

The Grand Ho Tram Casino Water and Wastewater Facilities

Ho Tram, Ba Ria – Vung Tau Province, Vietnam

HydroScience was retained by Asian Coast Development, Ltd to Engineer, Procure, and Construct (EPC) water and wastewater treatment plants for The Grand Ho Tram Casino Resort in Vietnam. The Grand Ho Tram Casino Resort is the first component of the USD \$4.2B multi-site property Ho Tram Strip resort complex in Ba Ria – Vung Tau Province, Vietnam. The first phase of the project includes a 541 room five star hotel, a conference center, golf course, four restaurants, and comprehensive gaming facilities. On completion of the second phase, the complex will comprise 1,100 five star rooms, including suites and villas. Design and construction of the water and wastewater facilities began in July 2011 and the plants were successfully commissioned in September 2012.

The Water Treatment Plant (WTP) consists of pressure filters with sand and Granulated Activated Carbon (GAC) media and has an initial Average Day capacity of 2,200 m³/day and a Peak Day capacity of 4,400 m³/day. The WTP also has a 1,000 m³ below ground concrete water storage tank and chlorine disinfection system. The control system for the WTP is integrated with the control system for the new Waste Water Treatment Plant (WWTP). The two treatment plants share a common operations building common chemical storage facilities.

The WWTP is an immersed Membrane Bioreactor (MBR) and has an initial Average Day treatment capacity of 1,900 m³/day and a Peak Day capacity of 3,800 m³/day. The WWTP includes fine screens, anoxic tanks for nitrogen removal, fine bubble diffusion biological treatment, and a centrifuge for biosolids dewatering. All of the plant's effluent is disposed of through reuse. The recycled water from the WWTP is used to irrigate a 18-hole golf course at the resort and as cooling tower make-up water.

Both the WTP and WWTP were designed for phased expansion to an Ultimate Average Day Capacity of 10,000 m³/day (Peak Day 20,000 m³/day). HydroScience commissioned the new plants in September 2012 and was subsequently retained by Asian Coast Development to provide contract operations for the two treatment plants and an adjacent solid waste recovery and recycling facility. HydroScience also provided security services for common resort area and landscape maintenance services.

Client

Asian Coast Development Ltd

Services Provided

- Planning
- Design
- Procurement
- Construction

Highlights

- Engineering, Procurement, Construct (EPC) contract
- 100 percent reuse
- MBR Technology
- All Treatment facilities designed for modular expansion
- Designed to meet strict regulatory, aesthetic, odor and sizing requirements
- Contract Operations

