



# **WASTE WATER CAPACITY BUILDING: PEOPLE**

## **INDAH WATER TRAINING CENTRE**



## **SEWERAGE SECTOR CAPACITY DEVELOPMENT**

- The number 1 national sewerage company in Asia Pacific
- Owned by Ministry of Finance
- 7000 public sewage treatment plants
- 16,000km network of pipelines managed
- 610 desludging vehicles
- 17.5 million users in Malaysia
- Operating the largest sewerage treatment plants in South East Asia
- Wastewater solution provider with bio-products and capacity building





# OUR VISION

“The Premier Wastewater Company”

# OUR MISSION

“To Provide Excellent, Efficient And Innovative Services For A Safe and Sustainable Water and Environment”

## OUR TAGLINE

***NEW LIFE FOR WATER***

## MOTO KAMI

***NAFAS BAHARU AIR***

# VISI KAMI

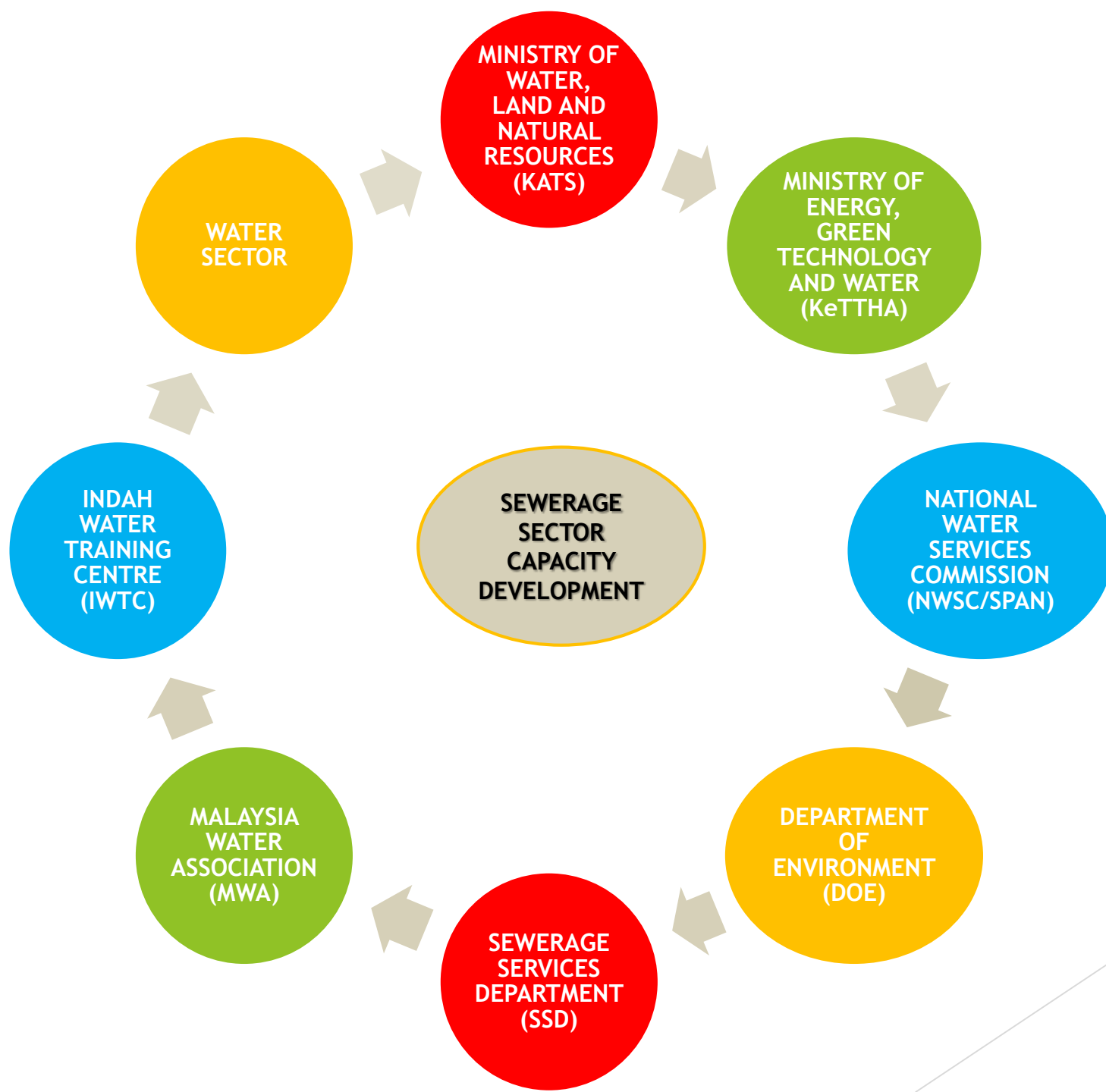
“Syarikat Air Sisa Terunggul”

# MISI KAMI

“Menyediakan Perkhidmatan Cemerlang, Efisien, dan Inovatif Demi Air dan Alam Sekitar Yang Selamat dan Mampan”



# SEWERAGE PEOPLE NETWORK



**GOVERNMENT TRANSFORMATION PROGRAMME (GTP)**

Following 11<sup>th</sup> MP, the GTP, under the area of Improving Rural Basic Infrastructure, 35% of the Malaysian population live in rural areas with minimal access to proper roads, water and electricity supply.

**ECONOMIC TRANSFORMATION PLAN (ETP)**

Providing the right mix of housing (moving from 81% of upper middle cost housing in 2009 to 85% by 2020); and to improve basic water and sewerage services by accelerating the development of water treatment facilities for both phases of Langat 2.

**NATIONAL WATER RESOURCES POLICY (NWRP)**

The Tenth Malaysia Plan stated that there was a need to formulate a NWRP that serves as a comprehensive guide to aid water and water resources governance nationwide. In addition, it will provide guidance to help address knowledge gaps, as well as strengthen methods and practices to ensure that water resources are not just managed in an integrated manner, but geared towards sustainable development and use.

**WATER SERVICES INDUSTRY ACT 2006 (Act 655) WSIA**

This Act aims at establishing a licensing and regulatory framework for regulatory intervention to promote the national policy objectives for the water supply services and sewerage services industry. This Act applies to Peninsular Malaysia and the Federal Territories of Putrajaya and Labuan.

**SURUHANJAYA PERKHIDMATAN AIR NEGARA ACT 2006 (Act 654) SPAN**

An act to provide for the establishment of the Suruhanjaya Perkhidmatan Air Negara with powers to supervise and regulate the water supply and sewerage services and to enforce the water supply and sewerage services laws and for related matters.

