



VIETNAM

WASTEWATER DISPOSAL IN PROVINCIAL TOWNS CAN THO CITY, SOC TRANG TOWN AND TRA VINH



Client	Can Tho Water Supply and Sewerage Company (WSSC) / Soc Trang Public Works Comp. (PWC) / Tra Vinh Water Supply and Drainage Comp.
Financing	Kreditanstalt für Wiederaufbau (KfW)
Duration of Services	12/2003 – 06/2020
Cost of Implementation	14,3 Mio. EUR (Can Tho) 6,4 Mio. EUR (Soc Trang)
Partners	NAGECCO, Vietnam/ GFA, Germany

Scope of Services

- Review of existing studies
- Basic data assessment
- Update of feasibility study
- Supervision of survey works
- Preparation of final design
- Environmental Impact Assessment Study (EIA)
- Assessment of investment, O&M costs
- Preparation of tender documents based on FIDIC “Red Book” for sewer network, pumping stations, river crossings, related structures (CSO’s)
- Preparation of tender documents based on FIDIC “Yellow Book” for WWTP
- Execution of pre-qualification procedure
- Bid evaluation
- Review and approval of contractor’s design
- Assistance in contract negotiations
- Supervision of construction works according to FIDIC
- Progress and cost monitoring
- Testing and commissioning

Brief Project Description

Can Tho City, Soc Trang Town and Tra Vinh in the south-western part of Vietnam suffer from a number of environmental problems caused by the inadequacies of its wastewater disposal systems. The existing sewer systems discharge combined sewage into local rivers and canals, which are tidal influenced. Sewage back up in the drainage systems and flooding in low-lying areas occurred. The project aims to reduce pollution and to prevent flooding and contains:

City of Can Tho (181,400 PE):

- Sewer network extension and rehabilitation / interceptor construction
 - 11.1 km interceptor sewer (DN 300 - 1200) including 270 manholes
 - 2 km of sewer rehabilitation (DN 300 - 1200) including 70 manholes
 - 57 combined sewer overflows
- Wastewater pumping stations / river crossing
 - 6 pumping stations, capacities: 60 - 2,617 m³/h, delivery head: 5 - 16 m, installation: 2 – 5 submersible pumps
 - 3.1 km of pressure mains including wash-out and air release chambers (DN 150 - 800)
 - 3 river crossings (DN 300 – DN 500 twin pipelines) including inspection and service chambers
- Biological WWTP: Q_{DWF}= 32,000 m³/d, BOD = 14,000 kg/d, COD = 28,000 kg/d

City of Soc Trang (127,800 PE):

- Sewer network extension and rehabilitation / interceptor construction / box culvert
 - 7.5 km interceptor sewer (DN 300 to DN 700) including 160 manholes
 - 3 km of sewer rehabilitation (DN 300 – DN 1800) including 140 manholes
 - 16 combined sewer overflows
 - 2 km open box culvert (1.5 x 3.0 m)
- Wastewater Pumping stations / River Crossing
 - 10 pumping stations, capacities: 40 - 1,600 m³/h, delivery head: 4 - 12 m, installation: 2 - 4 submersible pumps
 - 1.6 km of pressure mains including wash-out and air release chambers (DN 150 - 600)
 - 1 river crossing (DN 300 twin pipeline) including inspection and service chambers
- Mechanical WWTP Q_{DWF}= 17,570 m³/d / BOD = 6,000 kg/d / COD = 12,000 kg/d

Tra Vinh (70,000 PE):

- Sewer network extension and rehabilitation
 - 7.5 km box culvert (1x1.5-2-2.5m) with Flume (DN 200 to DN 500)
 - 13.3 km P/PE (DN 300 – DN 2000)
 - 1 combined sewer overflows
- Wastewater Pumping stations / River Crossing
 - 3 pumping stations, capacities: 259 - 904 m³/h, delivery head: 15 - 25 m, installation: 2+1 submersible pumps
 - 3 lifting stations, capacities: 30 - 152 m³/h, delivery head: 4 - 8 m, installation: 1+1 submersible pumps
 - 3 km of pressure mains including wash-out and air release chambers (DN 200 - 600)
 - 1 river crossing (DN 300 twin pipeline) including inspection and service chambers
- Mechanical WWTP Q_{DWF}= 17,570 m³/d / BOD = 6,000 kg/d / COD = 12,000 kg/d

