

# Making A Difference to Our Lives and Environment

via a Greener Today for Cleaner  
& Safer Tomorrow

Sustainability Report 2011

Indah Water Konsortium Sdn. Bhd.

Sustainability Report 2011



## Indah Water at a Glance

1 Established in 1994  
as a privatised national  
sewerage company.

2 Owned by the  
Minister of Finance  
Incorporated since  
June 2000.

3 Provides sewerage services  
to 87 Local Authorities within  
Peninsular Malaysia (excluding  
Kelantan State, Johor Bahru  
and Pasir Gudang Municipal  
Areas, DARA, KETENGAH and  
KEJORA Areas) and Labuan.

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Indah Water Konsortium Sdn. Bhd.



4

Our headquarters are located at Pusat Bandar Damansara, Kuala Lumpur.

5

We have 18 unit offices, 51 reporting centres and 3 regional laboratories nationwide.

## Rationale

The cover of our Sustainability Report 2011 represents our round-the-clock process of treating sewage to safely discharge back to the environment in the form of non-potable water. The continuous water stream signifies the uninterrupted flow to our treatment plants for treatment and onwards to our environment to make a difference for a cleaner and safer tomorrow. The choice of blue and green colours depicts clean water and a greener environment from the innovation employed throughout our operations life-cycle. The cover of this Report reflects our unending milestones and growth in the wastewater industry to serve our stakeholders better.



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## Our Approach to Reporting

**T**his Sustainability Report is produced by Indah Water Konsortium (Indah Water), which provides disclosure of the Company's sustainability efforts in a proactive approach to effectively engage with its stakeholders. This Report provides a clear, comprehensive and transparent representation of the Company's performance in managing the economic, social and environmental aspects of our operations.

The Report focuses on inclusivity where the Company has addressed all material issues of its stakeholders and all direct and indirect members of Indah Water. Quantitative indicators are used wherever relevant for better accuracy. It is important to note that some of the information originates from operations outside Indah Water's control. However, the Company ensures that the measurements and claims in this Report are accurately collected and reported and that the underlying methodology is a fair representation.

### Scope of Report

<b>Reporting period</b>	: 1 January to 31 December 2011
<b>Reporting Cycle</b>	: Annually
<b>Coverage</b>	: Indah Water company-wide

### Reference and Guidelines

#### Principal Guidelines

- GRI-G3.1 Sustainability Reporting Framework

#### Additional Guidelines

- Bursa Malaysia's Corporate Social Responsibility Framework

#### Framework

- ACCA Malaysia Sustainable Reporting Guidelines for Malaysian Companies
- ISO 26000: Guidance on Social Responsibility



## Reliability of information disclosed

Indah Water strives to continually improve the materiality and reliability of the information presented. The content of this report has been verified by SIRIM QAS International Sdn. Bhd. and its verification report is included in this Report on Page 122.

Expected Readers of This Report Include:

- Our Shareholder, the Minister of Finance Incorporated
- Our Board of Directors
- The Regulatory Bodies: Suruhanjaya Perkhidmatan Air Negara (SPAN), Department of Environment (DOE), Sewerage Services Department (JPP), Department of Safety & Health (DOSH), Ministry of Energy, Green Technology and Water (KeTTHA), Jabatan Audit Negara, Land Offices, Local Authorities (LAs) and other Government Agencies
- Our suppliers, consultants and contractors
- Our community : customers, media and the public
- NGOs : ENSEARCH, Malaysia Water Association, Malaysia Water Academy (MyWA), International Water Association, consumer groups / associations, etc.
- Developers
- Other wastewater industry practitioners locally and internationally
- Our employees

## Feedback

This Report is available to all stakeholders in hard copy upon request and can be downloaded from Indah Water's website. For further information and comments on this report, please contact us.

### Write to us at:

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### Call us on:

(603) 2780 1100

## About Indah Water

Indah Water, a company owned by the Minister of Finance Incorporated, is Malaysia's national sewerage company, which has been entrusted with the task of developing and maintaining a modern and efficient sewerage system for all Malaysians.

In 1994, the Federal Government awarded the Company a concession for nationwide sewerage services, which were previously under the responsibility of local authorities.

Since then, Indah Water has taken over the sewerage services from a total of 87 local authorities in Peninsular Malaysia (excluding Kelantan State, Johor Bahru and Pasir Gudang Municipal Areas, DARA, KETENGAH and KEJORA Areas) and Labuan.

A modern and efficient sewerage system is vital for the country to treat wastewater before it is discharged into our rivers. This helps preserve the country's water resources, protect public health and provide a cleaner and safer environment.

In June 2000, the Government, through the Minister of Finance Incorporated, bought the entire equity in Indah Water from its previous private owners. This is a testimony of the Government's seriousness in ensuring that a proper and efficient sewerage system will be successfully implemented and maintained.

Indah Water is now well-positioned to undertake the vital task of ensuring that Malaysians today, and in the future, will be able to enjoy a clean and healthy environment through a proper and well-maintained sewerage system.





Ministry of Energy, Green Technology and Water

Undertakes Refurbishment or Upgrading Projects Funded by Government



Ministry of Finance

Owens Indah Water through the Minister of Finance Incorporated



Ministry of Natural Resources & Environment



Department of Environment

Ensures a well balanced and sustainable management of natural resources and environment



Suruhanjaya Perkhidmatan Air Negara

National Water Services Commission

Policy & Control of National Sewerage Agenda by Government

Regulates Sewerage Services



- 1. Provision of Sewerage Services in 87 Local Authority Areas
- 2. Sewerage Services Billing & Collection

Regulates Effluent Discharge





## Our VISION

to be the most **EFFICIENT** and  
**ENVIRONMENT CARING** Sewerage Company

## Our MISSION

We are highly committed to providing efficient sewerage services to all customers besides striving towards developing the national sewerage system that will collectively contribute towards a sustainable and friendly environment