**SEWERAGE SERVICES ACT 1993 (Act 508) SSA**

Certified Environmental Professional in Sewage Treatment Plant Operation (CePSTPO) programme falls in this act as a compulsory for operators of Sewerage Treatment Plant.

**ENVIRONMENTAL QUALITY ACT 1974 (EQA)**

There are penalties for discharge of environmentally hazardous substances, pollutants or waste in Malaysian waters exceeding acceptable conditions

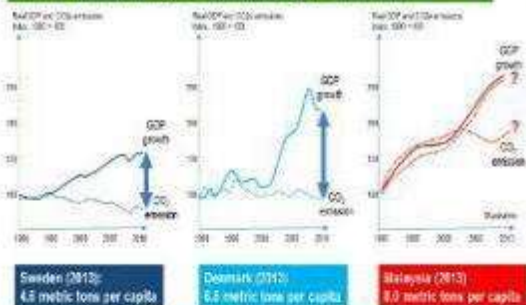
**OCCUPATIONAL SAFETY AND HEALTH ACT (1994) OSHA**

OSHA standards address specific hazards such as working in confined spaces, handling hazardous waste or working with dangerous chemicals, which include training such as Authorised Entrant and Standby Person (AESP).



1

## What lies ahead for Malaysia as it becomes a high income nation?



2

## GTMP framework and its objectives

### KEY PRINCIPLES

- Aligns the strategic goals within RMK11
- Does not overrule the existing plans and policies
- Provide guidance to leverage on green tech

### OBJECTIVES

- Potential economic contributions
- Outline ways to shift from technology adoption to technology production
- Outline ways to reduce 45% GHG emission intensity of GDP by 2030



3

## GTMP Sectors and sub-sectors



5

## Industrial process efficiency

### Percentage and number of green manufacturing SMEs



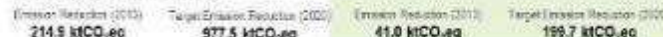
6

## Public transport

### Public transport modal share



### Rail-based public transport



7

## Integrated water management approach



Driving Economic & Environmental Benefits from Green Technology

# Malaysia Green Technology

## Master Plan 2017-2030

Up to 45% reduction in GHG emission intensity of GDP by 2030 relative to 2005 level

4

## Electricity generation and energy efficiency

### RE mix in installed capacity



RE mix targets in selected countries by 2030

Country	Target
European Union	22.7%
Canada	30%
Japan	22 - 24%
Korea	12%

Electricity generation diversity  
Herfindahl-Hirschman Index (HHI) < 0.5

### Efficiency in power generation

- Imposition of clean coal technology requirement for new coal-fired plants
- Encouragement of co-generation

### Reduction in electricity consumption (Residential and Commercial)



	2015	2016	2017	2020	2025	2030
RE in Energy Mix	-	-	18.3%	20%	23%	25%
EEV	32.6%	-	-	85%	-	-
EEV + EV	-	-	-	-	45%	100%
CO Emission (metric tons/capita/year)	-	-	8	-	-	6
EE	-	-	<2%	5%	10%	15%
Treated Wastewater Recycling	-	-	<1%	-	-	-
% Green Manufacturing SME	10%	-	-	15%	30%	50%
Cleaner Fuel	EURO 5 Diesel (Klang Valley)		EURO 5 Diesel (Nationwide)		EURO 5	
	EURO 4M RON97 Nationwide		EURO 4M RON 95 and RON 97		RON95 and 97	
	B7 Biodiesel		B15 Biodiesel			
Green Building	-	244	-	550	-	1750
Sanitary Landfill / Non Sanitary Landfill	-	14/147	-	23/147	-	80%
Recycling Rate	-	17.5%	-	22%	30%	50%

SECTOR	WATER SERVICES																		
SUB SECTOR	ACCREDITATION	WATER SUPPLY								SEWERAGE						INSTITUTIONS		SOFT SKILLS	
JOB AREA	Education Background	Water Resources	DAM Safety Management	WATER TREATMENT			WATER DISTRIBUTION			PLANNING AND DESIGN			OPERATION AND MAINTENANCE			BUSINESS PARTNER (EXAMPLES)	EXPERIENCE		
SUB JOB AREA				Maintenance	Operation	Laboratory	Instrumentation	Operation	Non-Revenue Water	Treatment	Network	Desludging	Treatment	Network	Desludging				
Level 8	PhD									HEAD OF DEPARTMENT (with option of Ir.)						<ul style="list-style-type: none"><li>• International Bodies or Organizations in Africa and Asia</li><li>• Lifelong Learning</li><li>• Programmes in UiTM, UPM, UTM</li></ul>	<ul style="list-style-type: none"><li>• Motivating others</li><li>• Influencing teams</li><li>• PowerPoint Advanced</li><li>• Leadership Skills</li><li>• With Industry Expertise</li></ul>		
Level 7	Master's									HEAD OF SECTION (with option of Ir.)						<ul style="list-style-type: none"><li>• Masters of Science in Water Resources and Environment (UiTM)</li><li>• Programmes in UTM and UPM</li><li>• Professional Development</li></ul>	<ul style="list-style-type: none"><li>• Creative thinking</li><li>• Presentation skills</li><li>• PowerPoint Intermediate</li><li>• Advanced Language Skills</li><li>• With Industry Expertise</li></ul>		
Level 6	Bachelor's									SENIOR MANAGER						<ul style="list-style-type: none"><li>• 3U1l Programme (with Fac. BioTech, UPM)</li><li>• Programmes in UiTM and UTM</li><li>• APEL route to Degree or Masters (UiTM, UPM, UTM)</li></ul>	<ul style="list-style-type: none"><li>• Problem Solving</li><li>• Integrity</li><li>• Excel Advanced</li><li>• Basic Legal</li><li>• With Industry Expertise</li></ul>		
Level 5	Advance Diploma	Water Resources Manager	Dam Manager	Water Treatment Plant Manager			Water Distribution Manager		Water Distribution Manager	Planning and Design Manager			Treatment Manager	Network Manager	Desludging Manager	<ul style="list-style-type: none"><li>• Executive Diploma in Facility Management (UTM)</li><li>• SCM (CIDB with IWTC)</li></ul>	<ul style="list-style-type: none"><li>• Time Management</li><li>• Writing Skills</li><li>• Excel Intermediate</li><li>• Basic Finance</li><li>• With Industry Expertise</li></ul>		
Level 4	Diploma	Water Resources Executive	Dam Executive	Facility Executive	Water Treatment Plant Executive	Chemist	Water Distribution Instrumentation Executive	Water Distribution Executive	NRW Executive	Planning and Design Engineer			Treatment Engineer	Network Engineer	Desludging Executive		<ul style="list-style-type: none"><li>• Managing Conflict</li><li>• Training Others</li><li>• Microsoft Word Intermediate</li><li>• Intermediate Language Skills</li></ul>		
Level 3	Certification	Water Resources Senior Technician	Dam Supervisor	Facility Senior Technician	Water Treatment Plant Senior Technician	Quality Assurance Senior Technician	Water Distribution Instrumentation Senior Technician	Water Distribution Operation Senior Technician	NRW Sr. Technician				Treatment Supervisor	Network Supervisor	Desludging Supervisor	<ul style="list-style-type: none"><li>• CePSTPO (DOE)</li><li>• MyCESMM (CIDB)</li><li>• MSIG (IWTC)</li><li>• JPK NOSS (SPAN)</li><li>• AESP (NIOSH)</li><li>• Planning, Design, Operational and General Short Courses (IWTC)</li></ul>	<ul style="list-style-type: none"><li>• Customer Service</li><li>• Grooming</li><li>• Word Intermediate</li><li>• People Skills</li><li>• Basic Microsoft Office</li></ul>		
Level 2		Water Resources Technician	Dam Technician	Facility Technician	Water Treatment Plant Technician	Lab Assistant Technician	Water Distribution Instrumentation Technician	Water Distribution Technician	NRW Technician				Treatment Technician	Network Technician	Desludging Surveyor		<ul style="list-style-type: none"><li>• Persuading</li><li>• Telephoning</li><li>• Note Taking</li><li>• Sales</li><li>• Word Basic</li></ul>		
Level 1				Dam Operator	Handyman		Water Sampler		Fitter				NRW Field Assistant (Crew)				Desludging Operator	<ul style="list-style-type: none"><li>• Self Supervision</li><li>• Decision Making</li><li>• Basic Language Skills</li><li>• Social Media Basic</li></ul>	



