Putrajaya Wetlands — Malaysia's 24-Cell Constructed Wetland Filtering Runoff Before a New Capital's Lake

PES & Nature-Based Solutions · Good practice · Malaysia

Quality score: 27/100

Evidence strength: Cautionary / limited

Summary

Built in 1997–1998, Putrajaya's ~200 ha system of 24 constructed wetland cells treats urban runoff before it enters the ~400 ha Putrajaya Lake. Peer-reviewed monitoring found 82% total-nitrogen and 84% phosphate removal across six cells (2004); 2016 algal blooms urge caution.

Key dimensions

Dimension	Score
Carbon — sequestration / storage, evidenced	0/3
Biodiversity — conservation / improvement, evidenced	1/3
Water & soil — retention, infiltration, erosion control	2/3
Fire resilience — risk reduction, evidenced	0/3
Governance, certification & transferability	1/3

Evaluated by C-NAPSE

Data sources

C-NAPSE web research — accessed 2026-11-22

Perbadanan Putrajaya (Putrajaya Corporation) — accessed 2026-11-22

Journal of Environmental Management (2008) — Nutrient removal in a pilot and full scale constructed wetland, Putrajaya (PubMed) — accessed 2026-11-22

FAO AGRIS — Putrajaya Wetlands: data, performance and modelling — accessed 2026-11-22

The Star (2016) — Signs of pollution in Putrajaya Lake — accessed 2026-11-22

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