# Our Coverage of Services



## What We Do



### Operation and Maintenance of Public Sewerage Systems

- Provide regular scheduled operation and maintenance of 14,991 km of public sewers, 829 pump stations and 5,749 public sewage treatment plants (STPs) within our 54,056 km<sup>2</sup> service areas
- Provide corrective and preventive maintenance of public sewers, network pump stations, and sewage and sludge treatment facilities to meet the regulatory requirements



### Desludging Services

- Scheduled desludging services for Government premises and demand desludging for septic tank users within our service areas
- Responsive desludging for septic tanks users outside our service areas
- Responsive desludging for pour flush users within and outside our service areas



### Monitoring of Effluent Quality and Sludge Disposal Activities

- Sampling, analysis and monitoring of effluent quality and sludge disposal activities
- Effluent compliance data are submitted to the Department of Environment (DOE) and the National Water Services Commission (Suruhanjaya Perkhidmatan Air Negara (SPAN))

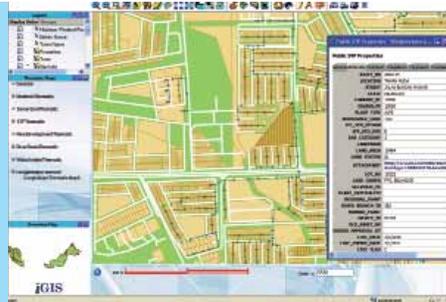
### Research and Development (R&D) Work in Sewerage Sector

- In-house R&D Work, External Vendor Led R&D, Structured Institutional and Universities R&D, and Academia's Student Research Initiatives
- Continuous Improvement Projects (CIPs)



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

- Planning Services: development and maintenance of nationwide sewerage catchment strategy, sludge management strategy, sewerage project planning, sewerage asset database
- Certification Services: evaluating, certifying and approving of sewerage facilities application on behalf of SPAN
- Geographical Information System (GIS) and mapping
- Facilitating Asset Management System development and implementation for the Company



### Sewerage Technical and Environmental Services / Consultancy Works

- International consultancy on sewerage management, policy and public awareness, etc.
- Conduct audit of sewerage system for international companies
- HAZOP studies for water and wastewater industries



### Sewerage Capital Works and Refurbishment Management

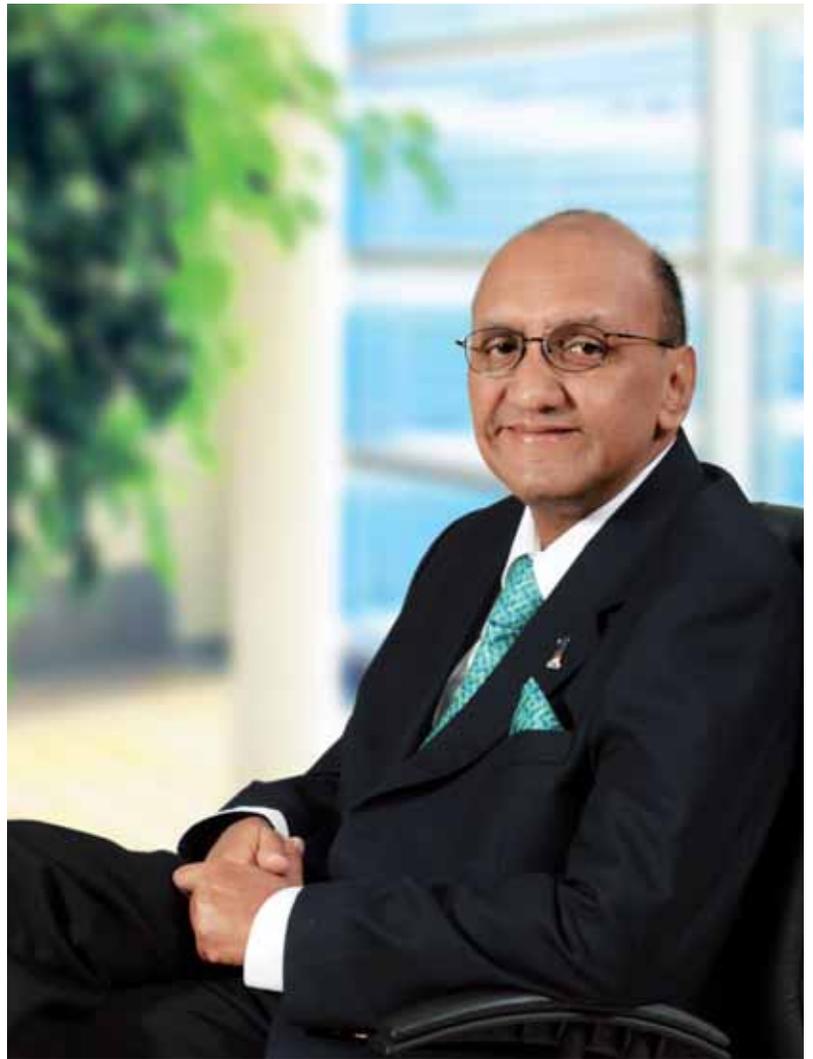
- Sewerage project management and monitoring compliance of capital works
- Refurbishment of dilapidated plants to enhance their functionality, effectiveness and efficiency of their sewage treatment processes and to improve their aesthetics



### Sewerage Technical and Operational Skills Training

- Professional technical and non-technical training on sewerage planning strategy or master plan; engineering; environmental monitoring and analysis; operational; preventive maintenance; health and safety in sewerage systems
- Local and international training on sewerage management and operation and maintenance

## A Message from Our Chairman



I am delighted to report that Indah Water has continued delivering quality service throughout 2011. We managed to achieve this high level of service despite having to bear a year-on-year increase in operational costs.

