

# Chemical Waste Management

154165-K

WASTEWATER



Liquid waste flows from households and factories into rivers and seas, which then flows back to households and factories.

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## Introduction

Wastewater treatment (for both industrial wastewater and municipal sewage) is one of CWM's primary services and plays a key role in promoting urban sanitation in Malaysia.

Principle to our approach is our vision to focus and emphasise on the needs of our customers. We truly understand the industry sectors in which our clients are based on, therefore we can add value in the solutions we offer besides protecting the environment efficiently.

## Major Projects

### *Industrial Wastewater Treatment*

During the early 90's, we have provided cost-effective wastewater treatment solutions for almost 50 companies that span across the various industries such as food, chemical, metal, oil slope and rubber industries. These companies not only depended on the solutions that we have offered, they also relied on our on-going customer service and technical expertise to manage unexpected circumstances that arise from external factors, for instance, upgrading of plant to meet new environmental regulations.



WWTP/Chemical



WWTP/Metal



WWTP/Rubber



WWTP/Food



WWTP/Oil Slope

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## ***Sewage Treatment***

Municipal sewage treatment, on the other hand, has undergone rapid progression to emerge as the key sector of the wastewater treatment services that we deliver. By leveraging on our in-depth process know-how, we take up the challenge of constructing and providing efficient municipal sewage treatment systems on design and build basis. To illustrate our success in charting our growth in this area, below are our involvements in the industry, both local and abroad.

### **1. Bayan Baru Sewage Treatment Plant**

This 200,000 P.E. plant is one of the 4 centralised sewage treatment plants awarded by the Government of Malaysia through open tender after IWK was re-nationalised in year 2000. We successfully integrated the Modified Oxidation Ditch process for this plant and characterised the operations to achieve complete nutrient removal meeting standard A.

Scope: Mechanical & Electrical Works,  
3-year Operation & Maintenance  
Capacity: 200,000 P.E. / 45,000 m<sup>3</sup>/day  
Process: Modified Oxidation Ditch  
Location: Pulau Pinang, Malaysia



### **2. Jelutong Sewage Treatment Plant**

We undertake the Process, Mechanical & Electrical Works for this plant on design and build basis. The Sequential Batch Reactor (SBR) process employed for this 800,000 P.E. plant is the largest in the world and meets Standard A requirements.

Scope: Process, Mechanical & Electrical Works  
Capacity: 800,000 P.E. / 180,000 m<sup>3</sup>/day  
Process: Sequential Batch Reactor  
Location: Pulau Pinang, Malaysia



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## 3. Sewage Treatment Plants Phase 2 Package 2

The Package 2 scheme under 9th Malaysian Plan comprises of 4 plants, namely Juru (150,00 P.E.), Sg. Nyoir (150,000 P.E.), Kangar (30,000 P.E.) Sewage Treatment Plants and Kota Setar (300,000 P.E.) Centralised Sludge Treatment Plant. The project is partly financed by a loan from Japan Bank for International Cooperation (JBIC)

Scope: Process, Mechanical & Electrical Works for all 4 plants  
Capacity: 150,000 P.E., 150,000 P.E., 30,000 P.E., 300,000 P.E.  
Process: Oxidation Ditch  
Location: Pulau Pinang, Kedah, Perlis, Malaysia



## 4. UITM Sewage Treatment Plant

This sewage treatment plant is part of the integrated campus of the university. We are responsible for constructing the entire treatment plant on design and build basis.

Scope: Civil, Structure, Process, Mechanical & Electrical Works  
Capacity: 13,500 P.E.  
Process: Sequential Batch Reactor  
Location: Selangor, Malaysia



## 5. Lugouqiao Sewage Treatment Plant

Together with Veolia Water in a consortium, CWM was involved in winning the international tender for the RMB201 million Lugouqiao Sewage Treatment Plant located in Beijing in 2003. This project is partly financed by a loan from World Bank and served as the impetus to get Beijing environmentally ready for the Olympics in 2008.

Scope: Investment, Operations & Maintenance for 20-years  
Capacity: 100,000 m<sup>3</sup>/day  
Process: A<sup>2</sup>O  
Location: Beijing, China

