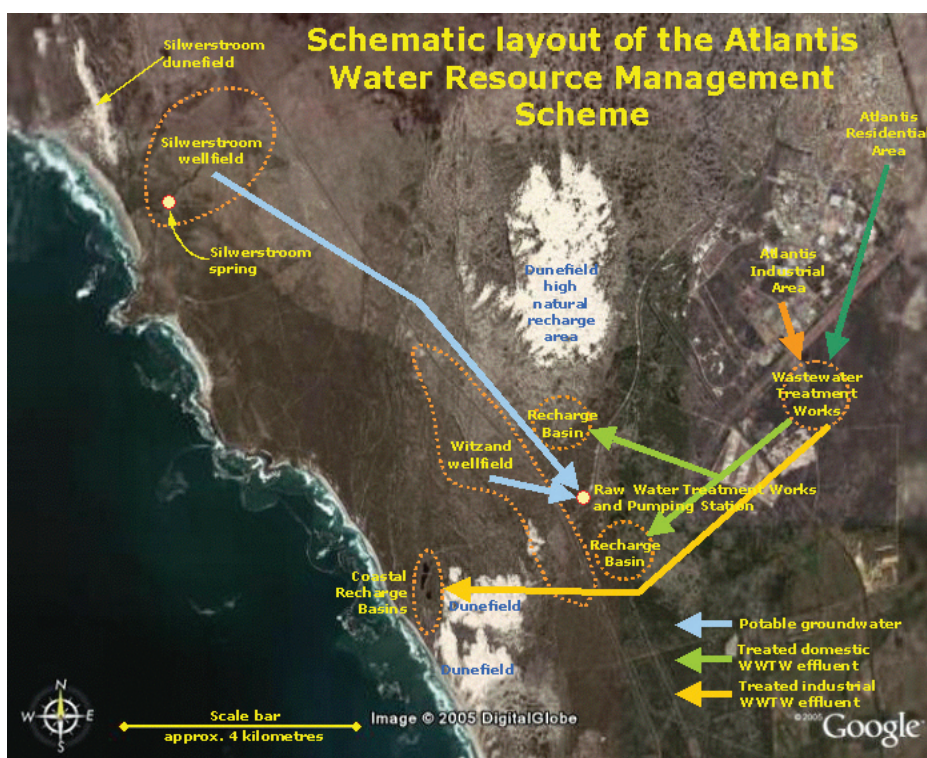


Focus on CSIR Research in Water Resources

Managed aquifer recharge on the West Coast north of Cape Town, South Africa

The Atlantis Water Resource Management Scheme (AWRMS) located some 40 km north of Cape Town shows how insightful planning and management can expand the groundwater supply potential of a primary aquifer for bulk urban water supply. The AWRMS contributes some 5.5 million cubic metres to the Cape Town Metropolitan Municipality annual potable water supply of approximately 365 million cubic metres.

Developed in the late 1970's and early 1980's, the AWRMS comprises an integrated network of over 40 production boreholes distributed between two wellfields, one of which enjoys the additional benefit of artificial recharge via two basins located upgradient of the wellfield. These basins receive year-round treated wastewater effluent from a domestic wastewater treatment works and, in the winter rainfall season, urban stormwater runoff. A separate industrial wastewater treatment works discharges its treated effluent to a series of artificial recharge basins located along the coast downgradient of the wellfield. The groundwater mound formed along the coast simultaneous-



ly counters the intrusion of sea water and the loss of fresh groundwater not intercepted by the wellfield, to the ocean.

The CSIR is proud to provide the City of Cape Town Metropolitan Municipality with a specialist advisory service in regard to the optimum and sustainable utilisation of the AWRMS.

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