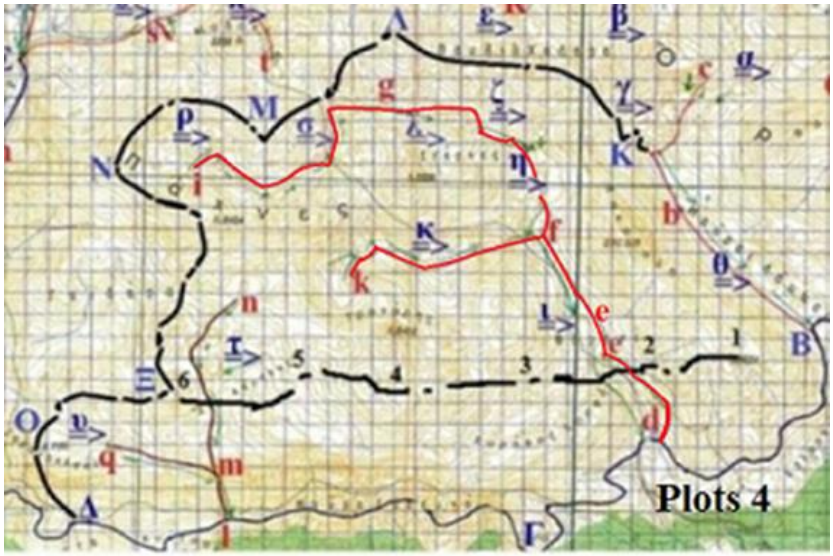
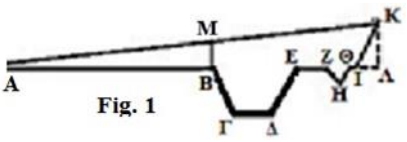
**Pilot Project Description:** The project will be conducted on a pilot watershed and it will cover a watershed area of 33km² bounded by the line Δ-Ι-Γ-Β-Κ-Λ-Μ-Ν-Ξ-Ο-Δ (plots 4). In the watershed there are natural cavities with sink holes shown by arrows having on them the letters of the Greek alphabet: γ, θ, η, ζ, λ, σ, ρ, κ, ι, τ and υ. Near them there are 39 smaller cavities. The cavities are in karst territories and will be sealed in order store runoff.

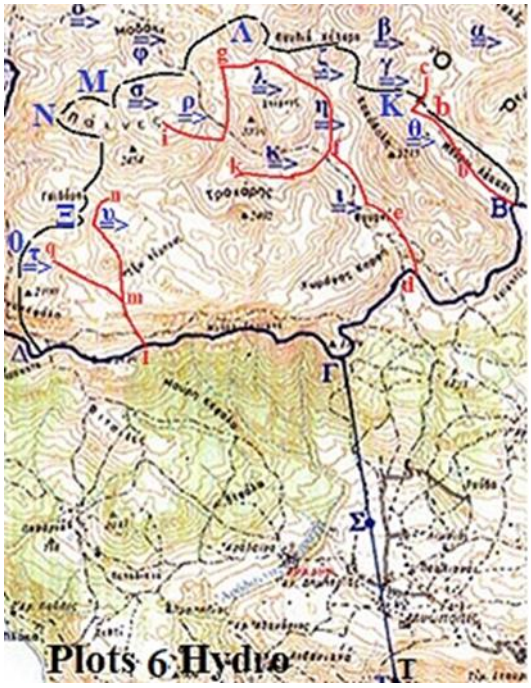



On the watershed surface, there are also sink- holes and those with considerable runoff (approximately 50) will be sealed in order to form cavities for collecting runoff. From cavities the water will be drained out in the reservoir through pipelines and open channels. The roads for pipelines will be 24km long, 3m wide and with an extension of 0.75m where the pipelines to be installed underground. These roads are planned along the lines: d-e-f-g-i 10 500m, f-k = 2600m, B-b-c = 5 300 m, l-m-n = 3 350m and m-q = 2 250m (plots 3). 30 km pipelines connecting the 89 cavities will be programmed. Along the Δ-Γ-Β line (plots 3) the construction of the ring road


with a A-B = 3 m width (Fig 1), is also programmed, with a length of 14 km. At the side of the A-B road the construction of open channels with a B-Γ-Δ-E perpendicular intersection (Fig 1), BE = 1 m width, BΓ = 1,5m depth and the auxiliary structure E-Z-H-Θ-I-K (Fig 1) with a 0.75 m width for ditches on Z-H-Θ. The ditches will collect runoff and will drain it to open channels. Opened channels will be partially or fully covered against the snow. Spillways will also be studied in the channels. The basin enclosed by 1-2-3-4-5-6-Δ-Γ-Β lines (plots 4) covers an 8.5km² area, from which runoff ends up in open channels. When runoff descends to streams, in order to avoid overflows in open channels, technical water storage cavities will be formed, adjacent to these. The open channels will start from the Δ, Β points and will end at Γ point. The reservoir and power intake will be constructed at point Γ or elsewhere based on the design. The penstocks will be designed along the Γ-Σ-Τ lines, where the power plants of 15 MW at Σ, Τ points will be studied (plots 6). The water will be driven, eventually, for water supply and irrigation in Sfakia municipality, which includes the entire basin of the pilot project. In the watershed the location of photovoltaics and other materials for sealing the ground will be searched. The project will be researched with construction roads and without.

Plots 2 Hydro project


Plots 6 Hydro