

SELECTED RECENT REFERENCES - AQUATECH ENGINEERING LTD

YEAR	PROJECT	ACTIVITY	CLIENT	COUNTRY
2013-2014	Preliminary Designs, Detailed Designs and Tender Documents for the Dual Caroni South Trunk Main. The new DN1100mm/DN900mm 30km pipeline under study runs parallel to an existing DN1400mm/DN1100mm main and is destined to provide redundancy for the transfer of 200,000 m ³ /day of potable water from North Trinidad to South Trinidad. The new pipeline comprises of 40 air valve chambers, 40 wash out chambers, 35 in line valves, 15 river crossings (some using trenchless HDD technology) and 21 off-takes to distribution. Designs also included hydraulic modelling of the system, water hammer analysis, flow and pressure measurements for model calibration, NRW analysis and GIS development.	Water Supply designs	WASA	TRINIDAD
2012	Rehabilitation of the sewerage system of the University of the West Indies (UWI) campus in Trinidad. At the 2017 design horizon, the estimated number of students is 30.000. The project includes Detailed Diagnosis (including measurement campaign), Feasibility Studies and Detailed Designs of sewerage alternatives (including networks, pump stations and WWTP).	Sewerage diagnosis and designs	UWI	TRINIDAD
2012	Diagnosis, Feasibility Studies and Detailed Designs of sewerage facilities in Trinidad. The scope of the diagnosis phase encompasses the 100 private package plants and associated networks in Trinidad. The feasibility and detailed designs focuses on the 20 priority sites including 15 sewerage pump stations, 4 main WWTP and 30km of sewerage networks.	Sewerage diagnosis and designs	WASA	TRINIDAD
2012	Water hammer analysis (transient flow modeling) of a 11km DN900mm raw water main from lake Gatun to a 80.000 m ³ /day WWTP. The modeling was performed under current (960 l/s) and future (1.095 l/s) flow conditions to quantify risks linked to transient flows and enable the design anti-water hammer protective devices (air valves, vessels).	Water Supply designs	AGUAS de PANAMA	PANAMA
2011 - 2012	Feasibility Study and Detailed Designs for the water supply and sewerage systems of the TECU development consisting of 85 lots in Chaguanas – Trinidad. The water supply system includes 1.5km of network with fire fighting capabilities. The sewerage system includes 1 sewage pump station (capacity 150m ³ /day), 2 km of sewerage network and 1 x WWTP.	Water supply and sewerage designs	TECU	TRINIDAD
2010-2011	Preparation of technical and commercial proposals and project start up for the Diagnosis and Feasibility Study for the establishment of sewerage treatment plants in the city of Caracas (3.5 M inhabitants, 3.000 km of sewerage networks). Determination of the optimal number of sewerage treatment plants. Measurement campaign comprising of 13 measurement points (sewerage network, Guaire River, rain gauges).	Sewerage Planification	HIDROVEN	VENEZUELA
2010 - 2011	Feasibility study and Detailed Designs/Tender Documents for the rehabilitation and extension of the water supply and sewerage networks for the city of Cap Haïtien at horizon 2025. Determination of a comprehensive NRW program for network optimization. The projected population in 2025 is 411.000 habitants (current service area) and the projected water demand 33.000 m ³ /day. The water supply system will include more than half a dozen production wells, an elevated tank, 4 ground storage tanks, and at least 35km of new mains..	Water supply and sewerage diagnosis and designs	DINEPA	HAITI