# MEET OUR TEAM





# SHELDON AMAN

## TRAINING CENTRE MANAGEMENT



- Facilities Rental
- Operation and Event Executive
- Vendor Management
- Debt Reporting
  - Mobile: 012-8083236
  - Email: sheldonn@iwk.com.my



# SARA NAZLI

## TRAINING PROGRAMMES



- International Study Visit
- Confine Space for Authorised Entrant and Stand by Person (AESP), Safety Passport, Malaysian Sewerage Industry Guidelines (MSIG) and Debt Collection Agents (DCA)
- Customizing planning, design and operation modules
- Sewerage Construction Manager (SCM): CIDB collaboration
- Trenchless Technology, Treatment Concepts, Processors and Customized in-house programme
- Customizing programmes & Module development
- Networking with learning organizations and associations
- NIOSH, DOSH, EIMAS and DOE liaison
  - Mobile: 012-2892532
  - Email: [noorzni@iwk.com.my](mailto:noorzni@iwk.com.my)





# AMY TALIB

## PAYMENT PROCESSING

- General Administration
- Quotations, Invoicing, Receipts and Finance Liason
  - Mobile: 017-2301571
  - Email Address: [jamiahib@iwk.com.my](mailto:jamiahib@iwk.com.my)





# STEVE JOSEPH

## TRAINING CENTRE SUPPORT



- Training Facilities
- Event Planning
- Food Arrangements
- Transportation Requests
  - Mobile: 011-51828182
  - Email: [stephenj@iwk.com.my](mailto:stephenj@iwk.com.my)



# HIGHLIGHTS OF OUR MAIN TRAINING COURSES

## PLANNING



- Malaysia Civil Engineering Standard Method of Measurement (MyCESMM)
- Planning of Sewerage Systems
- Plant Integration and Planning
- Hazard & Operability Studies for Sewerage System (HAZOP)
- Environmental Impact Assessment for Sewerage Systems (EIA)
- Sewerage Construction Manager: CIDB Module A : General Management



## DESIGN

- Construction of Sewers
- Construction of Sewerage Treatment Plants
- Sewer Design
- Hydraulic Energy and Flow Resistance in Sewer Design
- Pump & Pumping System
- Design of Pump Station
- Basic Septic Tank Design
- Introduction to Sludge Treatment and Disposal
- Tertiary Process in Sewerage System
- Activated Sludge System
- Testing & Commission of Sewerage Systems
- Introduction to Mechanical and Electrical Design for Sewerage Systems
- Sewerage Construction Manager: CIDB Module B: Sewerage Treatment Process Concepts
- Sewerage Construction Manager: CIDB Module D : Civil & Structural



## OPERATION

- Desludging Work and Know your Tanker
- Introduction to Operations & Maintenance of Sewerage Systems
- Introduction to Treatment Plant Operation
- NIOSH Authorised Entrant / Stand-by Person (AESP)
- Chemical Safety Management
- Flow Measurement Systems & Applications
- Process Optimization and Energy Conservation
- Operating Network Pump Stations
- Extended Aeration System
- Operating Sequence Batch Reactor
- On-site Measurement and Testing of Process Control for Sewage Treatment
- Troubleshooting and Process Control for Sewage Treatment
- Sewage Sampling Techniques and Records
- Sewerage Construction Manager: CIDB Module C : Mechanical & Electrical



## GENERAL

- Safety Passport Programme
- Occupational Safety and Health Hazards at Workplace
- Health and Safety Awareness for Managers and Supervisors
- Fecal Sludge Management Field Study
- Sewerage Journey in Malaysia Study Visit
- Urban Centralized Sewage Treatment Plants Showcase
- Non-Mechanical Sewerage Management Exploration
- Debt Consulting Agents
- Defensive Driving
- Confined Space Awareness
- Sewerage Policies and Procedures
- Chemical Safety Management
- First Aid Certification Programme
- Train the Trainer
- Effective Management of Effluent and Wastewater Treatment

See our full calendar for more programmes at [www.iwk.com.my](http://www.iwk.com.my)

## HOW WE CUSTOMISE OUR PROGRAMMES (SAMPLE)

DIAGNOSE TRAINING NEEDS	DESIGN THE RIGHT TRAINING SOLUTION	DELIVER EFFECTIVE TRAINING
MODULE A	GENERAL MANAGEMENT	4 DAYS
MODULE B	SEWERAGE TREATMENT PROCESS CONCEPTS	3 DAYS
MODULE C	MECHANICAL & ELECTRICAL FOR THE SEWERAGE INDUSTRY	3 DAYS
MODULE D	CIVIL & STRUCTURAL STANDARDS FOR THE SEWERAGE INDUSTRY	3 DAYS



## OBJECTIVES

**IMPROVING** the quality of sewerage works through management of qualified sewerage personnel to increase value of bio-products: effluent, solids and gas.

**RECOGNIZING** the role of sewerage personnel through training and certification as well as increasing innovation in environmentally effective products and services.

