

As-Samra Wastewater Treatment Plant — Zarqa River Reuse for Jordan Valley Irrigation

PES & Nature-Based Solutions · Good practice · Jordan

Quality score: 60/100

Evidence strength: Observational / pre–post

Summary

Jordan's largest wastewater plant treats ~70% of the country's sewage and discharges 133 million m³/year of high-quality effluent into the Zarqa River, restoring flow to King Talal Reservoir and irrigating over 12,000 hectares while generating 80% of its own power from biogas.

Key dimensions

Dimension	Score
Carbon — sequestration / storage, evidenced	2/3
Biodiversity — conservation / improvement, evidenced	2/3
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 2026-08-21

[Jordan Ministry of Water and Irrigation — As-Samra Wastewater Treatment Plant Company \(BOT\)](#) — accessed 2026-08-21

[Millennium Challenge Corporation – As-Samra Wastewater Treatment Plant Expansion Project](#) — accessed 2026-08-21

[MDPI Hydrology – Hydrological and Environmental Impact of Wastewater Treatment and Reuse on Zarqa River Basin in Jordan](#) — accessed 2026-08-21

Cite this — Evidoria. *As-Samra Wastewater Treatment Plant — Zarqa River Reuse for Jordan Valley Irrigation*. Persistent ID: 66760dde-d134-4bf0-be76-73740a56cc11.