



# Sustainability Report 2010

Achieving Excellence through Innovation



This Edition Uses Recycled Paper

EVEN A

# SMALLEST DROP

MAKES A DIFFERENCE

Sewerage services provided by IWK help preserve our natural water resource,  
the environment and public health



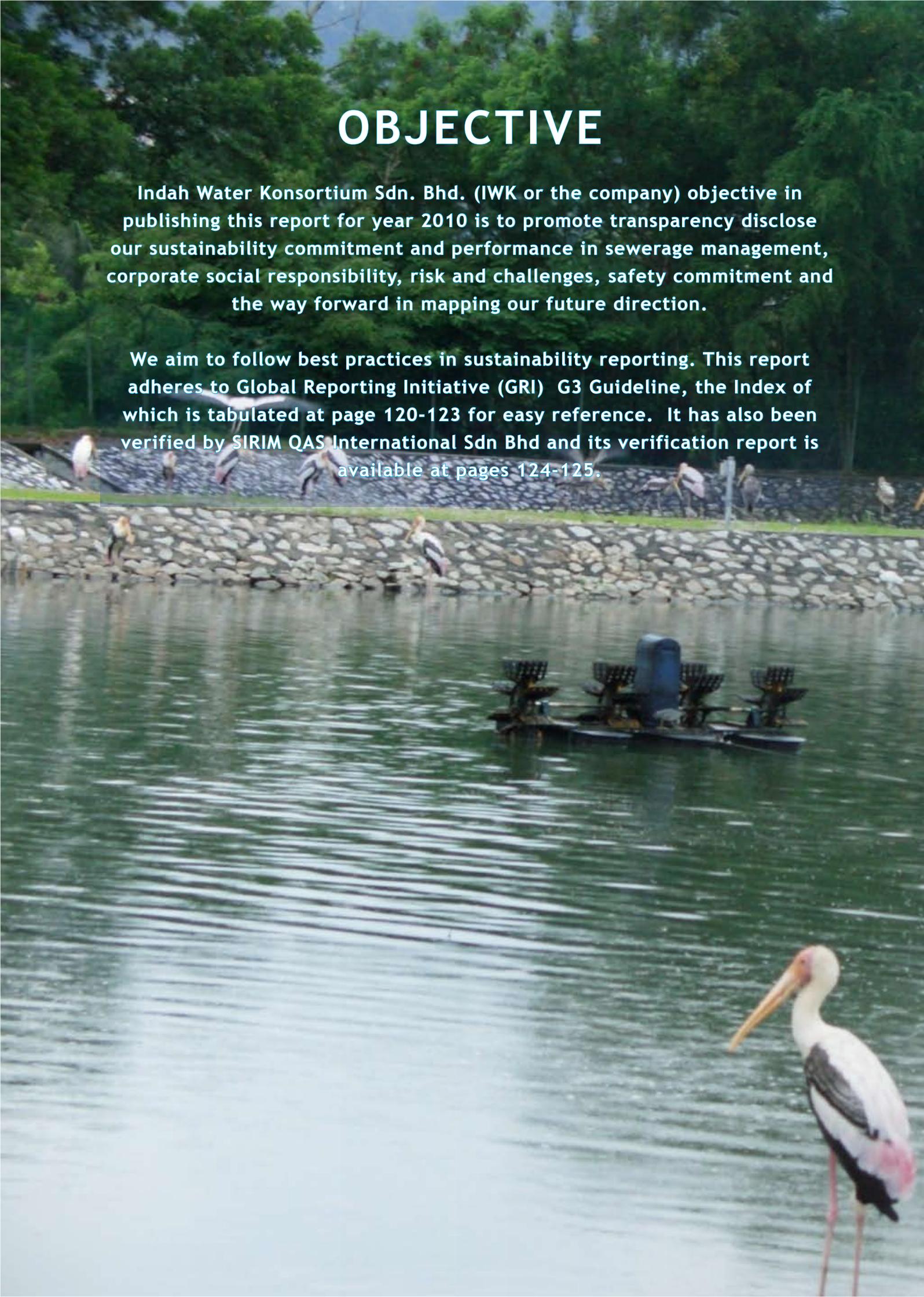
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# OBJECTIVE

Indah Water Konsortium Sdn. Bhd. (IWK or the company) objective in publishing this report for year 2010 is to promote transparency disclose our sustainability commitment and performance in sewerage management, corporate social responsibility, risk and challenges, safety commitment and the way forward in mapping our future direction.

We aim to follow best practices in sustainability reporting. This report adheres to Global Reporting Initiative (GRI) G3 Guideline, the Index of which is tabulated at page 120-123 for easy reference. It has also been verified by SIRIM QAS International Sdn Bhd and its verification report is available at pages 124-125.





# IWK at a Glance

- Established in 1994 as a privatised national sewerage company.
- Wholly-owned by the Minister of Finance Incorporated since 2001.
- Provides sewerage services to 87 Local Authorities within Peninsular Malaysia and Labuan except for the States of Kelantan, Johor Bahru and Pasir Gudang Municipal Areas, Ketengah and Kejora Local Authority Areas.
- Our headquarters is located at Pusat Bandar Damansara, Kuala Lumpur.
- We have 18 unit offices, 51 reporting centres and 3 regional laboratories nationwide.

## Vision

“To Be The Most Efficient & Environmental Caring Sewerage Company”

## Mission

“We Are Highly Committed to Provide Efficient Sewerage Services to All Customers Besides Striving Towards Developing The National Sewerage System That Will Collectively Contribute Towards A Sustainable & Friendly Environment”.



# .....Indah Water Services.....



## Operation & Maintenance of Public Sewerage Systems

Provide regular and scheduled operation and maintenance of 14,342 km of public sewers, 778 pumping stations and 5,605 public sewage treatment plants within service areas. Provide corrective and preventive maintenance of public sewers, network pump stations, sewage and sludge treatment facilities to meet the regulatory requirements.

## Septic Tanks Desludging Services

Scheduled desludging services for government offices' communal septic tanks and responsive desludging of communal and individual septic tanks.



## Monitoring of Effluent Quality and Sludge Disposal Activities

Sampling, analysis, and monitoring of effluent quality and sludge disposal activities. Effluent compliance data submitted to DOE and SPAN.



## Sewerage Capital Works and Refurbishment Management

Sewerage project management, monitoring on compliance of capital works and refurbishment of national and regional sewerage projects.





### Research and Development (R&D) Works in Sewerage Sector

In-house R&D works and Continuous Improvement Projects, External Vendor Led R&D, Structured Institutional/Universities R&D, and Academia's Student Research Initiatives.

### Sewerage Technical and Operational Skills Training

Professional technical and non-technical training on sewerage planning strategy, engineering, environmental monitoring and analysis, operational, preventive maintenance, health and safety in sewerage systems, etc. Local and international training on sewerage management and operation /maintenance.



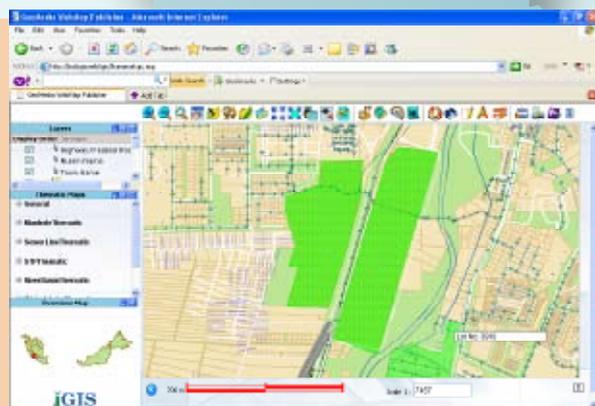
### Sewerage Technical and Environmental Services / Consultancy Works

- International consultancy on sewerage management, policy, public awareness, etc.
- Conduct audit of sewerage systems/company's (international projects, Indonesia, Middle East, etc)
- HAZOP studies for water and wastewater industries



### Sewerage Planning, Sewerage Asset Data Monitoring and Certifying Services

- Planning Services: development and up keep of nationwide sewerage catchment strategy, sludge management strategy, sewerage project planning, sewerage asset database, GIS system and mapping, etc.
- Certification Services: evaluating, certifying and approving of sewerage facilities application on behalf of the Commission (SPAN).



## ..... The Chairman Speaks.....



**Dato' Ibrahim Mahaludin bin Puteh**  
Chairman

On behalf of Indah Water Konsortium Sdn Bhd's Board of Directors, I am indeed honoured to be asked to present this Corporate Sustainability Report for 2010. This report depicts our relentless drive towards propagating transparency in our business performance, sustainability commitment, CSR activities, risks and challenges throughout 2010.

IWK's first Corporate Sustainability Report was published in 2009, which documented 13 years of IWK accomplishments in the sewerage sector from the time we started our operations in 1994. The 2009 report showcased the nation's sewerage evolution and development over the 13-year period. The second report published in 2010 entitled 'Sustainability Report 2008 - 2009, Towards A Green Agenda' focused on our green initiatives and performance accomplishments in 2008 and 2009. We are indeed honoured that both our previous sustainability reports were short-listed for the ACCA Malaysia Sustainability Reporting Awards (MaSRA) for 2009 and 2010. We are committed to operate a sustainable, transparent and socially responsible business to preserve the environment, safeguard water resources and protect public health. These reports are our testament, as we continuously strive to fulfill these commitments.

Our latest report is titled 'Corporate Sustainability Report 2010, Achieving 'Excellence through Innovation'. The 2010 report attempts to provide a comprehensive corporate outlook of IWK, the company services, core values and environmental policy framework. It further highlights our workforce and stakeholder's engagement, sustainability and corporate social responsibility initiatives, performance, risks, challenges, health and safety obligations in our day-to-day operations, achievements and awards that were bestowed and our future direction.

We have adhered to the GRI framework and incorporated the GRI-G3 index listing and our report has been audited by SIRIM QAS International Sdn Bhd. The SIRIM audit verification report is enclosed in page 124-125. The publication of the sustainability reports over the years have kept our stakeholders informed of our corporate direction, goals, performance, achievements and challenges that are faced by IWK. Thus enhancing the transparency in our communications and business practices.

“ IWK has been pursuing the 3R (Reuse, Recycle and Reduce) concept for Bio-Effluent, Bio-Solids and Bio-Gas ”



IWK fully supports the Government’s keen interest in implementing the ‘Green’ agenda. Over the years, we have invested substantially on Research and Development with particular focus on converting waste to wealth. We have also been pursuing the 3R (Reuse, Recycle and Reduce) concept for Bio-Effluent, Bio-Solids and Bio-Gas.

The year 2010 was another challenging year for all of us at IWK. Nevertheless, we will continue to strive towards improving our performance by inculcating innovations and implementing improvement projects as part of our corporate culture in line with our motto this year ‘Achieving Excellence Through Innovation’.

Publishing our achievements is a means of demonstrating our commitment towards operating a sustainable, transparent and socially responsible business. I am pleased to hereby present IWK’s ‘2010 Corporate Sustainability Report: Achieving Excellence through Innovation’.

**Dato’ Ibrahim Mahaludin bin Puteh**  
Chairman

## ..... The CEO's Statement.....



**Datuk Ir. Abdul Kadir bin Mohd Din**  
Chief Executive Officer

For more than 16 years, IWK has believed that efficient sewerage service will only be meaningful if it brings value to the users. Our corporate philosophy is not merely providing cost effective and efficient service but more importantly to improve the quality of life of each and every user. Our main area of focus has been to operate and maintain the public sewerage systems at an optimum level despite the financial constraints due to the low sewerage tariff and escalating operating costs. Notwithstanding these limitations, we have been relentlessly striving to fulfill our obligations of improving the existing business of operating and maintaining 14,342 kilometres of public sewer networks, 5,605 public sewage treatment plants, 778 network pump stations and providing desludging service to over 100,000 individual septic tanks owners.

Having served slightly more than a year, I have come to realise that long term mechanisms are required to ensure sustainability of the existing business and to generate new business. We have to capitalise on our vast experience and invaluable expertise to achieve our goals. We are determined to fully utilise the talents of all our employees as they are the real asset of IWK. These ambitious agenda and initiatives inevitably need the support of many parties, which is why we are actively involved in the Government's transformational machineries, namely PEMANDU (Performance Management Delivery Unit), ETP (Economic Transformation Programme), NKRA (National Key Result Areas) and PEMUDAH (taskforce to address bureaucracy).

As we progress, we are committed to doing the right thing by providing cost effective and efficient service to all users. We will continue our education programmes and awareness campaigns on the vital need to preserve our environment, safeguard our water resources and protect public health.



### The Year 2010 - A Summary

Here are some of our achievements:

- 99.6% of 9,634 requests for clearing of blockages within the private premises were resolved within 48 hours;
- 96.4% of 22,184 requests for clearing of blockages along public sewerage pipes were resolved within 24 hours;
- 95.4% of 1,849 complaints on overflowing manholes were resolved within 24 hours;
- 93.0% of 454 feedbacks on missing manhole covers were replaced within 12 hours;
- 99.5% of the 329,625 billing enquiries received were resolved within the Level of Service according to the respective enquiry type; and
- 3,867 public sewage treatment plants (including communal septic tanks) had been refurbished at a total cost of RM437 million.

We implemented 130 outreach programmes, as follows:

- Briefing to 44 schools, National Services Training Camps and Government Responsibility Centres in Kedah, Penang and Terengganu: Perpetual and long term initiatives to educate future customers to appreciate IWK's role and the importance of efficient sewerage systems;
- Participated in 50 exhibitions in schools, National Service Training Camps, Asia Water, World Water Day, IGEN and environmental as well as health awareness campaigns organised at state level: Pictorial and sample (effluent/sludge) exhibits to facilitate and reinforce consumers understanding and appreciation of the nations' sewerage systems;
- Attended to 42 requests from schools, university, National Services Trainees and Councillors from Padawan, Sarawak as well as foreign visitors for observation tour at sewage treatment plants: Hands-on experience for students and potential business partners in sewerage developments on the technical aspects of mechanised sewerage systems;
- Organised 8 community events and 5 stakeholder events: Corporate Social Responsibility activities to help communities to preserve the environment and inculcate healthy living. Also organised friendly recreational sports to foster rapport with Government agencies; and
- Television programmes with TV3 for Majalah 3, Bersamamu and 1 capsule on sewerage services in Buletin Utama as well as RTM1- Galeri Perdana to educate consumers/viewers on sewerage services and IWK's community services: Awareness and educational programmes targeted at general public/viewers on IWK's critical role and services provided.

## ..... The CEO’s Statement.....



We also received recognition from the following institutions:

- Shortlisted for ACCA’s Corporate Sustainability Report 2010: There were 53 entries and 13 stand-alone sustainability reports as well as 7 shortlisted annual reports; IWK was one of the 7. Most of the entries were prepared by full-fledged consultants, whilst IWK’s report was economically prepared in-house by the Environmental Management Unit under the Planning & Engineering Department and reviewed by Senior Management; and
- Ethical Business Excellence Award 2010/2011: The Award had 32 principles of assessment and attracted 55 submissions. IWK was among the recipients of the Recognition Certificate.

### Our Regional Footprint

- 2010 Waterlinks Award: The first WaterLinks Awards on 5 May 2010, was presented to deserving water utilities for exemplary performance. The twinning partnership between PDAM Tirtanadi in Indonesia and IWK, facilitated by United States Agency for International Development (USAID-ECO Asia), received the WaterLinks Award for Outcome;
- Forums: IWK was invited by Asian Development Bank (ADB), Ministerial Conference of Environment and Development (MECD) and United States Agency for International Development (USAID) to present and share success stories in various forums within the country and abroad, including Indonesia, Philippines, South Korea and Kazakhstan on our sewerage management capabilities; and
- Consultation: IWK was also sought after by Oman, Philippines, Bangladesh, Vietnam and Indonesia on our experiences and achievements in providing sewerage services to over 20 million users in Malaysia.

### Moving Forward

As we usher in 2011, we have strategized specific programmes to transform the business from a utility to resource based and pursue viable opportunities towards long term sustainability. We are convinced that building sustainability into our corporate culture creates long term strategic advantages of reducing cost, driving innovation, minimising risks and motivating employees to boost productivity. The employees are highly geared to embark on innovative initiatives and enhancement of technologies in line with the New Year’s motto of achieving “Excellence through

**Innovation**". We will continue exploring the value-added economic activities related to Green Technology of reusing sludge, recycling treated effluent and generating energy from gas. We have initiated operational improvements by adopting cost effective technologies to increase sewage and sludge treatment efficiencies through bio-technology, nano-technology and microbiology.

#### **Appreciation**

We say '**Thank You**' to the users who are our customers for paying their sewerage bills promptly. We would not be able to maintain our consistent cumulative collection record of 80% without their continuous support and cooperation. For that, we would like to reassure our customers of our commitment to continue to provide efficient and effective sewerage services.

We would like to record our gratitude and appreciation to the Sewerage Services Department and National Water Services Commission for their stewardship of the national sewerage development.

We would like to convey our appreciation to our employees for their loyalty and dedication. As a token of our appreciation, we have presented 'Long Service Awards' throughout the country throughout the year. We have also re-launched Kelab Indah Water as a platform for employee related functions and activities. Working together, we can look forward to an even more productive year ahead.

Finally, we wish to extend our sincere appreciation to our regulators, business associates, business partners, clients and government authorities for their strong support throughout the years.



**Datuk Ir. Abdul Kadir Mohd Din**  
Chief Executive Officer

# .... Indah Water’s

## Core Values.....

Our core values are based upon the name ‘INDAH WATER’ which stands for the following 10 values. ‘INDAH’ is a Malay word for beautiful, whilst ‘WATER’ is our core business to ‘beautify’ wastewater which means to add value and improve water quality by reducing pollutants to meet regulatory standards and improve public health and environmental concerns.

<p><b>I</b>ntegrity Uphold professional responsibilities and accountabilities in a trustworthy manner.</p>	<p><b>N</b>urture Provide diverse training programmes and hands on training facilities for workforce and the overall sewerage industries.</p>	<p><b>D</b>edication Committed at all times to deliver quality sewerage services and output.</p>	<p><b>A</b>stute Apply knowledge, practical experience, holistic overview and effective decision making to ensure sustainable sewerage development and environmental protection</p>	<p><b>H</b>olistic Holistic approach and management of sewerage development and environmental protection.</p>
<p><b>W</b>isdom Provide timely appropriate recommendation and problem solving actions/output</p>	<p><b>A</b>uthentic Ethical and devoted to enlighten sewerage activities for safety, health and environmental protection</p>	<p><b>T</b>eamwork A corporate effort of many expertise and support with one mind</p>	<p><b>E</b>ndeavour Act by available means and resources to upkeep sustainable sewerage development and environmental awareness to all stakeholders</p>	<p><b>R</b>esourceful Systematic planning, development, implementation and monitoring to ensure stakeholders satisfaction</p>

# .... Environmental Policy Framework ....

Our company policy and working culture which centres around the term 'sewerage' that we manage;

**S**

**Sustainable Service**

Indah Water is totally committed towards providing total sewerage services sustainable in terms of social, environment and economic balances;

**E**

**Environmental Friendly**

Indah Water provides services, which are consistently carried out in an acceptable and environmental friendly manner;

**W**

**Waste Management**

Indah Water ensures all waste generated is managed in accordance with the regulatory requirements;

**E**

**Engineering and Operational Excellence**

Indah Water practices good engineering and operational procedures to meet environmental goals;

**R**

**Research and Development**

Indah Water undertakes research and development and also promotes transfer of environmentally sound technology and management methods throughout the sewerage services industry;

**A**

**Adopt Triple R - Reduce, Recycle and Reuse**

Indah Water adopts waste management principles by formulating and enforcing strategies that includes reduce, recycle and reusing of treated water and sludge;

**G**

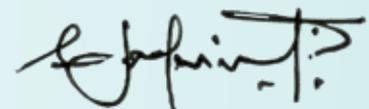
**Good Liaison with Authorities and Customer Friendly**

Indah Water continuously cooperates and work closely with authorities and enforcement agencies to provide support towards improving the environment in its quest to deliver customer friendly sewerage services;

**E**

**Engage in Community Education and Awareness**

Indah Water works closely with the community to disseminate environmental education and instill awareness and understanding on the importance of good sewerage service for the environment.



Datuk Ir. Abdul Kadir Mohd Din  
Chief Executive Officer

## Corporate Governance

IWK is committed to a set of good corporate governance practices to maintain integrity and realise highly transparent and ethical management of the business. IWK continues to champion initiatives to promulgate the best practices with Stakeholders.

The Board of Directors of IWK is the highest decision-making body in the Company and is mandated to perform its role effectively, by setting the strategic direction and providing leadership through oversight, review and guidance to the Company.

### The Board of Directors' Balance and Composition

The Board of Directors of IWK is made up of 9 members, comprising 8 Non-Executive Directors, including the Chairman; and 1 Executive Director. The Board brings to the Company a good mix of management skills with a wealth of experience to ensure balanced and sound business policies, decisions and directions are adopted and implemented.

### List of Board of Directors - Roles and Areas of Expertise / Profession / Experience

No	Name	Role in the Board of Directors	Role in Board Committee (BNRC or AC)	Area of Expertise / Profession / Experience
1	Dato' Ibrahim Mahaludin Bin Puteh	Chairman, Non Executive Director	-	Business Management
2	Datuk Ir Abdul Kadir Bin Mohd Din	Executive Director	-	Civil Engineering
3	Dato' Othman Bin Abdullah	Non Executive Director	Chairman of AC	Banking, Accounting and Finance
4	Datuk Mohd Yusof Bin Hj Zainal Abiden	Non Executive Director	Member of BNRC and AC	Judicial and Legal
5	Dato' Ahmad Faizal Bin Abdul Rahman	Non Executive Director	Member of BNRC	Accounting and Financial Management
6	Datuk Suboh Bin Mohd Yassin	Non Executive Director	Chairman of BNRC	Business Management
7	Dato' Hj Kamil Khalid Ariff	Non Executive Director	Member of BNRC and AC	Business Management
8	Tuan Syed Nasir bin Syed Ahmad	Non Executive Director	Member of AC	Business Administration (International Business)
9	Datuk Nor Azmal bin Mohd Nazir	Non Executive Director	Member of AC	Public Administration

Note : BNRC - Board Nomination & Remuneration Committee

AC - Audit Committee



**Dato' Haji Kamil Khalid Ariff**  
Non-Executive Director

**Dato' Ahmad Faizal bin Abdul Rahman**  
Non-Executive Director

**Datuk Mohd Yusof bin Haji Zainal Abiden**  
Non-Executive Director

**Dato' Ibrahim Mahaludin bin Puteh**  
Chairman  
Non-Executive Director

**Datuk Ir. Abdul Kadir bin Mohd Din**  
Chief Executive Officer  
Executive Director

**Datuk Nor Azmal bin Mohd Nazir**  
Non-Executive Director

**Dato' Othman bin Abdullah**  
Non-Executive Director

**Tuan Syed Nasir bin Syed Ahmad - not in the picture**  
Non-Executive Director

**Datuk Suboh bin Mohd Yassin - not in the picture**  
Non-Executive Director

## Corporate Governance

### The Principal Responsibilities of the Board of Directors

The Board of IWK assumes the six core responsibilities defined in the Malaysian Codes on Corporate Governance:

- Reviewing and adopting a strategic plan for the Company
- Overseeing the conduct of the Company's business to ensure the Company is properly managed
- Succession planning, including appointing, training, determining the compensation of senior management
- Communicating the Company's performance to the Shareholders
- Reviewing the adequacy and the integrity of the Company's internal control system and management information systems
- Identifying and managing principal risks

### The Responsibilities of the Chairman and the Chief Executive Officer (CEO) of IWK

The roles and responsibilities of the Chairman of the Board and the CEO of the Company are clearly defined and divided to ensure a clear and proper balance of power and authority.

The Chairman's main responsibility is to ensure the integrity and the effectiveness of the Board of Directors and ensure all information needed for decision making is accessible and available in a timely manner to each of the Board's members.

The CEO is responsible over the Company's operational efficiency and effectiveness, implementation of the policies, strategies and decisions approved by the Board. The CEO also acts as the intermediary between the Board and management.



Dato' Ibrahim Mahaludin Puteh was appointed as the Chairman for IWK effective 1st September 2009. He holds a Bachelor of Arts (Honours) Degree from Universiti Malaya and Master of Business Administration from the Manchester Business School, University of Manchester, United Kingdom.

Dato' Ibrahim has vast experience in the public sector. He joined the Ministry of Finance in 1974 as an Administrative and Diplomatic Service Officer and has served in various divisions in the ministry. In 2003 and 2004, he served as Senior Advisor to the Executive Director for South East Asia at the World Bank group in Washington DC, United States. From April 2007 to October 2008, he was appointed as the Deputy Secretary General (Policy) of the Treasury in the Ministry of Finance.

Datuk Ir. Abdul Kadir Mohd Din was appointed as the CEO for IWK effective 1st December 2009. Prior to his appointment in Indah Water, he was the Chief Operating Officer for Pengurusan Aset Air Berhad (PAAB). He has 27 years of experience in water and wastewater sector and had served as a Senior Manager at IWK from 1995 to 2000. He holds a Diploma in Civil Engineering from UiTM, Shah Alam and graduated with Bachelor of Science (Hons) degree in Civil Engineering from the University of Strathclyde, Glasgow, United Kingdom. On 23 January 2011, he was bestowed the Darjah Mulia Seri Melaka (DMSM) by the Honorable Governor of Melaka, which carries the title Datuk.



### Board of Directors' (BOD) Meeting and Supply of Information

Board Meetings are held regularly to ensure the Board Members are kept abreast of activities ongoing in the Company. Board papers and a detailed agenda are furnished to the Board Members one week before the Board Meeting for consideration and guidance. The Board members have access to all information within the Company whether as a full board or in their individual capacity for discharging their Directors' duties. The decisions made by the Board members during the Board Meeting is based on majority consensus. In year 2010, seven Board Meetings were held as listed in table below.

No	Date	Meeting
1	4 March 2010	66 <sup>th</sup> . BOD Meeting
2	29 April 2010	67 <sup>th</sup> . BOD Meeting
3	17 June 2010	68 <sup>th</sup> . BOD Meeting
4	5 August 2010	69 <sup>th</sup> . BOD Meeting
5	19 October 2010	70 <sup>th</sup> . BOD Meeting
6	22 November 2010	71 <sup>st</sup> . BOD Meeting
7	2 December 2010	72 <sup>nd</sup> BOD Meeting

### Appointment to the Board

The Board Nomination & Remuneration Committee (BNRC) is responsible to evaluate the proposed new nominee Directors of their skill, knowledge, expertise and experience, professionalism and integrity and report the evaluation outcome to the Board. The Board will then make recommendations to the Shareholders for appointment of the new Directors.

Pursuant to the Memorandum of Association of the Company, at each annual general meeting, one-third (1/3) of the directors for the time or if their number is not three or a multiple of three, then the number nearest one-third shall retire from office.

A Director appointed either to fill a casual vacancy or as additional to the existing directors, shall hold office only until the following annual general meeting and shall then be eligible for re-election but shall not be taken into account in determining the directors who are to retire by rotation at that meeting.

### Board Effectiveness Assessment

The effectiveness of the Board and contributions of each individual director is evaluated by the BNRC. At this point of time, the criteria to evaluate performance of the Board have not been formalised. Under normal circumstances the criteria for effectiveness include Key Performance Indicators, attendance at Board meetings and training.

The quality of the Board's strategic contribution is demonstrated by ongoing strategic discussions and effective board meetings throughout the year. The Board demonstrates their focus on the external environment and the management of influential stakeholders by effective engagement with regulatory authority, the competitive landscape, attention to customers and management of shareholder.