I am immensely proud of the hard work and commitment shown by each and every employee of Indah Water that has allowed us to meet the goals and targets set by the Government. We are committed to carrying out our role of developing and maintaining a modern and efficient sewerage system for all Malaysians. In doing this, we will ensure wastewater is treated before being discharged into our rivers. This treatment helps to preserve the country's water resources, protect public health, and provide a cleaner and safer environment.

Since our establishment almost 18 years ago, we have worked towards transforming ourselves into a resource based entity and set the pace for innovation in the sewerage industry. We have achieved significant progress in improving capability within the organisation by developing a strong culture of continuous improvement. We are also increasing our focus on Research & Development, which has now begun to make a meaningful contribution to furthering our development. A combination of strong leadership and increased efficiency has enabled us to optimise returns and benefits from existing opportunities and potential in the industry.

At Indah Water, we make sustainability a priority in managing our operations and services. We are committed to delivering the best services for our customers and the communities that we serve. Corporate, social and environmental responsibilities are key elements in our service and operational performance. Indeed, they are an integral part of our overall strategy.

I am very optimistic that Indah Water will more than meet all the expectations of its stakeholders. I thank you for your trust and belief in us. I would also like to extend my deep appreciation to the Indah Water family for their commitment, support and perseverance that has been invaluable for the success of the Company.



**Dato' Ibrahim Mahaludin Puteh**  
Chairman



**At Indah Water, we make sustainability a priority in managing our operations and services. We are committed to delivering the best services for our customers and the communities that we serve.**

## A Message from Our CEO



Welcome to Indah Water's Sustainability Report 2011. Through this Report, we continue our commitment to disclosing transparent information to our stakeholders and communicating our achievements and challenges throughout the year and future goals.

Being the nation's sewerage Company, it is our responsibility to deliver efficient and effective sewerage services to a population of approximately 19 million people. We treat domestic wastewater or sewage before returning it to our waterways safely. Our core business contributes to achieving a sustainable environment that protects public health and water resources. We strive to be the most efficient and environment caring sewerage company in the region. It is our aim to achieve a greener today for a cleaner and safer tomorrow.

At Indah Water, sustainability is reflected in the nature of our business which aims to preserve our environment for future generations. Our sustainability efforts are a combined effort with all our stakeholders. We work with the Government and regulators to develop the national sewerage systems. The culture of sustainability in our day-to-day work is inculcated into the senior managers and the entire workforce. We ensure that our employees understand their role in creating a sustainable environment for the community to live in. Sustainability is the key consideration in formulating business decisions and strategy plans.

In 2011, we began to introduce an Environmental Management System (EMS) into our operations which includes treatment, desludging and network. The system, which is based on the ISO 14001 standard, provides Indah Water with a systematic management approach that can be integrated with other management functions to address the environmental concerns of our core business. We hope that this EMS will help us to build structural capacity towards a logical framework,



especially in addressing environmental issues and improving our performance. In 2011, we have developed an EMS blueprint as a 'one umbrella' concept. We aim to have this certified by the third quarter of 2012. The manuals and procedures will then be replicated and implemented throughout our other operation units.

In ensuring a proper asset management that protects the environment and meets the customers' expectations, we have adopted the British Standard Publicly Available Specification PAS55:2008. An Asset Management Policy was drawn up in September 2011 to manage our assets sustainably. The objective of our Asset Management is to optimise the use of the assets against the cost of managing throughout the assets' total life-cycle. Asset Management Plans of our 18 Unit Offices have been developed during the year to guide unit offices in planning, budgeting and targets setting.

**We aim to achieve the goal of “Sustainability through a Zero Waste Management” concept in our business through the “3Rs” (Reduce, Recycle and Reuse) initiatives. These initiatives transform sewage by-products from waste into value-added products.**

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## A Message from Our CEO

We continue to explore the possibilities of standardising our equipment to reduce our operational costs while increasing our efficiency and effectiveness. We can improve our workplace practices, employees' expertise, and health and safety through the benefits of these economies of scale.

At Indah Water, we place great emphasis on our Research & Development (R&D) activities to identify innovative alternatives to improve our operational efficiency and effectiveness. We are making progress towards achieving our goal of establishing a Research & Innovation Centre dedicated to the water and wastewater industries. Our current R&D projects aim to achieve maximum energy efficiency and minimise the environmental impact from our operations, including the recycling of our sewage by-products. We aim to achieve the goal of "Sustainability through a Zero Waste Management" concept in our business through the "3Rs" (Reduce, Recycle and Reuse) initiatives.



These initiatives transform sewage by-products from waste into value-added products. Bio-solids will be reused as a soil conditioner and fertiliser for various non-food crops; recycled bio-effluents can be used for industrial and non-potable purposes and capturing bio-gas (methane gas) as a source of renewable energy while reducing the greenhouse effect.

Our Continuous Improvement Projects illustrate innovative applications in our core business. By inculcating an innovative and continuous improvement culture in Indah Water, we hope to design and develop our own sewerage operational tools from in-house innovation initiatives.

At Indah Water, we have a goal that our operations would be financially sustainable. Our rising bill collection shows our progression towards this goal. We have introduced a holistic awareness programme that already increases collection in areas where we operate. We have successfully demonstrated to our customers that what we do truly matters. This programme includes active engagement and campaigns. In 2011, we jointly organised Desludging Carnivals with SPAN. These events encouraged home owners to desludge their individual septic tanks once every two years by promoting the importance of proper sewerage management. The event will continue in 2012 with the support of Ministry of Energy, Green Technology and Water. During 2011, we also set the groundwork for the 2012 launch of our mobile exhibition roadshow, 'IWK Kembara'. IWK Kembara will visit schools, hot spots and low paying areas to show our customers what we do and the importance of our efficient services.

Skills and competencies are required in the workplace and we recognise that it is our responsibility to provide a good development programmes for our employees. At Indah Water, we have developed our own technical training courses for capacity building and development of our human capital. We also work hand-in-hand with the Malaysian Water Academy to increase the know-how of our employees. These technical training courses are also offered to other practitioners in the industry. Some of our technical training courses have been certified by SPAN and we aim to become accredited by relevant international bodies.