**MEETING** the registration and accreditation requirements of the relevant authorities as well as introducing potential bio-products marketing.

## TRAINING MODULES

Our programmes are divided into 4 areas of planning, design, operation and general. This is a sample people capacity building program for the sewerage sector:-

**Module A : General Sewerage Management**

**Module B : Sewerage Treatment Process Concepts**

**Module C : Mechanical & Electrical for Sewerage Industries**

**Module D : Civil & Structural Standards for the Sewerage Industry**

## VENUE

Training will be conducted at INDAH WATER TRAINING CENTRE, KUALA LUMPUR and can also be customized at your organization locally or internationally.

## MEDIUM OF TEACHING

Training can be conducted both in **Bahasa Malaysia and English**. Translator also available.

## MODULE A GENERAL MANAGEMENT

PACKAGE	CODE	CORE SUBJECTS & SUBJECTS	DURATION
PACKAGE A1: REGULATORY REQUIREMENT	RR1-1	Environmental Quality Act	Half Day
	RR1-2	Sewerage Services Act	
	RR1-3	Licensing of Contractors	
	RR1-4	Product Registration	
	RR1-5	Compounding of Offences Regulation	
	RR1-6	Charges Regulation	
	RR1-7	Standard & Guidelines	
PACKAGE A2: HUMAN RESOURCE MANAGEMENT	HRM1-1	Labour Law	Half Day
	HRM1-2	Industrial Relation Act	
	HRM1-3	Foreign Workers Registration	
	HRM1-4	SOCISO / EPF	
	HRM1-5	Training	
PACKAGE A3: HEALTH & SAFETY AND ENVIRONMENT MANAGEMENT SYSTEM	HS1-1	Introduction to HSE	1 Day
	HS1-2	Legislation (OSHA & FMA) and Related Regulation	
	HS1-3	Principles and Risk Management	
	HS1-4	Construction Hazards and Safe System at Work	
	HS1-5	HSE Management System Elements	



## MODULE A

### GENERAL MANAGEMENT-cont.

<b>PACKAGE A4: CONTRACT ADMINISTRATION</b>	CA1-1	Overview	<b>1 Day</b>
	CA1-2	Contract Conditions	
	CA1-3	Form of Contract	
	CA1-4	Contract Administration-Overview	
	CA1-5	Contract Administration-Post Contract Stage	
	CA1-6	Sub-contract Administration	
	CA1-7	Ethics	
<b>PACKAGE A5: CONSTRUCTION MANAGEMENT</b>	CM1-1	Planning and Scheduling	<b>1 Day</b>
	CM1-2	Material Management and Inventory Control	
	CM1-3	Site Security	
	CM1-4	Surveying and Setting Out	
	CM1-5	Managing Sub Contractors	
	CM1-6	Quality Awareness	
	CM1-7	Specification	

## MODULE B

### SEWERAGE TREATMENT PROCESS CONCEPTS

PACKAGE	CODE	CORE SUBJECTS & SUBJECTS	DURATION
PACKAGE B1: TREATMENT PROCESSORS	TP1-1	Introduction	2 Days
	TP1-2	Imhoff Tank	
	TP1-3	Pond Systems	
	TP1-4	Preliminary & Primary Treatments	
	TP1-5	Secondary Treatments	
	TP1-6	Suspended Growth Systems i) Conventional Activated Sludge ii) Contact Stabilisation Activated Sludge iii) Extended Aeration Activated Sludge iv) Oxidation Ditch v) Sequential Batch Reactor	
	TP1-7	Fixed Film Process i) Rotating Biological Contactors, RBC ii) Trickling Filters	
	TP1-8	Secondary Clarifier	
	TP1-9	Tertiary Treatment	
	TP1-10	Disinfection	
	TP1-11	Testing & Commissioning of Systems	

## MODULE B

### SEWERAGE TREATMENT PROCESS CONCEPTS-cont.

PACKAGE B2: SLUDGE PROCESS	SP1-1	Primary Treatment	1 Day
	SP1-2	Sludge Thickening	
	SP1-3	Sludge Stabilisation	
	SP1-4	Sludge Drying Beds	
	SP1-5	Sludge Lagoons	
	SP1-6	Sludge Mechanical Dewatering Systems	
	SP1-7	Sludge Conveyance	
	SP1-8	Odour Control Facility	
	SP1-9	Tankers Sludge Facility	
	SP1-10	Sludge Disposal Procedures	
	SP1-11	Digesters	



## MODULE C

### MECHANICAL & ELECTRICAL FOR THE SEWERAGE INDUSTRY

PACKAGE	CODE	CORE SUBJECTS & SUBJECTS	DURATION
<b>PACKAGE C1: ELECTRICAL</b>	E1-1	Basic Electricity	2 Days
	E1-2	Circuits, Panel Switchgears, Circuit Breaker and Starters	
	E1-3	Cables and Wiring Regulations	
	E1-4	Earthing and Lighting	
	E1-5	Electrical Circuit Drawing	
	E1-6	Electrical Motors	
	E1-7	Standby Supply	
	E1-8	Supervisory Control And Data Acquisition (SCADA) & Programmable Logic and Control (PLC)	
	E1-9	TNB Supply and Temporary Supply	
	E1-10	Installation Procedures, Testing and Commissioning of Electric Panels	

## MODULE C

### MECHANICAL & ELECTRICAL FOR THE SEWERAGE INDUSTRY-cont.

<b>PACKAGE C2: MECHANICAL</b>	M1-1	Reads and Understand Mechanical Drawings and Construction	<b>1 Day</b>
	M1-2	Installation Procedures for Non-Sewer Pipework	
	M1-3	Pumping Systems and Equipment	
	M1-4	Motors and Drives	
	M1-5	Surge Suppression Systems and Equipment	
	M1-6	Screening Facilities	
	M1-7	Grit and Grease, Screening Disposal Systems	
	M1-8	Aerators, Aeration Systems and Equipment	
	M1-9	Clarifier Equipment	
	M1-10	Disinfection Systems and Equipment	
	M1-11	Flow Measurement Systems and Equipment	
	M1-12	Alarm System and Fire Protection	
	M1-13	Lifting Facilities	
	M1-14	Odour Control Systems and Equipment	
	M1-15	Force Ventilation Systems	
	M1-16	Vacuum system & Equipment	
	M1-17	Sludge Dewatering System and Equipment	