## Corporate Governance

While the Board assumes overall responsibility to lead and manage the business of the Company, the Senior Management operates within the limits of authority entrusted to them. In addition, well organised internal processes are in place to maximise the value of the Board’s strategic contribution. This is evidenced by the high levels of understanding and knowledge of the business attention to corporate culture and leadership and alignment with the long term objectives of the business.

### Company Secretary

The Company Secretary in accordance to the Memorandum of Association of the Company is to be appointed by the Board. The remuneration, terms and conditions for the appointment of the Company Secretary is determined by the Board as they think fit. The Board may remove any appointed Company Secretary.

Other than administrative responsibilities of organising and coordinating Board meetings, the Company Secretary is responsible to ensure compliance with the disclosure and information of the Companies Act 1965.

### Board Committees

The Board delegates certain responsibilities to the respective Committees of the Board to carry out comprehensive and detailed review of a related particular issue. The Committees report the findings with their proceedings and deliberations and make recommendations to the Board for decision making. The Company has 2 principal Board Committees.

### Board Committees and Their Functions / Responsibilities

Name of Board Committee	Functions or Responsibilities of the Committee
<p>Board Nomination &amp; Remuneration Committee (BNRC)</p> <p>(BNRC comprises 4 Non-Executive Directors)</p>	<ul style="list-style-type: none"> <li>To review the Board composition and recommend to the Board appointment of new Directors and Board Committees;</li> <li>To evaluate the effectiveness of the Board, Board Committees and contributions of each individual director; and to recommend compensation for the Board of Directors;</li> <li>To review the performance evaluation of Senior General Manager (SGM), Heads of Departments (HoDs) comprising General Managers and Assistant General Managers;</li> <li>To develop policies, practices and recommend appropriate proposals to facilitate the recruitment and retention of the CEO, SGM and HoDs;</li> <li>To review, evaluate and analyse Human Resource Policies; and</li> <li>To provide a review, assessment and determination of IWK’s overall employee remuneration and benefits structure.</li> </ul>
<p>Audit Committee (AC)</p> <p>(AC comprises 5 Non-Executive Directors)</p>	<ul style="list-style-type: none"> <li>To review the adequacy and effectiveness of risk management, internal controls and governance system of the Company</li> <li>To assist the Board of Directors in assuring the integrity and credibility of the Company’s financial reporting system</li> <li>To oversee the Company’s Internal Audit structure to ensure operational effectiveness and efficiency, safeguard Company asset from misappropriation and encourage legal &amp; regulatory compliances</li> </ul>

.....Organisation Structure - Indah Water Konsortium.....



**BOARD OF DIRECTORS**

Lembaga Pengarah

- Dato’ Ibrahim Mahaludin Puteh
- Datuk Ir. Abdul Kadir Mohd Din
- Dato’ Othman Abdullah
- Datuk Mohd Yusof Zainal Abiden
- Dato’ Ahmad Faizal Abdul Rahman
- Datuk Suboh Mohd Yassin
- Dato’ Hj. Kamil Khalid Ariff
- Tuan Syed Nasir Tuan Syed Ahmad
- Datuk Nor Azmal Mohd Nazir

**BOARD NOMINATION & RENUMERATION COMMITTEE**

Jawatankuasa Lembaga Pencalonan & Imbuan

- Datuk Suboh Mohd Yassin
- Dato’ Hj. Kamil Khalid Ariff
- Datuk Mohd Yusof Hj. Zainal Abiden
- Dato’ Ahmad Faizal Abdul Rahman

**AUDIT COMMITTEE**

Jawatankuasa Audit

- Dato’ Othman Abdullah
- Datuk Mohd Yusof Hj. Zainal Abiden
- Dato’ Hj. Kamil Khalid Ariff
- Datuk Nor Azmal Mohd Nazir
- Tuan Syed Nasir Tuan Syed Ahmad

**CHIEF EXECUTIVE OFFICER**

Ketua Pegawai Eksekutif  
Datuk Ir. Abdul Kadir Mohd Din

**INTERNAL AUDIT**

Audit Dalaman  
Chua Tiong Leong

**OPERATIONS**

Operasi  
Ir. Mahesan Kandiah

**CUSTOMER RELATIONS**  
Perhubungan Pelanggan  
Jothsvaran Nadarajah

**NORTHERN REGION**  
Wilayah Utara  
Ir. Din Sariaat

**CENTRAL REGION**  
Wilayah Tengah  
Ir. Mohd Zainal Zakaria

**SOUTHERN REGION**  
Wilayah Selatan  
Ir. Chua Bing Guan

**EASTERN REGION**  
Wilayah Timur  
Ir. Mohd Zuki Muda

**PLANNING & ENGINEERING**  
Perancangan & Kejuruteraan  
Ir. Mohd Haniffa Abd Hamid

**CAPITAL WORKS & REFURBISHMENT**  
Kerja Kapital & Membaikpulih  
Ir. Abd Rashid Abd Rahman

**HUMAN RESOURCES & ADMINISTRATION**  
Sumber Manusia & Pentadbiran  
Rozi Baharudin

**INFORMATION TECHNOLOGY & CORPORATE PLANNING**  
Teknologi Maklumat & Perancangan Korporat  
Ravindran Karupiah

**PROCUREMENT**  
Perolehan  
Zainudin Mat Salleh

**FINANCE**  
Kewangan  
Zahrin Zakaria

**LEGAL SERVICES**  
Perkhidmatan Perundangan  
Datin Zaheeda Mohamad Ariff

**COMMUNICATIONS**  
Komunikasi  
Amin Lin Abdullah

## Corporate Governance

### Internal Control

IWK has in place adequate internal control procedures, processes and systems to operate the business with integrity, transparency and accountability. In addition, IWK constantly strives to develop and improve its corporate governance practices. This reflects IWK’s commitment to earn the trust and confidence of its stakeholders and shareholders.

### Internal Audit (IA)

The Internal Audit (“IA”) plays an important role in ‘check and balance’ function to evaluate the Company’s internal control and governance systems to ensure the control systems in place are adequate and to manage the potential risks properly. The IA carries out a wide range of audit activities including financial audits, compliance audits, operational audits and information technology audits in the Company based on the Audit Committee approved audit plan. IA highlights various processes and control weaknesses, proposes recommendations to prevent, mitigate, detect and rectify the weaknesses with intention to improve the business operation as well as to attain better corporate governance in IWK.

### External Audit

An external auditor is engaged to perform the annual audit. The external audit will assure the compliance of the Company’s financial statement with the provisions of the Companies Act, 1965 and Private Entity Reporting Standards (PERS) in Malaysia. The Company, through the Audit Committee, has transparent and appropriate relationship with the external auditors.

### Tender Committee

The Tender Committee (TC) is responsible to ensure the tender procedures are fully adhered to according to the regulations defined in the Tender Manual and ensure all the necessary criteria, specifications and requirements of the tenders are met and complied with the Financial Authority Limit and policies set by the Board. The Tender Committee is also responsible to instruct or authorise the Evaluation Committee to negotiate with the tender suppliers for the best terms and conditions of procurement. The Tender Committee meets at least once a month or whenever necessary.

The chairman and the committee members of the Tender Committee are appointed by the Board of Directors. The membership of the committee depends on the tender value.

**Tender Committee Members and Tender Value**

Committee	Tender Value	Chairman	Members
Tender Committee A	More than RM20 mil	CEO	5 members: 1 Representative from Secretary General of Treasury of MoF 1 CEO’s Representative* 3 HoDs (each from O&M, Finance and Procurement)

Committee	Tender Value	Chairman	Members
Tender Committee B	More than RM3 mil and less than RM20 mil	CEO	5 members : 1 CEO's Representative * 4 HoDs (each from O&M, Finance, CRD and Procurement)
Tender Committee C	Up to RM3 Mil	CEO's Representative	4 members: 4 HoDs (each from O&M, Finance, CRD and Procurement)

\* The CEO's Representative in year 2010 is HOD of Planning and Engineering Department.

The approval of the tender by the Tender Committee is to be endorsed according to the tender value as below:

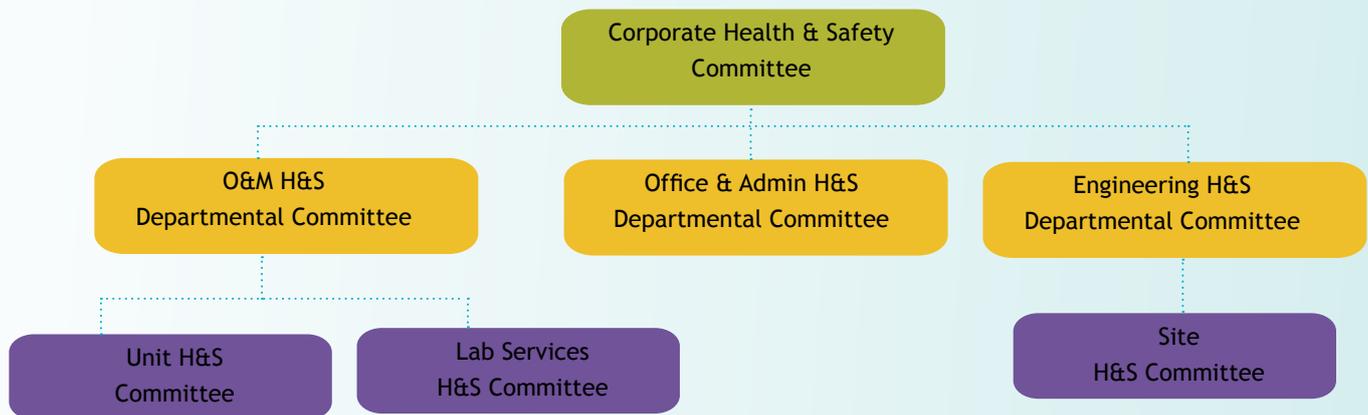
- Up to RM3 mil - CEO
- Up to RM300 mil - The Board of Directors
- More than RM300 mil - The Board of Directors with the approval of MoF

In the event where the tender decision of the Board of Directors is inconsistent with the decision of the Tender Committee, the MoF will be referred for ultimate decision.

**Health & Safety (H&S) Committee**

The main objective of the H&S Committee of IWK is to foster cooperation and consultation between management and workers in identifying, evaluating and controlling hazards at workplaces.

Summary of Health & Safety Committee :



Functions of Corporate H&S Committee:	Functions of Others H&S Committees
<ul style="list-style-type: none"> <li>• Review H&amp;S manual</li> <li>• Facilitate H&amp;S programmes</li> <li>• Review H&amp;S performance / Report</li> <li>• Other functions as stipulated under OSH (H&amp;S Committee) regulations 1996</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate and report on H&amp;S Programmes / performance at Departments, Units, Laboratory and Sites</li> <li>• Inspection of work place, investigation of accident / complaint</li> <li>• Hazard identification and analysis</li> <li>• Report to the higher committee and other functions as stipulated under OSH (H&amp;S Committee) regulations 1996</li> </ul>

## Corporate Governance

### Budget Committee

The Budget Committee reviews and endorses the proposed business plan and the proposed financial budgets of the respective Departments. The Chairman of the committee will submit the budget to the Board of Directors for approval. The budget committee comprises the CEO and 5 members of senior management.

### Other Elements of Internal Control are:

Internal Control	Description
Code Of Conduct For Employees	Each employee is responsible for to conduct themselves in a manner that demonstrates a commitment to the highest standard of integrity. The Code of Conduct acts as a useful tool in aligning our business conduct vis-a-vis the management’s expectation and as a guide in making sound judgment about our daily on-the-job behaviour with professional values, commitment and standards. The Code of Conduct uplifts aspects of our core values and emphasizes the values as our work culture.
Code Of Conduct and Ethics For Project Management Consultant and Professional Staff	The Code of Conduct and Ethics outlines IMWK’s expectations for all staff involved in projects. Staffs are expected to comply to the highest professional and ethical standards with the spirit of the guidelines and ensure good code of conduct when dealing with client or contractors and in managing tenders and contracts.
Financial Authority Limit	The FAL ensures a proper balance between the need for timely, effective and quality business decision-making on one hand and adequate internal controls on the other. The authority to make decisions is set out in the FAL. The delegated authority carries with it the obligation to exercise sound discretion, good business judgment and accountability, with the expected unwavering high levels of integrity, ethic and honesty.
Online e-Procurement System	The Online e-Procurement system for suppliers and contractors has been set up to improve and enhance the overall procurement process, enable competitive and transparent procurement transaction. These ensure all business dealings are open, transparent and fair.
Disaster Recovery Plan	There are 2 critical areas, namely Operational System and Information Technology System where the DRP has been established. An in-house Emergency Response Plan for Operational System has been put in place to ensure that in the event of crisis or major emergency, a structured and organized emergency action in dealing with the situations and to communicate with the necessary parties. The DRP for IT System covers the continuity of ICT systems and business in the event of a prolonged system outage. The DRP for ICT is tested yearly to ensure effectiveness of the plan.
Conflict Of Interest And Asset Declaration Processes	The Conflict of Interest Exercise requires all senior staff (executive and above including executive directors) to declare any directorship / shareholding. All staffs are required to sign a Declaration regarding confidential information and conflict of interest. The staff is to notify within one (1) month upon any change/s to the facts disclosed in the Asset Declaration Form so that appropriate update of records can be done.

Internal Control	Description
Key Performance Indicators	<p>IWK has adopted the performance based approach in managing the business using a set of metrics and indicators. A set of Corporate KPIs with specific measurable items that focus on performance forms the basis of performance management on a year to year basis.</p> <p>There were 13 Corporate KPIs for 2010 focusing on 6 aspects of the business, namely Business Sustainability, Environmental Contributions, Customer Satisfaction, Strong Financial, Efficiency, Quality, Timely Deliveries and Capacity Development which are related to economic, social and environmental performance.</p> <p>These KPIs are for all departments and to all level of staff that play a role in achieving the Corporate KPIs. The achievement of the respective KPIs at each level from the senior management to the staff at all grades will be determined through performance appraisal review at year end. The remuneration rewards such as bonus, salary increment and promotion are based on the achievement of the corporate KPIs and the staff individual KPIs performance.</p>
Policies and Procedures	<p>Written sets of policies and procedures are in place to ensure the employees' understand their roles and responsibilities within predefined limits and to allow management to operate without constant management's intervention. The departments are guided with sets of Policies and Procedures such as Operating Procedures Instruction, Standard of Procedures, ISO Manual and Guidelines Manual.</p>
Communication Methods	<p>Updates to the Shareholders and the Stakeholders are provided throughout the year via regular meetings and presentations, periodical financial &amp; operational reports and Corporate KPIs. Meetings at the various levels; management, departments, sections and units are regularly held to monitor the achievement of the respective KPIs and ensure the corporate goals are met. Financial and Operational reporting and analysis such as variance analysis, management accounting, performance reporting are also regularly carried out. Communication among the staff from top to bottom and vice versa is encouraged through department / section / unit meetings, emails, monthly bulletin, suggestion box, Union, etc.</p>

## Corporate Governance

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The Board of IWK is of the view that the internal control procedures instituted is currently adequate and effective. IWK will continue to improve the internal control procedures in order to keep abreast with the rapid changing operating environment and challenges. The Board will constantly review the internal control system to ensure its' adequacy and effectiveness to meet the current challenges and requirements.

### Kelab Indah Water

Kelab Indah Water was established and registered with the Malaysian Registrar of Society (ROS) on 6th October 1998, as an internal club. The management transferred the club activities to the Communications Department in 2003. In 2010, the club re-launched the club's membership registration.

### Corporate Membership

1. Malaysian Water Association (MWA)
2. Environmental Management and Research Association of Malaysia (ENSEARCH)
3. Business Ethics Institute of Malaysia (BEIM)
4. SIRIM Berhad
5. Malaysian Employers Federation (MEF)
6. Malaysian Water Partnership (MyWP)
7. National Institute of Occupational Safety and Health (NIOSH)
8. Malaysian Association of Risk and Insurance Management (MARIM)
9. Association of the Computer and Multimedia Industry, Malaysia (PIKOM)
10. The Institute of Internal Auditors Malaysia (IIA Malaysia)
11. Malaysian Bio Industry Organization (MBIO)
12. South East Asian Water Utilities Network (SEAWUN)
13. Australian Water Association (AWA)
14. Water Environment Federation (WEF), UK, Portland
15. International Water Association (IWA), UK, Portland

## .....Charting Our Sustainability Progress.....

Description	2009	2010
<b><u>Our Workforce</u></b>		
• No of training	122(internal) & 72 (external)	140 (internal) & 86 (external)
• Total training man-hours	37,480	68,456
• Total participants	2,159	3,119
• Collective Agreement	Enforced	Continue to be enforced
• No of GEMS and no absorb as IWK staffs	60 GEMS & 10 absorb	39 GEMS & 12 absorb
• Kelab Indah Water	-	Re-launched
<b><u>Our Stakeholders</u></b>		
• No of customers	2.74Mill	2.97Mill
• Brochures circulated to non-paying customers and reminders/notices issued to non-paying customers	5,240,842	5,179,047
• Stakeholder participation in capacity building	72	1,353 (85 programmes)
<b><u>Our Sustainability Efforts</u></b>		
• % public complaint (odour, noise, aesthetics and effluent) responded within LOS	98.0%	97.0%
• % sewer blockage inquiries attended within LOS	95.7%	96.4%
• % sewer collapse inquiries attended within LOS	97.8%	96.5%
• % billing inquiries responded within LOS		
• % effluent compliance	99.8%	99.5%
• No of samples tested	95.9%	95.3%
• No of final effluent tested	71,142	75,003
• % operational, service, visit carried out	56,954	58,093
• Early warning systems in place	94.6%	95.5%
• Plan for new regional laboratory	971	1,108
• Continuous Improvement Programmes(CIP) carried out and completed	-	Target 1 laboratory deferred due to unsuitable site location
• Initiation of Green Tech projects	20	22
	3 project initiated	2 projects deferred , Bioeffluent recycling design stage
• ISO 9001 Certification		4 sites certified
• ISO 14000 Certification	Maintaining ISO 9001	Initiated ISO 14001 blueprint
	-	

## Charting Our Sustainability progress

Description	2009	2010
<b><u>Our Corporate Social Responsibility Activities</u></b>	33	19
• Special School Programme:	48	42
• Observation Tours:	6	8
• Community Events:	50	25
• Briefing/Dialogue to Public School, PLKN, etc:		
• Advertorials:	63	36
• Radio advertisement/talk:	2,824	2,065
• Charity desludging:	1,117	795
<b><u>Risk and Safety Management</u></b>		
• Customer participate in eye programme:	210	179
• No of accident cases:	38	36
• Chemical , Health and Risk Assessment(CHRA) conducted	1	6
• Industrial Hygiene monitoring (n-Hexane and Chromic Acid)	1	0
• Annual inspection, examination and testing of local exhaust ventilation (LEV)	0	1

## Goal in 2011

We have set our goals for the year 2011 to increase service efficiency and quality for sustainable operation, business practices, community and environment. The following are goals set for 2011:-

Description	Target	Remarks
<b><u>Our workforce</u></b>		
• 1 training per employee	100%	
• KIW activities nationwide	156 nos.	
<b><u>Our Stakeholders</u></b>		
• Local capacity development training	4	
• Regional capacity development programmes	3	
• Collaboration with universities programmes	2	
• Implementation of e-procurement - Stage 2	100%	- Application modification and enhancement. Implementation at 10 unit offices
• Customer satisfaction survey/Index	50 CSI	- Improve customer satisfaction index
<b><u>Our Sustainability Efforts</u></b>		
• % public operational complaint responded within LOS	100%	Respond within 24 hours
• % public sewer blockage inquiries attended within LOS	100%	Respond within 24 hours
• % sewer collapse inquiries attended within LOS	100%	Respond within 24 hours
• % billing inquiries responded within LOS	100%	Respond within respective LOS
• % effluent compliance	97%	% Actual over scheduled maintenance visitation
• Plant maintenance visitation	100%	1 per unit office
• CIP carried out and completed	100%	Completion of commissioning a total of 3 Green Tech projects (Biogas plant for power production, biosolid project for fertilizer/ soil conditioner and water reclamation plant using bio-effluent)
• Green technology	100%	
<b><u>Our Corporate Social Responsibility</u></b>		
• Sewerage awareness	12 events	Once a month community event.
<b><u>Risk and Safety Management</u></b>		
• % reduction of accidents	10%	From last year (involving staff, contractor and public)

# Our Workforce

*'The management is enthusiastic about deepening, broadening and strengthening our working relationship within the company. We are committed to expand people to people interaction between employer and employee'.*





## Our Workforce

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## Our Workforce

### Our Staff Strength

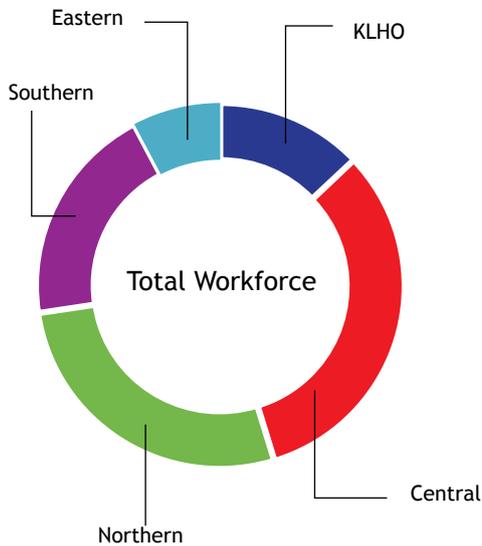
With the growth of our nation, IWK continues to takeover and refurbish more sewage treatment plants and sewer pipelines. In order to support such growth, our manpower headcount has increased to 2,733 in year 2010.

### Equality and Diversity

As sewerage work involves dirty, dangerous and difficult working condition, naturally our workforce demographic is male centric. As such, 80% of our staff are male. However, as we are committed to the practice of equal opportunity, the percentage of female staff for executive and managerial level is 35% and 23% respectively.

Our talents come from multi cultural and diverse backgrounds and all of them are given equal opportunity to bring out the best of their competency and skills. Our compensation packages are structured on merit basis and our annual salary adjustment is based on an individual’s output and performance level.

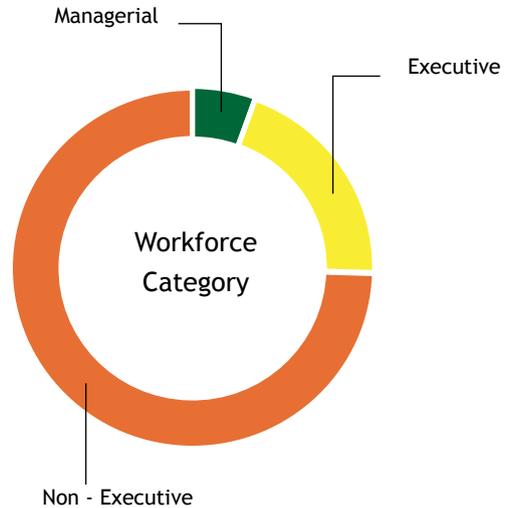
Total Workforce



Year 2010

●	KLHO	363
●	Central	884
●	Northern	748
●	Southern	537
●	Eastern	211

Male Category



Gender Category

●	Managerial	117	34
●	Executive	352	193
●	Non-Executive	1717	320
	Grand Total	2186	547



Female Empowerment

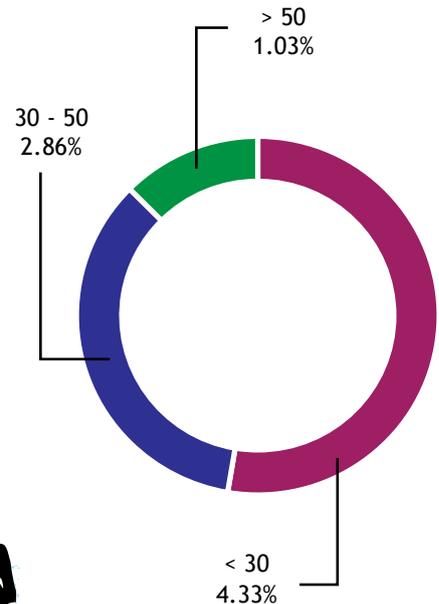
IWK promotes gender equality. 20% of our total workforce comprises of female staff, and they are mostly in managerial and executive positions. They are also our front liners when it comes to customer care and guests reception. Our Human Resource & Administration Department and Legal Department, are headed by women.

Staff Health, Benefits and Rewards

Our front line operations staff deal directly with wastewater in their daily work which involve sewerlines, treatment processes, sludge handling, etc. Due to this, our operators are closely supervised and we do constant reinforcement of health and safety policies on daily uniform laundering and on personal protective equipments. We also provide bi-annual health screening to our front line operators.

We emphasise on health and insurance benefits for our staff as they face risks to their health in their daily job routine. As we continue to provide comprehensive medical benefits throughout the years, we have a committed and loyal workforce and we are proud to say that we have a very low annual attrition rate of about 8%.

IWK appreciates the support gain from our staff and we do our best to ease the burden of our staffs who has served us loyally. As a responsible and caring employer, IWK has Group Insurance for staff since year 2000. In the event of accidents or death due to cancer or other diseases, the management assists by presenting Group Term Life cheque of RM100,000 to the family members of the deceased.



Gender turnover rate is Male 5.95%, Women 2.28%

## Our Workforce

### Adjustment to Compensation Package

On 1 January 2010, we have adjusted our salary band in line with our staff retention strategy. This is to ensure that our staff salary commensurate with their expertise, years of experience and length of service.

We have also revised our travel allowance to reflect the overall national cost increase in food, accommodation and petrol effective 15 October 2010.

### Long Service Award

IWK has introduced long service award to recognize our loyal staff who has served the company for 10 years and 15 years. For each category, we have 89 and 55 recipients respectively. They were given the Loyalty Certificate as a token of appreciation, which were presented by our CEO to each individual staff during meetings held at departmental and unit office levels.

### Pandemic Influenza H1N1 Preparedness Plan Instruction

In the rise of H1N1 pandemic, IWK has taken precautionary measures whereby we paid the cost of immunisation for our front line staff as well as those in critical positions. We had immunised a total of 141 staff located in the headquarters due to their daily proximity contact with the public, customers and contractors. We have also immunised those in critical positions in order to ensure the smooth running of our daily operations.



Mask and tissues are provide for front counter staff

### Child Labour Policy and Non-Discrimination to HIV/Aids

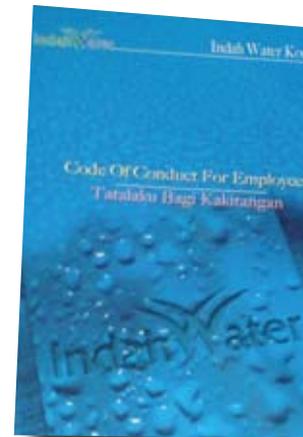
We are against child labour. All recruitment matters are handled by the respective unit offices and Human Resources Department in Head Office which is responsible for further screening and checking.

People with HIV/AIDS can lead normal lives and actively work and contribute to the company's growth. IWK does not discriminate any job applicant or employee who is tested positive for HIV/AIDS. Our pre-employment medical examination does not include HIV testing and we have never terminated any employee based on this ground.



### Breach of Code of Conduct and Domestic Inquiry

IWK has an established Code of Conduct which is outlined in a handbook and distributed to all the employees. Our policy allows both internal and external stakeholders to report any breach of our Code of Conduct. IWK has established standard procedures to investigate any reported breach of our Code of Conduct by relevant committees and trusted third parties as part of our domestic enquiry procedure.



