



Water Engineering Technology Sdn. Bhd.

The **Water** Specialist

Company **Profile**



Contents

02	The Water Specialist
03	Core Activities
04 - 11	WATER EPCC Solutions Intakes Pumping Stations Water Treatment Plants
12 - 15	WASTEWATER Pumping Stations Sewage Treatment Plants
16 - 17	UPGRADING & REHABILITATION
18 - 19	OPERATION & MAINTENANCE
20 - 21	Core Resources
22	Certifications
23	Corporate Structure

The **Water Specialist**

THE WATER SPECIALIST



Water Engineering Technology Sdn Bhd (“WET”) is one of the leading Mechanical and Electrical (“M&E”) specialist contractors in the country principally in the municipal water supply and wastewater infrastructure industry. **WET** has over 35 years of extensive knowledge and experience in intakes, water treatment plants, sewage treatment plants, pumping stations, upgrading and rehabilitation of treatment plants as well as operation and maintenance. **WET** is capable of providing complete M&E solutions comprising design, supply, installation, testing & commissioning as well as operation and maintenance.

WET is a 100% owned subsidiary of LOH & LOH Corporation Bhd. Together with its Sister company, LOH & LOH Constructions Sdn Bhd, a leading Civil & Structural (“C&S”) Water Infrastructure Specialist, **WET** has the ability to provide complete C&S and M&E solutions for both water and wastewater projects on an Engineering, Procurement, Construction and Commissioning (“EPCC”) basis.

WET is a Class A contractor under the Sijil Perolehan Kerja Kerajaan (“SPKK”) [formally known as Pusat Khidmat Kontraktor (“PKK”)], a Grade 7 Contractor with the Construction Industry Development Board (“CIDB”) and holds a Grade C1 license with Jabatan Perkhidmatan Pembetungan (“JPP”).

Core **Activities**

CORE ACTIVITIES



WATER

EPCC Solutions
Intakes
Pumping Stations
Water Treatment Plants



WASTEWATER

Pumping Stations
Sewage Treatment Plants



UPGRADING & REHABILITATION



OPERATION & MAINTENANCE

Water **EPCC Solutions**

With extensive years of experience, **WET**, together with its sister company, LOH & LOH Constructions, is capable of delivering Engineering, Procurement, Construction & Commissioning (“EPCC”) solutions for Water Supply projects which include Dams, Intakes, Water Treatment Plants and Pumping Stations.

Our complete Civil & Structural (“C&S”) and Mechanical & Electrical (“M&E”) capabilities provide Clients with a One Stop Solution Centre leading to better coordination, centralized responsibility, better design, easier integration and lower capital and operational costs due to value engineering of both C&S and M&E works.

WET has undertaken several notable EPCC projects such as the 125MLD (Million Litres per Day) Sandakan Water Supply Scheme and the 60MLD Water Supply Scheme to SOGIP, Sipitang for Jabatan Air Negeri Sabah (“JANS”).

Sandakan 125MLD Water Treatment Plant



WATER EPCC SOLUTIONS



- A Dissolved Air Flootation ("DAF") Clarification Plant
- B Filtration Plant
- C Intake & Raw Water Pumping Plant
- D Treated Water Pumping Plant
- E Cascade Aeration System

Water Intakes

WET has vast experience in providing M&E solutions for Intakes and has completed the Semantan Intake, part of the Pahang-Selangor Raw Water Transfer Project and the largest water intake in Malaysia with a total capacity of 2400MLD, consisting of 3 sets of 18.0m long Motorised Regulating Gates complete with stop logs, 6 sets of 680MLD Bandscreens, 24 sets of 2400mm sq. motorised Penstocks and 252 sets of Sand Ejector System.

WET has also successfully completed and commissioned Intakes such as the 450MLD Intake, Sg. Selangor Phase 2 Stage 1 and Stage 2, the 600MLD Intake, Sg. Semenyih Water Supply Scheme, the 200MLD Intake, KIPC - Dungun Water Supply Project and the 135MLD Intake, Telibong Water Supply Scheme, etc.

Sandakan River Gates



WATER INTAKES



- A Sg. Selangor Phase 2 Stage 1 & Stage 2 450MLD Intake Plant
- B Sg. Semenyih 600MLD Intake Plant
- C Pahang-Selangor Raw Water Transfer - Semantan 2400MLD Intake Plant
- D Telibong 135MLD Intake Plant

Water Pumping Stations

WET prides itself as a Pumping Specialist with an experienced in-house design team to optimise pump plant design and selection to ensure optimum pump efficiency and operational costs. We have completed and commissioned over 30 large Raw Water and Treated Water Pumping Plants in Malaysia such as the 110MLD Pump Station, Sg. Muar Melaka Raw Water Transfer Scheme, the 206MLD Pump Station, Sg. Selangor Water Supply Scheme Phase 1 Stage 2 Package E, the 282MLD Pump Station, Sg. Selangor Supply Scheme Phase 2 Stage 2 Package 4, and the 100MLD Pump Station, Jus Dam Melaka Raw Water Supply Scheme.