## MODULE D

### CIVIL & STRUCTURAL STANDARDS FOR THE SEWERAGE INDUSTRY

PACKAGE	CODE	CORE SUBJECTS & SUBJECTS	DURATION
PACKAGE D1: SEWER NETWORK	SN1-1	Sewer Alignment, Installation, Handling & Storage	1 Day
	SN1-2	Sewer Manhole and Applications	
	SN1-3	Trenching, Shoring, Backfilling and Reinstatement	
	SN1-4	Utility Survey and Traffic Management	
	SN1-5	Sewer Testing and Commissioning	
	SN1-6	Soil Investigation Report	
	SN1-7	Household Connection	
	SN1-8	Vacuum Sewer	
	SN1-9	Other Techniques e.g. Pipe Jacking, Trenchless Pipe Laying	
PACKAGE D2: TREATMENT WORKS STRUCTURES	TW1-1	Setting Out	2 Days
	TW1-2	Soil Investigation Works	
	TW1-3	Foundations	
	TW1-4	Excavations, Shoring and Backfilling	
	TW1-5	Reinforcement and Concrete Works	
	TW1-6	Water Proofing and Lining	
	TW1-7	Surface Finishes (Plastering, Painting etc.)	
	TW1-8	Infrastructure Works	
	TW1-9	Outfall Protections	



# NIOSH-IWTC PARTNERSHIP



JABATAN KESELAMATAN DAN KESIHATAN PEKERJAAN  
KEMENTERIAN SUMBER MANUSIA  
Department of Occupational Safety and Health  
Ministry of Human Resources  
Araas 1, 3, 4 & 8 Blok D4, Kompleks D  
Pusat Pendaftaran Kerajaan Persekutuan  
62530 W.P. Putrajaya  
Malaysia

Tel : 603-8936 8909  
Faks : 603-8939 2443  
Laman Web : [www.dosh.gov.my](http://www.dosh.gov.my)



Ruj. Tuan:  
Ruj. Kami: JKPP HIE 127/171-7 (P36)  
Tarikh: 22 Disember 2016

Pengarah Urusan  
Indah Water Consortium Sdn Bhd,  
Bukit Jalil Technical Training Centre,  
Sg. Besi Regional Sewage Treatment Works,  
Lot 33519, Bukit Jalil,  
KL-Seremban Highway,  
56000 Kuala Lumpur.

Tuan,

## PENDAFTARAN SEBAGAI PUSAT PENGAJAR BAGI PENGENDALIAN LATIHAN BEKERJA SELAMAT DALAM RUANG TERKURUNG

Dengan hormatnya saya merujuk kepada perkara di atas.

2. Sukacita dimaklumkan bahawa Indah Water Consortium Sdn Bhd adalah layak untuk mengendalikan Latihan Bekerja Selamat Dalam Ruang Terkurung bagi Orang Yang Dibenarkan Masuk (*Authorised Entrant, AE*) dan Orang Menjaga (*Standby Person, SP*) tertakluk kepada syarat-syarat seperti berikut:

- Pendaftaran ini sah untuk tempoh tiga (3) tahun bermula tarikh surat ini;
- Latihan yang dikendalikan hendaklah menggunakan modul standard yang telah diluluskan oleh Jabatan pada 9 Disember 2016;
- Permohonan pembaharuan perlu dihantar tiga (3) bulan sebelum tarikh tamat tempoh sah pendaftaran;
- Latihan hendaklah dilaksanakan di fasiliti yang telah diluluskan sahaja seperti di *Lampiran 1*;
- Latihan hendaklah dikendalikan oleh Tenaga Pengajar Tetap yang telah dilantik oleh Indah Water Consortium Sdn Bhd seperti di *Lampiran 1* atau Tenaga Pengajar sambilan yang masih sah tempoh pendaftaran dengan Jabatan.
- Setiap latihan yang hendak dikendalikan perlu dimaklumkan kepada Jabatan ini sekurang-kurangnya **satu (1) bulan** sebelum tarikh pelaksanaan latihan.



- Indah Water Consortium Sdn Bhd dikehendaki mengemukakan ke Jabatan ini laporan seperti di *Lampiran E1* bagi setiap latihan yang dikendalikan dalam masa lima belas (15) hari selepas tarikh tamat latihan;
- Mengemukakan ke Jabatan ini ringkasan laporan bulanan program latihan yang dikendalikan mengikut format seperti di *Lampiran E2*. Laporan tersebut hendaklah sampai ke Jabatan ini pada minggu pertama bulan berikutnya;
- Kelulusan ini boleh digantung atau ditarik balik pada bila-bila masa atas budi bicara Ketua Pengarah Jabatan Keselamatan dan Kesihatan Pekerjaan Malaysia; dan
- Pihak Jabatan akan membuat pemantauan dari masa ke semasa mengikut kesesuaian terhadap pendaftaran sebagai pusat pengajar latihan bekerja selamat dalam ruang terkurung.

4. Sebarang pertanyaan atau maklum balas, sila hubungi En. Mohd Sabri Bin Salleh di talian Tel: 03 - 88711238 atau emel: [msabri@mohr.gov.my](mailto:msabri@mohr.gov.my).

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

"Pekerja Berkemahiran Penggerak Ekonomi"

Saya yang menurut perintah,

(DATO' Ir. MOHTAR BIN MUSRI)  
Ketua Pengarah  
Jabatan Keselamatan dan Kesihatan Pekerjaan  
Malaysia

s.k: Pengarah Bahagian HIE

# CIDB-IWTC COLLABORATION



Ruj. Kami : LPIPM:SPPK/BPPP/13/4/32 ( 1 )  
Tarikh : 20 Februari 2017

Ir. Mohd Adnan Md Dom  
Ketua Jabatan (Perancangan & Kejuruteraan)  
Indah Water Konsortium Sdn Bhd  
No.44, Jalan Dungun, Damansara Heights  
50450 Kuala Lumpur

Tuan/Puan,

## PROGRAM KOLABORASI DI ANTARA CIDB DAN IWK: PROGRAM PENGURUS PEMBINAAN PEMBENTUNGAN (SEWERAGE CONSTRUCTION MANAGER) BAGI TAHUN 2017

Dengan segala hormatnya merujuk kepada surat pihak tuan IWK/PED/IWTC/CIDB(V3)0117(001) yang bertarikh 16 Januari 2017 berkaitan perkara di atas.