### Employer - Employee Communications

The management is enthusiastic about deepening, broadening and strengthening our working relationship within IWK. We are committed to expand people to people interaction between employer and employee. Our top management has visited 18 Unit Offices nationwide to strengthen working relationship, share vision, goal, challenges and issues and at the same time, acknowledge staff support by presenting Loyal Service Certificate to staff who have loyally served for more than 10 years.

IWK has launched a quarterly “Executive Talk” featuring CEO and Head of Departments as the key speakers as part of the corporate communications event. It is during this knowledge sharing session that our staff hears what our top management says about IWK and respective departments’ initiatives, plans and the way to move forward.

IWK also has re-launched IWK news / Bulletin at the end of 2009 to keep our employees informed of the activities undertaken by management and to disseminate any news or information. We use various modes of communication to disseminate news which includes our webpage for external stakeholders and intranet for inter-departmental knowledge sharing of news. IWK bulletin is downloadable in the intranet. Furthermore, IWK staff are encouraged to forward ideas directly to the management. Employee job satisfaction survey was also conducted to gather feedback from employees and stakeholders on current management practices and performance respectively. Suggestion box also available for employees or any interested person to give suggestion or lodge a complaint on any issues.

### Renewal of Collective Agreement (CA<sub>1</sub>)

IWK respects our employees’ right to be a member of trade unions. We regularly conduct open employee and management discussions to discuss any work related issues and problems.

Since 1997, IWK management representatives have actively engaged with a newly established in-house employee trade union known as Kesatuan Pekerja-pekerja Indah Water Konsortium (KPPIWK). Through active discussions and negotiations with the Kesatuan, Management has been able to improve current benefits enjoyed by 2,037 non-executive staff and also further introduced additional benefits. Some of these benefits include a Temporary Relief Allowance (TRA/COLA), Retirement Benefit/Gratuity and a general increase in almost all allowances payable to our unionised staff. We are due to renew our CA<sub>1</sub> with the union leaders in year 2011. 74.5% of our workforce is covered by the CA<sub>1</sub>.



Workers are opening valve in a pump station

### Staff's Training & Development

Every new employee of IWK is required to attend a compulsory induction course in order to familiarise themselves with our core business, vision, mission and expectations. In addition, all of them will undergo on-the-job training and various internal and external formal training in order to improve their quality of work and for continuous improvement.

We had invested a total of RM1.4 million in providing both internal and external training for our staff in year 2010. This is in line with our target to provide all employees a minimum of 1 training session per annum. We had conducted 140 internal and 86 external trainings which were attended by 2,903 and 216 staff respectively.

### Employee Engagements

Year	Internal Training			External Training		
	No	Staff	RM (Mil)	No	Staff	RM (Mil)
2007	134	2,331	0.98	155	397	0.29
2008	180	3,624	1.44	142	261	0.18
2009	122	2,007	0.71	72	152	0.11
2010	140	2,903	1.24	86	216	0.15

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## Employee Engagement

We strive to instill commitment, integrity, team work, creativity and innovation within our staff. Apart from involving in daily sewerage management and activities, the management also needs to convey information, accept views and appreciate staff contributions. We have developed Key Performance Indicators to gauge work performance and ensure compliance to the respective set business targets. As incentives, outstanding staff performance may be rewarded with higher bonuses and increments. Our services can be gauged by regulators, stakeholders and the public. They may express their gratitude or grievance via various annual survey forms, online and interactive sms, hot line, web page, snail mail and mass media.

We have re-launched the recreational club for the staff i.e 'Kelab Indah Water' (KIW) in early 2010. Throughout the year, the management and the employees have engaged in various activities conducted to strengthen our employer-employee relationships. Among the activities are Executive Talks, Yaasin Recital, Ramadhan Break Fasting, Raya gatherings and Sports Carnivals. The highlight of the Hari Raya festival was the Salam Aidilfitri celebration held at the head office. The event was kicked off with opening address by our chairman Dato' Ibrahim Mahaludin and attended by guests from our regulators such as from SPAN, PAAB, JPP, etc. All guests and staff were entertained with performances by local talents and treated with goodies for lucky draws.

## Employee Engagement Events

8 February 2010

Launching of IWK Sports & Recreation Club (KIW). More than 300 staff in the head office registered as members.

4 March 2010

Presentation of RM3,732.00 donation to Raja Saiful Raja Abdullah, Raub RC's staff, whose house was damaged by fire.

April 2010

Staff contribution of RM9,342.80 to adik Alif Azlan's (Mohd Kairul-CWRD Southern's son) as partial payment for his heart medical & treatment fees.



15-16 June 2010



4 March 2010



April 2010



12 May 2010

CEO meeting staff in Terengganu State Office and presented 'Loyalty Certificate' to 55 employees, who have served more than 10 years.

4 June 2010

CEO meeting staff in Shah Alam Unit Office and presented 'Loyalty Certificate' to 37 employees, who have served more than 10 years .

17 June 2010

Executive talk by Ir. Mahesan Kandiah, Senior General Manager, Operations on "Towards An Efficient & Effective Service Licensee" at the Head Office.

30 July 2010

KIW organised recital of the Yaasin and tahlil (religious verses) and talk on 'Israk & Mikraj' by Ustaz Taufik Mohamad Yusof from Islamic International University's mosque at the Head Office.



30 July 2010

**21 September 2010**

IWK Heads of Department attended the Economic Transformation Programme Open Day 'Roadmap for Malaysia' at the Putra World Trade Centre, KL.



21 September 2010

**30 October 2010**

IWK Head Office organised a Mini Sports Carnival at FRIM, Kepong. About 200 staff, including a team from Pandan Indah Planning & Certification participated in the 9 events, which included futsal, badminton, netball, congkak, seremban pebbles, volleyball, darts, carom and table tennis.



30 October 2010

**7 November 2010**

CEO visited flood affected areas in Alor Setar to observe IWK's readiness and preparation to assist flood victims. There were 28 IWK staff houses affected by the flood.



16 November 2010



26-28 November 2010



26-28 November 2010

The 2010 IWK Sports Carnival was held at the East Coast for the first time with 410 participants competing in 13 events. The overall team champion of the Sports Carnival was from Central Region.



13-14 December 2010



13-14 December 2010

The Operations and Maintenance Department organised the 2010 National Skill Competition at the Bukit Jalil Technical Training Centre. The participants were evaluated on the desludging service, mechanical & electrical as well as network services. The overall winner of the event was from Skudai Unit Office.



15-17 December 2010



15-17 December 2010

A group of 40 KIW members made an educational visit to Batu Pahat Water Treatment Plant operated by Johor Water Company (SAJ), Singapore New Water Plant in Changi, Singapore and Iskandar Malaysia in Johor.



## Our Stakeholders

*'Effective communication with stakeholders is critical for our organisation. It is not an easy task as the services are intangible and can only be appreciated after having difficulty in flushing the toilet or piping blockage. We believe our success, among other things, depends on the support and participation of internal and external stakeholders.'*



## Our Stakeholders

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## Our Stakeholders

IWK’s stakeholders are individuals or groups that may be affected by our business activities and /or external parties interested in sewerage sectors. Our stakeholders include the regulators, customers, employees, consultants, contractors, academicians, community leaders, suppliers and the communities around us.

Effective communication with stakeholders is critical for our organisation. We have to disseminate sewerage awareness information and create a sense of belonging in order to gain a positive outcome. It is not an easy task as the services are intangible and can only be appreciated after having difficulty in flushing the toilet or blockage. We believe our success, among other things, depends on the support and participation of internal and external stakeholders. They have different ideas about what’s best for the country’s sewerage sector and how it should be operated and managed. For systemic transformational change to be successful, all stakeholders must buy into and feel a part of the process of creating a bright future that IWK envisions and to protect the environment holistically.

### Our Regulators and Shareholders

Our main regulators are the National Water Services Commission (SPAN), and the Department of Environment (DOE). Our shareholder is the Minister of Finance Inc.

Inter alia, IWK is bound by the following laws and regulation :-

- Water Services Industry Act 2006
- Environmental Quality Act 1974
- Environmental Quality (Sewage) Regulations, 2009
- Environmental Quality (Clean Air) Regulation, 1978
- Factories and Machinery Act 1967 (Act 139) and its regulations
- Occupational Safety and Health Act 1994 (Act 154) and its regulations

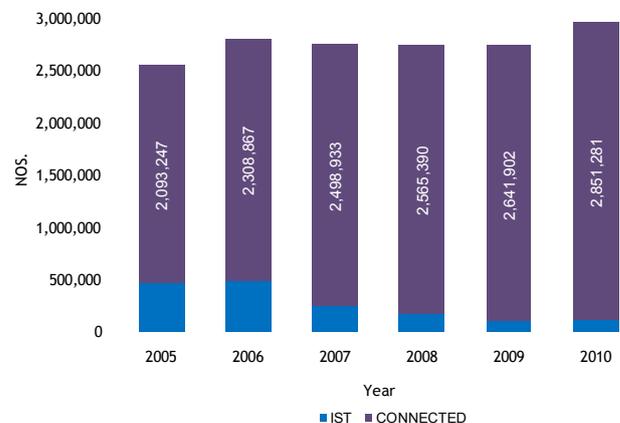
### Our Customers and Customer Charter

Our customers are the public who utilises sewerage services which include the following;

- Desludging of septic tanks and pour flush systems (by demand or schedule)
- Maintenance of public sewerlines, pumping stations and sewage treatment plants (which is referred as connected systems where premises/ building are connected to the sewerage systems maintained by IWK).

IWK serves more than 2.97million customers nationwide.

Total Number of Customers





CUSTOMER CHARTER

Our customer charter discloses our commitment in term of addressing emergencies, complaints, services response time, answering phone calls. The charter contains level of services (LOS) targets in providing services to our customers.

The Customer Charter outlines IWK’s commitment in providing sewerage services and ensuring the standard of customer service that each customer can expect.

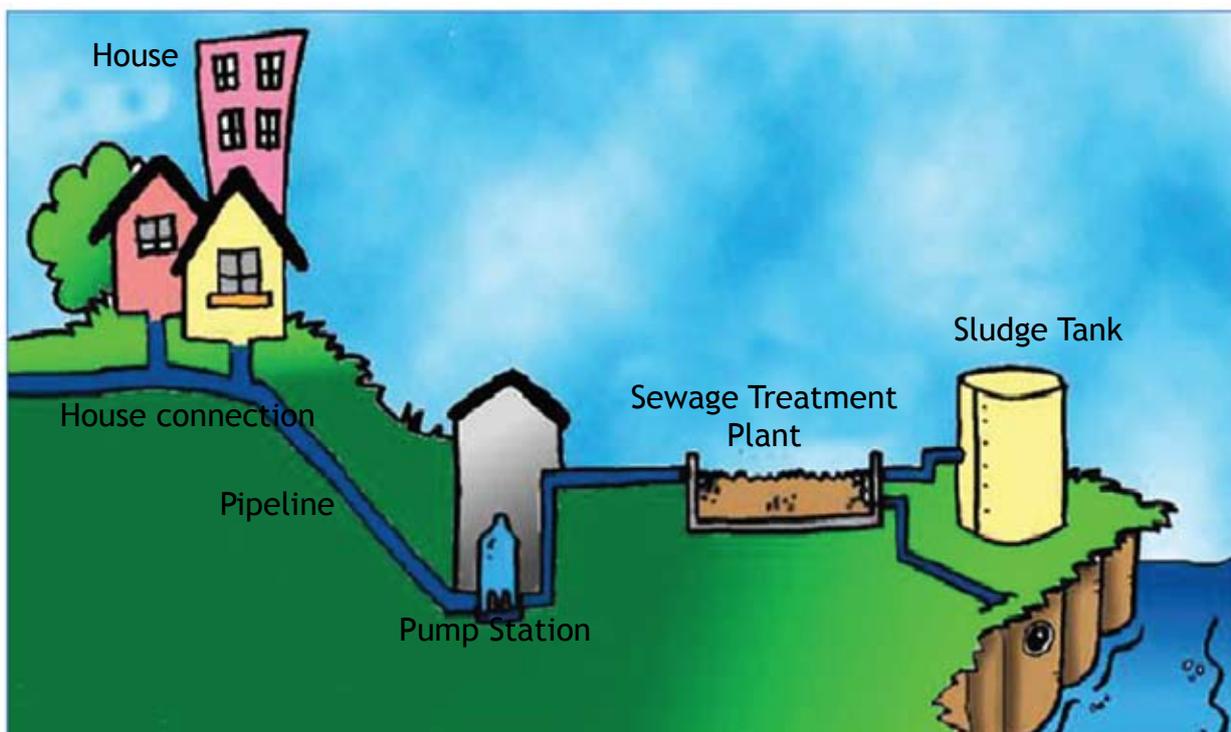
Accordingly, we will ensure efficient sewerage services by :

- Operating and maintaining all public sewerage systems to meet the requirements and conditions set by the National Water Services Commission(SPAN)(Regulator) and the Department of Environment;
- Desludging all customers’ septic tanks on a scheduled basis once every two years or on request by customer;
- Conforming to environmentally sound practices in the treatment and disposal of sewage and sludge;
- Using appropriate technology and applying cost effective measures in all areas of our operations.

We will ensure high standards of customer service by :

- Being on call 24 hours a day, 7 days a week to respond to service emergencies;
- Responding to service complaints within 24 hours;
- Responding to requests for desludging of septic tanks within 48 hours;
- Replying to all written billing and operation enquiries within 3 working days;
- Answering all calls to our dedicated customer service lines within 15 seconds;
- Keeping service appointments to within 30 minutes of agreed time and notifying customers when delays are experienced, if customers can be contacted.

We are accountable to our customers in complying with the above standards, which are regulated and monitored by the National Water Services Commission (SPAN).



## Our Stakeholders

### Supply Chain

Our contractors and suppliers are also part of our stakeholders. IWK recognises the importance of supply chain management and its impact on meeting its environmental objectives. We have established prequalification criteria and annual evaluation exercises of suppliers and contractors to ensure compliance to regulatory requirements. IWK has launched an interactive online e-procurement system for suppliers and contractors in year 2008 to ensure open, competitive, responsive and transparent business processes.

### Non Governmental Organisations (NGO's)

IWK actively participated in various activities held by various non-governmental organisation namely Malaysian Water Association (MWA). Our CEO, Datuk Ir. Abdul Kadir is the Vice President of MWA, MWA Water Academy & Young Professionals Programme Committee Chairman for session 2009/2011 and Sub Committee Chairman for Revision of MWA Guidelines on Water Supply Systems.

IWK as a corporate member of the Environmental Management Association of Malaysia (ENSEARCH) participated in the “Waste Management Conference and Exhibition, 2010 : “1Green Malaysia” , held at the Sime Darby Convention Centre from 19th to 20th May 2010. Our CEO presented a paper on ‘Resource Recovery Potential in the Sewerage Sector in Malaysia via Green Technology Approach’.

### Our Communities, Future Generation and Interested Parties

Sewerage service undoubtedly is vital for a country so as to ensure that wastewater is treated before being discharged into rivers, sea or any water body. Thus, whoever uses the sewerage system is part of a community that needs to understand its significant impact to the environment. Schools, colleges, universities and academicians are very important to us as they are the hands that hold the world in the future. As a result, they also need to understand sewerage services and why it is an integral part of development. Interested parties, either local or international, are crucial to us. We believe exchanging ideas be it small or big, is essential to make a difference and further improve ourselves and others. Consequently, our interactive webpage, advertorials via mass media, school programmes, CSR activities community events, exhibitions and STPs tours are our ways to reach and engage with them even though some of them are not our customers.

IWK had participated in exhibition and paper presentation in “Waste Management Conference and

Exhibition, 2010 :

**“1Green Malaysia”**  
organised by ENSEARCH.



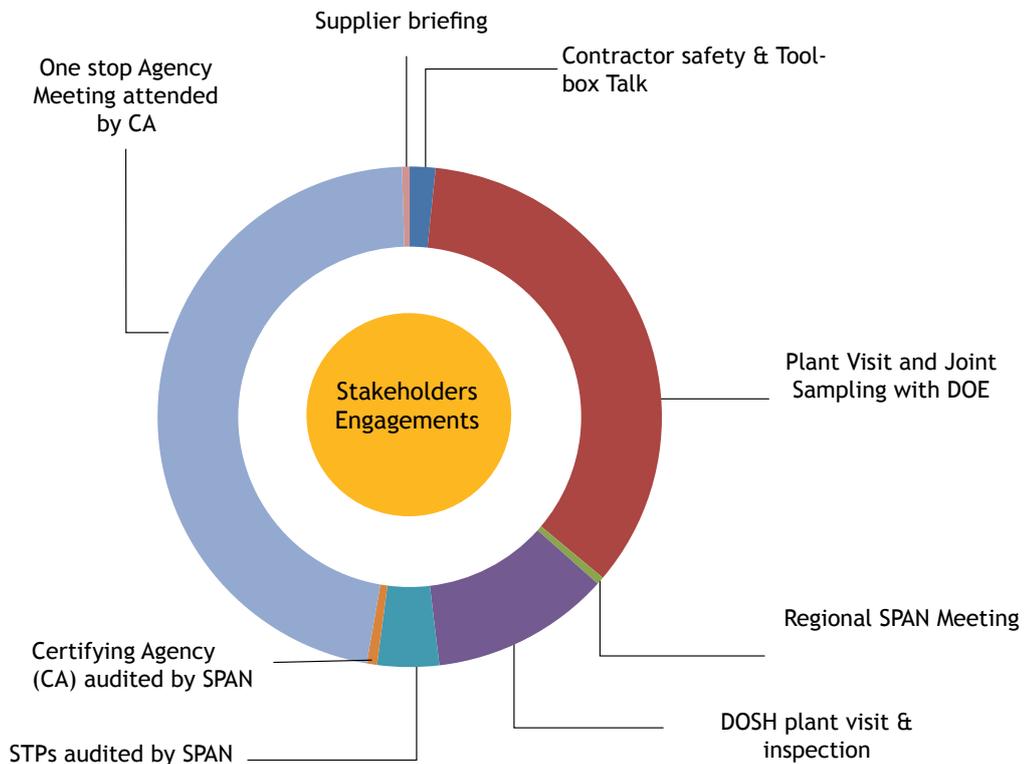
## Stakeholder Engagements

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Long-standing engagement with stakeholders is vital for IWK in building trust and understanding in a variety of issues. IWK strive for effective engagement which requires a commitment to actively listen, build relationships and collaborate with stakeholders to achieve sustainable sewerage objectives. We believe by involving stakeholders in the decision-making processes, decisions are better founded and solutions more likely to succeed.

IWK provides monthly and quarterly report to SPAN and JPP. We have scheduled audit programme internally under ISO 9001:2008 certification. Effective communication is critical in engaging with stakeholders, as such, IWK had attended regular meetings, discussions, workshops and visits with our regulators and other stakeholders. 20 Certifying Agencies and 206 STPs were audited by SPAN and 522 STPs' were visited and joint sampling conducted with DOE.



## Our Stakeholders



*Dialogue session conducted to create awareness on sewerage planning submission*

As the agency entrusted by SPAN to provide sewerage certifying services for nationwide sewerage development, IWK has set a target to improve awareness, understanding and engagement with stakeholders via dialogue and road shows. Additional objectives of these activities are to promote awareness on sewerage planning submission procedures, obtain feedback and issues related to sewerage development certifying process, sewerage development procedures, exchange ideas and views for continual services improvement and finally improve communication amongst the stakeholders. IWK have conducted dialogue sessions with REHDA Malaysia on 23 November 2010 and awareness seminar (championed by REHDA Malaysia) on 2 November 2010. Additional 15 seminars/ awareness at state levels were conducted with a total of 542 participation from consultants, developers, qualified persons, interested parties and local authorities. In this regards we hope our effort throughout the country to further enhance certifying process awareness and form stronger bond with stakeholders is successful and made a difference for continual improvement of national sewerage industry.

We believe stronger relationships with stakeholders, is built through informal participation of stakeholders in various activities such as sewage treatment plant tour/visits, festivities celebrations and sport activities. We have also participated in various stakeholders' events to further strengthen our bond with them.



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## Our Stakeholder Engagements Events

### 29 January 2010

The Minister of Energy, Green Technology & Water, YB Dato' Sri Peter Chin visited the Pantai Dalam regional sewage treatment plant together with his officers.

### 15-18 March 2010

Ir. Dorai Narayanan, IWK Senior Manager was invited to present two working papers on 'Historical perspective of sewerage management in Malaysia' and 'Pilot benchmarking exercise initiative' at the 15th African Water Congress at Kampala, Uganda.

### 26-27 March 2010

IWK participated in the 2-day World Water Day 2010 expo at Dataran Tanjung Emas, Muar Johor.

### 29 March 2010

IWK Board of Directors, IWK Chairman, IWK CEO, Executive Director of SPAN, Ministry of Energy, Green Technology & Water Director visited the Changi Water Reclamation Plant and Marina Barrage, Singapore.



29 September 2010



15-18 March 2010



26-27 March 2010



6-8 April 2010

### 6-8 April 2010

IWK participated in the Asia Water 2010 exhibition. Joint Agreement Signing Ceremony between MWA and IWK, PBA Resources, UTM and SAJH on "The Establishment of Malaysian Water Academy as the Regional Water Hub for Capacity Development".



23 April 2010

### 23 April 2010

The delegation from the Ministry of Local Government, Rural Development & Cooperatives, Bangladesh visited IWK

**11 May 2010**

Secretary-General to Ministry of Energy, Green Technology & Water with IWK CEO visited construction site located at the Pantai Dalam, KL Aerated Lagoons.



11 May 2010

**19-20 May 2010**

IWK participated in the Waste Management Conference and Exhibition at the Sime Darby Convention Centre.



19-20 May 2010

**8 June 2010**

Visitors from Tokyo Metropolitan Government and Metropolitan Sewerage Services Corporation visited Pantai Dalam STP

**15-16 June 2010**

A Regional Dialogue on 'Wastewater Management in Asia', jointly organised by UN-Environmental & Social Commission for Asia & the Pacific, Malaysian Science Academy & MY Water Partnership was held at Corus Hotel, Kuala Lumpur was chaired by CEO-IWK. Participants visited Pantai Dalam STP.



15-16 June 2010



8 June 2010

**24 July 2010**

Friendly Bowling Game was held with the Minister of Finance No 2 at the Cosmic Bowl, Mid Valley with the intention to foster closer working relationships with MKD, EPU, KeTTHA, SPAN, JPP & MACC.

**28-30 July 2010**

IWK participated in the INDOWATER 2010 Expo, Surabaya, Indonesia

**7 August 2010**

IWK-CEO with YB Minister of Energy, Green Technology and Water's delegation visited the water supply and sewerage projects in Perhentian Island, Kuala Besut, Terengganu



28-30 July 2010



24 July 2010

## Our Stakeholder Engagement Events

### 27-28 September 2010

IWK participated in the inaugural MY-ROK Green Technology Working Group in Korea. The delegation of 14 representatives and Ministry's officials, headed by the Secretary General, YBhg. Datuk Loo Took Gee.



27-28 September 2010

### 28 September 2010

Delegates from Suwon City Council, Korea visited Bandar Tun Razak STP.



### 28 September 2010

YB Dato' Sri Peter Chin, Minister of Energy, Green Technology and Water visited the re-construction works of sewer network, which was affected by a landslide at Bukit Antarabangsa, Selangor.



28 September 2010

### 2 November 2010

REDHA organised a seminar "Sewerage Submission Awareness Seminar 2010" on compliance with SPAN requirements & specifications at the Bkt Kiara Equestrian Club, KL.

### 14 October 2010

IWK participated in the International Green Tech and Eco Products Exhibition and Convention Malaysia (IGEM) held at the Kuala Lumpur Convention Centre.



28 September 2010

### 9 November 2010

The DOE's Director-General and officers visited Langat Unit Office and STP serving Cyberjaya to listen to the briefing on by pass at pumping stations, STPs and manholes.

### 26 October 2010

The CEO of Haya Water, Oman visited IWK Head Office to establish a partnership with IWK to jointly promote capacity building in sewerage management for the Middle East Countries.

### 12 November 2010

Director for Water Audit, Auditor General's office visited IWK to discuss on sewerage planning and operations.



14 October 2010



26 October 2010



2 November 2010



9 November 2010



12 November 2010

4 December 2010

The Department of Sewerage Services (DSS) organised a 'Treasure Hunt'. The event was participated by employees from the Ministry, DSS and IWK, which ended at Sunggala, Negeri Sembilan STP.

15 December 2010

Delegates from Marubeni Corporation and Nippon Koei, Japan visited the Pantai Dalam and Kerayong STPs.

16 December 2010

Mr Ravindran Karupiah chaired the discussion with members from PEMANDU at IWK head office. IWK is involved in the sewerage development of 'River for Life' in Greater Kuala Lumpur.

27-31 December 2010

IWK organised a training session to 20 DSS's officers which aim to expose the participants on overview of the sewerage planning scope of work.



4 December 2010



15 December 2010



16 December 2010



## Our Sustainability Efforts

*'We have continuously invested in environmental and sustainability management activities and firmly believe that through these investments somehow it will bring changes to the sewerage development, the public perception, sewerage awareness and impact in Malaysia.'*



## Our Sustainability Efforts

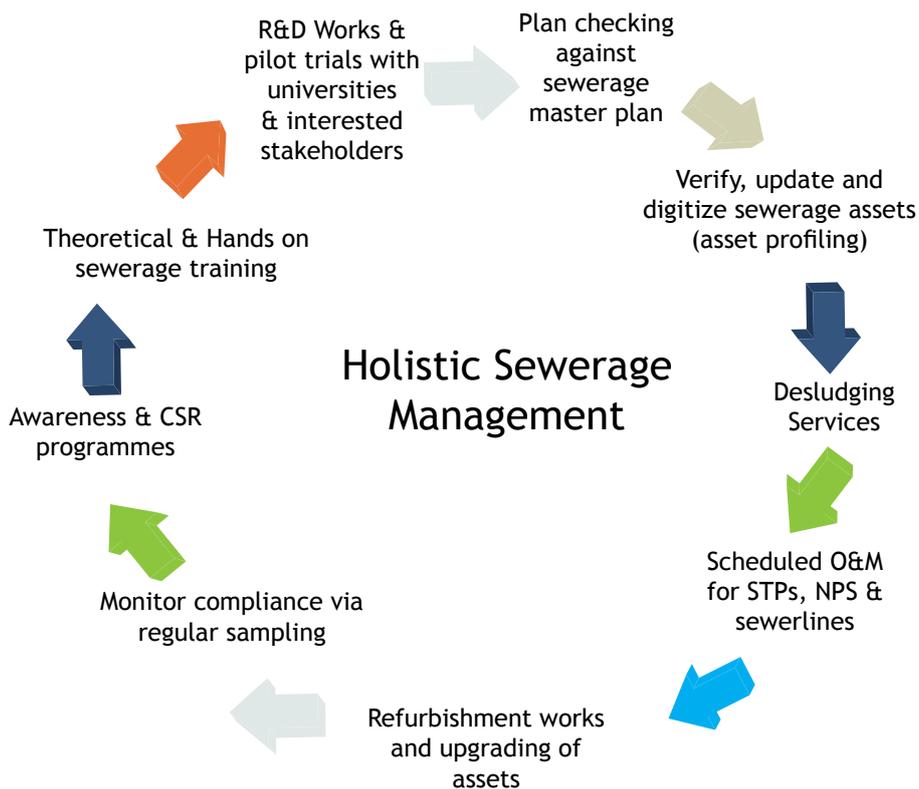
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## Our Sustainability Efforts



### Holistic Approach

As a public sewerage services operator, IWK’s approaches to sewerage management goes beyond operational works. Our sewerage services includes planning services, testing and commissioning, operations and maintenance, monitoring, sampling, training, R&D and providing regular reports to regulators.