We have also initiated capacity building programmes in Asian countries including Vietnam, Indonesia, India and Philippines. These courses were conducted through a USAID-supported partnership twinning programme to help these countries improve their sewerage management. I am proud that Indah Water has been recognised as a world class service provider and technology pioneer by the international media. Our strength in the field has also been acknowledged in the water and wastewater industries. We continue to live our vision of creating a water hub here in Malaysia, where the development of water technologies, learning and networking is pivotal for knowledge and technology transfers among developing countries.

Our continuous success is only possible through the support of our stakeholders, including all of you. We would like to take this opportunity to extend our gratitude to all our stakeholders for their support through feedback and opinions. Your valuable input helps us to continue innovating which leads to a greener today for a cleaner and safer tomorrow. On behalf of the Management, I would like to express my deepest appreciation to all employees, our dedicated human capital, for their continuous support, commitment and contribution. They are truly our most invaluable assets; from our field personnel on the ground who daily and willingly deal with what most forget once they vacate the washroom, to our highly skilled engineers, scientists, office personnel, senior management and Boards of Directors. They have been steadfast in their commitment to providing efficient service and unparalleled convenience to the Rakyat.

Lastly and as always, we hope you find our report useful and informative. We appreciate your feedback, which is vital for us in developing our future.

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

## Our Performance Highlights

Description	2010	2011
<b>OUR WORKFORCE</b>		
Total training courses participated	140 internal and 86 external	180 internal and 154 external
Total training man-hours	68,456	61,524
Total training participants	3,119	3,286
Average training man hours per employee	25.0	21.5
% employees attended at least one training	51%	62%
Total Kelab Indah Water (KIW) activities conducted nationwide	29	90
Number of employee H&S incidents cases	34	37
% reduction of H&S incident rate	8%	-4%
Number of Chemical, Health and Risk Assessments (CHRA) conducted	6	1
Number of Industrial Hygiene Monitoring (n-Hexame and Chromic Acid)	0	3
Number of Annual Inspection, Examination and Testing of Local Exhaust Ventilation (LEV)	1	3
<b>OUR MARKETPLACE</b>		
Number of customers	2.97 million	3.12 million
Capacity Building Programme: Total stakeholders participated Total programmes conducted	1,353 participants 85 programmes	1,204 participants 81 programmes
Customer Satisfaction Index	58	68
% billing inquiries responded within Level of Service (LOS)	99.5%	99.7%
% public complaints (odour, noise, aesthetics and effluent overflow) responded within LOS	97%	96%
% sewer blockage inquiries attended within LOS	96%	97%

Description	2010	2011
<b>OUR COMMUNITY</b>		
Total special school programmes conducted	19	17
Total community events organised	8	13
Total briefing/dialogue sessions conducted	25	83
Total awareness programmes through the media	2,109	2,993
Total observation tours conducted for the public (including foreigners)	42	63
Total exhibitions participated	31	33
Total electronic billboard advertisements	–	33,062
Charity desludging carried out	795	714
Number of customers participating in Eye Programme	180	228
<b>OUR ENVIRONMENT</b>		
% final effluent compliance	95%	94%
Total number of samples tested at STPs	75,003	65,771
Number of samples tested for final effluent	58,093	52,330
Continuous Improvement Projects(CIPs) carried out and completed	22	26
ISO 9001 Certification	Four sites certified	Five sites certified
MS ISO/IEC 17025 Laboratory Accreditation	Two laboratories accredited	Two laboratories accredited
ISO 14001 Certification	Initiated ISO 14001 blueprint	Embarked on EMS ISO 14001 at selected operations and sites
% Plant Maintenance Frequency (PMF) per plant	95.50%	93.9%
Total early warning systems introduced to-date	1,108	1,791

## Achievements Versus Issues and Challenges

	Achievements	Issues and Challenges
<b>Economic</b>	<ul style="list-style-type: none"> <li>• Collection rate of 82% in 2011 compared to 80% in 2010</li> <li>• Embarked on innovation initiatives through Continuous Improvement Projects (CIPs) to further reduce the cost of operations</li> </ul>	<ul style="list-style-type: none"> <li>• Uneconomical sewerage tariff rate; low tariff versus high operating cost; three times reduction tariff review versus escalating costs</li> <li>• Proliferation of small plants, which are more expensive to operate and maintain</li> <li>• Cost reduction without compromising performance and quality</li> <li>• Equipment and plant standardisation</li> <li>• To be self-sustaining in the long term</li> </ul>
<b>Social</b>	<ul style="list-style-type: none"> <li>• Increased customer participation in the 'Eye Programme' to reduce the risk of theft, vandalism and trespassing at our public plants</li> <li>• Continue to provide responsive desludging services for Individual Septic Tanks (ISTs), Communal Septic Tanks (CSTs) and pour flush system to complement the Government's effort in improving the environment</li> </ul>	<ul style="list-style-type: none"> <li>• Theft, vandalism, illegal discharge and illegal connections</li> <li>• Reduce overflow and sewer blockages that may be a nuisance to the public</li> <li>• Enforcement of prohibited discharge, such as fats, oil, grease and other harmful wastes that are illegally discharged into the sewers and flow to STPs</li> </ul>
<b>Community</b>	<ul style="list-style-type: none"> <li>• Charity desludging was conducted free of charge at all non-profitable (tax exempted) organisations, such as religious centres and welfare homes</li> <li>• Customer Satisfaction Index (CSI) improved from 58 in 2010 to 68 in 2011</li> <li>• We have implemented educational, outreach and awareness programmes</li> </ul>	<ul style="list-style-type: none"> <li>• Non-payment by customers</li> <li>• Rubbish thrown into sewer</li> <li>• Non-enforcement by regulators of property connections</li> <li>• To eliminate loop-holes that allow developers to build small developments using ISTs despite the availability of an existing sewer system nearby for connection</li> </ul>