2. Merujuk kepada mesyuarat yang telah diadakan pada 09hb Disember 2016 yang lalu, sukacita dimaklumkan bahawa pihak CIDB tidak mempunyai sebarang halangan untuk bekerjasama dengan pihak IWK bagi penganjuran program Pengurus Pembinaan Pembentungan (*Sewerage Construction Manager*). Sehubungan dengan itu, berikut ialah persetujuan yang telah dicapai oleh kedua-dua pihak dalam mesyuarat tersebut:-

- Pihak IWK perlu mengisi dan memohon mata *Continuous Contractor Development* (CCD) untuk setiap program yang akan dijalankan sepanjang tahun 2017. Borang permohonan yang telah lengkap diisi perlu dihantar kepada Bahagian Pembangunan Kompetensi sekurang-kurangnya 2 minggu sebelum tarikh program akan berlangsung.
- Pihak IWK mendapat pengecualian fi proses sebanyak RM53/program bagi permohonan mata *Continuous Contractor Development* (CCD).
- Pihak IWK juga perlu mengemukakan nota atau modul program kepada Sektor Pembangunan Personel dan Kontraktor dan Pengurusan sekurang-kurangnya 2 minggu sebelum tarikh program akan berlangsung untuk tujuan pengesahan dan rekod.
- CIDB mengiktiraf program ini di mana logo CIDB akan dicetak di dalam Sijil Kehadiran dan Sijil Pencapaian dan ditandatangani oleh Pengurus Besar Kanan, Sektor Pembangunan Personel dan Kontraktor.
- Sijil Pencapaian dan Perakuan Kecekapan Pengurusan (PKP) hanya akan dikeluarkan kepada peserta program yang telah lulus kesemua modul latihan.
- CIDB dan IWK bersetuju untuk berkongsi data dan statistik bulanan peserta yang telah mengikuti program Pengurus Pembinaan Pembentungan (*Sewerage Construction Manager*).

LEMBAGA PEMBANGUNAN INDUSTRI PEMBINAAN MALAYSIA  
IBU PEJABAT  
Ingkat 10, Menara Dato' Onn, Pusat Dagangan Dunia Putra,  
No.45, Jalan Tun Ismail, 50450 Kuala Lumpur, MALAYSIA  
T: 603-4047 7000 F: 603-4047 7110 www.cidb.gov.my



Ruj. Kami : LPIPM:SPPK/BPPP/13/4/32 ( )  
Tarikh : Februari 2017

g. Kerjasama CIDB dan IWK ini adalah untuk tempoh 2 tahun dan akan berakhir pada 01hb Februari 2019.

3. Kerjasama CIDB dan IWK bagi Pengurus Pembinaan Pembentungan (*Sewerage Construction Manager*) ini adalah untuk tempoh 2 tahun dan akan berakhir pada 01hb Februari 2019. Kerjasama ini juga tertakluk kepada terma dan syarat yang telah ditetapkan oleh pihak CIDB sepertimana di Lampiran A. Sila lengkapkan Borang Jawapan seperti di Lampiran B dan kembalikan ke Sektor Pembangunan Personel dan Kontraktor dengan kadar segera.

4. Kerjasama pihak tuan adalah diharapkan agar dapat memaklumkan kepada CIDB bagi tarikh cadangan pelaksanaan program, yang akan diadakan dari masa ke semasa. Pihak CIDB berharap agar kerjasama yang telah terjalin akan memberikan kebaikan kepada industri pembinaan amnya.

Segala kerjasama didahulukan dengan ucapan terima kasih.

Sekian.

'MEMBINA KEJAYAAN ANDA'

MOHD NAZLI AHMAD MAHYADIN  
Pengurus Besar Kanan  
Sektor Pembangunan Personel dan Kontraktor  
b.p. Ketua Eksekutif  
Lembaga Pembangunan Industri Pembinaan Malaysia

# JPK-IWTC ACCREDITATION

E 19301



**JABATAN PEMBANGUNAN KEMAHIRAN**  
**DEPARTMENT OF SKILL DEVELOPMENT**

**SIJIL AKUAN PENTAULIAHAN PUSAT LATIHAN SLDN**  
**CERTIFICATE OF ACCREDITATION TRAINING CENTRE NDTs**

Bahawa dengan ini diperakui  
*It is hereby certified that*

**INDAH WATER TRAINING CENTRE** (Kod Pusat : PD5900)  
LOT 33519, BUKIT JALIL, Centre Code  
KL-SEREMBAN HIGHWAY,  
56000 KUALA LUMPUR.

telah didaftarkan untuk menawarkan, mentadbir dan melaksanakan mutu Sistem Latihan Dual Nasional bagi bidang latihan pekerjaan :

*has been registered to offer, administer and assure the quality of National Dual Training System of the following training occupation(s):*

Bil.	Program / Programme	Kod / Code
1.	OPERASI RAWATAN KUMBAHAN	CM-031-2:2014
2.	PENYELIAAN RAWATAN KUMBAHAN	CM-031-3:2014
3.	PENYELIA AWAM & STRUKTUR	CVS3

Tempoh : 26 JANUARI 2017 - 25 JANUARI 2020  
*Duration*

Kelulusan ini adalah tertakluk kepada syarat-syarat seperti yang ditetapkan oleh Ketua Pengarah Pembangunan Kemahiran.

*This approval is subject to terms and conditions set by the Director General of Skills Development.*

  
  
Ketua Pengarah  
Tarikh :  
Date **26 JAN 2017**

E 19301



**JABATAN PEMBANGUNAN KEMAHIRAN**  
**DEPARTMENT OF SKILL DEVELOPMENT**

**SIJIL AKUAN PENTAULIAHAN SYARIKAT SLDN**  
**CERTIFICATE OF ACCREDITATION COMPANY NDTs**

Bahawa dengan ini diperakui  
*It is hereby certified that*

**INDAH WATER KONSORTIUM** (Kod Syarikat : SD7860)  
NO.44, JALAN DUNGUN, Company Code  
DAMANSARA HEIGHTS,  
50490 KUALA LUMPUR.

telah didaftarkan untuk menawarkan, mentadbir dan melaksanakan mutu Sistem Latihan Dual Nasional bagi bidang latihan pekerjaan :

*has been registered to offer, administer and assure the quality of National Dual Training System of the following training occupation(s):*

Bil.	Program / Programme	Kod / Code
1.	OPERASI RAWATAN KUMBAHAN	CM-031-2:2014
2.	PENYELIAAN RAWATAN KUMBAHAN	CM-031-3:2014
3.	PENYELIA AWAM & STRUKTUR	CVS3

Tempoh : 26 JANUARI 2017 - 25 JANUARI 2020  
*Duration*

Kelulusan ini adalah tertakluk kepada syarat-syarat seperti yang ditetapkan oleh Ketua Pengarah Pembangunan Kemahiran.