## Measuring Performance

Measuring performance is fundamental to us as it is based on our vision and mission to uphold the quality of sewerage services while protecting the environment, public health and water resources. We have promulgated internal and corporate sustainability scorecards to track programme and progress of our performance goals.

We have been utilising, integrating and streamlining data collection and performance reporting in various departments through implementation of online and centralised data bank systems and it is managed by each respective units and centralised at head office level. Annually, we update and backup the systems and further improve whenever necessary for continual improvement. The following are summaries of our sustainability efforts:

## Asset Management

Asset Management is a systematic process of providing, maintaining, upgrading, and operating physical assets cost-effectively. It provides tools to facilitate a more organised, logical approach to decision-making. An integrated approach towards asset planning and management will enable IWK to deliver quality asset based services efficiently and effectively, particularly when responding to such factors as:

- higher expectations of stakeholders
- new or changing operation and maintenance requirements;
- different methods of service delivery; and
- evolving technology.

Over the past 15 years, IWK has been developing the foundations of the Asset Management efforts. Initially data and information of assets including documents and drawings were compiled. Simple asset registries and desktop GIS was used. IWK’s business is very much dependent on its physical assets performance and availability, the accuracy and depth of asset data and asset maintenance strategies while conforming to environmental and safety regulations and meeting stakeholder and customer demands.

IWK has paid a great attention to the asset management development by strengthening its Data Management System by introducing several data management systems at different levels and functions to support its operation and business processes gradually since 1995. Among others are:

Year Established	System Description	Purpose
1995	Maintenance Management System (MMS)	Asset Profile Data (STP, NPS, sewers, etc)
1996	Billing, Records and Information Network System (BRAINS)	Billing and Customers Data
2002	Customer Operational Enquiry and Desludging System (COEDS)	Customer inquiries, work orders, invoice, etc.
2005	Industrial Financial System (IFS-MMS)	Operational, Financial and Asset Data

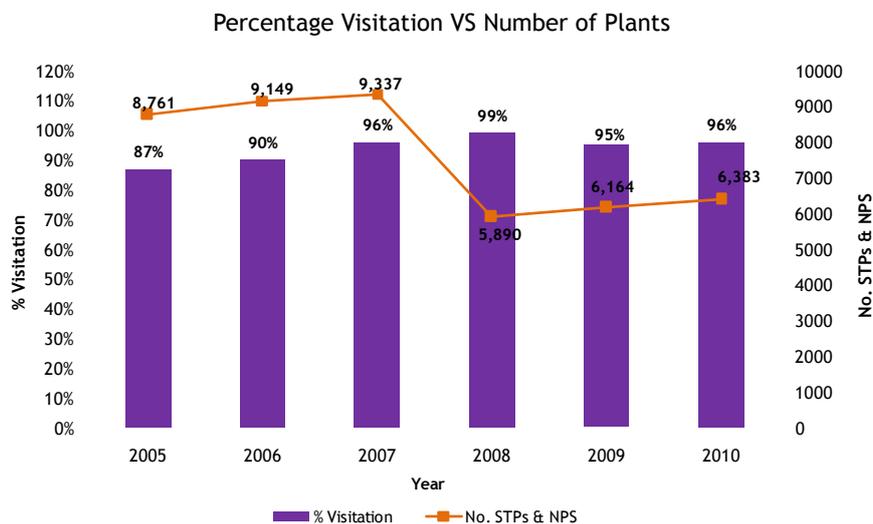
Year Established	System Description	Purpose
2006	Laboratory Management Systems (LMS)	Laboratory Data
2007	Certification System	Sewerage Development Certification Data
2008	Asset Management Information System (AMIS)	Asset Profile Data (STP, NPS, sewers, etc)
2009	Integrated Geographical Information System (IGIS)	Asset Map and Geographical data

Apart from strengthening the organisational Data Management System, IWK has also started asset profiling initiatives. Asset profiling is defined as a process of examining and auditing the assets as well as collecting valuable and accurate information and documents regarding the selected assets. We have established an Asset Management Strategy, which provides guidelines for decision making relating to how assets should be operated, maintained, replaced, renewed or upgraded. The purpose of this strategy is to identify, analyse and then coordinate and programme the management and improvement of the assets making up the public sewerage system.

### Operational Service and Maintenance Visit

With the incremental numbers of STPs taken over annually and the limited manpower resources, IWK has to outsource some of the STPs operational and maintenance services to certified and approved contractors. Despite the increasing number of STPs, we are able to improve our service and maintenance visits to 96% this year.

With WSIA implementation in 2008, IWK is no longer responsible for the operation and maintenance of more than 3,000 communal septic tanks (CSTs) nationwide. The CSTs have been recategorised as septic tanks and is the responsibility of the owner and/ or tenants. Thus, there was a huge drop of numbers of STPs in 2008. There is a slight improvement in plant maintenance visitation by 0.9%.



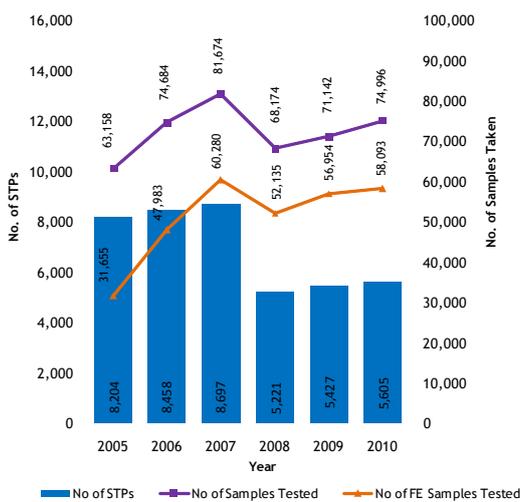
## Our Sustainability Efforts

### STP Effluent Sampling and Compliance Monitoring

The total no of STPs being maintained by IWK has dropped to 5,221 in 2008 with Water Services Industry Act (WSIA) 2006 implementation, which re-categorised communal septic tanks as septic tanks under owner/tenants responsibility. As a result, the total number of STPs and samples tested dropped in 2008. However, we monitor beyond regulatory requirements, in which incoming water quality is also tested (more than 14,000 samples). Annually, public treatment plants increased by 3.9% in 2009 and 3.2% in 2010 and our total sampling tested had increased by 4.4% in 2009 and 5.4% in 2010 respectively.

The DOE under the Ministry of Natural Resources and Environment has revised the regulations of Sewage and Industrial Effluent. This regulation which came into force on 10th December 2009 is now split into two - Environmental Quality (Sewage) Regulations 2009 (EQSR) and Environmental Quality (Industrial Effluent) Regulations 2009. The EQSR specifies and introduces effluent standards at upstream of water intake points and discharge released into stagnant water. There were additional parameters introduced: Ammoniacal Nitrogen (NH3-N), Nitrate Nitrogen (NO3-N) and Phosphorous. Based on this new standard, IWK has a 95% compliance rate in 2009. Although the number of public plants has increased by 3.2% in 2010, we managed to improve our compliance to 96%. Majority of non-compliances are due to illicit and illegal discharge, theft and vandalism and external factors that impaired or affected treatment process and performance. Please refer to 'Risk and Challenges' Section on page 91-100 for details.

Number of samples Tested from Year 2005 to 2010



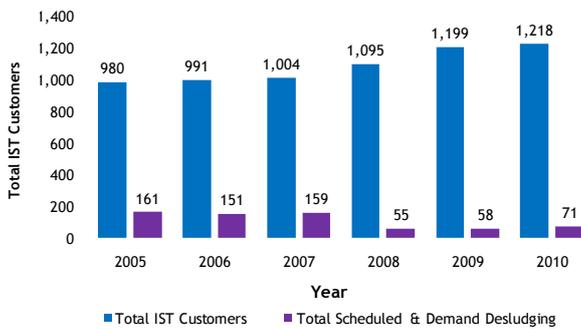
Public STPs Compliance againsts Effluent Standard



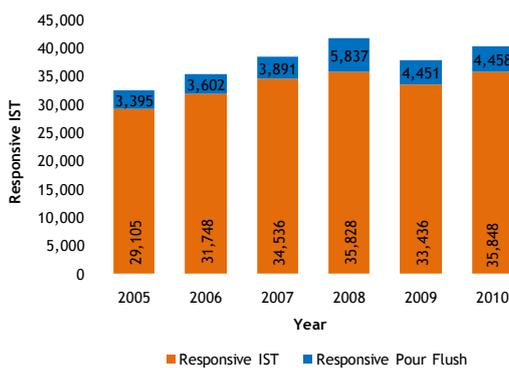
## Our Sustainability Efforts



Scheduled and Demand Desludging



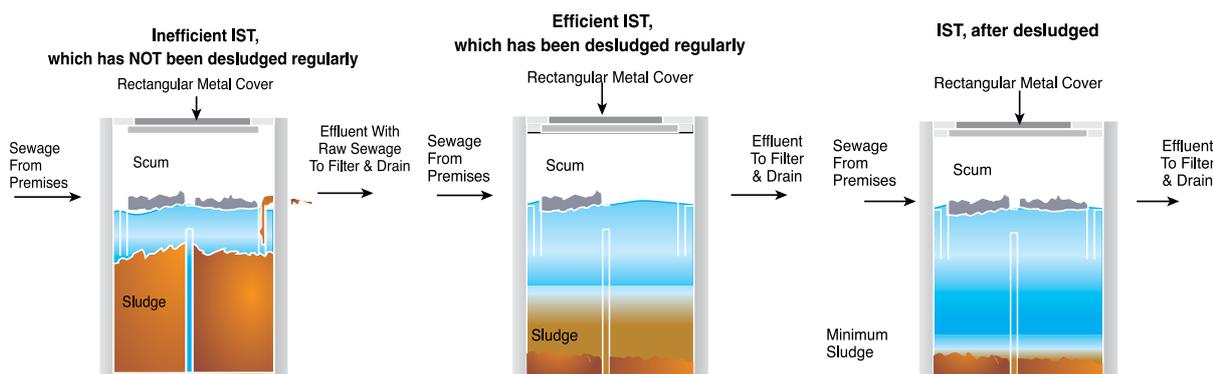
Responsive Desludging



### Desludging Services

Sludge is residual or organic matter that settles to the bottom during the treatment process. The maximum volume of sludge that a septic tank can store is approximately one third of its total volume. Regular desludging or removal of the accumulated sludge in the septic tank is critical to prevent water pollution. The frequency of desludging is dependent on the capacity and design of the septic tank. According to Malaysian Standards (MS 1228), a septic tank needs to be desludged regularly at least once every two years. Without scheduled desludging, untreated sewage and sludge solids will be released into rivers. This will cause depletion of dissolved oxygen in these rivers, resulting in threat to aquatic life. In addition, untreated sewage also poses a threat to public health since it may contain pathogenic bacteria and viruses that cause deadly diseases such as cholera, typhoid and hepatitis A.

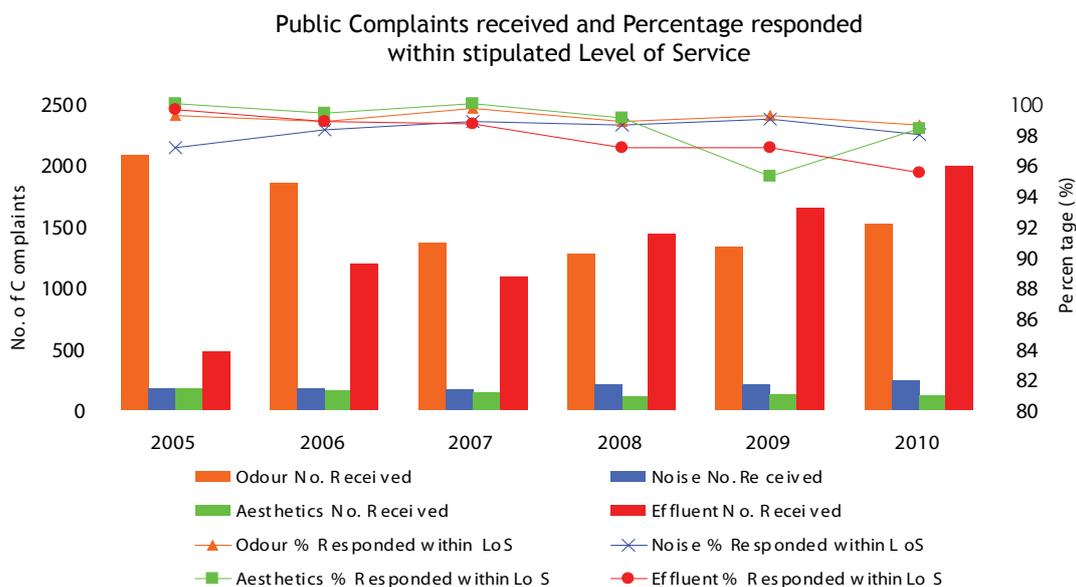
Under the Water Services Industry Act 2006 (WSIA), the owner or the tenant of a premises with septic tanks (including communal septic tanks or CSTs) is responsible for the maintenance of the their septic tank. With WSIA implementation in 2008, IWK is not responsible for providing scheduled desludging services of septic tanks and CSTs. Although IWK is no longer responsible for the septic tanks nationwide, we still provide regular scheduled desludging to government building and offices nationwide. We also provide desludging services to private owners/ tenants based on demand or ‘call for service’. This is called responsive desludging service. For responsive desludging service, the customer has to pay a fee for each septic tank and/or trip completed. The detail rate per service is available on our website at [www.iwk.com.my](http://www.iwk.com.my). The total no of desludging services conducted in 2010 was 111,183.



## Customer Complaints and Response Time

We take complaints made by third parties seriously. All complaints were monitored based on level of service (LOS) stated in our customer charter. In 2010, we managed to improve resolution of complaints made on odour, noise and aesthetics at LOS 98% and above. There is a slight drop of LOS for complaints on effluent compliance due to increased numbers of total complaints, lack of human resources and financial constraints.

‘All complaints were monitored based on level of Services (LOS) In 2010, we managed to improve any complaint at LOS 98% and above.’

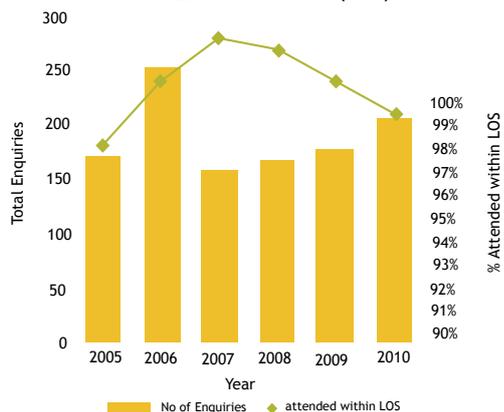


## Emergency Cases and Response Time

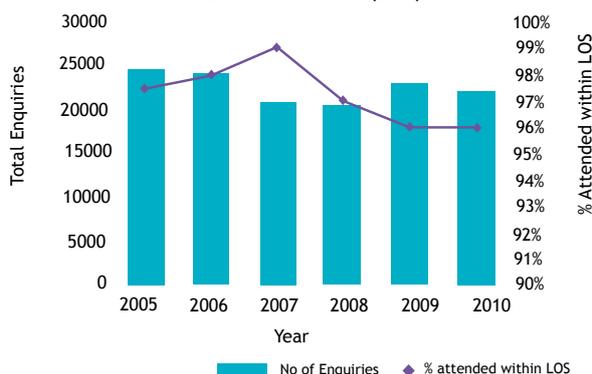
Any complaint made on sewer collapses and pipe blockages are considered as emergency. The total number of sewer collapse inquiries increased in 2010. Due to lack of manpower and financial resources, the level of services slightly dropped from 98% to 97%. However, we managed to slightly improve our LOS for blockages inquiries from 95.7% in 2009 to 96.4% in 2010.



Cases of Sewer Collapse Enquiries Attended within the Level of Service (LOS)



Public Blockages Enquiries Attended within Level of Service (LOS)



## Our Sustainability Efforts

### Capital Works and Refurbishment Programme

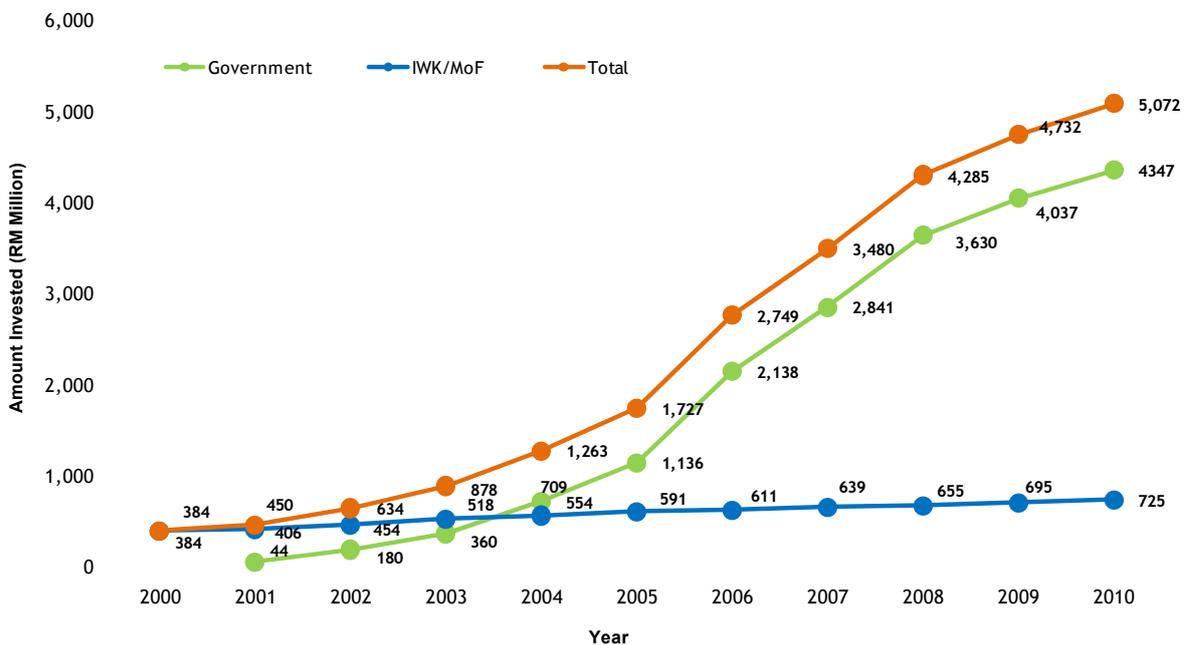
Capital Works and Refurbishment Programme is vital to make good and enhance functionality and effectiveness of sewage treatment processes. As part of this service, IWK manages and monitors progress and deliverables of civil works quality and M&E installation quality, including serviceability, safety, security and aesthetics. As of 31st December 2010, a total of 3,867 STPs have been refurbished at a total cost of RM437.4 million.

**Summary of Refurbishment Works Implemented by IWK as at December 2010**

No	Category of Refurbishment Works	No. of Plants under Refurbishment Programme	No. of Plants Refurbished	Cost of Refurbishment works (RM Million)	% of Plants Refurbished
1.	Category 2 & 5 (Safety, Security, Cleanliness, Aesthetics)	3,786	2,304	25.44	61%
2.	Category 2 to 5 (Safety, Security, Cleanliness, Aesthetics, M&E and Serviceability)	2,449	1,515	335.53	62%
3.	Major Treatment Performance (Total Upgrading / Replacement of Plants)	56	48	76.43	86%
<b>Total</b>		<b>6,291</b>	<b>3,867</b>	<b>437.40</b>	<b>61%</b>

Capital investment for construction of centralised sewage treatment plants, sludge treatment and disposal facilities, rationalisation of old and small sewage treatment plants and upgrading of sewage treatment plants and sewerage systems are required to minimise sewage impact on river water pollution and enable non-performing plants to meet increasingly stringent environmental standards. Since the take-over in 2001, the Government has invested a total sum of RM 5.072 billion on sewerage investment, of which RM 4.347 billion was from the Ministry of Energy, Green Technology and Water (KeTTHA) while the remaining RM 725 million was from IWK's / MOF financial resources.

**CAPEX Investment on Sewerage Development to Date**



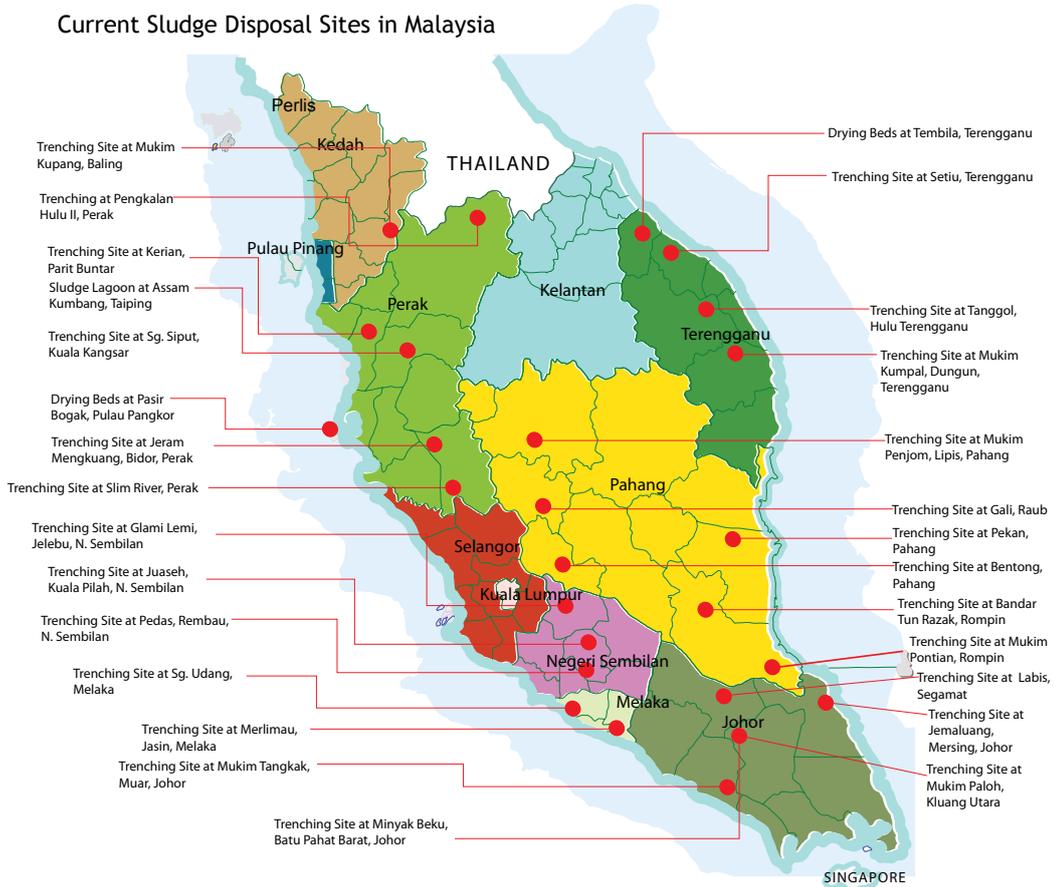
Sludge Handling and Management

Almost every sewage treatment process produces sludge. Untreated sludge is a threat to the environment and public health, whilst treated sludge is stabilised, inert and safe to be used as soil conditioner or landfill top soil. Over the years, sludge management in Malaysia has evolved from no strategy (out of sight out of mind syndrome) to a proper strategy (with immediate, short term and long term strategies that involved non-mechanical and mechanical sludge handling: trenching systems and eventually centralised sludge treatment facilities). To date, our strategy has further grown to explore green technologies applications, in which bio-effluent, biosolids and biogas will be reused as resources. ‘Zero waste’ is our ultimate target, however, it is not an easy task as there are many factors, risks and challenges.

IWK’s Current Sludge Treatment & Disposal Facilities

<p><i>Trenching System</i> Completed 25 no.</p> 	<p><i>Lagoon System</i> Completed 1 no.</p> 	<p><i>Mechanical Dewatering Unit (MDU)</i> Completed 23 no.</p> 
<p><i>Dedicated Sludge Drying Beds</i> Completed 3 no.</p> 	<p><i>Integrated Sludge Reception Facility</i> Completed 6 no.</p> 	<p><i>Dedicated Centralised Sludge Treatment Facility (CSTF)</i> Completed 8 no.</p> 

Current Sludge Disposal Sites in Malaysia



## Our Sustainability Efforts



### Climate Change Concern and Carbon Footprint

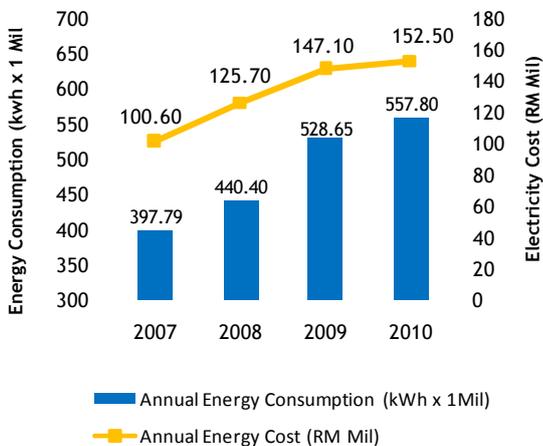
“40%”

In December 2009, the Prime Minister YAB Datuk Seri Najib Tun Razak announced that Malaysia would be adopting an indicator of voluntary reduction of up to 40% in terms of emissions intensity of GDP by 2020 compared with 2005 levels.

In December 2009, our Prime Minister Datuk YAB Seri Najib Tun Razak announced that Malaysia would be adopting an indicator of voluntary reduction of up to 40 percent in terms of emissions intensity of GDP (Gross Domestic Product) by 2020 compared with 2005 levels. IWK is keen to support our government pledge and we have started identifying our carbon foot print size in 2007 and expanded our reporting coverage to fuel consumption and electricity usage in 2008-2009.

This year we continue this effort to report carbon footprint in 2010, in which fuel data was obtained from tankers and company vehicles consumption via fuel card monitoring, whilst energy consumption was obtained via energy bills from thousands of STPs and NPS by 18 Unit Offices and head office. We are still new in these initiatives and hope to develop further our data collection and reporting in the future. We are aware of the impact of methane gas generated within our sewers, sludge storage and disposal activities. However, the amount of methane gas generated is relatively insignificant in the inert sewerlines and sludge storage facilities. Most of our digesters are relatively new and any possible collected methane gas is being flared for the time being.

