

Da Phuoc Stormwater and Leachate Treatment Plants#

Ho Chi Minh City, Vietnam

The Da Phuoc Solid Waste Treatment Complex near Ho Chi Minh City is Vietnam's largest solid waste processing complex. This landmark project was developed, and is currently operated, by Vietnam Waste Solutions (VWS) of Ho Chi Minh City and California Waste Solutions (CWS) of California. The Da Phuoc Solid Waste Treatment Complex plays a key role in reducing Ho Chi Minh City's solid waste problems. Da Phuoc utilizes advanced solid treatment, solids waste recycling, and leachate water treatment engineering and management approaches proven in advanced solids handling facilities throughout the world. HydroScience provided design services for the rainwater treatment plant and the advanced leachate wastewater treatment plant.

Phase 1: Storm Water Treatment Plant

HydroScience designed and commissioned a 3,000 m³/d pressure filtration system to treat contaminated storm water runoff from the landfill. The filtration system consisted of a total of nine filters, arranged in three parallel filter trains connected to each other in series. The first two filter trains are dual stage sand filtration for turbidity and pathogen removal, and the third stage is a granular activated carbon (GAC) train for color and odor control. The facilities are designed to treat contaminated run-off water to TCVN discharge standards for discharge to a tributary of the Saigon River. The Storm Water Treatment Plant was an Engineer, Procure, and Construct (EPC) Project. HydroScience also provided design, commissioning, and operator training for the plant and is providing on-going operational support and consultation for the landfill operator's water operations staff.

Phase 2: MBR Leachate Treatment Plant

Together with Wehrle Environmental of Germany, HydroScience assisted VWS in designing, constructing, and commissioning a 1,000 m³/d Immersed Membrane Bioreactor (MBR) Leachate Treatment Plant. The plant uses a biological process for ammonia reduction and cross flow external micro-filtration membranes for pre-treatment. The leachate then uses nano-filtration polishing to treat the leachate to a very high level prior to discharge to a tributary of the Saigon River. HydroScience also provided construction services for the new plant and operations commissioning and start-up services. HydroScience also provided operations training and user manuals for the project and is providing on-going operations support and consultation.

Client

Vietnam Waste Solutions

Services Provided

- Design
- Engineer
- Procure
- Construct
- Commissioning
- Operations Training

Highlights

- 3000 m³/day Storm Water Treatment Plant
- 1000 m³/day MBR Leachate Treatment Plant

