02 BIOCEANIC HIGHWAY — LOT 1

SLOPE PROTECTION WITH HYDRAULIC MULCHES — PARAGUAYAN CHACO

CASE STUDY · PARAGUAY



From the hydroseeder: the hydraulic mulch advances in a continuous strip beside the carriageway

+1,000,000
M² PROTECTED AGAINST EROSION

11 of 21
SECTIONS PROTECTED BY ECE

17,000
M² PER DAY, WITH TWO HYDROSEEDERS AT ONCE

The challenge: the road linking Carmelo Peralta with Loma Plata crosses three Chaco ecosystems with **highly saline soils**, rainfall concentrated in sharply defined periods and a **wind erosion** constant. Establishing vegetation there is one of the hardest challenges in the region.

The solution: slope protection with **hydraulic mulches** applied by Ece with two hydroseeders at once, of 600 and 1,100 gallons, at **17,000 m² per day** over **18 months**. The forage seed mix was adjusted to the soil analysis, which showed high sodium. More than **one million square metres** on 11 of the 21 sections of the works — the largest area of hydroseeding applied in Paraguay.

> **Why it works:** the mulch pins the seed and the moisture down against the Chaco wind and sun, and protects the soil from day one, without waiting for the vegetation to come up.



Freshly applied mulch beside the carriageway: in the



The first shoots break through the mulch on Chaco soil

PROJECT FILE

Project	Bioceanic Highway, Lot 1
Location	Carmelo Peralta – Loma Plata, Chaco
System	Profile hydraulic mulches
Area	Over 1,000,000 m² (11 of 21 sections)
Duration	18 months · 17,000 m²/day