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2010 - 2011	Technical Support to MOWASCO and CSTB in Mombasa, Kenya. Development and implementation of a Bulk and Customer Metering Programme (60,000 customers in 2010). Formulation and implementation of a strategy for the reduction of Non Revenue Water (NRW), Unaccounted For Water (UFW) and the improvement of network yields (including leak detection, leak location & repair, reduction of illegal connections and meter under-registration).	Technical Assistance Water Supply	SEURECA Consulting Engineers	KENYA
2010	Aquatech and BRLi were hired to conduct an external control of the hydrological and hydraulic studies undertaken by third party Consultants. The proposed Trinidad Rapid Rail Project comprises of 100 kilometer of railways and 17 stations. The proposed alignment consist of 218 rail bridges for river and culvert crossing (greater than 2m wide) and approximately 40 road bridges for both river and culvert crossings.	Technical Expertise	BOUYGUES TP	TRINIDAD
2010	Feasibility study for the rehabilitation of the potable water network at PLIPDECO Port in Point Lisas. The study involved, network modeling, comparison of alternative using Present Day Value (PDV) calculations. Development of Specifications and BOQ for trenchless pipe replacement.	Technical Assistance Water Supply	PLIPDECO	TRINIDAD
2008-2010	Pilot Unaccounted For Water and Domestic Metering Project in Trinidad. The project aims at establishing best practices in NRW, UFW reduction and domestic metering and entails setting up 3 Pilot Areas comprising 2500 customers in total. Implementation of District and Waste Metering, installation of 2500 domestic water meters (some with AMR devices), leak location and repair, reduction of meter under-registration and illegal connections.	Technical Assistance Water Supply	WASA	TRINIDAD
2009	Establishment of potable water balance and leak location campaign with a view to reduce excessive WASA bill and Non Revenue Water (NRW) at PLIPDECO Port. As a result of this exercise involving flow and pressure measurements, leakage volumes were quantified and three leaks located.	Technical Assistance Water Supply	PLIPDECO	TRINIDAD
2007-2009	Feasibility Study, Detailed Designs of 100 km of water transmission and distribution network off the Salybia and Matura WTP. The objective of the project is to boost water supply to the East coast of Trinidad and to the East West corridor. Extensive modeling of the water supply network is being carried out with automatic linkage of the model and the GIS package. The project includes 3 new reservoirs and three new booster stations. The project also included the determination of a comprehensive NRW program for network optimization.	Water supply diagnosis and designs	WASA	TRINIDAD
2007	Technical Assistance to the Ministry of Public Works, Transport and Communication (MTPTC) for the reform of the Water and Sewerage Sector and the adoption of the Water Reform Bill. Preparation of Tender Documents for the establishment of a national water and sewerage data base and private sector participation in the management of water and sewerage services for the city of St Marc (60,000 inhabitants)	Water and sewerage planification	MTPTC	HAITI
2006-2007	Detailed Design for Ngethu and Sasumua Water Production Improvement – Nairobi – Kenya. The objective is to restore water production system capacities via rehabilitation works. The works include: 2 Water Treatment Plants (73,000 m ³ /day and 460,000 m ³ /day respectively), 14 km of raw water mains (Ø800mm to Ø1400mm) and 10 km of raw water tunnels (Ø700mm to Ø3000mm). The diagnosis includes a major measurement campaign (pressure, level and flow)	Water supply diagnosis and design	SEURECA Consulting Engineers	KENYA

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2005-2006	Detailed Designs and Works Supervision of the water supply and sewerage systems for Settlement C (13 parcels) and Settlement D (25 lots) in Carenage. The water supply systems include a pumping station (250 gpm, 130 m TDH), two storage tanks of 300 m ³ each and 2 PRVs...Determination and implementation of a comprehensive NRW program for network optimization.	Water supply design and works supervision	Bain Land Development Company	TRINIDAD
2005	Evaluation and Monitoring of the Vendôme Water Supply Project in Grenada funded by the Agence Francaise de Développement (AFD). The project included a dam, a 10.000 m ³ /day potabilisation plant, 20 km of water supply network, 3 service reservoirs and one booster station.	Project Evaluation and Monitoring	AFD (Agence Française de Développement)	GRENADA
2004 - 2005	Sewerage Master Plan of the East West Corridor and its Environs in Trinidad. 500.000 inhabitants reside in the study area and population projections give 750.000 inhabitants at the design horizon of 2035. The sewerage system comprises of 101 waste water treatment plants and sewage pumping stations and 250 km of sewerage network. The study includes the diagnosis of existing sewerage facilities, the master plan of future facilities up to the 2035 design horizon and the preliminary designs of sewerage systems in a priority sewerage catchment. A Geographical Information System (GIS) of the study area and a computer model of the sewerage network were also elaborated as part of the study.	Sewerage planification	Water and Sewerage Authority (WASA)	TRINIDAD
2003 – 2005	Feasibility Study and Detailed Designs for the water supply system of Santa Maria Estate in Central Trinidad. Supervision of pipe supply and installation, supervision of civil works, commissioning, testing and handing over. The water supply system comprises 2 km of pipelines, pipeline ancillary equipment including 2 PRVs and 20 service connections. Determination and implementation of a comprehensive NRW program for network optimization.	Water supply design and works supervision	Gran Couva Development Company	TRINIDAD
2003	Diagnosis of the water supply system of the Buoys development in Carenage with a view to alleviate excessive network pressures. The system comprises 1 pump station, 2 service reservoirs and approximately 4 km of force and distribution mains. Recommendations led to the installation of 3 additional PRVs. Determination and implementation of a comprehensive NRW program for network optimization.	Water supply diagnosis and design	Bain Land Development Company	TRINIDAD
2003	Technical Assistance to the Operator of the largest privatization scheme in the world to date i.e. ONDEO de Puerto Rico vested with the responsibility of providing water supply and sewerage services to the entire island of Puerto Rico. Project Monitoring, Evaluation and Audit of the 450 million US dollar investment package in water and sewer projects managed by AFI over the next 3 years. Reconciliation of the capital investment program with master plan objectives.	Water supply and sewerage planification	ONDEO de Puerto Rico	PUERTO RICO
2002	Technical Assistance to ONDEO de Puerto Rico, private operator of the water supply and sewerage services of the island of Puerto Rico. Technical and contractual assistance during the critical taking over phase between the previous operator (Vivendi) and ONDEO PR. Determination and implementation of a comprehensive NRW program for network optimization.	Water supply and sewerage planification	ONDEO de Puerto Rico	PUERTO RICO