	Achievements	Issues and Challenges
<b>Health and Safety</b>	<ul style="list-style-type: none"> <li>• A pocket sized Health and Safety (H&amp;S) employee handbook was written in Bahasa Malaysia as a quick reference guide for all employees on general rules for safe work procedures</li> <li>• Site inspection and compliance check on contractors by H&amp;S to ensure contractor management was strictly followed</li> <li>• H&amp;S training, H&amp;S management audit, H&amp;S fire drill rehearsal and H&amp;S quiz</li> </ul>	<ul style="list-style-type: none"> <li>• Missing manhole covers due to vandalism</li> <li>• Trespassing to STP compound which endangers public safety</li> </ul>
<b>Service Quality</b>	<ul style="list-style-type: none"> <li>• 99.5% of 13,648 requests for clearing blockages within private premises were resolved within 48 hours</li> <li>• 96.6% of 19,247 public blockage complaints were resolved within 24 hours</li> <li>• 94.0% of 2,308 overflowing manhole complaints were resolved within 24 hours</li> <li>• 93.6% of 420 complaints regarding missing manhole covers were resolved within 12 hours by replacements</li> <li>• 95.4% of 2,255 billing complaints were resolved within the LOS according to the respective complaints type</li> </ul> <p>Although Indah Water would like to reach 100% LOS, it must be practical in balancing costs and performance.</p>	<ul style="list-style-type: none"> <li>• The optimal balance between trying to achieve 100% LOS and the expected costs involved</li> <li>• Enhancement of the sewerage facilities through refurbishment, STP upgrades and increased sludge treatment facilities</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>• 94.3% of the final effluent discharged from the 5,747 public STPs complied with the Environmental Quality (Sewage) Regulations 2009 standard</li> <li>• The pollution loading for BOD, TSS, NH3-N and O&amp;G from our plants is consistently below the allowable load for Standard A and Standard B catchments</li> </ul>	<ul style="list-style-type: none"> <li>• To further enhance these compliance levels by increasing sampling frequency, plant maintenance frequency and preventive maintenance</li> </ul>
<b>Workforce</b>	<ul style="list-style-type: none"> <li>• Workplace organisation and standardisation through the 5S System were introduced at the Head Office.</li> <li>• Office site H&amp;S inspection was carried out by H&amp;S committee. H&amp;S feedback was forwarded to the relevant departments for improvement.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase productivity, efficient use of resources and skills</li> <li>• Loss of experienced employees</li> <li>• Encountered demand for higher remuneration from Union members due to rising living costs</li> </ul>

## Our Environmental and Sustainability Cost Highlights

Sustainability Efforts	Activities	Total Cost (RM million)				
		2007	2008	2009	2010	2011
Operation & Maintenance (O&M)	<ul style="list-style-type: none"> <li>• Operation Planning</li> <li>• Treatment Plants Operation &amp; Maintenance</li> <li>• Sewer maintenance</li> <li>• Desludging</li> <li>• Laboratory Services</li> <li>• Bio-solid Treatment &amp; Disposal</li> </ul>	246.97	272.86	280.94	280.39	308.51
	<ul style="list-style-type: none"> <li>• Electricity (O&amp;M Department Only)</li> </ul>	100.21	125.12	146.5	151.89	168.30
Planning & Engineering (R&D, Design, Certification etc.)	<ul style="list-style-type: none"> <li>• Planning Services</li> <li>• Developer Services</li> <li>• Land Services</li> <li>• Quality &amp; Capacity</li> <li>• Development Services</li> <li>• Engineering &amp; Environment Services</li> </ul>	16.49	17.78	17.89	17.27	18.25
Project Management (Capital Works & Refurbishment)	<ul style="list-style-type: none"> <li>• Project Management &amp; Administration</li> <li>• Quality Assurance &amp; Document Control</li> <li>• Special Project</li> </ul>	6.52	6.72	6.79	6.95	7.11
Training & Development, Health & Safety and Employees Welfare	<ul style="list-style-type: none"> <li>• Training &amp; Development</li> <li>• Health &amp; Safety</li> <li>• Employees Welfare</li> </ul>	3.98	4.92	2.95	4.68	5.71
	Corporate Social Responsibilities	<ul style="list-style-type: none"> <li>• Media &amp; Events</li> <li>• Charity Desludging</li> <li>• Operations &amp; Maintenance of CSTs after WSIA</li> </ul>	4.65	4.43	2.94	5.15
		Note 2	Note 1			0.08
				5.62	4.52	4.90

Sustainability Efforts	Activities	Total Cost (RM million)				
		2007	2008	2009	2010	2011
Corporate Governance	• Internal Audit	0.73	0.59	0.57	0.59	0.59
Risk Management	• Insurance	1.09	0.89	0.60	0.65	0.75
Investment in Sewerage Related Assets & Vehicles		29.26	44.48	39.83	40.43	29.99
<b>TOTAL (RM Million)</b>		<b>409.90</b>	<b>484.58</b>	<b>504.63</b>	<b>512.52</b>	<b>550.42</b>

**NOTE 1:**

Data on number of charity desludging conducted in the previous year was not captured separately. The costs cannot be identified independently and are included in operating expenditure.

**NOTE 2:**

The O&M cost of CST in 2007 was included in O&M. With the enforcement of the Water Services Industry Act (WSIA) 2006 which came into force in 2008, the operations and maintenance of CSTs is now the responsibility of the owners and tenants. Indah Water has continued to operate and maintain the CSTs in some circumstances free of charge to ensure they are functioning well and not polluting the environment. Thus, the O&M cost of CSTs is now captured under Corporate Social Responsibilities.

