CartujaQanat — Seville's UIA-Funded Bioclimatic Amphitheatre and Qanat Cooling Pilot, With a 10°C Target Still Unverified (Spain)

PES & Nature-Based Solutions · Good practice · Spain

Quality score: 7/100

Evidence strength: Cautionary / limited

Summary

A €5m pilot (80% EU-UIA/ERDF) on Seville's Cartuja island combining an underground qanat, night-cooled water, a sunken 'zoco', plant pergolas and a bioclimatic amphitheatre to cool outdoor space; it opened in 2022 but no independent measured cooling has been published.

Key dimensions

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

Evaluated by C-NAPSE

Data sources

C-NAPSE web research — accessed 2026-11-24

Ayuntamiento de Sevilla (Urban Planning) with EMASESA, Universidad de Sevilla, CSIC Instituto Eduardo Torroja, PCT Cartuja and Fundación Innovarcilla — accessed 2026-11-24

UIA project page: CartujaQanat (Sevilla) — accessed 2026-11-24

Construible: Sevilla inaugura Cartuja Qanat (Oct 2022) — accessed 2026-11-24

Al Jazeera: How an ancient water tunnel design is cooling streets (2024) — accessed 2026-11-24

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