Part of **WET's** track record is the 2400MLD Semantan Pump Station, the largest Pump Station in Malaysia, part of the Pahang-Selangor Raw Water Transfer, which comprises 12 sets of 300MLD verticalised split casing pumps coupled to a vertical 2500kW HT slip ring induction motor.

Sg. Selangor Water Supply Scheme Phase 2
Package 4 (2 x 142MLD 1540kW and 3 x 72MLD
810kW treated water pumpsets)



WATER PUMPING STATIONS



A



C



B

- A Jus Dam Melaka Raw Water Transfer Pumping Station (3 x 100MLD 800kW pumpsets)
- B & C Pahang-Selangor Raw Water Transfer - Semantan Raw Water Pumping Station (12 x 300MLD 2500kW pumpsets)

Water Treatment Plants

WET has vast experience in design, installation and commissioning of water treatment plants (“WTPs”) comprising key mechanical & electrical systems such as chemical preparation & dosing systems and complete water treatment process systems including Flocculation, Clarification & Filtration systems.

WET also offers an in-house engineered tube settlers system that greatly enhances clarification performance, and exceeds water quality standards set by AWWA and MWA for clarified water.

WET has successfully completed and commissioned more than 20 WTPs such as the 130MLD Sg. Rasa Water Treatment Plant, Sg. Selangor Water Supply Scheme Phase 3, the 72MLD Sri Gading Water Treatment Plant Stage 2, the 125MLD Segaluid Water Treatment Plant, Sandakan Water Supply Scheme, the 60 MLD Kudat Water Treatment Plant, and the extension of the 172MLD Semangar Water Treatment Plant Package 2.

Kudat 60MLD Water Treatment Plant



WATER TREATMENT PLANTS



A



D



B



E



C

- A Sg. Selangor Water Supply Scheme Phase 3, Sg. Rasa 130MLD Water Treatment Plant
- B LWS Beaufort 40MLD Water Treatment Plant
- C Semangar 172MLD Water Treatment Plant
- D Merbau Chondong 45MLD Water Treatment Plant
- E Sri Gading 72MLD Water Treatment Plant

Wastewater Sewage Pumping Stations

Besides water pumping stations, **WET** is also involved in Sewage Pumping Stations projects.

WET has successfully commissioned and completed one of the largest Raw Sewage Pumping Stations Scheme for the Federal Government Administrative Centre in Putrajaya. Among the Sewage Pumping Stations in Putrajaya are Sewage Pumping Station PS10 to serve a population Equivalent ("PE") of 165,000, Sewage Pumping Station PS5 to serve 220,000 PE, and Sewage Pumping Station PS6 to serve 100,000 PE.

100,000 PE Sewage Pumping Station PS6



WASTEWATER SEWAGE PUMPING STATIONS



A



B

A 220,000 PE Sewage Pumping Station PS5

B Underground Design Sewage Pumping Station at Putrajaya

Wastewater Sewage Treatment Plant

In addition to water supply, **WET** has played a key role in the development of wastewater infrastructure in Malaysia, and has been involved in several Sewage Treatment Plant (“STP”) projects for the National Sewage Scheme.

STPs comprise not only mechanical and chemical processes but also involve biological processes. **WET** has completed, among other projects, the 240,000 PE Kuala Sawah STP and the 300,000 PE Sg. Udang STP, both part of the National Sewage Scheme under JBIC Financing.

Sungai Udang Centralised Sewage Treatment Plant
(300,000 PE)



WASTEWATER SEWAGE TREATMENT PLANTS



- A Kuala Sawah Sewage Treatment Plant (240,000 PE)
- Drum Screens
- B Kuala Sawah Sewage Treatment Plant (240,000 PE)
- Clarifiers
- C Sg. Udang Centralised Sewage Treatment Plant (300,000 PE)
- Oxidation Ditch
- D Sg. Udang Centralised Sewage Treatment Plant (300,000 PE)
- Grit Scrubber

Upgrading & Rehabilitation

WET's vast experience and track record in water and wastewater enable us to be the leading company in providing upgrading and rehabilitation solutions to existing treatment and pumping plants. Upgrading and Rehabilitation is a complex process that requires careful plant audit analysis of the entire existing system and equipment to identify areas for improvement. Upgrading and Rehabilitation yields vast advantages such as significant increase in plant output capacity with low additional costs, short improvement time, and small foot print where little or no additional land is required.

