

## CASE STUDY

Drainage | Reservoir Leak Detection | Annlin Reservoir, Pretoria

Sep 2012

Client City of Tshwane  
 Contractor KK Civils Construction  
 Consultant VIP Consulting

Product



**bidim<sup>®</sup> A4** | 1 060m<sup>2</sup>  
**Flo-Pipe** | 450m

An equivalent of **4 122** recycled PET bottles was used in this project

### Problem

To meet the high demand for water in the region north of Pretoria, a R50m reservoir project was recently approved by the City of Tswane Metropolitan Municipality. As is the case in any new reservoir construction, the incorporation of a highly effective leak detection system is essential.

### Solution

In order to simplify the search for any future leak, the floor was compartmentalised into a grid system covering the area of the reservoir. Through different coloured pipes, each section of the grid would feed into a manhole constructed on the side of the reservoir. With each section of grid being represented by a particular colour, a leak would be easily and accurately detected. **Flo-Pipe<sup>®</sup>** wrapped in **bidim<sup>®</sup>** was placed into the trenches of the reservoir floor and covered with no-fines concrete. These trenches will then drain any leaked water into the adjacent manhole. The wrapping of **bidim<sup>®</sup>** around the **Flo-Pipe<sup>®</sup>**, primarily serves a filtration function and secondarily to separate soils.

### Benefits

The customisation of **bidim<sup>®</sup>** and **Flo-Pipe<sup>®</sup>** used here, made for easy, effective installation.



*The grid system for leak detection*



*The **bidim<sup>®</sup>**-wrapped **Flo-Pipe<sup>®</sup>** is covered with no fines concrete*