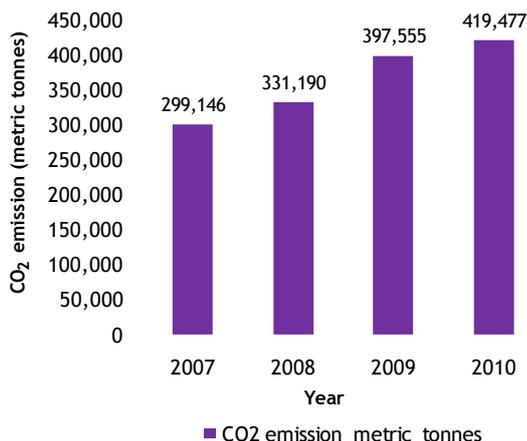
Annual Electricity Consumption and Electricity Cost from Year 2007-2010



### Electricity Consumption and Conservation

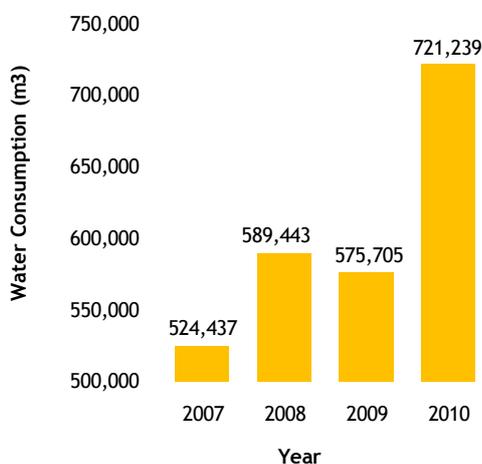
Over 70% of public STPs are mechanical treatment systems which consume huge amount of energy. We have continued our energy conservation efforts since 2007. Electricity data was obtained from all electricity bills from our STPs, NPS, headquarters and unit offices nationwide. In 2009, our electricity consumption had increased by 20.0% compared to 2008. The number further increased by 5.5% in 2010. Even though the number of STPs have increased annually, the rate of increment in 2010 has reduced as result of our optimisation and conservation efforts nationwide. The indirect CO<sub>2</sub> emission was obtained via PE INTERNATIONAL and Malaysia Power Grid Mix (2005-2012) with emission factor of 0.75202 kg CO<sub>2</sub>/kWh, which indicates similar downward trends in emission rate in 2010 compared to the previous year.

Annual CO<sub>2</sub> Emission from Year 2007-2010



### Water Consumption

Water Consumption from Year 2007 - 2010



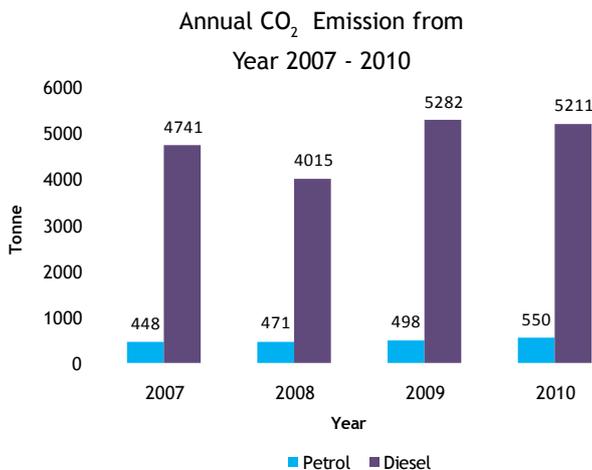
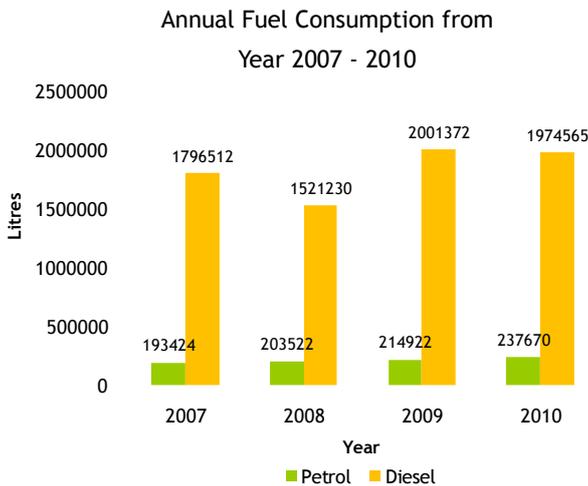
The water consumption slightly dropped in 2009 compared to that in 2008. Although the number of STPs is more than 5,000, usage of water is minimal for washing, cleaning purposes and personal hygiene. However, there was a jump in water consumption in 2010. This is due to several reasons namely an increase in the number of new STPs taken over in year 2009 till year 2010 and some STPs were reconnected back with water supply by year 2010 due to past theft cases of the water meters. There were also additional new connection/ re-connection of water supply to STPs which previously were without water supply / supply disconnected. Finally, there were also several large regional plants such as large JBIC plants in Juru and Sg Nyior (150,000 design PE each) taken over by end of year 2009. Some of these plants are also serving as new Reporting Centres for our field staff.

## Our Sustainability Efforts

### Bio-effluent reuse

We practice reuse of bio-effluent for cleaning of screens and mixing of polymer at large STPs, however, it is still marginal compared to our overall water consumption nationwide. As part of our continual improvement programme, we have expanded the reuse of bio-effluent for cleaning of sewers which has been implemented by the Southern Unit offices. In 2010, our tankers have reused 1436.45 cubic meter of bio-effluent for cleaning of sewers.

### Fuel Consumption



IWK measures direct fuel consumption of all our desludging tankers and company vehicles. The carbon footprint emission calculated based on 2008 Guidelines to DEFRA GHG conversion factors with emission factors of 0.002639 MT CO<sub>2</sub>/litre for diesel vehicle and 0.002315 MT CO<sub>2</sub>/litre for petrol based vehicle. We believe centralisation and rationalisation of old and small STPs will be able to reduce carbon footprint size due to logistics of hauling sludge from various primitive systems and individual septic tanks. In 2009, the CO<sub>2</sub> emission from petrol consumption has increased by 5.6% compared to 2008. The number further increased by 10.6% in 2010. This is proportionate to incremental number STPs taken over by IWK.

In 2009, there was an increase in CO<sub>2</sub> emission from diesel consumption by 31.6% compared to 2008. The number for diesel consumption however has reduced by 1.3% in 2010. This is possibly due to reduced demand and awareness on desludging services with implementation of WSIA and centralisation/ rationalisation of small STPs.



Herds of storks were seen at our Wangsa Maju STP Kuala Lumpur.

#### Biodiversity Conservation

Storks and egrets are migratory birds which are commonly seen within our selected STPs. They are becoming our regular 'visitor' possibly interested in fish, insects, earth worms within the STP compound. Occasionally we have seen eagles pass by our STPs possibly eyeing for fishes in the pond. Fish is very synonymous with oxidation ponds, facultative ponds and clarifiers. They are naturally grown fish that may come into our pond during floods or heavy rain.

Typical fish found in our ponds are black tilapia (scientifically known as *tilapiine chclid*), and cat fish (scientifically known as *clarias batrachus*). They thrive in our ponds due to the abundance of food. Similarly, monitor lizards or biawak in Malay (scientifically known as *varanus salvator*) are also frequently seen passing by and swimming in our ponds. We let them visit and/or stay within our STPs compound as they form part of a natural life balance and add colour to the STPs.

## Our Sustainability Efforts

### Continuous Improvement

Continuous improvement is a systematic, ongoing effort to raise IWK’s performance as measured against the Accreditation Standards. IWK believe continuous improvement involves the establishment and support of a work culture that aims for better practice in sewerage management and services for customers and stakeholders. We have adopted quality assurance and continuous improvement strategy to lift our performance to a higher standard.

### Certification

With more than 75,000 samples tested annually, IWK has secured Skim Akreditasi Makmal Malaysia (SAMM) ISO/IEC 17025 accreditation for our Taiping laboratories since 2007 and Central laboratories in late 2009. We will continue to pursue SAMM accreditation to our last southern laboratory in Melaka. We also managed to retain our ISO 9001:2008 certification for Certification procedures and Planning Services since 2003 and 2005 respectively. There are 2 Regionals Plants namely Bayan Baru and Bandar Tun Razak STPs which are certified with ISO 9001:2008 certification since 2008, and we hope to expand our continuous improvement effort to other regional plants. We have also initiated and successfully came up with blueprint for ISO14001 certification in 2010, and hope to implement it next year.



Continuous Improvement Programmes (CIP)

Initiated in 2008, Continuous Improvement Programmes (CIP) started with training and workshops to inculcate a continuous improvement mindset. This workshop promoted the Plan Do Check Act (PDCA) cycle and relevant QC tools by an external consultant. The workshops covered concepts and objectives of the PDCA cycle, the methodology of CIP using PDCA cycle and the relevant QC tools for data collection, analysis, presentation and brainstorming. It was a hands on workshop where the participants went through a simulated step by step PDCA methodology for pre-selected projects. Technical Services Section, in Operations head office coordinated the CIP programmes nationwide. Among other benefits of the CIP activities are to improve STP’s reliability and efficiency, working on innovative ideas on daily work processes that are able to improve quality, efficiency and cost for continual improvement.

In 2009, KPI was introduced for each Unit Office (UO) to carry out a project under the CIP. It is still in the learning phase, where the proposed projects were tabled and commented by relevant parties. The objective in the first year was to get the team to be familiarised with the PDCA concept and the use of QC tools. Although there are only 18 Unit Offices, 21 CIP projects have been completed and presented. Some Unit Offices whose members were enthusiastic, proposed to carry out more than one project.

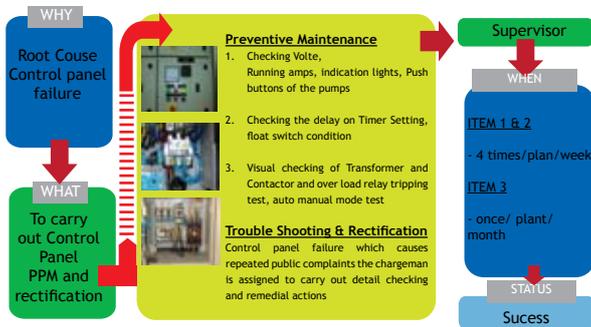
In 2010, a total of 22 CIP projects have been completed and presented. More data are being collected, checked and verified before being implemented under SOP and flow chart for other Unit Office to adopt. Below are list of CIP projects done. We intend to carry out more CIP projects in year 2011.

No	Unit Office	CIP Title	Status
1	Kuala Lumpur	Optimization of Digester Performance at JBIC Pantai, KLR348	Completed
2	langat	Elimination/Reduction of Ammoniacal Nitrogen (NH3-N) from the Final Effluent (FE) of An EA Plant without Anoxic Zone via Process modifications	Completed
3	Melaka	To reduce the turnaround time in extracting documents and reduction in cost via going paperless in unit administrative and finance activities	Completed
4	Penang	Filing Management II - Electronic Filing System (EFS)	Completed
5	Seremban	To minimise invoice cancellation for responsive work	Completed
6	Seremban	To reduce equipment repair cost by early detection through coil resistant monitoring data	Completed
7	Klang	Minimization of Waste Sludge Generation From Activated Sludge Sewerage Treatment Process	Completed
8	Shah Alam	Optimization And Continuous Improvement Project of IMHOFF Tank Operation. Process and Operational Optimization of IMHOFF tank O&M	Completed
9	Shah Alam	Optimization of Energy Consumption at PTG227 Damansara Damai	Completed
10	langkawi	Proposed Modification of Desludging Hose Suction Pipe for Pour Flush Latrines Application in Langkawi.	Completed

## Our Sustainability Efforts

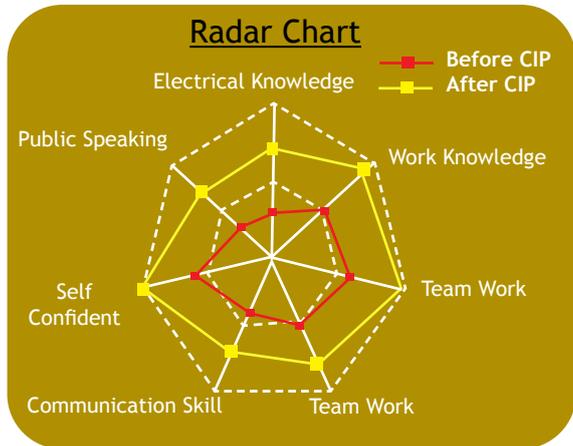
No	Unit Office	CIP Title	Status
11	S.Prai	Improvement of RBC Plant Maintenance to reduce Escalation of Operation/repair Cost and enhance Effluent Compliance.	Completed
12	Gombak	Unit Budgetary Control & Supplier Ceiling Monitoring Improvement	Completed
13	Taiping	To Reduce Missing Guide Rail Cases and to Improve Ergonomics of Pump Installation by Using Portable Extension Guide Rail.	Completed
14	Ipoh	To Improve Control Panel Locking System	Completed
15	Skudai	Minimise Odour Complaint at STP and NPS located close to Residents	Completed
16	Skudai	Minimise Staff Preparation Time at RC In the Morning before departing for work .	Completed
17	Skudai	Improvement to Air Distribution System in between Air Lift and Aeration Piping.	In progress
18	Kluang	Improve Individual Equipment Running Energy Efficiency through pF reading monitoring.	Completed
19	Kuantan	To Reduce Malfunction Of 100mm Diameter RAS Pump By Using Different Model Of Temporary Pumps	Completed
20	Trengganu	To Improve Effluent Quality (Standard B) - Package Plant	Completed
21	Alor Star	To Improve Tankering Performance Using Geotextile Tubes or Bags	Completed
22	Labuan	Charcoal effect on treatment process for EA plant - LAN008	Completed
23	Klang	To Optimise CCTV Investigation On The New Take Over Catchments With DLP 100%	Completed

*- Reduce Public Complaints by Monitoring Pump Failure*



Our Klang Unit Office carried out a root cause analysis of public complaints. In September 2008, it was found that 91% of complaints were due to pump failures, in which 79% due to pumps not working and control panel/circuit failures. With the application of the fish bone and root cause analysis, the CIP team came up with preventive maintenance of sump cleaning, control panel checking and corrective action on pump blockage clearing. After CIP implementation, the complaints reduced from 23 to 15 cases, which is equivalent to a 28% reduction. This procedure has been adopted for nationwide implementation.

*- Reuse of Effluent for Sewer Cleaning able to reduce downtime*



Skudai Unit Office carried out a root cause analysis on downtime sewer pipe cleaning using jettors. The Unit conducted a fish bone analysis and identified that filling of the tank using tap water is the main cause of down time in sewer cleaning. With application of fish bone and root cause analysis, the CIP team had proposed effluent reuse for jetting rather than using tap water. Effluent reuse for jetting was able to reduce by 72% the time for filling tankers and the distance by 22% in comparison using tap water. The cost saving by using effluent reuse was 98%. This procedure has been adopted for nationwide implementation.



## Our Sustainability Efforts



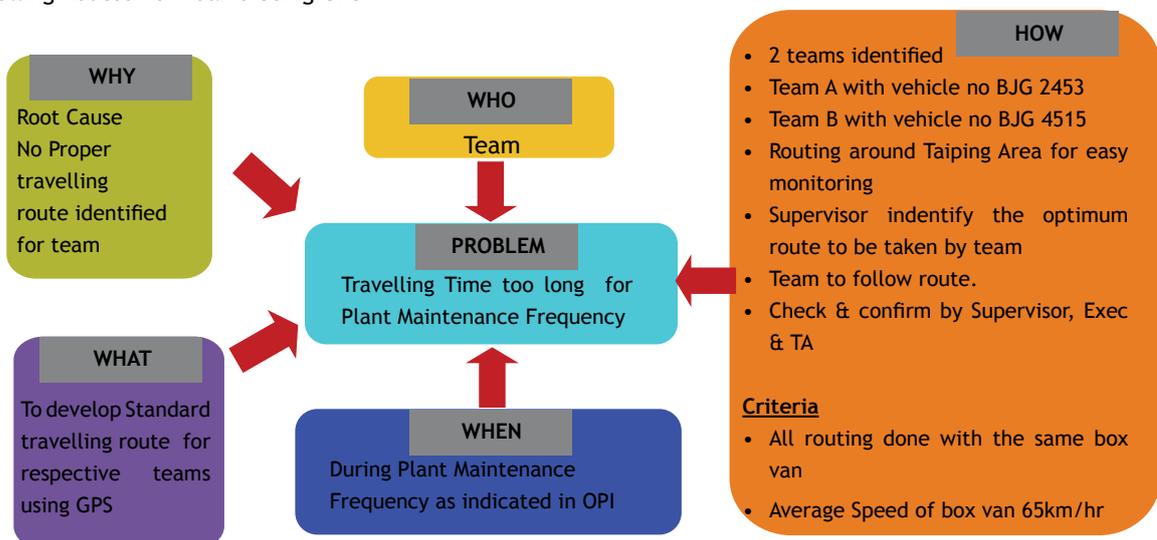
### - Reduce Surface Aerators Failure by Resetting the Immersion Level

In 2008 Melaka Unit office carried out historical data analysis in aeration device failures for the past 4 years. The CIP carried out involved a root cause analysis and the team had identified that wrong setting of surface aerators can cause overloading of aerators which lead to failures. The unit set to rectify setting of aerators for 74 STPs with 3 M&E team and monitored their performance. The CIP project was able to reduce on average from 5.4 to 4.3 breakdown/month (20%), 19 to 0 repeat breakdown(100%) , and with more than RM50,000 saving (25%). After CIP implementation the unit came out with SOP on proper immersion level of surface aerators and setting rectification works procedure. This procedure has been adopted for nationwide implementation.

### - Optimisation of Travelling Route using GPS System

Our Taiping Unit Office carried out a root cause analysis on long travelling duration for STP maintenance. The Unit conducted a fish bone analysis and identified that lack of proper travelling route, time and fuel monitoring are the cause of inefficiency. After implementation of CIP, the unit was able to save up to 13-16% fuel cost, 6-12% distance, and 5-7% travelling time. This procedure has been adopted for nationwide implementation.

#### Standard Travelling Routes For Teams Using GPS



Research and Development (R&D) Programmes

Since year 2000, IWK has undertaken and facilitated more than 100 local Research and Development projects focusing on sewage treatment by-products and operational efficiencies. These projects were initiated via a structured R&D programme in collaboration with local universities and public research institutions. These initiatives further complemented with pilot trials of new technologies, in-house studies and research projects by university students.

R&D Findings for Operational, Environmental & Socio Economic Benefits



Treatment Technology

1. Innovative process improvements
2. Establish local sewage characteristics for design
3. Biochemical solutions for treatment process
4. Biotechnology to improve sludge treatment
5. Energy efficiency & savings
6. Inflow/Infiltration & sewer line studies

Environmental Solutions

1. Green technology in bio-effluent, biogas and biosolids reuse.
2. Sewage loading and river water quality modeling.
3. Odor study at IWK's facilities (baseline impacts, mitigation & modelling)
4. Septic tanks performance & pollution load
5. Pollution impact of sullage

Socio-Economic Evaluation

1. The impact of STPs location on communities
2. Socio economic concerns and social behavior towards bio-effluent & biosolids reuse
3. Economic & technical feasibility of treating industrial discharge at STPs
4. Decision making tools for biosolids management

## Our Sustainability Efforts



### Structured R&D Studies

Structured R&D with local research institutions are mainly funded by IWK, whilst leveraging on the local research institution's niche expertise to address key needs of improving sewage and sludge treatment processes along with reuse potentials of sewage treatment by-products such as biosolids and bio-effluent.

In 2010, IWK funded three collaborative projects with local universities, namely Universiti Putra Malaysia (UPM) on "Biosolid Application for Landscape Plants", Universiti Malaya (UM) on "Pathogen Density for Treated Effluent" and Universiti Kebangsaan Malaysia (UKM) on "Social Perception Study on Biosolid and Effluent Reuse". The main objectives of these projects were to assess the potential of sewage treatment by-products applications in the field.

The potential of biosolid reuse as a fertilizer and soil amendment for landscaped areas was studied in collaboration with UPM. For this project, Malaysia Airport Berhad (MAB) Agriculture-Horticulture Sdn Bhd. had provided the landscape sites within the Kuala Lumpur International Airport (KLIA) estate for biosolid application field trials. Three species of landscape plants were selected for this field study namely *Hopea odorata*, *Cordyline sp* and *Cassia biflora*.

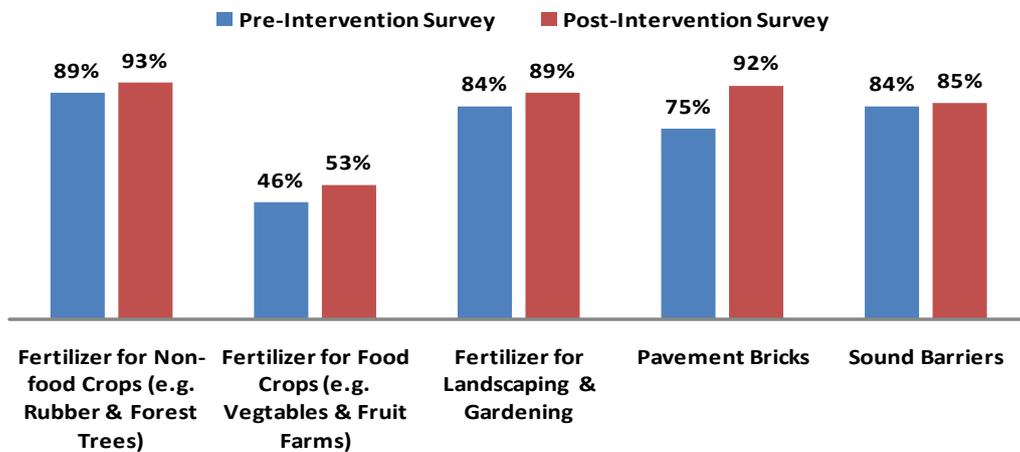
The study involved the agronomic analysis whereby various treatments and applications methods were studied to identify the best methods and composition of biosolids applications. The range of treatments include composition of fertilizer only, mixture of fertilizer with biosolids, biosolids only and control (i.e. without any fertilizer nor biosolids) as well as method of applying the composition into the soil (i.e. broadcast and pocket). It was observed that the landscape plants grew well on soil applied with biosolids when compared to the other plots (without biosolids applications). The study indicated that the biosolids manage to provide sufficient nutrients and improve soil conditions to encourage better growth of the landscape plants.

Bioeffluent reuse potentials have also been explored by IWK in collaboration with UM. Filtration units were installed at regional plants to generate recycle water from treated effluent for in-plant use, hence it was opportune to collect data on the quality of recycled water from the filtration units. The project involved analysis of the quality

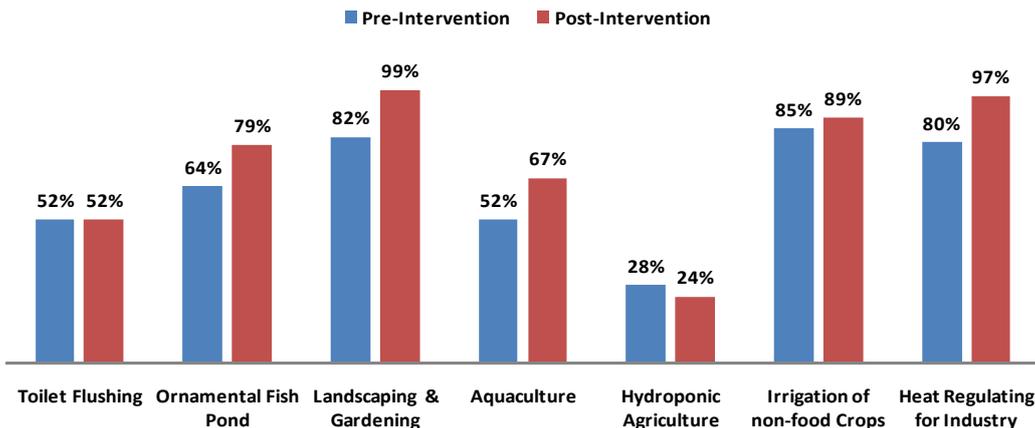
of filtered and recycled treated effluent being generated in terms of the physical clarity, pollutant contents and pathogen density. The studies showed the recycle effluent was of high clarity and there was high removal of pathogen. It is recommended that with disinfection, the filtered effluent can be applied for wider applications such as for surrounding landscaping and cleaning purposes. For reuse at industries the methods to further purify can be designed to meet the respective industrial applications.

Although there are scientific data supporting biosolids and bioeffluent reuse applications, the commercial realisation of such by-products hinges on public acceptance and willingness to pay. Hence IWK and UKM conducted a R&D study to gauge and identify the patterns of perception among communities of varying social groups and stratification towards the reuse of treated effluent for commercial and domestic applications. The study findings indicated that usage of biosolids and bioeffluent was well established internationally and locally. The results shown that the public is more receptive towards bioeffluent reuse for irrigation for non-food crops, landscaping and gardening as well as industrial purposes; whilst biosolids applications is more amenable as non-food crop fertilizers and building material whereby there is no direct contact with end users. This study also showed that the use of educational tools and public awareness of the larger environmental protection needs and benefits of reuse can improve public perception.

**Proportion of Acceptance Towards Varying Biosolid Reuse Applications**  
(400 respondents; 200 without Intervention and 200 after Intervention)



**Proportion of Acceptance Towards Varying Bioeffluent Reuse Applications**  
(400 respondents; 200 without Intervention and 200 after Intervention)



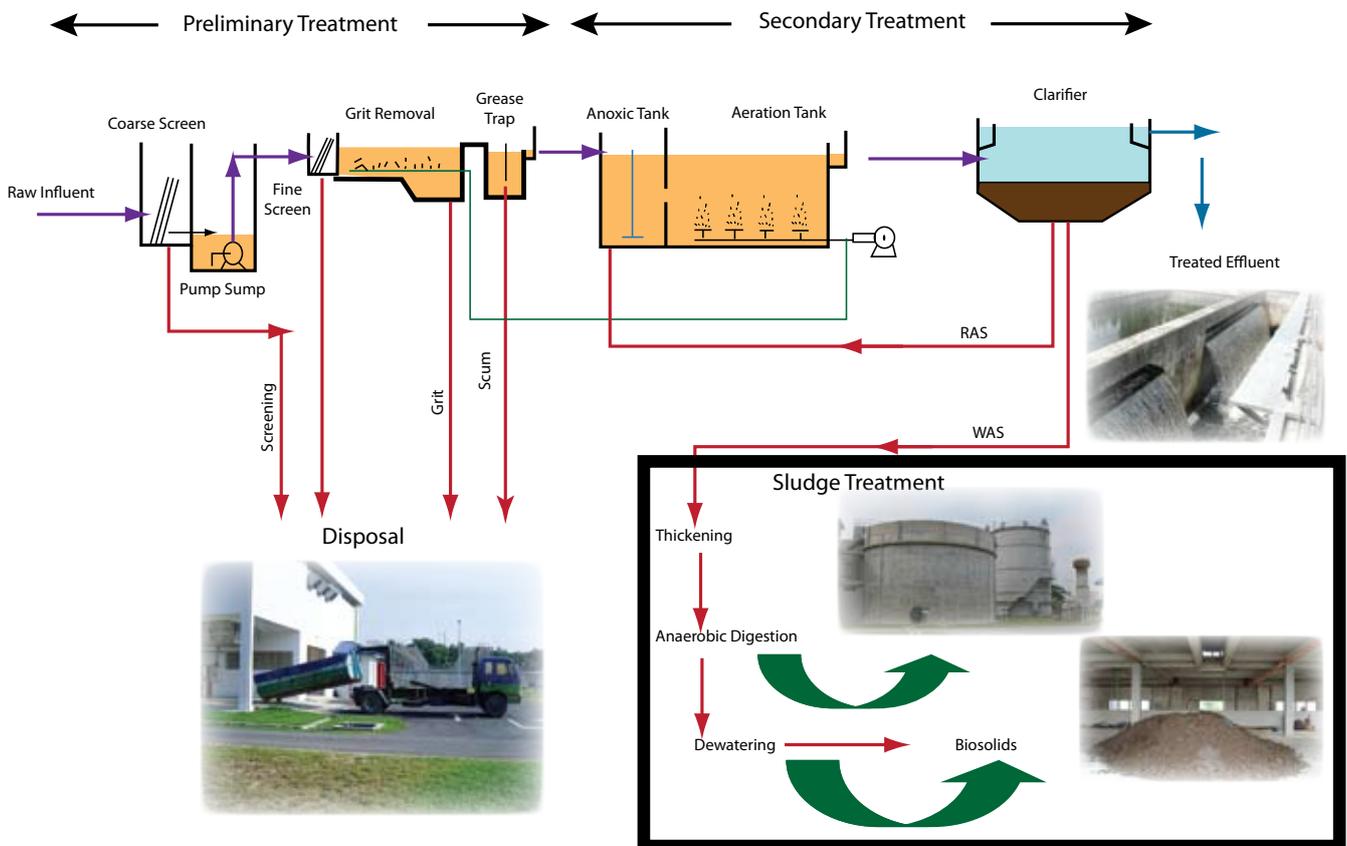
## Our Sustainability Efforts

### Green Technology

Sewage treatment plants are capable of producing 3 key by-products i.e. treated effluent, sewage sludge and methane (Biogas). IWK has started to explore in R&D in the 90's and recently has further initiated into eco-friendly treatment system whereby sewage treatment will need less space, produce less sludge and require lower energy. These efforts have met and supported the National Green Technology Policy.