*This approval is subject to terms and conditions set by the Director General of Skills Development.*

  
  
Ketua Pengarah  
Tarikh :  
Date **26 JAN 2017**



# Sample International Study Visit Programmes: FECAL SLUDGE MANAGEMENT (FSM)

## ► “Toilet to Tap”

## ► We have 7 main programmes under FSM:-

- Fecal Sludge Management
- Sewerage Journey in Malaysia
- Non-Mechanical Sewerage Management
- Urban Centralized Treatment Plants
- Fleet Management
- Effective Management of Effluent and Wastewater Treatment
- River Management

## ► Total participants since 2005 is 309

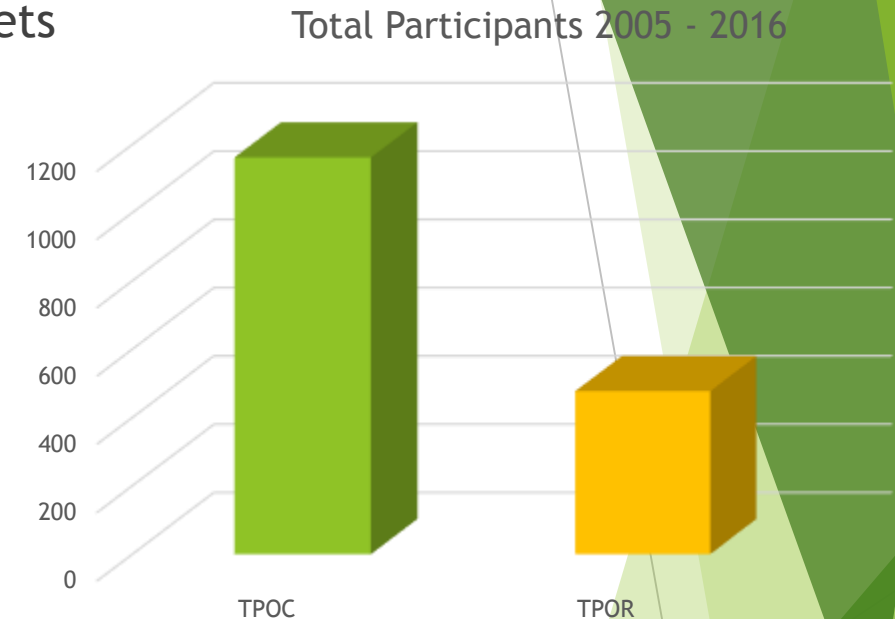


Continent	Countries
Asia	10
Africa	2
Middle East	4
Pacific	2



# Sample Internal Technical Programmes: TREATMENT PLANT OPERATORS (TPOC)

- ▶ We have 4 Programmes under TPOC to self-regulate IWK's assets redesigned starting 2016 to meet the needs of 7,000 STP operations
  - Awareness
  - Basic
  - Intermediate
  - Advanced (CePSTPO preparation with DOE)
- ▶ We have 1162 TPOC assessed with 482 to be certified as to date.

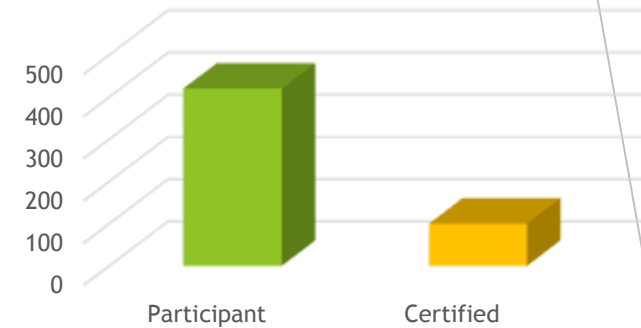




# Sample Collaboration Programmes: SEWERAGE CONSTRUCTION MANAGER WITH CIDB

- ▶ IWK and CIDB have designed this programme in 2008 and rebooted in 2016 to improve all aspects of the industry especially sewerage management construction.
- ▶ A total number of 450 number of participants with 102 confirmed SCM have participated and certified.

SCM CIDB at IWTC (Total)

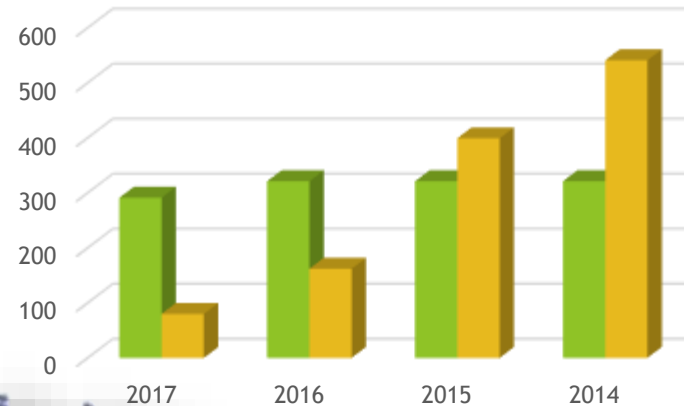


# Sample Accredited Programmes: Confined Space Course with NIOSH

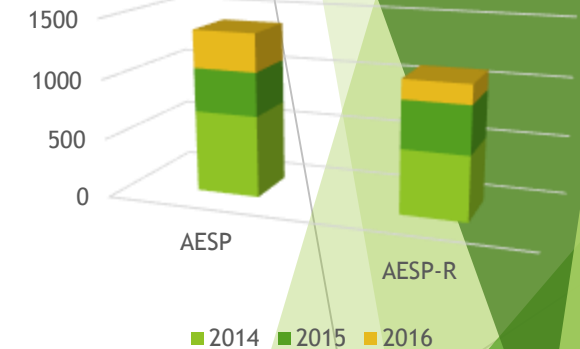


- IWTC has conducted confined space training for over 500 contractors within the sewerage industry
- In 2016, an MOA between NIOSH & IWTC was signed with training conducted by IWTC and assessment by NIOSH
- For the year 2017 until January 2019, IWTC has managed to train 657 contractors with 99% passed rate.

AESP & AESP-R at IWTC (2014 - July 2017)



AESP & AESP-R at IWTC (Total)

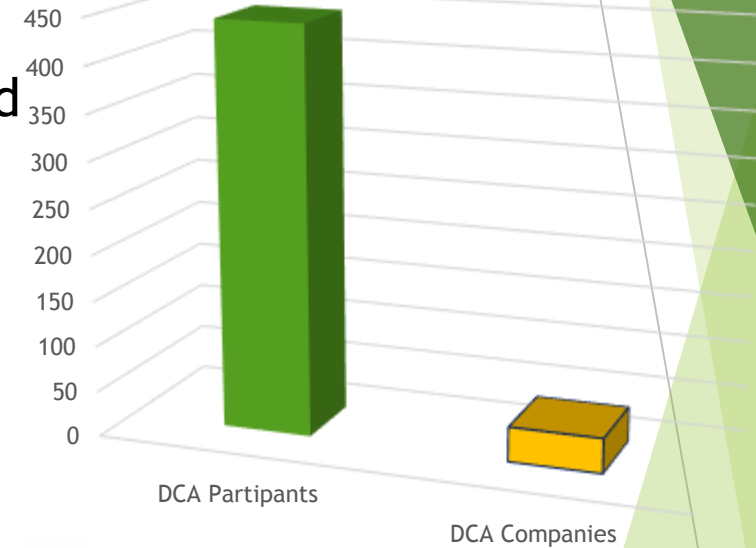




# Sample External Programmes: DEBT CONSULTANT AGENT (DCA)

- ▶ The DCA programme with IWTC consists of profiling skills, basic training on negotiations, the fee structures of IWK services for the four user-categories: Domestic, Commercial, Industrial & Government, and a supervised field visit for the agents starting 2016.
- ▶ A total number of 460 number of agents from 38 DCA companies have participated.