## Our Stakeholders Mapping



Stakeholder Group	Engagement Highlights
<p><b>Regulatory Bodies:</b>            Suruhanjaya Perkhidmatan Air Negara (SPAN)            Department of Environment (DOE)            Sewerage Services Department (JPP)            Department of Safety &amp; Health (DOSH)            Ministry of Energy, Green Technology and Water (KeTTHA)            Jabatan Audit Negara            Land Offices            Local Authorities (LAs)            Other Government Agencies</p>	<p>Engagement activities held with regulatory bodies in 2011 include:</p> <ul style="list-style-type: none"> <li>• Regulator meetings with SPAN HQ</li> <li>• Meetings with Regional SPAN</li> <li>• STP audits by SPAN</li> <li>• Joint samplings on final effluent with DOE</li> <li>• Projects progress meetings with JPP</li> <li>• Workshops and Labs on direction of the sewerage industry with KeTTHA</li> <li>• Meetings with Land Office on land matters</li> <li>• Represent SPAN in all One Stop Centre (OSC) meetings</li> <li>• Participated in PEMANDU workshops</li> <li>• H&amp;S plant inspections by Department of Safety and Health (DOSH)</li> </ul>

Stakeholder Group	Engagement Highlights
<b>Shareholder:</b> The Minister of Finance Incorporated	<ul style="list-style-type: none"> <li>• Indah Water provides quarterly Corporate KPIs performance updates to the Ministry of Finance (MoF)</li> <li>• Indah Water presented "Issues Faced By Indah Water And Proposed Strategies As The Way Forward To Achieve Sustainability" to the MoF</li> <li>• The MoF visited Indah Water's Bonus Plant on 20 December 2011</li> <li>• A quarterly submission of financial reports to the MoF</li> <li>• Discussions on the Collective Agreement (2011 – 2013)</li> </ul>
<b>Suppliers, Consultants and Contractors</b>	<ul style="list-style-type: none"> <li>• Tender briefing, tender clarification and price negotiation if required</li> <li>• Meetings with insurance broker to clarify coverage and claims</li> <li>• New product briefings</li> <li>• Visits to suppliers' sites and factories</li> <li>• Suppliers' e-Procurement training</li> <li>• Tool Box Talk for contractors</li> <li>• Project progress discussions with consultants</li> </ul>
<b>Community:</b> Customers Public Media	<ul style="list-style-type: none"> <li>• Dialogues</li> <li>• Community briefings</li> <li>• Briefings to school children and PLKN participants</li> <li>• Observation tours</li> <li>• Exhibitions</li> <li>• Community events</li> <li>• STP Open Days</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>• Departmental meetings</li> <li>• Annual performance appraisals</li> <li>• Kelab Indah Water Activities</li> <li>• Health Talks</li> <li>• Safety &amp; Toolbox Talks</li> <li>• H&amp;S Activities</li> <li>• Informal social gatherings</li> </ul>
<b>NGOs:</b> ENSEARCH MWA MyWA IWA etc	<ul style="list-style-type: none"> <li>• Conferences and Exhibitions</li> <li>• Paper presentations at seminars and conferences</li> <li>• Indah Water holds various positions as committee members in these NGOs</li> </ul>
<b>Developers</b>	<ul style="list-style-type: none"> <li>• Meetings with SPAN and REDHA</li> <li>• Standard STP briefings to developers</li> <li>• Certified Agency (CA) Open Day</li> </ul> <p>As part of the continuous efforts to provide a better customer experience, CA conducts half-day "Customer Day" walk-in discussions on selected days of the week at all 10 CA Offices. The time schedule for this programme is available on our website <a href="http://www.iwk.com.my/v/developer/certifying-agency-offices">http://www.iwk.com.my/v/developer/certifying-agency-offices</a>.</p>

Indah Water's stakeholders may raise concerns and follow-up on the status of projects via emails, written letters and telephone. Progress meetings are also held to discuss the status of projects where recommendations and decisions are made accordingly. Management approval will be arranged, if required.

Specific issues and supporting information on sewerage products and systems are collected quarterly from nationwide Operations Offices. This includes information which is received on an adhoc basis. This information is analysed at Head Office, compiled and submitted to SPAN. These matters are normally raised at the JKPP Meeting for further action by SPAN. Otherwise, specific meetings will be held by SPAN to address these issues. Some of these meetings involve suppliers and Indah Water's representatives.

## Our Corporate Governance

An effective corporate governance structure and culture are critical elements in determining how the Company functions. This has been continuously reiterated to all employees.

The Business Plan, Financial Authority Limits and the annual budget are our main guiding references. Indah Water's Board of Directors (Board) is the highest decision-making body in the Company and is mandated to perform its role effectively by setting strategic direction and providing leadership through oversight, review and guidance to the Company.

### Indah Water Board of Directors, their roles, committee membership and areas of expertise in 2011

Indah Water's Board consists of nine members: eight Non-Executive Directors and one Executive Director. The Board provides the Company with a wide range of management skills and a wealth of experience. This ensures the adoption and implementation of sound business policies, decisions and directions.

Name	Role in the Board of Directors	Role in Board Committee (BNRC or AC)	Area of Expertise / Profession / Experience	Status
Dato' Ibrahim Mahaludin Puteh	Chairman, Non-Executive Director	–	Business Management	Active
Datuk Ir. Abdul Kadir Mohd Din	Executive Director	–	Civil Engineering	Active
Dato' Othman Abdullah	Non-Executive Director	Chairman of AC	Banking, Accounting and Finance	Active
Datuk Mohd Yusof Hj. Zainal Abiden	Non-Executive Director	Member of BNRC and AC	Judicial and Legal	Resigned in June 11
Dato' Ahmad Faizal Abdul Rahman	Non-Executive Director	Member of BNRC	Accounting and Financial Management	Resigned in September 11
Datuk Suboh Mohd Yassin	Non-Executive Director	Chairman of BNRC	Business Management	Active
Dato' Hj. Kamal Khalid Ariff	Non-Executive Director	Member of BNRC and AC	Business Management	Active
Datuk Nor Azmal Mohd Nazir	Non-Executive Director	Member of AC	Public Administration	Active
Tuan Syed Nasir Syed Ahmad	Non-Executive Director	Member of AC and BNRC	Business Administration (International Business)	Active

