

04 PILAR COASTAL DEFENCE

CHANNEL AND SLOPE REVEGETATION WITH MULCHES AND MATS

CASE STUDY · PARAGUAY



The full system: revegetated slope above, concrete mattress at the toe

15 km

OF DEFENCE ON THE PARAGUAY RIVER

14 km

OF REVEGETATED DIVERSION CHANNEL

2

SYSTEMS: HYDRAULIC MULCH + MAT

The challenge: Pilar's coastal defence — 15 km along the Paraguay river, with a 14 km diversion channel, drainage channels and gates — needed its embankments and earth channels to withstand rain and water flow without eroding, complementing the concrete mattresses in the most demanding areas.

The solution: **hydraulic mulches** to establish vegetation on embankments and banks, and **turf reinforcement mats** in the channels, where the reinforced grass takes the flow of the floods. Vegetation as engineered lining.

One party responsible: in Pilar, Ece delivered the complete system — concrete mattresses manufactured in the city itself, hydroseeding and turf reinforcement — with the same technical team.



Germination over the mulch — the diversion channel takes



Established vegetation — the channel working with mature turf

PROJECT FILE

Project	Pilar Coastal Defence
Location	Pilar, Ñeembucú
System	Hydraulic mulches + turf reinforcement mats
Scope	Diversion channel, drains and embankments