STORMWATER · ARABIAN GULF

WHEN IT RAINS, IT POURS. THEN IT EVAPORATES.



Heavy rain has flooded cities from Dubai to Jeddah. The water stands for a week, lifts into the sky — and the sprinklers come back on the next day.

NO DRAINAGE NETWORK

Rain is rare, so the Gulf never built for it. Where trunk roads do have drainage it surcharges and the road floods anyway. Urban and suburban streets have none at all.

NO RECLAMATION

Billions go to desalination; almost nothing to reclamation. What GCC reclamation exists is in its infancy. Aquifers get some relief. Landscaped areas get none.

THE OPPORTUNITY COST

Millions of cubic metres that could have irrigated a city, or gone to strategic reserve, are simply handed back to the sky.

ONE BURIED PROFILE THAT DRAINS THE ROAD AND IRRIGATES WHAT GROWS BESIDE IT.

PASSIVE
Gravity-driven. No pressure, no injectors, nothing to foul.

RETROFIT
Installs beside roads already built. No network to dig in.

SOLAR
One panel and one small pump moves water below ground.

50+ YEARS
Design service life. Inert to salts and fertilisers.

THE ARITHMETIC

> **1 mm of rain on 1 m² = 1 litre.**

Highway lane width	**3.70 m**
1 lane × 1 km · per 10 mm	**37,000 L**
1 lane × 50 km · per 10 mm	**1,850,000 L**
2 lanes × 50 km · per 10 mm	**3,700,000 L**
4 lanes × 50 km · per 10 mm	**7,400,000 L**

AL AIN · 70 KM · 2 LANES · BOTH SIDES · 96 MM/YEAR

99,456,000

LITRES A YEAR — 99,456 m³

A 14.8 m catchment running 70 km. Water that today stands on the carriageway and evaporates, held instead in a subsurface reservoir at **100 litres per square metre** and released to the roots that need it — up to **three weeks** of irrigation in storage.

18,165
FULLY GROWN TREES
Irrigated year-round at 15 L a day, from that one stretch of road.

12,400 t
CO_2 SEQUESTERED
Over 20 years — around USD 248,000 in carbon credits.

50-85%
LESS IRRIGATION WATER
Against the most efficient conventional systems in service.

epic™ TOTAL WATER SOLUTIONS

ENVIRONMENTAL PASSIVE INTEGRATED CONVEYANCE

Basis. Full capture of the stated design catchment assumed. Al Ain mean annual rainfall 96 mm. Carbon at 34 kg CO_2 per tree per year (published range 10–40 kg), credits at USD 20 per tonne. Water saving 50–85% is EPIC's own measured range. Cover image is a concept rendering.

US Patents 5,921,711 · 7,517,172 B2 · 10,472,813 B1 · Xpitrade General Trading LLC, Dubai · info@xpitrade.com