BNRC : Board Nomination and Remuneration Committee  
AC : Audit Committee



1



2



3



4



5



6



7



8



9

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

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

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

4 **Datuk Mohd Yusof Hj. Zainal Abiden**  
Non-Executive Director

5 **Datuk Ahmad Faizal Abdul Rahman**  
Non-Executive Director

6 **Datuk Suboh Mohd Yassin**  
Non-Executive Director

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

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

9 **Tuan Syed Nasir Syed Ahmad**  
Non-Executive Director

### Roles and Responsibilities of the Boards

The Board assumes six core responsibilities defined in the Malaysian Codes on Corporate Governance. These include:

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



### Independence of Members of the Board

The roles of Chairman and CEO of the Company are separate, clearly defined and divided to ensure a transparent and proper balance of authority. The Chairman is responsible for the integrity and effectiveness of the Board and ensuring all information required for decision making is accessible and available in a timely manner to all Board members. The CEO is responsible for the Company's operational efficiency and effectiveness including the implementation of policies, strategies and decisions approved by the Board. The CEO also acts as the intermediary between the Board and Management Team.

### Indah Water Board of Directors meetings held during 2011

Board meetings are held regularly to keep all members abreast with ongoing Company activities. Board papers and a detailed agenda are provided to the Board members one week prior to each meeting for consideration and guidance. The Board members have access to all information within the Company whether collectively or in each individual's capacity for discharging his or her own duties. Board decisions are based on majority consensus during meetings. There were eight Board meetings held in 2011 comprising six meetings held every other month and two special meetings.





### Board Effectiveness Assessment

The effectiveness of the Board and contributions of each individual director is evaluated by the Board Nomination and Remuneration Committee (BNRC). Currently, the Board performance evaluations criteria have not been formalised. Under normal circumstances, the criteria for effectiveness include Key Performance Indicators (KPI), 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 focuses 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 shareholders.

### Our Remuneration System

Indah Water has adopted a performance based approach in managing the business using a set of criteria and indicators. A set of Corporate KPIs comprising specific measurable items focus on performance that form the basis of performance management on a year-to-year basis. In 2011, 13 Corporate KPIs focused on five key focus aspects of the business: Sound Financial Planning and Management, Customer Service Excellence, Operational Excellence, Staff Motivation Development and Capture of New Opportunities. The remuneration rewards, such as bonus, salary increment and promotion are based on the achievement of the Corporate KPIs and the KPIs performance of individual employees.

### Code of Conduct

Indah Water has introduced a Code of Conduct to define the expectations of how it conducts business and reiterates the commitments to the Company, the Management, each other and to its customers. The Code of Conduct is a useful tool for aligning business conduct with the Management's expectations. It serves as a useful guide to making sound judgements on daily on-the-job behaviour. The Code of Conduct also serves to:

- Inculcate a high level of personal integrity and professionalism among our employees;
- Standardise a general Code of Conduct, which is comprehensive in shaping the expected business conduct and behaviour of employees in the Company;
- Inculcate public trust and confidence in our business;
- Bridge and build good relations between the Company and our customers; and
- Improves the Company's image as a responsible corporate entity.

### Conflict of Interests

Employees must not engage in any other occupation, business or have an interest in any business or activity as an employee, agent, consultant, director, advisor, shareholder or partner, or any other position which is a conflict with their positions. Employees are required to give their full and undivided loyalty and must report any conflicts to the Management. Private matters should not be brought into conflict with their duties or business interests of Indah Water.

Employees should not derive any profit or advantage in the course of discharging their duties. They are forbidden from placing themselves in competition or as rivals to the business interests of the Company. They are also prevented from being associated with any organisation that competes with the business interests of Indah Water.

### Corruption, Bribery and Gifts

The Code of Ethics states our position on corruption, bribery and gift giving. Employees or their family members cannot accept commissions, shares of profit or gifts from any organisation, firm or individual doing, or seeking to do business with the Company. This includes services, favours, benefits or advantages such as gift certificates. This also extends to travel payment and includes material services, repairs or improvements at no cost or at unreasonably low prices. Merchandise of more than nominal value and excessive entertainment or gifts are not permitted. Any monetary gifts of any nature are strictly prohibited by the Company.

Indah Water recognises that gift giving is part of the local culture. In general, gifts are acceptable providing the gifts are promotional items, such as diaries or calendars, festive gifts of nominal value or customer gifts. They must be a token rather than something intended to influence the judgement of an employee.

### Confidential Information

Indah Water safeguards all private and confidential information of our employees and customers. Company information, trade and intellectual property information is also protected.

## Our Core Values

Our core values are based upon the name '**INDAH WATER**' which stands for the following 10 values. '**INDAH**' is a Malay word meaning 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.

# I

### Integrity

Uphold professional responsibilities and accountabilities in a trustworthy manner

# W

### Wisdom

Provide timely appropriate recommendations and problem solving actions/output

# N

### Nurture

Provide diverse training programmes and hands on training facilities for the workforce and the overall sewerage industries

# A

### Authentic

Ethical and devoted to enlighten sewerage activities for safety, health and environmental protection

# D

### Dedication

Committed at all times to deliver quality sewerage services and output

# T

### Teamwork

A corporate effort of many expertise and support with one mind

# A

### Astute

Apply knowledge, practical experience, holistic overview and effective decision making to ensure sustainable sewerage development and environment protection

# E

### Endeavour

Act by available means and resource to upkeep sustainable sewerage development and environment awareness to all stakeholders

# H

### Holistic

Holistic approach and management of sewerage development and environment protection