IWK has further ventured into new business related to the Green Technology in the 3Rs; Reuse of Sludge, Recycle effluent and Reduce Energy, in which our key R&D's study areas are prioritised towards 'zero-waste management'.

Typical Sewage Treatment Process Flow



As part of our commitment to The National Green Technology Policy, we have participated in the International Greentech & Eco Products Exhibition & Conference Malaysia (IGEM 2010) that was held at the Kuala Lumpur Convention Centre from 13-17 October 2010. Our booth exhibited posters on IWK's green technology initiatives such as biosolids, bioeffluent and biogas as well as sample of fertilizer pellets, a by-product of sludge that IWK is developing with a local private company. In 2010 we had initiated 3 signatures projects namely; bioeffluent water recycling project in Labuan, biogas conversion to energy projects and biosolids conversion to fertilizers in Kuala Lumpur.

**Sewage Treatment By-products and its Fate  
Sewage Treatment Plant**





Public Awareness Programme

As the national sewerage company which understands the role of sewerage services to preserve the environment, protect the water resources and public health, it is most crucial to communicate and create awareness on the importance of sewerage systems and services as well as cultivate a sense of ownership to consumers. There are various on-going public awareness campaigns implemented throughout the year, namely school programmes, articles in the newspapers, advertisements in radio, community events, exhibitions, briefing/ dialogues session, and observation/ site tours. Our efforts have won the hearts of consumers, as reflected in the consistently high rate of cumulative collection rate at around 80%.

Our official website: [www.iwk.com.my](http://www.iwk.com.my) gets over 30,000 hits monthly, which is an indication that the website has been a useful source of reference for information. It has been designed to be user friendly, interactive and educational on the outlook of sewerage industry and technical details on sewerage systems. It has been a source of reference to many students of higher learning institution, especially those involved in engineering and environmental studies. Both our Sustainability Reports 2007 and 2008-2009 entitled '13 years of Environmental Accomplishments' and 'Towards Green Agenda' respectively are also available for download.

**Environmental Awareness and Education Programmes Carried Out from Year 2005 until Year 2010**

Year	Special School Programme	Advertorials	Radio Advertisement / Talks	TV Advertisement / Appearances	Observation Tours (Sch/Uni/Gov / Company)	Observation Tours (Foreign)	Exhibitions	Community Events	Briefings/ Dialogue/ Public/ School/ PLKN
2005	25	0	0	12	45	2	30	0	14
2006	46	7	0	0	51	4	65	8	71
2007	30	0	0	0	42	2	49	18	49
2008	32	50	948	0	38	2	25	9	29
2009	33	63	2,824	0	45	3	34	6	50
2010	19	36	2,065	8	35	7	31	8	25
<b>TOTAL</b>	<b>185</b>	<b>156</b>	<b>5,837</b>	<b>20</b>	<b>256</b>	<b>20</b>	<b>234</b>	<b>49</b>	<b>238</b>

Sustainability Expenditure

We take our responsibility seriously in protecting the environment particularly in meeting regulatory standards in waste water treatment. We continuously incorporate sustainability and environmental management in our daily activities, involving planning, design, implementation, testing, commissioning, certifying, operation and maintenance, audit, health and safety.

We have continuously invested in environmental and sustainability management activities and firmly believe that through these investments somehow it will bring changes to sewerage development, public perception, sewerage awareness and impact in Malaysia.

In 2010, we have re-defined sustainability expenditure to include expenditure spent on corporate governance, risk management, staff welfare and training & development. The sustainability expenditure for other major items (i.e. operation & maintenance, planning & engineering and capital works & refurbishment) has also been revised to exclude the aforementioned costs. The following are our environmental and sustainability expenditure from year 2005 until 2010:

IWK Activities	Scope	Cost Committed (RM Million)					
		2005	2006	2007	2008	2009	2010
1. Operation Expenditure	- Operation Planning - Treatment Plants Operation & Maintenance						
- Operation & Maintenance	- Sewer maintenncace - Desludging - Laboratory Services - Biosolids Treatment & Disposal	242.12	293.01	347.17	404.76	433.05	436.78
- Planning & Engineering	- Planning Services - Developer Services - Land Services - Quality & Capacity Development services - Engineering & Environment Services	12.88	10.95	16.47	17.76	17.87	17.25
- Project management (Capital Works & Refurbishment)	- Project Management & Administration - Quality Assurance & Document Control - Special Project	6.02	5.43	6.52	6.72	6.79	6.95
- Training & Development, Health & Safety and Staff Welfare	Training & Development Health & Safety Staff Welfare	2.69	2.90	4.01	4.95	3.01	4.72
- Corporate Social Responsibilities (CSR)	Media & Events	5.38	5.26	4.65	4.43	2.94	5.15

IWK Activities	Scope	Cost Committed (RM Million)					
		2005	2006	2007	2008	2009	2010
- Corporate Governance	Internal Audit	0.76	0.64	0.73	0.59	0.57	0.59
- Risk Management	Insurance	1.01	1.10	1.09	0.89	0.60	0.65
2. Investment in Sewerage Related Assets (including vehicles)		35.54	25.51	29.26	44.48	39.83	40.43
<b>Total (RM Million)</b>		<b>306.40</b>	<b>344.80</b>	<b>409.91</b>	<b>484.58</b>	<b>504.66</b>	<b>512.52</b>

Our incremental environmental cost invested annually clearly shows how much effort we have put in towards environmental protection and sustainable development. Our persistence through the years have paid off when IWK was picked to receive recognition by the Environmental Cooperation-Asia (ECO-Asia) to provide regional capacity building and be part of Water Links activities under them.

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## Corporate Social Responsibilities

*'We love to meet our customers. That's why we organised our community events at our workplace, the sewage treatment plants. This way, customers get the chance to see what is actually happening at the treatment plants and what are challenges we face every day.'*



## Corporate Social Responsibilities

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## Corporate Social Responsibilities



According to Bursa Framework for public listed companies, Corporate Social Responsibilities (CSR) is defined as open and transparent business practice that are based on ethical values and respect for the community, employees, the environment, shareholders and other stakeholders. It is designed to deliver sustainable value to society at large. Even though IWK is not a public listed company, as a responsible company that serves the public, we believe that whatever sustainability effort and CSR activities that are good for business must be also good for the community and the environment. We live in the same world, thus, we do our part in our quest for good business practices and hope it will benefit all our stakeholders within our operational areas for sustainable living.

Our company started CSR activities early to address the objection from the public on the privatisation of sewerage services in 1994. We have spent millions of Ringgit in our effort to educate the public and stakeholders on sewerage conveyance, treatment and services. There were no short and simple solutions in our quest to get the public and stakeholders' acceptance of our services. Over time, we have learned valuable lessons and matured in our public outreach and CSR activities. Our CSR efforts are ongoing activities which we plan and carry out annually. Our CSR efforts have proven to be worthwhile as our customers now recognise and appreciate our services as they are now more willing to pay their sewerage bills. We are proud that ECO-Asia has appointed IWK as the advisor/twinning partner to our counterparts and neighbouring countries for our CSR activities and public outreach programmes on educating the public and stakeholders on sewerage services and environmental awareness.

### Educating the Future Generation

Since 2001, IWK has embarked on an important journey to educate and create awareness on the importance of sewerage services. This is evident through our exclusive school programmes (targeted for secondary school Form 4, 5 and 6 students), higher learning institutions, PLKN programmes and also observation tours.

Various activities are conducted in these programmes such as briefing on the development and importance of sewerage services in the country, video presentation as well as question and answer sessions. For observation tours, visitors are given opportunity to see sewerage treatment plant operations & maintenance processes.

In 2010, we visited 19 schools to conduct special school programmes, we conducted 25 briefings to the public and PLKN camps and organised 42 observation tours.



### Community Programmes / Events

We love to meet our customers. This is why we organise our community events at our workplace and our sewage treatment plants. In this way, customers get the chance to see what is actually happening at the treatment plants and what are challenges we face every day. Various activities are organised during these half day events such as colouring contests (for school children), quiz, briefings and many more. Customer service counters and exhibition materials are also available. Special gifts await lucky customers that pay their sewerage bills on that day.

Recently, we also launched our Desludging Campaigns to encourage desludging of individual septic tanks. These tanks should be desludged on a regular basis, i.e. once in two years. This one-day event is filled with sukan rakyat, senamrobik, silat, and exhibitions from various government agencies. In 2010, 8 community events were organised and is summarised on the next page.

### Television and Radio Programmes

IWK understands the power of mass media to disseminate environmental awareness and the importance of sewage treatment consistently and effectively, thereby creating awareness and developing habits reflecting environmental awareness within society at large. Not only do we carefully craft and streamline both our internal and external flow of communication, but we also relentlessly reach out to various stakeholders, interested parties and society, via online interactive webpages, local and international forums, seminars, radio and public and cable television programmes.

To IWK, media and communication is about more than just gaining supporters: It's about engaging with them. We hope to spread environmental and sewerage awareness, in turn empowering individuals and groups while building their capacities for action and inspiring positive change. Throughout the year 2010, we worked together with the mass media some of which include television programmes with TV3 for *Majalah 3*, *Bersamamu* and 1 capsule on sewerage services in *Buletin Utama* as well as RTM1, *Galeri Perdana*, *Forum* in *ASTRO Awani* and Radio telecasts to educate consumers/viewers on sewerage services and IWK's community services: Awareness and educational programmes targeted at general public/viewers on IWK's critical role and services.

## Corporate Social Responsibilities Event

25-26 January 2010

USAID Twinning Programme between Hai Phong Sewerage & Drainage Co. (SADCO), Vietnam and IWK to improve SADCO's capability and sanitation standards.



27 March 2010

STP Open Day at Bandar Seri Alam, Masai, Johor that was held in conjunction with the World Water Day 2010. More than 300 residents attended the open day. The event was aimed at creating awareness to residents about IWK's role and the services provided with a view to improving collections as well as gather feedback.



15-17 April 2010

Alor Setar Unit Office participated in Environmental Awareness Camp at Kem Kenari, Titi Hayun, Yan organised by DOE Kedah.

6-7 May 2010

USAID Twinning Programme between Maynilad, Phillipines and IWK in Manila.



14 May 2010

CEO IWK at Business FM (89.9) radio station's studio for a 30-minute interview, as part of our initiative to promote sewerage services to the business sector.



20 May 2010

CEO IWK in Astro Agenda Awani with UKM Lecturers discussing on the topic of reuse and recycling of Bioeffluent, Biosolids & Biogas.

22 May 2010

IWK participated in "Juara Rakyat Programme" in Labuan. It was aimed at creating awareness to local residents on developments initiated by the Government.

6 July 2010

Mobile Dewatering Unit at Glami-Lemi, Jelebu launching ceremony and open day

19 August 2010

Skudai Unit Office ushered the fasting month of Ramadhan with ‘spicy porridge’ prepared with the help of Unit Manager and staff. Everybody in Skudai Unit Office were treated with this local favorite porridge, including neighbors and customers who walked-into the office.



19 August 2010

24 August 2010

IWK organised Breaking of Fast at the Sheikh Daud Al-Fathoni Hall, Tuanku Mizan Zainal Abidin Mosque, Putrajaya. The 120 guests who attended were 35 orphans from Nur Hikmah Orphanage Home, Kajang, representatives from SPAN, MOF, PAAB, KeTTHA and IWK staff.



24 August 2010

September 2010

Seremban Unit Office initiated discussion and distribution of leaflets to all eatery operators in Senawang as part of our effort to educate eatery operators on pollution.



September 2010



7 September 2010

7 September 2010

Nursing trainees from Segi College, Subang Jaya visited Putrajaya STP1 to gain appreciation of sewage treatment processes, as part of their curriculum on environmental science.



25 September 2010

25 September 2010

Penang Unit Office with the cooperation of Surau Muttaqin, Taman Sri Indah, Balik Pulau, Pulau Pinang’s committee members were involved in the sewerage pipe connection from the surau to the public wastewater facilities.



19 October 2010

IWK participated in the People Friendly Programme organised by the Public Complaints Bureau, N. Sembilan



1 November 2010

1 November 2010

Mechanical Dewatering Unit (MDU) Kerteh, Kemaman launching ceremony and open day.



# Corporate Social Responsibilities Event

10 November 2010

IWK conducted a briefing and organised an exhibition at Ganun Primary School, Alor Gajah, Melaka in conjunction with the school's Entrepreneurship Day.



10 November 2010

13 November 2010

2 in 1 programme, "A Day With Customer" and "Desludging Campaign" held at the public field of Taman Nilam, Sg. Petani.



13 November 2010

2 December 2010

IWK participated in the seminar on "Love Pantai Chenang Langkawi Environment" at Nadias Inn Comfort Resort, Pantai Chenang, Langkawi organised by DOE Langkawi.



2 December 2010



4 December 2010

4 December 2010

IWK participated in "People Friendly Event" organised by the Public Complaints Bureau at PPR Pudu Ulu, KL



7-10 December 2010

7-10 December 2010

Diagnostic visit by IWK experts to Jamshedpur Utilities and Services Company Ltd (JUSCO), India to assess JUSCO's sewerage systems and the needs for improvement.

22 December 2010:

Sunggala, Port Dickson STP open day.



22 December 2010:





### Lending a Helping Hand

An old proverb says, ‘good deeds are never lost...’. In view of that, IWK is lending a hand to help the community through our sponsorship initiatives. These initiatives include charity dinners, family day, environmental camps, building of orphanage homes and many more.

In 2010, we donated RM99,350.00 to government and non-governmental organisations including schools.

### Charity Desludging

IWK understands the implication of neglected septic tanks and sewage treatment plants as potential pollution sources. We do what we can to reduce pollution sources within our means. As such, as part of our initiative to keep the environment clean and reduce risk of contamination from overloading of septic tanks, IWK conducts desludging for free for religious centres such as mosques, churches, temples etc. In 2010 we conducted a total of 795 charity desludgings services nationwide.

## Corporate Social Responsibilities

### Career Fair Programmes

We have participated in career fairs organised by local universities and external job fairs as follows:

DATE	CAREER FAIR	ORGANISER
5 - 7 Mac 2010	Ekspo Kerjaya & Pendidikan USM	USM
14 - 16 May 2010	National Career & Entrepreneurship Carnival 2009 (PWTC)	Jobstreet & MOHE
4 Dec 2010	Karnival Pekerjaan Bersama JobsMalaysia (Tabung Haji Kelana Jaya)	JobsMalaysia Centre Kelana Jaya

This activity helped to instill greater awareness amongs the students and graduates on the employment opportunities in the sewerage industries. It has a two pronged approach whereby not only it is an effort to create a talent bank but also as a branding exercise to the local job market.

### Graduate Employment Scheme

We continued with our support with the Graduates Employability Management Scheme (GEMS) programme which was introduced in 2009. In this 6 months programme, graduates from local universities were chosen as management trainees and they were provided extensive training and mentorship to prepare for permanent employment with IWK.

In year 2010, we hired a 39 GEM a graduates, 12 of whom were offered permanent employment.

### Links with Academia

In an ever-changing and increasingly competitive environment, students likewise are becoming more selective when choosing an institution in which to study and are more concerned with longer-term employability offered by various courses. This changing environment from both the business and education perspectives makes practical training or attachment with government or private industries an essential part which links education closer to the world of work, by providing students with the relevant transferable skills.

IWK has continuously provided the means for research on wastewater and sludge treatment/development from providing attachment with our relevant department as industrial trainees or conducting research by taking samples of wastewater and sludge. This internship programme with students or industrial training produces very positive results, with students feeling that their skills have been greatly enhanced with hands on working experience provided to them which gives them with a competitive advantage when entering the job market.



### International Partnership in Capacity Building and Sewerage Management

Malaysia is fortunate to have high sanitation coverage of up to 98%. Sewerage services have evolved and progressed tremendously since the nation's independence in 1957. Sewerage management practices in Malaysia has now grown to world standards. Malaysia is one of the leading countries with a centralised sewerage management policy to the national level. Today, Malaysia is seen as one of the leading nations in the management of sewerage services in terms of coverage at a national level, management practices, technologies, financing, billing collection, public education, awareness and regulatory framework. IWK has been appointed as ECO-Asia training partner since 2008.

To date, we have conducted 18 international capacity building and technical visits, some of which are as follows.

#### Twinning partnership with Hai Phong City's Sewerage and Drainage Company (SADCO), Vietnam

ECO-Asia facilitated a twinning partnership between Hai Phong Sewerage and Drainage Company (SADCO), Vietnam and Indah Water Konsortium of Malaysia. The MOU between SADCO and IWK was signed on 29th January 2010 and the programme ended on September 2010. The main objective was to strengthen SADCO's capabilities in desludging services and to conduct promotional campaigns to increase public acceptance of desludging.

The nine-month water operator partnership has helped SADCO improve its capabilities in carrying out desludging services by developing recordkeeping forms, streamlining work orders and running scheduled desludging programme. For promotion campaigns, the programme used the Water and Sanitation (WATSAN) 10-Step Promotion Program Toolkit for SADCO. By adopting this Toolkit, SADCO was able to promote its services to households and businesses.

## Corporate Social Responsibilities



### Twinning Partnership on Enhancing the Capacity of Sewerage Design and Development between Maynilad Services Inc., Philippines

Another USAID's Environmental Cooperation-Asia (ECO-Asia) programme was initiated between Indah Water Konsortium and Maynilad Water Services, Inc., Philippines. For this, a Memorandum of Understanding was signed on 29th January 2010. The main objective for this twinning arrangement was to support Maynilad in improving its capability to design and operate combined sewer collection and treatment systems under Maynilad's concession area. In addition, promotion campaigns were also included as one of the objectives whereby, WATSAN 10-Step Promotional Toolkit was used to deliver the training.

From this training, Maynilad has benefited in terms of knowledge, know-how on design, operations and maintainance of the NPS and SBR. Project management was also introduced in the training for Maynilad to gain knowledge on tender evaluation by the IWK's expertise. Further, Maynilad also was able to develop pre-test materials for the promotions campaign after being reviewed by IWK.

### Twinning Partnership on Waste Water Management in Jamshedpur, India

Jamshedpur Utilities and Services Company Ltd. (JUSCO) has approached Asian Development Bank (ADB) to facilitate a twinning programme between JUSCO and Indah Water Konsortium for the purpose of sharing of experiences and mutual benefit. A diagnostic visit was held from 7th to 10th December 2010. While in Jamshedpur, the diagnostic team held discussions with several key personnel from all departments of JUSCO. They also visited the relevant departments, including the laboratory, customer call centre, treatment plants, pump stations and problematic sewer areas.

Based on the findings of the diagnostic visit, there are areas for potential cooperation and collaboration between JUSCO and IWK were determined. A draft Memorandum of Understanding was drawn up for this purpose.

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## Our Risks and Challenges

*'Sewage is something that every human settlement must deal with: we treat it lightly at our peril, we put ourselves at risk of water-borne diseases outbreak. The responsible handling of sewage is a big challenge in maintaining safe and healthy communities, and everybody has a role to play. It is a great challenge to mitigate this risk especially when it being aggravated by external factors.'*



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# Our Risks and Challenges

## IWK naik taraf kolam kumbahan

Pastikan operasi ikut piawaian ditetapkan



**TAMAN PUTRA** - Sebelum ini bezanya penduduk di Jalan 22, Taman Seraya membanggakan rasa bangga terhadap kemudahan kolam kumbahan di Taman Seraya yang dikatakan tidak mampu menampung air kumbahan dari Kolam Kumbahan di Taman Bukit Teratai sehingga boleh menyebabkan berlakunya limpahan air kumbahan, sejaranya kolam ini ditutupi kelat.

Abu Undangin Negeri (ADUN) Teratai, Jenice Lee telah mengadakan pertemuan dengan penduduk berketuhanan sejak tahun 2009.

"Pihak kami mengambil alih kolam kumbahan itu adalah bertujuan untuk memantapkan baik kolam berkenaan, pihak kami akan menaik taraf peralatan pengaliran kolam tersebut yang termasuk bekalan kasa-keka RAWIP juga," katanya.

Menurutnya, IWK akan memulakan tugas yang terdapat di dalam kolam kumbahan itu yang dipaparkan telah rosak. Pihaknya sentiasa memantapkan kolam kumbahan berkenaan beroperasi dan mengotakannya kepada Sinar Harian.

Menurutnya lagi, pihaknya juga memandangkan keajaiban penutupan jalan di sekitar Taman Seraya untuk memberi kemudahan penduduk di kawasan berkenaan.

Selain itu penduduk pernah meluahkan rasa kecewa sebab terdapat keadaan jalan yang agak teruk selepas kerja-kerja projek pembangunan baru yang dipaparkan, walaupun ia telah ditampal semula oleh pihak kami," katanya.

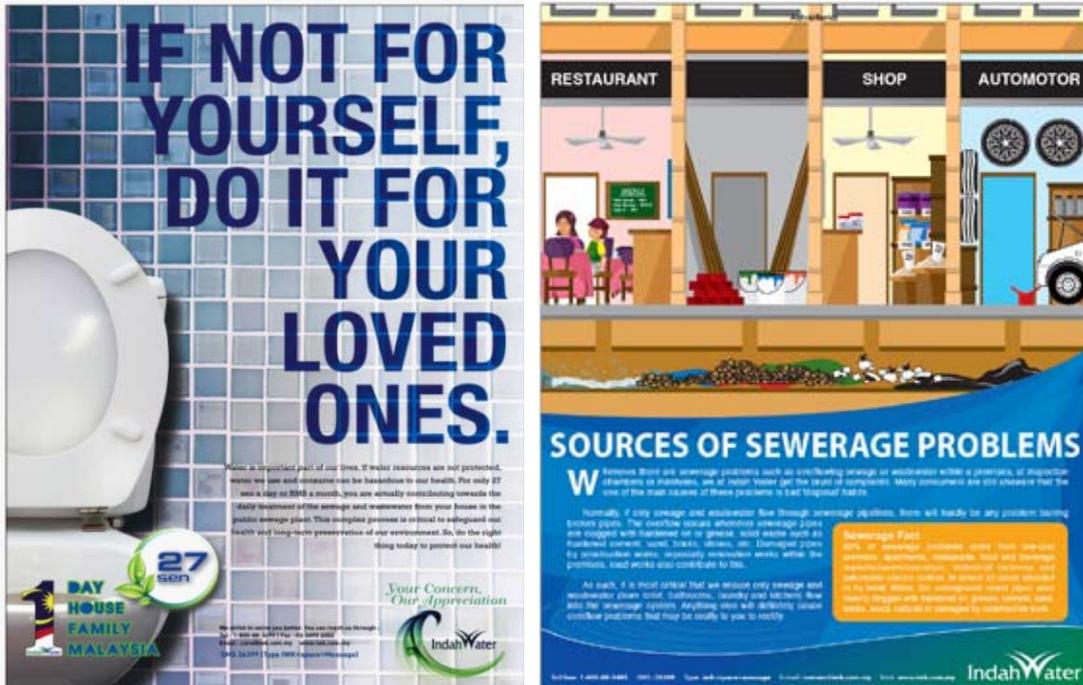


Sewage is something that every human settlement must deal with: we treat it lightly at our peril, we put ourselves at risk of water-borne diseases outbreak. The responsible handling of sewage is a big challenge in maintaining safe and healthy communities, and everybody has a role to play. It is a great challenge to mitigate this risk especially when it being aggravated by external factors. IWK believes that these risks are challenges that need to be firmly taken hold of, managed and controlled as part of our triple bottom line efforts to ensure a sustainable future.

### Public Perception and Attitude

IWK has fought tremendous battles on negative perception towards sewerage services and management in the early 90's and continues this effort as we foresee the value of environmental awareness to inculcate sustainable behavior in environmental protection. Under the sewerage concession agreement, IWK will offer customers desludging services once every 2 years. Over the years, we continue receive very low acceptance of scheduled desludging. However, this effort as put forth by the government is able to ease and reduce further pollution of untreated sewage due to overflowing of septic tanks. The WSIA Act 655 established in 2006 specify that communal septic tanks is categorised as septic tanks and falls under owner/ tenants responsibility. As such, desludging services by IWK to septic tanks were stopped and an additional 3,000 CSTs are now under owner and tenants responsibility. With low awareness on environmental preservation and sewerage treatment in today's modern and hi-tech communities, Malaysia takes a step back in sanitation and environmental issues due to a lack of proper management of millions of septic tanks nationwide. Lack of proper septic tank management not only will aggravate further environmental pollution due overflowing, it will also encourage mosquito breeding in these stagnant tanks. This has partly contributed to a huge increase of dengue cases all over the country over the past years.

Although our country is moving toward developed nation status, our attitude towards environment leaves much to be desired. Public at large flush wood, diapers, rags, sanitary pads, condoms, boxes, plastic containers down their toilets. These items will eventually damage or slow down major STP equipment which affects plant processes resulting in non-compliance of effluent and emission of foul odour. Additionally, we face opposition from the public to extending our sewer network, hence services to areas using ISTs is low in both rural and urban areas despite the reduced charge imposed for these services. The government understands the risk associated with septic tanks failure and is willing to fund property connection projects to assure the residents on their need to fund the work themselves. Despite the reluctance by the public to pay an extremely low sewerage bill to protect the environment, they do not however, have any hesitation in forking out RM 50 to 150 for the telephone bills



and cable television bills monthly. Despite the various obstacles faced, the level of awareness of sewerage services and management has improved by leaps and bounds over the last 16 years and 80% of IWK customers are now paying their sewerage bills.

Malaysian’s public perception on sewerage is not always based on facts. It is extremely difficult for the average person to gauge the quality of water at a local river or beaches, so people turn to the media to obtain information about water conditions. However, environmental issues present a considerable challenge to reporters because they represent the clash between urban development and conservation interests and, as a result, are frequently met with political and economic resistance. In addition, using mass media for environmental issues can be problematic as newspapers are not necessarily sources of balanced information. Because of deadlines pressures, journalists work on the quick turnaround of stories and spend minimal time reviewing technical data. They rely instead on their key informants, who can potentially bias their interpretation of the scientific data (Source: American Institute of Biological Science).

Public perception of water quality is very important. If there is sufficient material to present go to the public, people’s imagination are left to fill in the gaps. The public must be given accurate and unbiased information concerning the primary threats impacting water bodies so they can do their part to improve water quality conditions in these regions. IWK believes that we must do our part to reach out to educate journalists and the public to improve their understanding of environmental problems. By responding to media requests for information, participating in public forums, and utilizing websites to educate, we help to close the gap between scientific knowledge and public perception. Through exposure to accurate information, personal experience, and persistence, the public will become informed of the true threats to the environment and perhaps alter their daily activities accordingly. (Source: American Institute of Biological Science).

