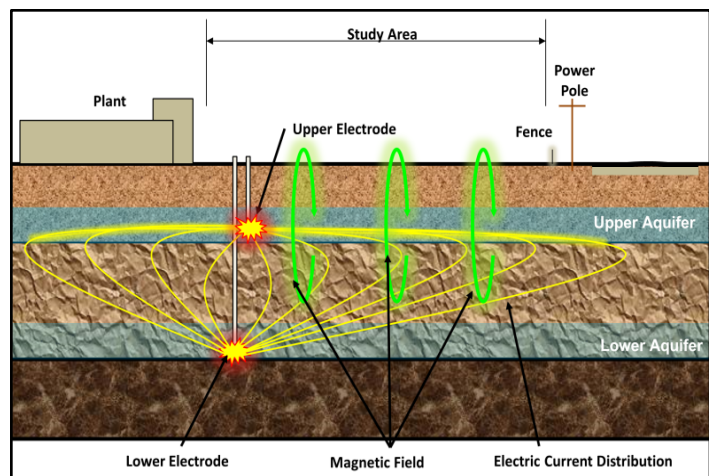


Mapping Contaminated Groundwater in Australia



Background

An Australian firm was tasked with characterizing contaminated groundwater flow at an industrial site. They were looking for an accurate understanding of flow paths that influenced contaminant transport between an upper aquifer and a lower aquifer. Willowstick was asked to identify these transport pathways.

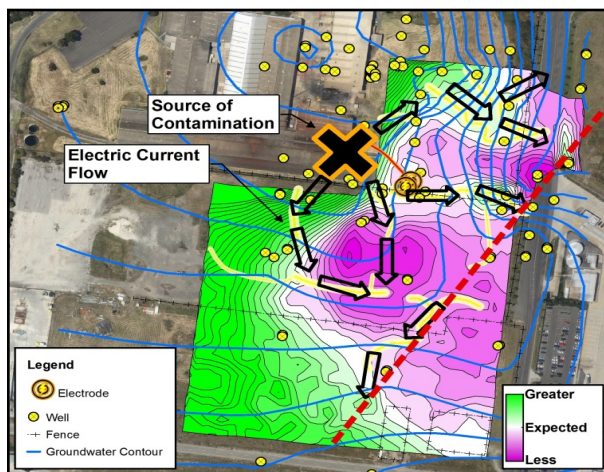


Survey cross section

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 at the earth's surface

using sensitive instruments. This magnetic field data is used to generate maps and 3-D models showing preferential transport pathways.



Map showing preferential groundwater pathways

The Results

The Willowstick investigation identified multiple discrete flow paths through the survey area. The groundwater investigation provided the client with specific locations to target their remediation efforts.