

Street Edge Alternatives (SEA Streets) — Seattle's Natural Drainage Retrofit Cutting Stormwater Volume by 97% (USA)

PES & Nature-Based Solutions · Good practice · United States of America

Quality score: 40/100

Evidence strength: Observational / pre–post

Summary

Seattle Public Utilities rebuilt a residential block (completed 2001) with vegetated swales instead of piped drainage. Two years of SPU/EPA-documented monitoring found the retrofit cut stormwater volume by 97% and eliminated 98% of wet-season runoff.

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	2/3

Evaluated by C-NAPSE

Data sources

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

[Seattle Public Utilities \(SPU\)](#) — accessed 2026-09-13

[US EPA \(archived\) — Street Edge Alternatives \(SEA Streets\) Project, Seattle WA](#) — accessed 2026-09-13

[Sightline Institute — All You Need to Know About Stormwater](#) — accessed 2026-09-13

[Seattle Public Utilities — Street Edge Alternatives project page](#) — accessed 2026-09-13

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