## Our Risks and Challenges



### Indah Water to shut down Bukit Teratai plant



Amin Lin Abdullah says the plant may be converted into a green lung

**KUALA LUMPUR:** Indah Water Konsortium Sdn Bhd (IWK) is in the midst of upgrading the Taman Seraya sewage treatment plant in Bukit Teratai, Ampang. IWK head of communications Amin Lin Abdullah said upgrading work began in August and is expected to be completed by August next year, at the cost of RM4 million.

He said that the project includes the closing down of the Bukit Teratai treatment plant. The waste would be channelled to the Seraya treatment plant.

"The Bukit Teratai plant built 15 years ago did not follow specifications, and has eroded over

the years. To ensure proper sewage treatment we've decided to upgrade and channel the waste to the Seraya plant which is twice the size of the Bukit Teratai plant," he said at a briefing with Bukit Teratai residents.

Amin said that there was a proposal to turn the Bukit Teratai plant into a park.

"Once the upgrading work is completed, we will have a meeting with residents and the local council to discuss turning the area into a green lung," he said.

Amin gave his assurance that IWK would be monitoring the plant once upgrading work was completed.

Bukit Teratai resident Wong Kai Yean, 32 said the residents now had a better understanding of what was to happen to the Bukit Teratai plant.

"We saw contractors digging in the area and we had no idea what was happening.

"We now have a better understanding of what IWK is doing," he said.

Teratai assemblyman Jenice Lee said she organised the briefing with IWK after receiving complaints from residents in the area.

"We are glad the issue has been settled," she said. — *By Noel Acharium*

NST- 16 Nov 2010

IWK is upgrading Taman Seraya sewerage system in Bukit Teratai, Ampang to cater for the influent from the Bukit Teratai sewerage system. The sewerage project is being carrying out at the cost of RM4 million and it is expected to complete by August 2011.

Sewerage system located at Phase 2 of Bandar Puteri in Kulai has completed its upgrading project and finally the residents are free of odour problem - 28th October 2010 (China Press -Johor Edition)

This project is believed to be able to resolve the foul smell problems highlighted by the residents residing nearby in 2008. Two years ago, the effluent discharged into the river emitted foul smell. It affected about 600 premises including two schools and a kindergarten. IWK received the complaint and carried out upgrading work to resolve the problem. RM1.8 million was allocated by the Ministry of Finance for the project.

### Ageing and Outdated Sewerage Infrastructure

Malaysia has developed sewerage infrastructure as early the pre-independence era in Penang, followed by the Municipality of Kuala Lumpur in 1957. Since then, sewerage infrastructure development has multiplied further and grown to meet the needs of the population and industrial development nationwide. Today the numbers of STPs has multiplied to over 5,600 with more than 14,000km of sewers nationwide and a wide variety of treatment systems, some of which are not up to the regulatory standards. Our wastewater treatment and sewers collection systems are aging, with some system components which are over 40 years old. In the mean time, numbers of sewers and STPs are deteriorating due to ageing. The government and IWK has spent millions ringgit on structured refurbishment, upgrading and rationalisation programmes to address this issue as mentioned in page 58.

The new sewage regulations, EQSR 2009 has introduced additional parameters such as ammoniacal nitrogen, nitrate and phosphorous. This takes into consideration plant capability to treat sewage based on plants capability and their intended design criteria at the time. However, all these ageing plants are not up to mark to meet stringent future targeted regulatory requirement with higher treatment capability. The EQSR 2009 has imposed targeted year of 2016 and 2019 (depending on standards applies) by which these plants need to be upgraded to meet future stringent requirements. An immense amount of capital is needed to refurbish and upgrade existing systems to ensure the infrastructure is able to function and deliver higher nutrient removal as its intended design.



### Climate Change Impacts

Whilst companies plan and invest to reduce risk, flooding can be caused by unpredictable factors. In fact, risk will increase due to factors outside a company's control - such as new developments and increased storm intensities from climate change. According to a UNDP report entitled 'Reducing Disaster Risk: A Challenge for Development', global climate change brings with it long term shifts in mean weather conditions and the possibility of the increasing frequency and extreme weather events and increase uncertainty and complexity of risk for everyone. Whilst all types of flooding are distressing, sewer flooding is arguably one of the most distressing, contaminated floodwater will increase property damage and causing extreme distress to people, particularly for the vulnerable, and exposing them to both physical and mental health risks.

Malaysia has not been spared, we have experienced extreme weather events when major floods occurred in Kubang Pasu, Kangar, Alor Setar, Padang Terap, Langat, Kuala Lumpur, Gombak, Shah Alam and Labuan in 2010. As a result, 89 STPs were drowned in floods which occurred in November 2010. A total of RM1,193,934 was spent by IWK to clear siltation, moisture and service the equipment such as blowers and control panels, clear sewage mess within STPs compound and replace submerged wiring systems to revive the plants to normal operable conditions. Additional mitigation measures were also taken to raise the level of control panel and blowers above the flood level.

## Our Risks and Challenges



Is this a typical 'mamak discussion' for you and your friends? Will you then talk and forget about it just like other passing topics?

Perhaps it's because it only costs up to **27 sen a day** to ensure your wastewater is treated. Regardless, Indah Water will continue to keep the environment clean and safe each day without fail.

Toll free : 1-800-88-3495    SMS : 36399    Type : iwk-space-message    E-mail : [comms@iwk.com.my](mailto:comms@iwk.com.my)    Visit : [www.iwk.com.my](http://www.iwk.com.my)    IndahWater

### Illicit Discharge and Illegal Connection

An illicit discharge is defined as any discharge to the public sewer system that is not composed entirely of sewage water as defined under WSIA. These non-sewage discharges occur due to illegal connections to the sewer system from private business or commercial premises. As a result of these illicit connections, contaminated wastewater or chemical or toxic substance enter into sewers or directly into existing standard domestic sewers before receiving treatment from a wastewater treatment plant.

Illicit connections may be intentional or may be unknown to the business owner and often are due to the connection of internal piping or floor drains or effluent pipes or pipe connection from industries to the sewer system. Sullage or domestic wastewater from renovated kitchens or piping can be considered as illicit discharge into drains and rivers. Additional sources of illicit discharges can be failing septic systems, illegal dumping practices, and the improper disposal of sewage from recreational activities such as boating or camping. These illegal connections and illicit discharge may impair treatment performance either by quality or quantity of loading which is higher than its intended designed or not design for toxic and hazardous substances. In 2010 we had experienced a total of 192 reported cases of illicit discharge into sewers which polluted our plants nationwide. If these substance are toxic for sewage treatment plants, it most certainly will be toxic and harmful to the environment and water bodies.

Illicit discharge detection and utilisation programmes and enforcement are important to prevent the contamination of ground and surface water supplies by monitoring, inspection and removal of these illegal discharges. An essential element of this enforcement is in Uniform Building By-Laws, WSIA and EQA which respectively have granted the authorities (Local Authority, SPAN and DOE respectively) to inspect properties suspected of releasing contaminated discharges into sewers systems and drain or water bodies. Enforcement action for those properties found to be in non-compliance or that refuse to allow access to their facilities is important and will be subjected to compound or fine or jail upon conviction. IWK could only report to the regulator of such incidences or non-compliance. However, we are still subject to penalty/compound for STP effluent non-compliance due to the irresponsible behavior of others.



#### Fat, Oil and Grease (FOG)

Fats, oil and grease, also known as FOG are byproducts of cooking. FOG comes from meat, fats, lard, oil, shortening, butter, margarine, food scraps, sauces, and dairy products. Malaysians tend to eat food which are deep fried or stir fried which tend to have lots of FOG. Local favorite dishes such as curry, rendang, nasi lemak, roti canai and masak lemak cili api also contain lots of FOG. Directly pouring FOG down the drain after cooking is a very common way in which it enters into the sewer system. When washed down the drain, FOG sticks to the inside of sewer pipes. Over time FOG can build up, block entire pipes, and lead to serious problems.

In 2010 alone, IWK received a total of 22,184 blockages enquiries, of which 21,385 were responded within our LOS. These blockages include all types of blockages in sewers and manholes.

FOG in liquid form may not seem harmful, but in fact, it is. As FOG cools, it congeals and hardens, making it a toxic substance for the sewage system. It sticks to the inner lining of drainage pipes and restricts the wastewater flow, eventually causing a blockage. FOG is a solid or viscous substance, which will ultimately create an obstruction in the sewer system if not properly disposed of. Restaurants, food-courts and commercial shop lots selling cooked food and beverages deal with large volumes of FOG and need to maintain oil and grease trap. Using detergents or bleach may appear to help, but this is not the case. It is only a temporary solution. FOG will soon return to its thick, solid state. Detergent or cleaners just send the FOG further down the sewage line into our sewage treatment plants. Our plants cannot cope with extreme FOG and this leads to effluent non-compliance and summonses.

FOG causes sewer blockages, leading to spills and overflows that are hazardous to our health. These spills can result in damage to our homes; pollution our local waterways, groundwater, harm fish and wildlife habitats. Our treatment plants are not designed to handle FOG. FOG should be scraped from cooking utensils into plastic bags together with solid waste. It should be controlled at source. The good news is restaurant owners, community members and all stakeholders have the power to easily prevent damage from FOG, contributing to a better quality of life in Malaysia.

## Our Risks and Challenges



Lightning arrester cable was stolen



Control panel cover and wire were stolen

### Theft and Vandalism

Theft and vandalism cases are rampant in remote and unmanned STPs that even handrails and screens are not spared. The thieves are so daring that some of control panel wires were cut, valves and worse, pumps were stolen. Vandalism of electrical wires may cause interruption of power to critical equipment. Any steel especially stainless steel material are their favorite targets. We have lodged numerous police reports on theft cases nationwide. In 2010 we recorded 568 theft cases nationwide with a total loss of approximately RM3.88 Million.

In mitigation, we have increased the numbers of our EYE programmes or security partners and implemented early warning systems. We have established eye watch security programmes for selected IWK customers located within these areas.

#### *-EYE Programme*

This programme is part of our initiative to reduce the risk of theft and vandalism to our STPs. The 'EYE programme' started in year 2003, whereby selected suitable domestic customers become IWK's 'eye' to look after our STPs for any suspicious and unusual events happening inside our plant areas. As reward for the services rendered, they receive our service for free. Last year the number of customers enrolled in this programme was 210. As of 31st December 2010, we have 179 selected customers enrolled in this programme.

#### *-Early Warning System and Electronic Security System*

Another mitigation measure adopted is monitoring via technology application. In this regard telemetry systems are used to inform/ trigger key operators of any disruptions occurring to our power supply, equipment trip due to lightning or vandalism. However, installation of this monitoring technology requires a huge capital and increases our operational costs if carried out at all mechanical STPs.

As part of mitigation measures to handle all the risks above, IWK has taken the initiative to install early warning systems to critical STPs. To date, we have 1108 STPs nationwide, complete with early warning systems / telemetry.

Electronic security system (ESS) is the advanced version of EWS. This system includes security notification features when an intruder trespasses into our STPs. We have about 700 ESS installed nationwide in 2010.

### Uneconomic Sewerage Tariff Rate

Since 1997, IWK's sewerage tariff rate has been reduced four times. Conversely, our operating cost has increased at a much higher rate than its revenue. While total revenue has increased by 187.6% from RM149.0 million for the financial year ended 30 April 1999 to RM428.5 million for the financial year ended 31 December 2010, the company's total operating expenditure has escalated by 306.2% from RM193.6 million to RM786.4 million for the same period.

The financial year ended 30 April 1999 is used as the benchmark year as it was the first year the entire operation of Indah Water Operations was fully transferred to IWK. Prior to 30 April 1999, Indah Water Operations was responsible to operate and maintain all the sewage treatment plants for IWK with some mark-up in the cost of operation.

Over the year, IWK has implemented several cost control initiatives to control costs, such as implementation of e-Procurement to enable IWK to purchase goods at the most competitive prices, energy cost saving for EA plants, engaging e-security services to reduce security costs etc.

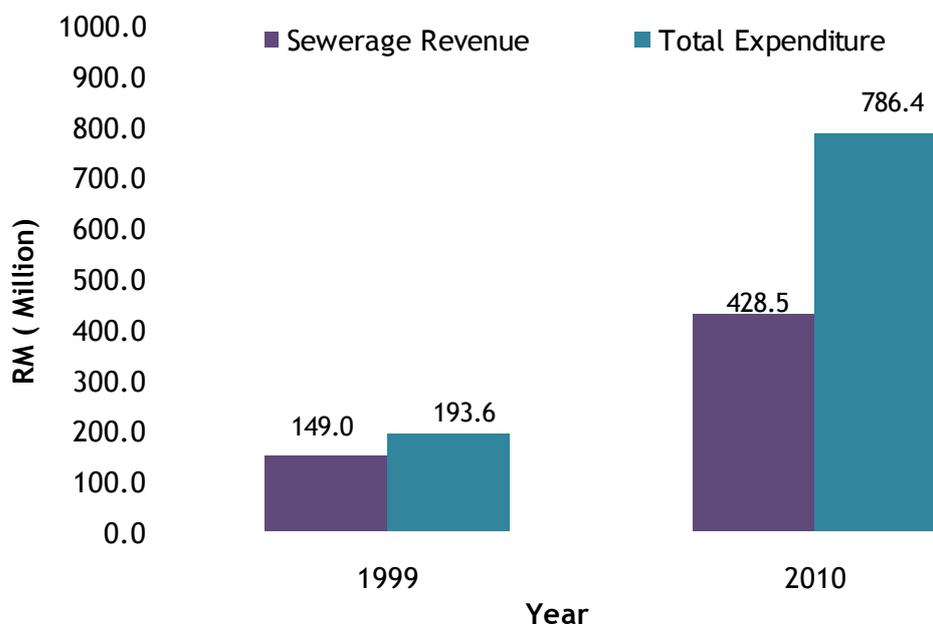
Despite the company's ongoing effort to control costs, the operating cost could not be contained primarily because:

- The continuous enlargement of operational coverage and take over of unprofitable plants;
- Proliferation of small plants (about 200 plants p.a.) which are 5 times more expensive to operate and maintain than larger plants;
- Taking over of additional regional plants (from 2005-2009) with higher operating cost;
- Electricity tariff hike in 1997, 2006 and 2008; and
- Stringent requirements for environmental compliance.

Unfortunately, the low increase in revenue is due to the fact that our tariff rates have not been adjusted to match the corresponding increase in operating the business.

## Our Risks and Challenges

### Revenue and Cost Structure



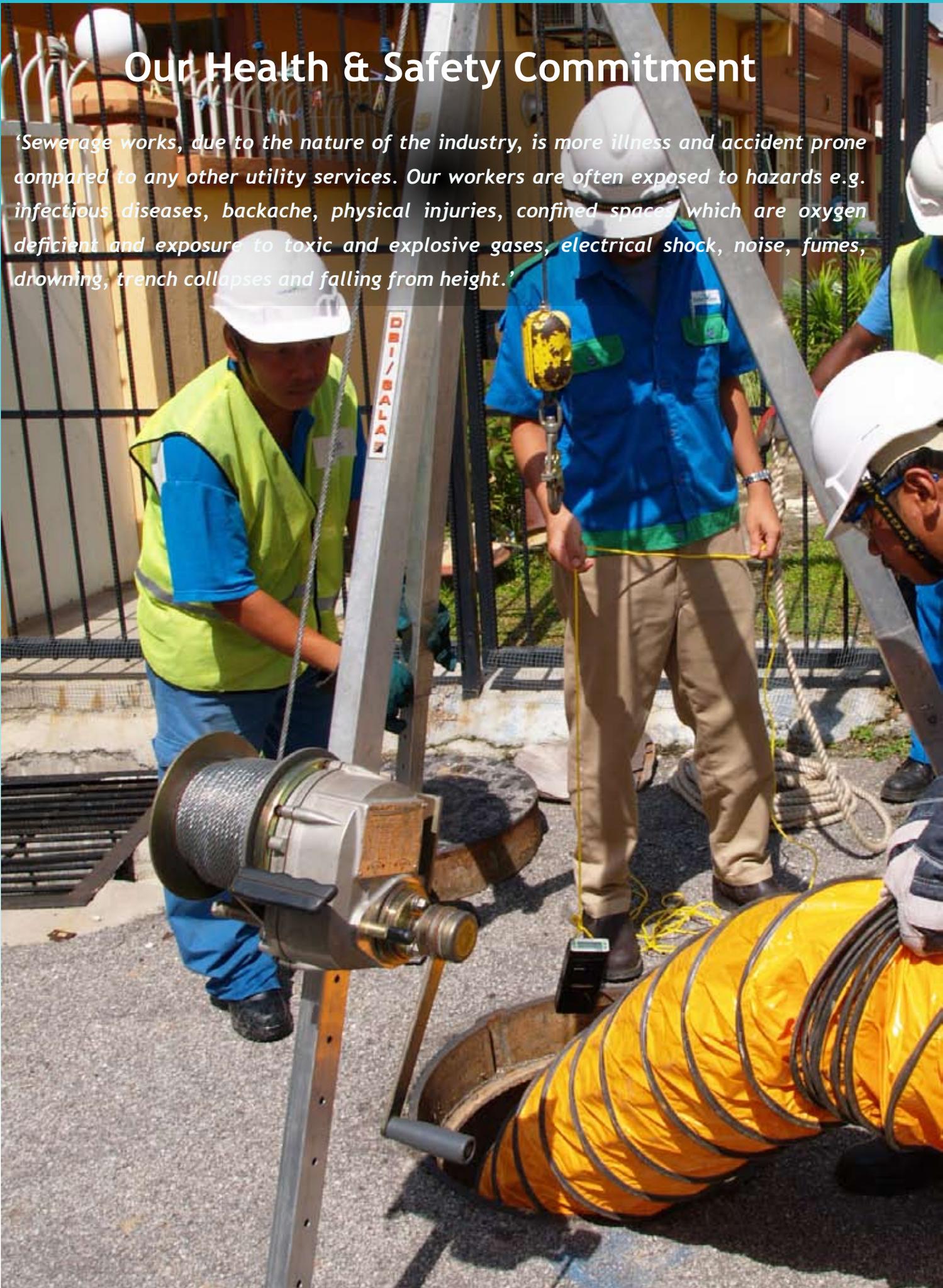
	1999 RM mil	2010 RM mil	Incr/Decr %
Sewerage Revenue	149.0	428.5	187.6%
Responsive Revenue	3.6	4.6	27.8%
Other Income	16.0	34.7	116.9%
<b>Total Revenue</b>	<b>168.6</b>	<b>467.8</b>	<b>177.5%</b>
Staff Related Overhead	57.2	131.3	129.5%
Electricity	22.2	152.5	586.9%
Operating Costs	45.1	266.8	491.6%
Doubtful Debt Provision	34.8	61.2	75.9%
Depreciation	16.5	56.5	242.4%
Interest Payable	17.8	118.1	563.5%
<b>Total Expenditure</b>	<b>193.6</b>	<b>786.4</b>	<b>306.2%</b>
Profit/(Loss) before Subsidy	<b>(25.0)</b>	<b>(318.6)</b>	
Add: Subsidy		<b>150.0</b>	
Profit/(Loss) after Subsidy	<b>(25.0)</b>	<b>(168.6)</b>	
Connected PE	7,113,449	18,707,559	163.0%

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# Our Health & Safety Commitment

*'Sewerage works, due to the nature of the industry, is more illness and accident prone compared to any other utility services. Our workers are often exposed to hazards e.g. infectious diseases, backache, physical injuries, confined spaces which are oxygen deficient and exposure to toxic and explosive gases, electrical shock, noise, fumes, drowning, trench collapses and falling from height.'*





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## Our Health and Safety



### UTAMAKAN KESELAMATAN SAFETY FIRST



#### Health and Safety Management

Sewerage works, due to the nature of the industry, is more illness and accident prone compared to any other utility services. Our workers are often exposed to hazards e.g. infectious diseases, backache, physical injuries, confined spaces which are oxygen deficient and exposure to toxic and explosive gases, electrical shock, noise, fumes, drowning, trench collapses and falling from height.

Self-regulation by IWK in carrying out safety and health management components have shown improvement in our safety records. We carry out annual Health and Safety (H&S) Audits to ensure compliance and implementation of established H&S management components. The implementation of a systematic approach towards Health & Safety has brought about many benefits, such as a reduction in accident rates, improvement of site conditions and an increase in safety awareness of workers within IWK and the public at large.

Apart from this, our management insists on Certificate of Competency and Working Permits to ensure our workers are competent and properly trained. Without a valid certificate, our company does not allow work to proceed. Plan for safety has been built into our work procedures some of which include;

- Checking security and safety status;
- Control of entry via SEWER ENTRY PERMIT, PERMIT TO WORK (for other confined space) and procedures on ENTRY INTO GAS CHECK AREAS, checklists, depot checklists, completion checklists, routine checks, etc;
- Accident and Emergency Procedures;
- Procedures of entry into manholes, chambers or wells of different depth from vertical lifts;
- Procedures of entry into manholes, wells or sewers, where work is carried out away from bottom access shaft;
- Procedures of forced ventilation of confined spaces;
- Procedures of maintenance work involving possible release of gases; and
- Task specific guidelines, etc.

Our Health and Safety Policy

Section 16 in OSHA 94, states that it is the duty of employers and self employed persons to formulate Safety & Health Policy and revise them appropriately. Our Health & Safety Policy statement serves as a morale booster to IWK as a whole and demonstrates that management cares for our employees. Health & Safety Section ensures commitment stated in our Health & Safety policy is that it is executed successfully. The latest review was conducted in March 2010, signed by our CEO, Datuk, Ir. Abdul Kadir Mohd Din and has been communicated to all IWK staff.

This policy is briefed to all new employees within the organisation at IWK Induction Training. In addition, each Line Manager and Safety & Health Officer (SHO) has briefed. This policy is displayed at prominent places in our workplace.



## HEALTH & SAFETY POLICY

Indah Water Konsortium Sdn Bhd (IWK) is committed to safeguarding and improving its health and safety performance by conducting its business undertaking in an organized and responsible manner through the adoption of a certified health and safety management system. We will endeavour to ensure that our activities, services and products do not harm employees, customers and members of the public. We believe it is necessary to adopt sound management practices with a comprehensive health and safety policy of the highest standard.

**CORPORATE RESPONSIBILITIES**

In undertaking its business activities, it is the expressed policy of Indah Water Konsortium Sdn Bhd to:

1. Provide and maintain facilities, plants, equipment and systems so as to ensure a safe place of work with adequate welfare and first aid facilities.
2. Establish effective communication that enable employees to participate in the development and promotion of measures to maintain the highest standards of health and safety at work.
3. Undertake to train and educate employees of the risks to which they may be exposed.
4. Make available to each and every employee appropriate safety and protective equipment.
5. Prepare and review annual health and safety plans.
6. Comply with all relevant occupational health and safety national laws and regulations, as a minimum promoting performance standard that reflect best practice.
7. Develop, maintain and review emergency procedures in accordance with the law and the needs of relevant external agencies and local communities.
8. Ensure health and safety will be a significant factor in the selection process of external suppliers or contractors.
9. Continuously improve the health and safety management systems performance.

MANAGEMENT RESPONSIBILITIES

The overall responsibility for executing the policy rests with the Chief Executive Officer.

Each Head of Department and/or Line Manager will implement the policy and allocate sufficient resources within their areas of responsibility.

Each Head of Department and Line Manager are responsible for ensuring that the activities and places of work under their control are safe and without risks to health. In so doing, they are expected to make regular reviews of the health and safety standards within their areas of responsibility.

INDIVIDUAL RESPONSIBILITIES

All employees are responsible for their own health and safety as well as that of fellow workers, customers and members of the public.

They must co-operate with their Head of Department and/or Line Managers in all aspects of health and safety as well as maintain their places of work and all equipment in a safe and tidy condition. Employees must not interfere with or misuse safety and protective equipment provided. Every employee will be given the opportunity to make their views known on health and safety matters.

DISPLAY & REVIEW POLICY

A copy of the latest revision of the policy will be displayed prominently in the office and be brought to the attention of all employees.

The policy will be reviewed periodically for its suitability and adequacy.



Ir. Abdul Kadir Mohd Din  
Chief Executive Officer

## Our Health and Safety



### Health and Safety Management Audit

In line with IWK’s Health & Safety (H&S) Policy to adopt a certifiable H&S Management System, we have developed our own in-house H&S Management components so as to ensure a good H&S culture in our organisation. The establishment of H&S Management components was based on OHSAS 18001 & MS 1722 framework. All the requirements in IWK’s Manual (Policy and Organisation) is incorporated in the H&S Management System for implementation. The audits are done on biennial basis at unit office level to determine whether the IWK H&S Management System components are properly implemented and maintained. These audits are conducted for a period of 4 days at each unit office covering all the sections.

Unit Office	Audit Date	Major NCR	Minor NCR
Langkawi	19/7/2010 till 22/7/2010	0	7
Kuantan	26/7/2010 till 29/7/2010	4	8
Langat	18/10/2010 till 21/10/2010	1	5
Terengganu	22/11/2010 till 25/11/2010	1	4
Klang	15/12/2010 and 16/12/2010	1	7
Kluang	27/12/2010 till 30/12/2010	0	4
Taiping Lab	29/12/2010 & 30/12/2010	1	6

The systematic audits are conducted by our internal Safety & Health Officer/s who are independent of the work-site being audited. The audit results and conclusions are communicated to Unit Managers for corrective action. Corrective Action Request (CAR) are issued for every major and minor finding/s by the auditors. Proof of corrective implementation for each non-conformance is provided to the auditor prior to closing the CAR.

### Health and Safety Training

Education and training is recognised as important components of an organised safety programme. Thus, we have conducted 8 competency training sessions continuously in year 2010. These include external training, e.g. Confined Space Entry, Authorised Gas Tester and First Aid training, amongst others.

### Health and Safety Awareness Programme

Health and Safety awareness programmes have been conducted successfully at head office and unit level. The target of these programmes is to create health and safety awareness amongst employee in a fun way.

## Health & Safety Event 2010

18 January 2010

Health Talks on Diabetes was conducted at Head Office

25 February 2010

CWRD & Ipoh Unit Office organised a half day “SEMINAR & DIALOG” in collaboration with DOSH Perak to “K&K Perkerjaan (KKP) Bagi Pengusaha IKS Di Sektor Pembinaan & Penyelenggaraan Pembentungan” at Dewan Makan Restoran Cili Hijau, Ipoh.

18 March 2010

Health Talks on H1N1 was conducted at Head Office.

20 March 2010

Health Talks on “Sex in the City” was conducted at Head Office.

12 April 2010

Fire fighting drill training was conducted for IWK staff stationed at Temerloh Reporting Centre.

26 May 2010

“Non Smoke Free Workplace in IWK” programme promoted by HR department

24 June 2010

Health Talks on “Balance Diet - Healthy Living” was conducted at the Head Office



22 July 2010

Health Talks on “Menopause / Andropause - End of Life” was conducted at the Head Office.

1 October 2010

Klang Unit Office organised S&H Quiz Competition for IWK personnel.

14 October 2010

Health Talks on “Awareness of Breast & Cervical Cancer” was conducted at the Head Office.

11 November 2010

Seberang Prai Unit Office organised a slogan competition amongst staff in conjunction with 2010 Health and Safety Campaign.

30 November 2010

Health Talks on “Stress Management” was conducted at the Head Office.

13-14 Disember 2010

The Operations and Maintenance Department organised the 2010 National Skills Competition at the Bukit Jalil Technical Training Centre. The objective of this was to evaluate the correct method of performing their works and adherence to the health and safety requirements.