Some of **WET's** notable upgrading projects include the Lambir Water Treatment Plant in Miri from 80MLD to 160MLD and the Batu Kitang Water Treatment Plant from 200MLD to 400MLD. Our rehabilitation track record includes the 450MLD Sg. Langat Treatment Plant in Selangor as well as the 180MLD Old Bertam Treatment Works in Melaka, and the 176MLD Water Treatment Plant in Port Moresby, Papua New Guinea.

Rehabilitation of the 180MLD Old Bertam Water Treatment Plant, Melaka - Upgrade of clarifiers with WET tube settlers



UPGRADING & REHABILITATION



- A Upgrade of Lambir Water Treatment Plant from 80 to 160MLD, Miri - Upgrade of Clarifiers with WET tube settlers and Stainless Steel Troughs
- B Upgrade 176MLD New Water Treatment Plant at Mt. Eriana, Port Moresby, Papua New Guinea
- C Rehabilitation of Sg. Langat 450MLD Water Treatment Plant
- D Rehabilitation of 180MLD Old Bertam Water Treatment Plant, Melaka - Rehabilitation of Existing Filters
- E Upgrade of Lambir Water Treatment Plant from 80 to 160MLD, Miri - Upgrade of Treated Water Pumping Station

Operation & Maintenance

As designers for treatment and pumping processes, **WET** has the advantage of better understanding and detailed knowledge of the equipment, processes and operating parameters for maintaining and operating water and wastewater infrastructure. This experience and knowledge enable **WET** to provide more economical, worry-free and efficient water and wastewater infrastructure.

WET is currently carrying out operation & maintenance (“O&M”) contracts for the Sandakan Water Supply Scheme consisting of the 125MLD Segaliud Water Treatment Plant and related infrastructure such as the Betotan Dam, Sg. Segaliud Intake and Kampung Cina Reservoirs and pipelines, as well as the 60MLD Kudat Water Treatment Plant comprising the Milau Dam and related infrastructure. Other O&M contracts include the 200,000PE PS12 Sewage Pumping Station in Putrajaya.

Sg. Segaliud Sandakan 125MLD Water Treatment Plant



OPERATION & MAINTENANCE



A



C



D



E



B

- A Sg. Segaliud Sandakan 125MLD Water Treatment Plant
- Treated Water Pumps in operation
- B Milau Dam at Kudat 60MLD Water Treatment Plant
- Maintenance of Filter Washwater Pumpset
- C Sg. Segaliud Sandakan 125MLD Water Treatment Plant
- SCADA and Telemetry system in operation
- D Putrajaya PS12 Sewage Pumping Station
- Pumps in operation
- E Sg. Segaliud Sandakan 125MLD Water Treatment Plant
- Maintenance of Chemical Plant

Core Resources



We believe our people are our greatest asset. Our management recognizes that the quality of our solutions depends on the quality of our people. Hence, we strive to develop and nurture our human talent to be competent and dedicated professionals to sustain our position as a leading engineering firm. Whenever necessary, training in technology and business are offered to enhance competencies and professionalism. Our people, together with our in-house developed design software and CAD department provide us with a strong competitive edge that delivers.



CORE RESOURCES



Certifications

CERTIFICATIONS



As a specialist engineering organization, **WET** seeks to consistently provide the highest standard of service to all our clients. In pursuit of consistent and internationally recognized quality in our services, **WET** has obtained the following licences and international accreditations for its services and corporate management:

- SIRIM QAS ISO 9001:2001
- IQNET ISO 9001:2001
- CIDB SPKK Grade G7
- SPAN IPA Permit Type C1 for Water Supply Works
- SPAN IPA Permit Type C1 for Sewage Works
- TNB Registered Contractor
- IWK Registered Contractor



Corporate Structure



MECHANICAL & ENGINEERING

100%  **Water Engineering Technology Sdn Bhd**

100% WET O&M Sdn Bhd

CIVIL & STRUCTURAL

100% LOH & LOH Constructions Sdn Bhd

100% Jutakim Sdn Bhd

100% 1 Seri Merdeka Sdn Bhd

68% Quality Quarry Sdn Bhd

PROPERTY DEVELOPMENT

100% LOH & LOH Development Sdn Bhd

100% Decorus Development Sdn Bhd

100% Green Heights Developments Sdn Bhd

100% Medius Developments Sdn Bhd
(fka Loh & Loh Sato Kogyo JV Sdn Bhd)

100% Turf-Tech Sdn Bhd

100% Millenium Creation Sdn Bhd

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