



Fresh potable water for the Mekong Delta

Thanks to the advantages of PE-HD, fresh water will soon be flowing to the inhabitants of the Mekong Delta in Vietnam.

The Dong Tam BOO Water Supply Project will provide fresh potable water to the Mekong Delta in Vietnam. The project, as a whole, encompasses a new water treatment plant; the Dong Tam Water Treatment Plant, complete with 45 km of transfer pipeline which will transport clean water from the treatment plant to the customers along the coastal line.

The Dong Tam BOO Water Supply Project is located in the Binh Duc Commune, Chau Thanh District in the Tien Giang province.

The project is being implemented by Dong Tam Water BOO Corporation (DTW), a subsidiary of Ho Chi Minh City Infrastructure Investment JSC (CII), who first developed the project together with its partners. The project is managed by GHD, an Australian consulting firm based in Melbourne.

Mr. Truong Khac Hoanh, deputy director at DTW, explains that before the project began, the residents around the river mouth of the Mekong River have relied on some small and decentralized water supply systems. The coastal region here suffers from high ground

water and high tides. This also causes fresh water in the area to mix with seawater, creating brackish water, which is not suitable for drinking. The government encouraged companies to invest in water supply projects so that a stable supply of clean water could be ensured. DTW took up this challenge to supply water for the coastal line in the province. According to Mr. Hoanh, approximately 1–1.5 million people will be able to reap the benefits of this project. When completed, the project will provide fresh potable water to the inhabitants in the area.

PE-HD fulfilled the strength characteristics

The project is divided into two phases. At the completion of phase one, the capacity of the treatment plant will be 50,000 m³/day. During the next three years, the plant is expected to reach a capacity of 90,000 m³/day. As 45 km of clean water mains were to be built, the material of the pipes was of significant importance to the investors, and different material options were considered.

In the past, the commonly used material for transfer pipelines in Vietnam has been ductile iron. Due to the specific conditions in the project area, high ground water levels and brackish water leading to a very corrosive atmosphere, ductile iron was not a very good option. When choosing between non-metallic materials, glassfibre-reinforced plastic (GRP) and PE-HD were compared. DTW finally chose PE-HD, as GRP did not fulfil the strength characteristics needed for the project. PE-HD was also advantageous due to its longevity and ease of installation. It would also have been possible to use special coating for the ductile iron so it could resist corrosion and achieve the same life span as the PE-HD pipe, but this would have been very costly. "In the end, PE-HD pipes also saves us in operating costs due to time savings in the installation phase and its ease of installation", says Mr. Hoanh.

Working on a tight schedule

Mr. Hoanh has had experience in working with KWH Pipe in a previous sewage project and saw potential for these products also in this project. Hence, Wiik & Hoeglund Plc., KWH Pipe's subsidiary in Thailand, was chosen as the manufacturer and supplier for all PE-HD pipes. The pipes supplied were PE 100 SDR 21, DN/OD 900 mm and DN/OD 800mm respectively. Due to the tight schedule of the project, the delivery schedule was of critical importance. According to Mr. Hoanh, Wiik & Hoeglund provided an advantage in production capability, flexibility and know-how which could accommodate the tight time schedule. The cooperation has run smoothly, with on-time delivery and good communication.

Construction started in the middle of 2008, and the treatment plant is planned to be ready for use by the first quarter of 2010. The project is well under way, and the supply of material and installation work for phase one is already completed. Mr Hoanh estimates that the project can be finished up to eight months before schedule. "Thanks to the advantages of PE-HD, fresh water will soon be flowing to the inhabitants in the Mekong Delta", Mr. Hoanh concludes. ■



FACTS

- » Water treatment plant with capacity of 50,000 m³/day in phase one, and 90,000 m³/day in phase two.
- » 45 km clean water mains.
- » Pipes: WehoPipe DN/OD 900 mm and WehoPipe DN/OD 800 mm.