

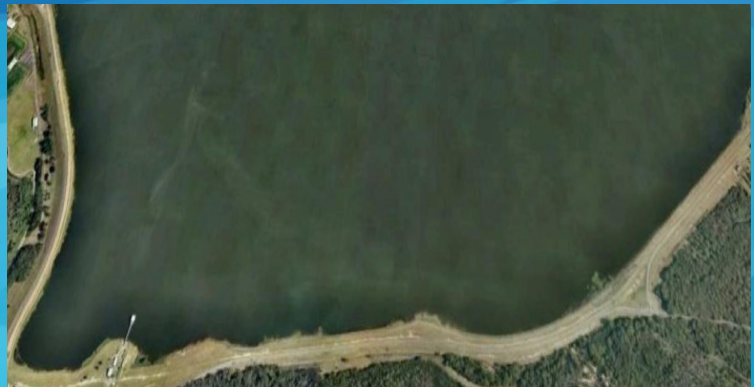
Case Study

Dam Seepage Investigation in Australia

Willowstick finds nine seepage paths along a four and a half kilometer dam

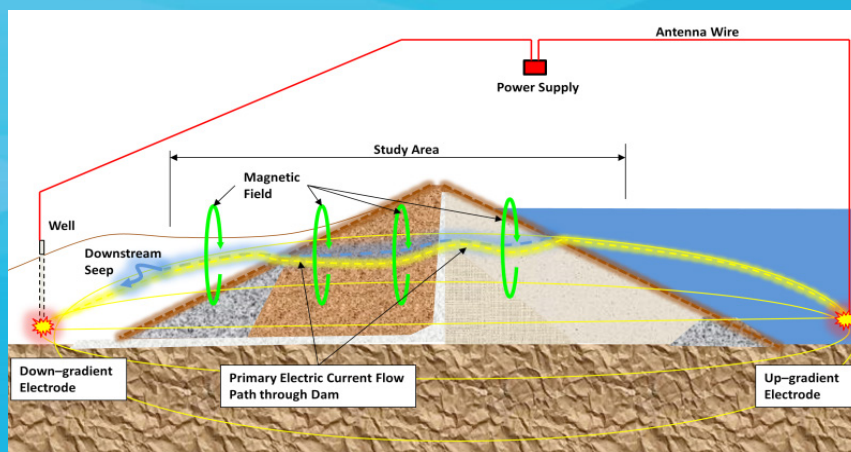
Background

An Australian water utility had observed multiple seep locations along four and a half kilometers of one of its dams. They wanted to gain a better understanding of where seepage was passing through or under their dam.



How the Method Works

The Willowstick method energizes the groundwater of interest directly with an alternating electric current. Groundwater tends to be more electrically conductive than the surrounding earthen materials causing the electric current to gather in and flow along subsurface water bearing features.



This electric current generates a magnetic field that is measured in a grid pattern at the earth's surface using sensitive instruments.

This magnetic field data is used to generate maps and 3D models showing any preferential connection pathways.

The Results

The Willowstick investigation identified nine seep zones along the embankment, as well as where seepage is not a problem.

The seepage investigation provided the client with new insights and intelligence about the subsurface conditions at the site.