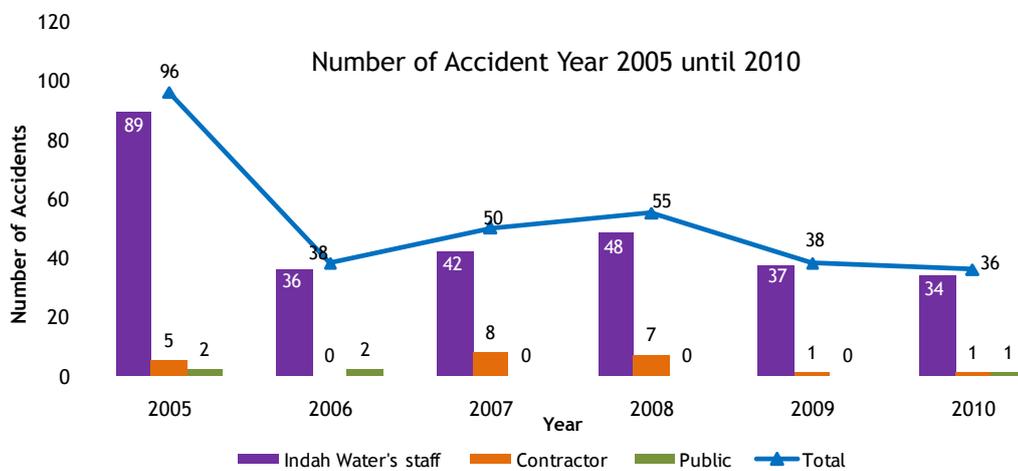


## Our Health and Safety

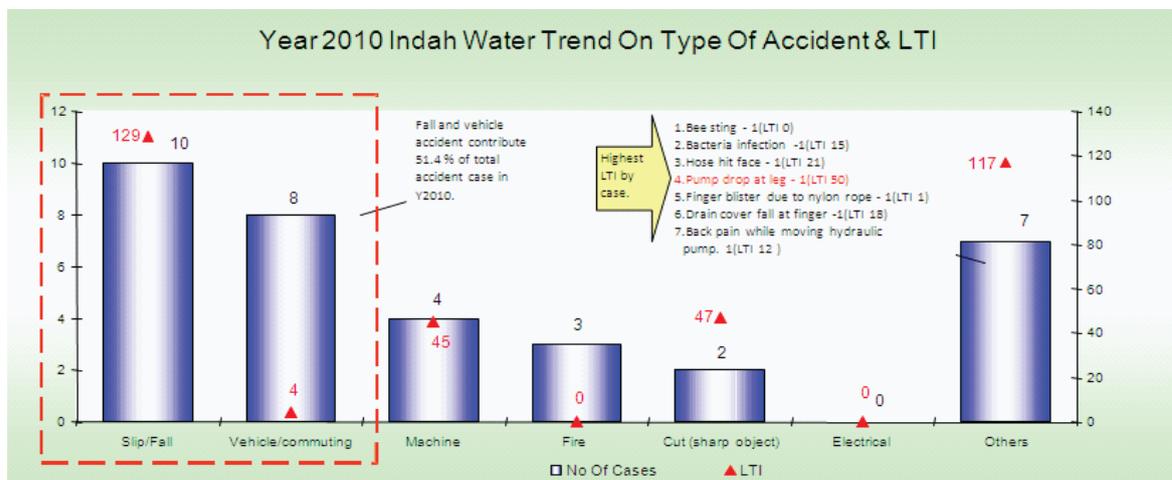
### Safety Record and Performance

At IWK, the safety and health and well-being of our employees are our top priority. The management is committed to the safety and well-being of the IWK community. We have successfully reduced accidents in the past years.

The year 2010 reporting period showed another progressive reduction in the number of accidents. In year 2009, total accidents recorded was 38, this reduced by 5.3% to 36 cases in year 2010. Another point to note is in year 2010, we included traffic accidents in our record as required in Occupational Safety & Health ICOP for road transport activities 2010.



We noticed that Slip & Fall and vehicle/commuting accidents contributed 52.9% of total accidents involving IWK staff in year 2010. However, lost time injury from vehicle/commuting accidents is only 4 days. Slip and Fall recorded the highest lost time injury with 129 days.



From analysis done, we have identified areas for improvement and have planned it accordingly in year 2011. We will continue to place emphasis on effective management of health and safety programme, which will help to minimise the risk of injuries to our employees, contractors and the public and damage to property. Public safety is IWK's paramount priority and we will take every measure necessary to ensure our work is carried out safely and efficiently.

To  
The Executive  
Customer Relations Department,  
Indah Water Konsortium Sdn Bhd  
Kuala Lumpur  
Your Ref: RC 561542315

13 July 2010

Dear Sir,  
Ref: Waiver of sewerage charges for Bahki Perumahan Cikarang Methodist Chapel

With reference to your letter dated 22 June 2010, we would wish to express our appreciation and gratitude to your kind consideration and approval to waive the sewerage charges for this church.

May God bless your work and services to the public that we may have a good and health environment.

Thank you very much.

Yours Truly,

  
Puanee Samud Tan



**From:** [REDACTED]  
**Sent:** 17 August 2010 09:00  
**To:** IWK Customer Service  
**Subject:** Re: FW: 1601922

Dear Customer Service Executive,

Good day to you. Thank you for your fast and prompt reply. I just write in to thank you for the excellent and efficient service that you have provided. It is really impressed and it does change my thought towards IWK. This is a very good attempt. I really appreciate your kind assistance. I will definitely settle my outstanding at my earliest convenience. Thank you.



IWK strives within our means and financial constraints to focus on our Company's vision to be an 'Environmental Caring Sewerage Company' and our mission to collectively contribute to sustainable development. Sewerage issues and related problems are stressful to our customers or stakeholders. Any acknowledgement and recognition received are a bonus to us to inspire better service and performance in the future.

### Acknowledgement

A smile on our customers' faces and payment for services rendered are the big thank you that we hope for. Therefore, it is a pleasant surprise when we receive acknowledgement notes and letters. We are honoured to receive thank you notes and letters from our customers and stakeholders.

### Recognition

Long standing, extensive experience and a holistic approach to sewerage management have enabled us to develop a bird's eye view of past, current and future sewerage management in Malaysia. Sharing our experience is one of the ways to expand the benefits and value beyond national horizons. Recognition and advice that we receive add impetus. We are always happy to help and share our experience which is sought by neighboring ASEAN countries and Middle Eastern countries via international forums, consultation, etc.

This year, IWK was invited by Asian Development Bank (ADB), Ministerial Conference of Environment and Development (MECD) and the United States Agency for International Development (USAID) to present and share success stories in various forums within the country and abroad, including Indonesia, the Philippines, South Korea and Kazakhstan on our sewerage management capabilities.

## Achievement and Awards

We have learned and grown through 16 years' experience of managing public sewerage services nationwide. We hope to make a difference by sharing our knowledge with others locally and internationally. Since 2008, ECO-Asia has provided us with an excellent platform to exchange ideas and experience in the ASIA region. In these programmes, we have learn from our similarities and differences at international level for continuous improvement. We are honored, to receive 2010 Water Links Award from Asian Development Bank and the International Water Association under ECO-Asia.

### Asia's 2010 Waterlinks Award

IWK was conferred the winner of Asia's 2010 Waterlinks Award as recognition of the outcome of IWK's partnership with Perusahaan Daerah Air Minum (PDAM), Tirtanadi, Medan, Indonesia to improve sewerage connections in Medan, Indonesia. The conferment of the outstanding achievement was held at the 2010 Waterlinks Forum, Manila, the Philippines on 4 May 2010.

### Sustainability Report 2007 was shortlisted in ACCA MaSRA 2009

IWK submitted the Sustainability Report 2008-2009 as a participant of the "ACCA Malaysia Sustainability Awards" for the second time. Our previous Sustainability Report 2007 was shortlisted in ACCA MaSRA 2009. The report contains IWK's environmental and social sustainability initiatives through 13 years of our establishment. We are honoured that our Sustainability Report 2008-2009 was shorlisted again in ACCAMasRA2010. This report focused more on our past 2 years accomplishments in performance, sustainability and CSR efforts.

### Ethical Business Excellence Awar 2010-2011

On 9th December 2010, IWK received the "Ethical Business Excellence Award" for 2010-2011. The award was presented by the Honorable Dato' Sri Ismail Sabri Yaacob, Minister of Domestic Trade, Cooperative and Consumerism to Ir. Abdul Kadir, CEO of IWK. The event was held at the Berjaya Times Hotel, Kuala Lumpur.



### The Sewerage Services Sustainability Keys Focus Areas

Sewerage management has assumed increasing importance over the recent years in line with global concern on environmental pollution and deterioration that eventually will give a negative impact to the socio-economic and environmental quality of life of all people. Today in Malaysia, the importance of sewerage management is properly placed and is driven towards keys areas of sustainability; protecting the public health, protecting and preserving water resources, and sustaining the environment. As the national sewerage services provider, IWK is very clear of its role and focus on these 3 key sustainability areas.

### The Sewerage Services Transformation Direction

The Water Services Industry Act 2006 (WSIA) and National Water Services Commission Act 2006 (SPAN) have set the direction for forward progression with the introduction of a centralised regulatory regime of water and sewerage. The scene is set to enable the sewerage industry to move towards a modern and efficient integrated water and wastewater service not only towards achieving financial viability in its commercial operations but also towards achieving environmental sustainability for our future generations. The sewerage services provided by IWK are heading to this transformation direction.

### The Sewerage Services Long Term Plan of IWK

In order for IWK to achieve the 3 key sustainability areas and to contribute effectively towards realising water services transformation, IWK has submitted to SPAN a 30-year comprehensive National Sewerage Development Plan. The comprehensive National Sewerage Development Plan is proposed to be implemented in 2 phases costs over RM33 billion. The Plan emphasised on systematic development, improvement and enhancement of sewerage infrastructure. The aim is to attain an effective, efficient and sustainable sewerage industry that is at par with those in developed nations. This is also in line with our national Economic Transformation Plan's vision of moving Malaysia towards a high income and advanced nation.

(Note : The long term national sewerage issues and the 30 year National Sewerage Plan has been covered under IWK's Corporate Sustainability Report 2007)

### The Sewerage Services Short Term Plan of IWK

As a magnification of the 30-year National Sewerage Development Plan, a 3-year Business Plan for the period of 2010 to 2012, has been submitted to SPAN as required for our application for \*Service License for the provision of sewerage services in which SPAN will regulate and monitor through a series of KPIs based on the business plan. The 3-year Business Plan (2010 to 2012) is formulated with strategic objectives, goals and targets in line with the 30-year National Sewerage Development Plan to ensure an efficient and effective delivery of sewerage services as well as to meet the country's long term aspirations of holistic water and sewerage services management.

*Footnote: \*SPAN has instructed IWK to continue operating under the Concession Agreement instead of Service License until the way forward on sewerage management is established by the Government.*

## Going Forward

### Going Forward

In the Business Plan (2010 - 2012), 5 key strategic objectives were formulated focused on continuing effective and efficient delivery of sewerage services and, improving and expanding of sewerage infrastructure for an efficient and effective sewerage system. The strategic objectives and actions are shown in the table below:

No	Strategic Objectives	Strategic Actions
1	Maintain effective and efficient sewerage services	<ul style="list-style-type: none"> <li>• Maintain high level of service availability</li> <li>• Improve efficiency and reliability</li> <li>• Optimise operating resources</li> </ul>
2	Improve and enhance customer delivery system	<ul style="list-style-type: none"> <li>• Improve customer responsiveness</li> <li>• To develop and expand customer base</li> <li>• Enhance customer relationship management</li> <li>• Improve data accuracy</li> </ul>
3	Contribute towards environmental improvement	<ul style="list-style-type: none"> <li>• Improve effluent discharge compliance</li> <li>• Implement CAPEX infrastructure programmes</li> <li>• Enhance communications and awareness</li> </ul>
4	Work towards water and sewerage service integration	<ul style="list-style-type: none"> <li>• Review organisation structure for decentralisation</li> <li>• Decentralise relevant HQ functions and transfer autonomy to Unit Offices</li> <li>• Relocate staff to match decentralised functions</li> <li>• Match water and sewerage customer data</li> </ul>
5	To move towards full cost recovery	<ul style="list-style-type: none"> <li>• Minimise dependency on government subsidy</li> <li>• Develop “Green” tariff structure for sewerage services</li> <li>• Seek approval for tariff increase</li> <li>• Implement new tariff</li> <li>• Commence pilot joint billing</li> </ul>

With the 5 key strategic objectives, action plans, goals and targets for the Business Plan defined in detail in the Business Plan, implementation of the action plans are currently in progress.

A set of 19 Regulatory KPIs based on the Balanced Scorecard approach which addresses 4 main areas of importance; namely Customer KPIs, Compliance KPIs, Operational KPIs and Financial KPIs, were developed from the goals and targets. SPAN will monitor IWK’s performance based on these KPIs and these KPIs also serve as a benchmark for IWK’s year-on-year progression in realising the Business Plan goals and targets. Gap analyses are conducted between actual and targeted performance and year-on-year benchmarking have been carried out to determine organisational effectiveness and operational efficiency. The 2010’s results of these Regulatory KPIs have been submitted to SPAN for performance review. Of the 19 KPIs, 8 met the 2010 target, 5 were marginally below target and 5 were below target. 1 KPI was not assessed due to unavailability of data.

IWK's Key Focus Areas in Year 2011

Going forward into year 2011, the strategic plans are reviewed and revised for its viability to ensure continuous performance improvement for achievement of our long term and short term goals. New corporate KPIs for year 2011 has been developed based on the Company's Vision and Mission and the Company's strategic initiatives in accordance to the 2010-2012 Business Plan to measure the progress of the Company performance towards the organisational goals. The corporate KPIs for 2011 has been developed based on 5 key focus areas identified by the management and strategic initiatives has also been formulated.



Other than the strategic initiatives according to the corporate KPIs, we have also strategised several specific programmes such as Green Technology related opportunities of reusing sludge, recycling treated effluent and reducing energy consumption by generating energy from gas, promoting of standard STPs to the developers and other ancillary businesses to transform the business from a utility to resource based business towards long term sustainability of the business. The venturing of IWK into these various value-added business development opportunities is aimed to be self sustaining in long run and to become less dependent on Government financial support. At the same time, we are also working towards providing costs effective and efficient services to our customers. IWK is always looking into operational improvements through cost effective technologies to increase sewage and sludge treatment efficiencies. We have initiated operational improvements through bio-technology, nano-technology and microbiology in the sewage and sludge treatment.

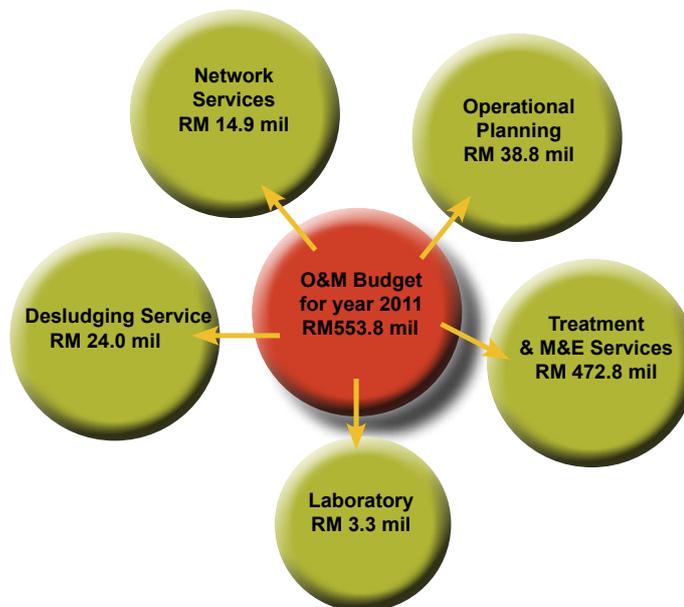
## Going Forward

### Budget Allocation for 2011

In 2011, IWK has allocated RM716.01 mil in the environmental and sustainability management activities.

IWK Activities	Budget Allocation Year 2011 (RM Million)
1. Operating Expenditure	553.77
- Operation & Maintenance (O&M)	
- Planning & Engineering (R&D, Design, Certification etc.)	21.33
- Project Management (Capital Works & Refurbishment)	7.95
- Training & Development, Health & Safety and Staff Welfare	7.86
- Corporate Social Responsibilities (CSR)	8.88
- Corporate Governance (Internal Audit)	1.27
- Risk Management (Insurance)	0.64
2. Investment in Sewerage Related Assets (including vehicles)	114.31
<b>Total (RM Million)</b>	<b>716.01</b>

The Operation and Maintenance (O&M) budget of RM553.77 mil is allocated to overall sewerage management which includes operational planning, treatment, desludging, network, laboratories and operational planning.



Going forward with our ambitious goals and initiatives, and with our experience and expertise, we are confident in achieving our goals. In working towards realising the goals, the support of all parties, including Government agencies, State Water Companies, various Ministries and our customers is vital and cannot be discounted to ensure the successful implementation of our strategic plans to transform our national sewerage services into a modern, effective and efficient sewerage management which will eventually translate into environment and human sustainability.

AC	Audit Committee
ACCA	Association of Chartered Certified Accountants
ADB	Asian Development Bank
AIDS	Acquired Immune Deficiency Syndrome
AMIS	Asset Management Information System
AWA	Australian Water Association
BEIM	Business Ethics Institute of Malaysia
BNRC	Board Nomination & Remuneration Committee
BOD	Board of Directors
BOD5	Biochemical Oxygen Demand
CA	Certifying Agency
CA1	Collective Agreement
CAPEX	Capital Expenditure
CAR	Corrective Action Request
CCTV	Closed-Circuit Television
CEO	Chief Executive Officer
CH4	Methane
CHRA	Chemical Health Risks Assessment
CIP	Continuous Improvement Programme
CMF-S	Continuous Micro Filtration - Submerged
CO2	Carbon Dioxide
COD	Chemical Oxygen Demand
COLA	Cost of Living Allowance
CRD	Customer Relations Department
CSI	Customer Satisfaction Index CSR - Corporate Social Responsibility
CST	Communal Septic Tank
CSTF	Centralised Sludge Treatment Facilities
CV	Calorific Value
CWRD	Capital Works and Refurbishment Department
DBKL	Dewan Bandaraya Kuala Lumpur
DEFRA	Department for Environment, Food and Rural Affairs
DLP	Data Loss Prevention
DO	Dissolved Oxygen
DOE	Department of Environment
DRP	Disaster Recovery Plan
EA	Extended Aeration
ECO-Asia	Environmental Cooperation-Asia
EFS	Electronic Filling System

## List of Abbreviations

ENSEARCH	Environmental Management and Research Association of Malaysia
EPU	Economic Planning Unit
EQA	Environmental Quality Act, 1974
EQSR	Environmental Quality (Sewage) Regulations, 2009
ETP	Economic Transformation Programme
EWS	Early Warning System
FAL	Financial Authority Limit
FE	Final Effluent
FOG	Fat, Oil and Grease
FRIM	Forest Research Institute Malaysia
GDP	Gross Domestic Product
GEMS	Graduate Employability Management Schemes
GHG	Greenhouse Gas
GIS	Geographic Information System
GM	General Manager
GPS	Global Positioning System
GRI	Global Reporting Initiative
HAZOP	Hazard and Operability
HIV	Human Immunodeficiency Virus
HoDs	Heads of Departments
HQ	Headquarters
H&S	Health and Safety
H1N1	Pandemic Influenza A
IA	Internal Audit
ICOP	Internal Control and Operating Procedures
ICT	Information and Communications Technology
IFS	Integrated Filing System
IGEM	International Greentech & Eco Products Exhibition & Conference Malaysia
IGIS	Integrated Geographical Information System
IIA Malaysia	The Institute of Internal Auditors Malaysia
ISO	International Organisation for Standardisation
IST	Individual Septic Tank
IT	Information Technology
IWA	International Water Association
IWK	Indah Water Konsortium Sdn Bhd
JBIC	Japan Bank for International Cooperation
JICA	Japanese International Corporation Agency

JPP	Jabatan Perkhidmatan Pembetulan
JUSCO	Jamshedpur Utilities and Services Company Ltd.
K	Potassium
KeTTHA	Kementerian Tenaga, Teknologi Hijau dan Air, Malaysia
KIW	Kelab Indah Water
KPI	Key Performance Indicator
KPPIWK	Kesatuan Pekerja-Pekerja Indah Water Konsortium
LEV	Local Exhaust Ventilation
LMS	Laboratory Management Systems
LoS	Level of Service
LTI	Lost Time Injury
MAB	Malaysian Airport Berhad
MACC	Malaysian Anti-Corruption Commission
MARIM	Malaysian Association of Risk and Insurance Management
MaSRA	Malaysia Sustainability Reporting Awards
MBIO	Malaysian Bio Industry Organisation
MDU	Mechanical Dewatering Unit
MECD	Ministerial Conference of Environment and Development
MEF	Malaysian Employers Federation
MLSS	Mixed Liquor Suspended Solids
MMS	Maintenance Management System
MOF	Ministry of Finance
MOHE	Ministry Of Higher Education
MoU	Memorandum of Understanding
MS	Malaysian Standards
MSIG	Malaysian Sewerage Industry Guidelines
MT	Million Tonnes
MWA	Malaysian Water Association
MyWP	Malaysian Water Partnership
M&E	Mechanical and Electrical
N	Nitrogen
N <sub>2</sub>	Nitrogen gas
NGO	Non-governmental Organisation
NH <sub>3</sub> -N	Ammoniacal Nitrogen
NIOSH	National Institute of Occupational Safety and Health
NKRA	National Key Result Areas

## List of Abbreviations

NO3-N	Nitrate Nitrogen
NPS	Network Pumping Station
O2	Oxygen gas
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Act
O&M	Operation and Maintenance Department
P	Phosphorus
PAAB	Pengurusan Aset Air Berhad
PBA	Perbadanan Bekalan Air
PDAM Tirtanadi	Perusahaan Daerah Air Minum Tirtanadi
PDCA	Plan Do Check Act
PE	Population Equivalent
PEMANDU	Performance Management Delivery Unit
PEMUDAH	Pasukan Petugas Khas Pemudahcara Perniagaan
PERPAMSI	Indonesian Water Supply Association
PIKOM	Association of the Computer and Multimedia Industry, Malaysia
PLKN	Programme Latihan Khidmat Negara
PWTC	Putra World Trade Centre
QC	Quality Control
RAS	Return Activated Sludge
RBC	Rotating Biological Contactor
RC	Reporting Centre
REDHA	Real Estate and Housing Developers' Association Malaysia
RO	Reverse Osmosis
ROS	Registrar of Society
RTM	Radio Televisyen Malaysia
R&D	Research and Development
SADCO	Hai Phong City's Sewerage and Drainage Company
SAJH	Syarikat Air Johor Holdings Sdn Bhd
SAMM	Skim Akreditasi Makmal Malaysia
SBR	Sequencing Batch Reactors
SCADA	Supervisory Control and Data Acquisition
SEAWUN	South East Asian Water Utilities Network
SGM	Senior General Manager
SHO	Safety and Health Officer

SOP	Standard Operating Procedures
SPAN	Suruhanjaya Perkhidmatan Air Negara
SS	Suspended Solid
SSD	Department of Sewerage Services
STP	Sewage Treatment Plant
TC	Tender Committee
TRA	Temporary Relief Allowance
UiTM	Universiti Teknologi Mara
UKM	Universiti Kebangsaan Malaysia
UM	Universiti Malaya
UO	Unit Office
UPM	Universiti Putra Malaysia
USAID	United States Agency for International Development
USM	Universiti Sains Malaysia
UTM	Universiti Teknologi Malaysia
UNDP	United Nations Development Programme
WATSAN	Water and Sanitation
WEF	Water Environment Federation
WSIA	Water Services Industry Act, 2006

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	Product and Service Labelling	
PR5	(Add.) Practices related to customer satisfaction	57 (partial)
	<i>Not Reported: SO2, SO3, SO5, SO6, SO7, SO8, PR1, PR2, PR3, PR4, PR6, PR7, PR8, PR9</i>	



No.1, Persiaran Dato' Menteri  
Section 2, 40700 Shah Alam  
Selangor Darul Ehsan  
Malaysia  
<http://www.sirim-qas.com.my>

### *Independent Verification Statement*

#### *Scope and Objective*

SIRIM QAS International Sdn. Bhd., a third party Conformity Assessment Body in Malaysia was engaged by the Management of Indah Water Konsortium Sdn. Bhd. to perform an independent verification of its 2010 Sustainability Report. The main objective of the verification process is to provide IWK and its stakeholders with an independent opinion on the accuracy of the information presented in this report. This was confirmed through checking and verifying claims made in the report.

The information in this report is the responsibility of the Management of IWK. SIRIM QAS International was not involved in the preparation of any part of the report. As such the verification team was deemed independent and objective.

#### *Methodology*

The verification process carried out by SIRIM QAS International in May and June 2011 involved the following:

- Reviewing and verifying of the accuracy of the data collected from various sources and that are presented in the report;
- Reviewing of internal and external documentation and displays such as awards, newspaper clips, photos, minutes of meeting, reports to the authority, financial statements, accident and incident reports, newsletters, etc.; and
- Interviewing key personnel responsible for collating and writing various parts of the report in order to substantiate the veracity of the claims.

During the verification, issues were raised relating to the accuracy of some of the data and statements contained in the report.. As a result of the findings, IWK has reviewed and revised the report. It can be confirmed that changes have been incorporated into the final version of the report to satisfactorily address the issues raised.

The verification process was subject to the following limitations:

- The scope of work did not involve verification of financial data, other than that relating to environment, social or broader economic performance;
- Only the corporate office was visited as part of this assurance engagement; and
- Contractor and third party data was not reviewed in detail.

### **Conclusion**

Based on the scope of the verification process, the following represents SIRIM QAS International's opinion:

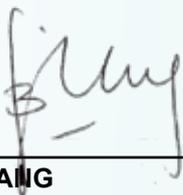
- The 2010 Sustainability Report fulfills the GRI 2006 Sustainability Reporting Guidelines;
- The level of data accuracy was found to be acceptable;
- The information has been presented in an appropriate manner;
- Data trails were easily identifiable and traceable;
- The personnel responsible were able to reliably demonstrate the origin(s) and interpretation of data;
- All findings raised were satisfactorily addressed by IWK prior to finalizing the report;
- The report was found to be a A+ GRI Application Level.

### **Areas for improvement**

For future reporting, it is encouraged that IWK further enhances on the reporting practices and data collection processes of its sustainable development aspects. The clarity of the contents of the report could also be further enhanced by elaborating more on the rationale for reporting.

Prepared by:

Approved by :



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**AMINAH AING**  
Head  
Sustainability Certification Section Management  
System Certification Department  
SIRIM QAS International Sdn. Bhd.  
Date : 6 July 2011



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**PARAMA ISWARA SUBRAMANIAM**  
Senior General Manager  
Management System Certification Department  
SIRIM QAS International Sdn.Bhd.  
Date : 6 July 2011

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affix  
stamp

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## Sustainability Report 2010

The team involved in this report wishes to thank all the individuals throughout the organisation who contributed the information in this report. Our special thanks also to the core contributors whose input has been invaluable in the successful publication of this report

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

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<b>Effects to Life</b>	Essential to Life	Light-up Your Life	Lifestyle	Entertain Life	Protects Life
<b>*Monthly Charge (RM)</b>	40.00	80.00	150.00	50.00	8.00
<b>*Daily Charge (RM)</b>	<b>1.33</b>	<b>2.67</b>	<b>5.00</b>	<b>1.67</b>	<b>0.27</b>

\* Charges quoted are average

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Help us to help you preserve our environment



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