidenced	0/3
Biodiversity — conservation / improvement, evidenced	1/3
Water & soil — retention, infiltration, erosion control	3/3
Fire resilience — risk reduction, evidenced	0/3
Governance, certification & transferability	3/3

Evaluated by C-NAPSE

Data sources

C-NAPSE web research — accessed 2026-08-25

Shenzhen Municipal Government / Guangming District Government, under China's national Sponge City pilot programme — accessed 2026-08-25

Lincoln Institute of Land Policy — Sponge City: Shenzhen Explores the Benefits of Designing with Nature — accessed 2026-08-25

MDPI Urban Science — From Concept to Practice: Evidence and Lessons from Sponge City Implementation in Shenzhen, China — accessed 2026-08-25

Cite this — Evidoria. *Guangming District Sponge City Pilot — Shenzhen's Runoff-Control Retrofit*. Persistent ID: 7bd6ec08-6cbd-4912-a778-576fd18b2646.