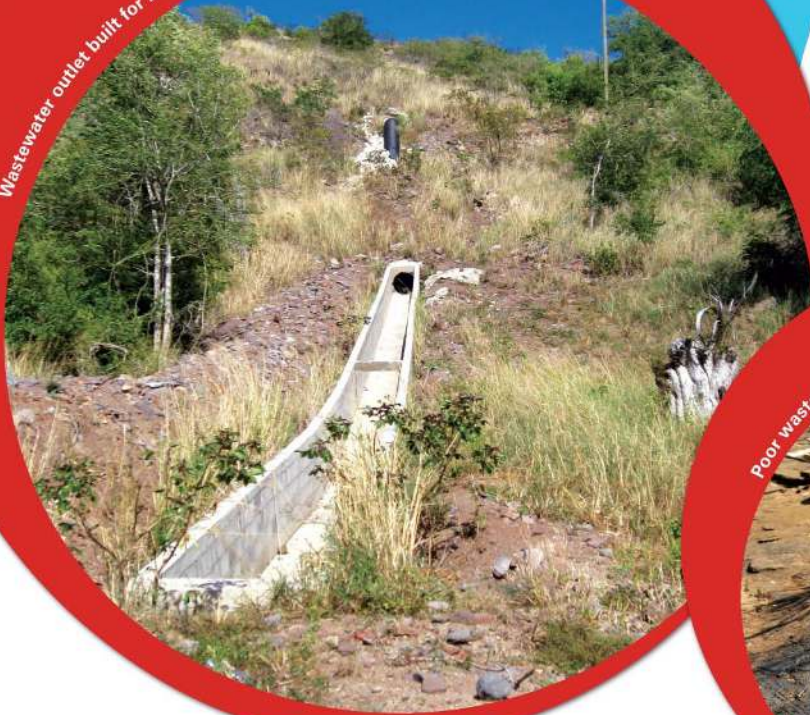


Wastewater outlet built for new hillside settlement, Basseterre Valley



One of many pump wells located on the Aquifer Field



Poor waste disposal in well field area



PROJECT ACTIVITIES AND ACHIEVEMENTS I

Water Resources Management Plan

Hydrogeological survey of the aquifer included:

- Hydrogeologic interpretations
- Water quality analysis
- Modeling of contaminant transport, and
- Pumping regimes under various scenarios.

A novel technique, Multi-electrode electrical resistivity (MER), was used to delineate:

- Thickness and distribution of sediments throughout the aquifer
- Zones of increased porosity
- Zones of possible contamination, and
- Fresh/salt water interface

Main findings of the hydrogeological survey:

- Early stages of salt water intrusion have been documented
- Adjusting the pumping regime, redeveloping some of the existing wells and relocating other wells is a viable option for increasing efficiency and preventing dewatering over the long-term.

Other surveys:

- Land use
- Sources of pollution
- Review of policy and legislation

Main findings of land use and pollution sources surveys:

- Increased pressure to develop former sugar lands
- Increased trend towards medium to high density development
- Dumping of solid waste in vacant lots and waterways
- Nutrient loading from informal livestock farming
- Unregulated waste effluent discharges

Main findings of the policy and legislation review:

- Fragmented approach to water issues
- Weak enforcement of current laws

An action plan with various time horizons was devised to cope with these issues. The drafting of a new Water Resources Act and public education and outreach to major stakeholders are ongoing.

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