

Gdańsk's Stormwater Retention Model — Open Reservoirs and Rain Gardens After the 2001 and 2016 Floods

PES & Nature-Based Solutions · Good practice · Poland

Quality score: 27/100

Evidence strength: Cautionary / limited

Summary

Gdańsk, hit by floods in 2001 and 2016, built 50+ open retention reservoirs and, from 2018, rain gardens; modelling shows 18–30% runoff cut from the gardens, and building permits now require on-site retention.

Key dimensions

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

Evaluated by C-NAPSE

Data sources

[C-NAPSE web research](#) — accessed 2026-10-03

[Gdańskie Wody \(City of Gdańsk\)](#) — accessed 2026-10-03

[Baltic Water Hub — Urban Surface Retention System](#) — accessed 2026-10-03

[Kasprzyk et al. 2022, Science of the Total Environment — rain gardens, Gdańsk case study](#) — accessed 2026-10-03

[Flood management in urban basins of Gdańsk \(ResearchGate\)](#) — accessed 2026-10-03

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