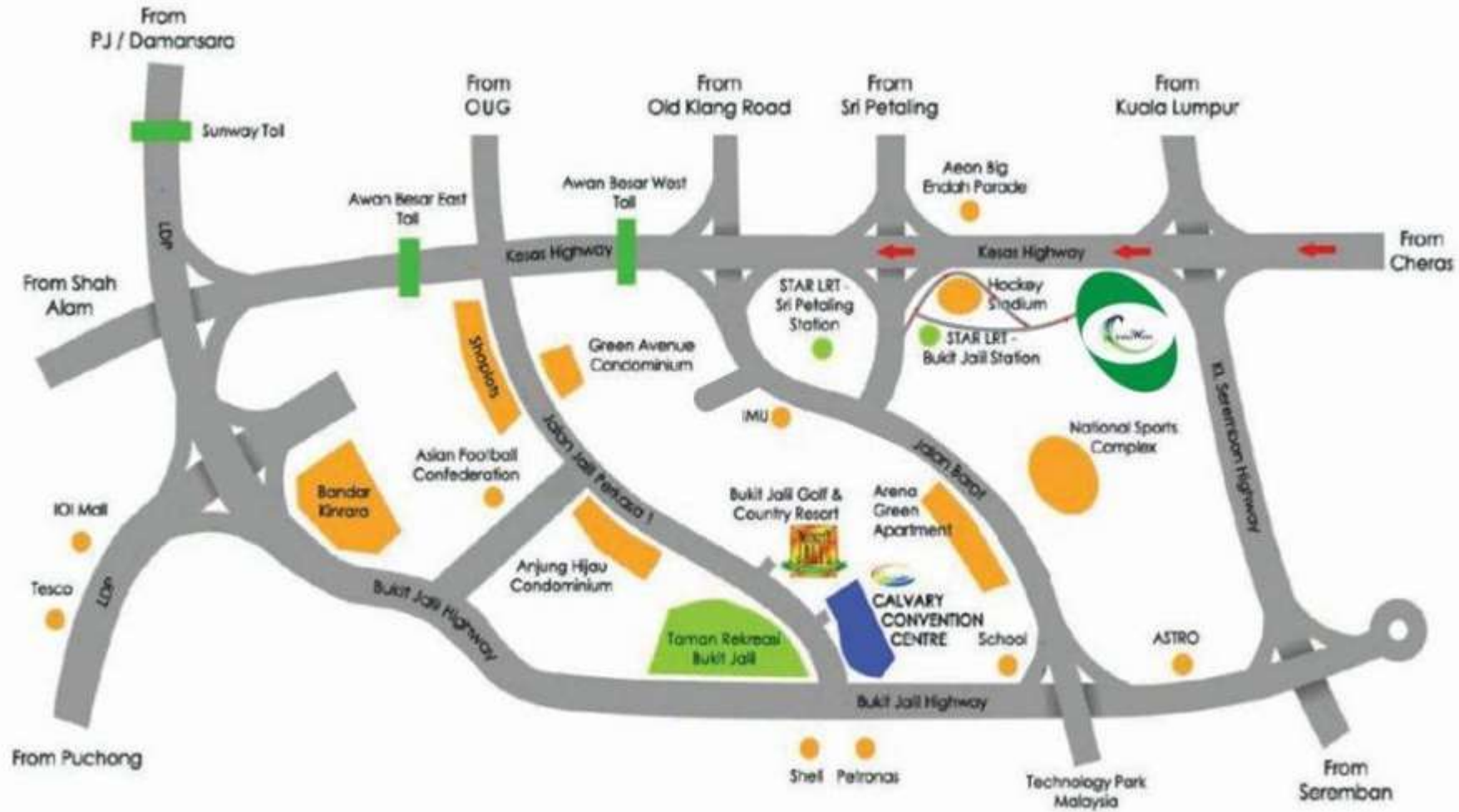
BCD's DCA at IWTC (Total)



## **WHY CHOOSE US**

- **More than 100 sewerage programmes available**
- **Over 38 organizations, 6500 participants since 2012**
- **Assessment centre for AESP, SP, DCA and MSIG programme**
- **Your sewerage training provider & mentor in Asia and Africa**

# WHERE WE ARE AT



# IWTC RESOURCES

TRAINING ROOM	CAPACITY
KASAWARI	60 PAX
HELANG 1	30 PAX
TEMPUA	16 PAX
MERAK	28 PAX
MERBOK	24 PAX
MERPATI	18 PAX

OTHERS	QUANTITY
SURAU	1-FEMALE 1-MALE
PARKING LOT	50 BAYS
TOILET	1-FEMALE 1-MALE
MOCK FACILITIES	1. CONFINED SPACE SIMULATION 2. SEPTIC TANKS OF VARIOUS SIZES AND TYPES 3. SUPERVISORY CONTROL AND DATA ACQUISITION (SCADA) 4. SEWER LINES 5. PUMP STATIONS
SEWERAGE TREATMENT PLANT	SG. BESI WITH LAB
FOOD AREA	1 BANQUET AREA (80 PAX)





# IWTC FACILITIES



SEWERAGE TREATMENT  
PLANT SITE VISIT



LAB VISIT



MOCK FACILITY  
CONFINED SPACE



PRODUCT DISPLAY



TRAINING ROOM



EQUIPMENT DISPLAY



BANQUET AREA



SCADA ROOM



TRUCK DISPLAY



FOOD & BEVERAGES



EXECUTIVE COACH



SURAU



# CONTACT US TODAY:

## Indah Water Training Centre (IWTC)

Sg. Besi Regional Sewage Treatment Works

Lot 33519, Bukit Jalil

KL-Seremban Highway

56000 Kuala Lumpur

Tel: 603-8996 7511/14 (Sara)

Fax: 603-8994 3032

Email: [noorzni@iwk.com.my](mailto:noorzni@iwk.com.my) / [ruhaidahh@iwk.com.my](mailto:ruhaidahh@iwk.com.my)

[www.iwk.com.my](http://www.iwk.com.my)

