

WATER SUPPLY IN SOUTH AFRICA – FORMIDABLE CHALLENGES AND INNOVATIVE SOLUTIONS

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South Africa is a country endowed with abundant natural resources, such as gold, diamonds, platinum, coal, iron, copper and others. However, water is, unfortunately, not included in any list of top-ranking resources. In addition to this shortage in water, a number of other factors impact upon the supply of water to the 47 million inhabitants of this country. The challenges to the supply of a potable quality of water to all of the users in the country are formidable. These are discussed in the paper. Examples of such challenges are a dearth of natural fresh water sources, low and variable rainfall, high evaporation rates, high poverty and low educational and skills levels of the rural part of the population. Whereas water treatment in the larger metropolitan areas of the country is on par with the developed world, it is not generally the case in the rural areas of the country. Of the challenges, the lack of skills in rural municipality governance and management probably impacts greatest on water treatment and supply – resulting in cases of unsatisfactory water quantity and quality provided to the end user.

However, the country has risen to these formidable challenges with determination – and often with innovative solutions - to address the problems. These solutions are discussed in the presentation and include a world-leading, enabling, water legislative framework; a network of inter-basin water transfer schemes; a strong water research funding body, which is accentuating capacity building; selective, international collaboration, and a range of locally developed or adapted technologies and approaches for the treatment and supply of safe water – also to the poorest of the poor in the furthest outlying areas of the country.