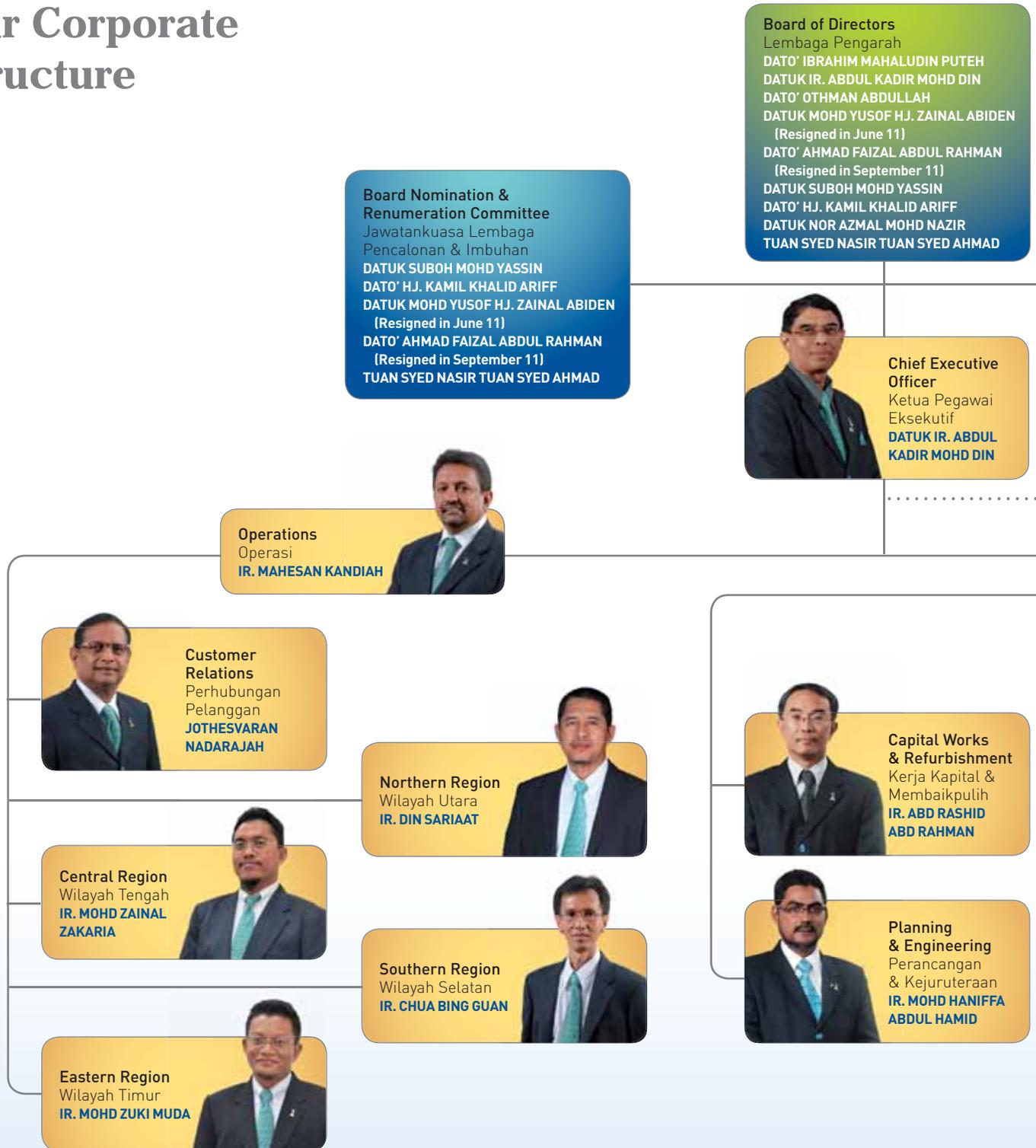
# R

### Resourceful

Systematic planning, development, implementation and monitoring to ensure stakeholders satisfaction



# Our Corporate Structure



**Audit Committee**

Jawatankuasa Audit

**DATO' OTHMAN ABDULLAH**

**DATO' HJ. KAMIL KHALID ARIFF**

**DATUK NOR AZMAL MOHD NAZIR**

**DATUK MOHD YUSOF HJ. ZAINAL ABIDEN**

(Resigned in June 11)

**TUAN SYED NASIR TUAN SYED AHMAD**



**Internal Audit**

Audit Dalaman

**CHUA TIONG LEONG**

**Human Resource & Administration**

Sumber Manusia & Pentadbiran

**ROZI BAHARUDIN**



**Information Technology & Corporate Planning**

Teknologi Maklumat & Perancangan Korporat

**RAVINDRAN KARUPIAH**



**Procurement**

Perolehan

**ZAINUDIN MAT SALLEH**



**Finance**

Kewangan

**ZHRIN ZAKARIA**



**Legal Services**

Perkhidmatan Perundangan

**DATIN ZAHEEDA BANU MOHD ARIFF**



**Communications**

Komunikasi

**AMIN LIN ABDULLAH**

(Resigned in November 2011)







# Sustainability in Our Workforce

We encourage diversity and inclusion throughout the Company. At Indah Water, we create a culture where diversity is valued. Every employee is a respected member of the team and our workforce is a reflection of the communities in which we operate. We continue to support our employees in developing their career growth and reward their achievements.

- 34** Employment and Benefits
- 34** Workplace Ethics
- 35** Diversity at Workplace
- 37** Personnel Competency, Awareness and Training
- 42** Health and Safety
- 47** Engagement with Our Employees
- 49** Collective Bargaining Agreement and Freedom of Association

## Employment and Benefits

Indah Water provides a range of benefits to all full-time employees. We observe the Statutory Sick Pay leave without hospitalisation depending on the period of service; 14 days for less than two years, 18 days between two and five years and 22 days for more than five years. When hospitalisation is necessary, a period of up to 60 days is granted.

Employees are entitled to four days of Marriage Leave once during his or her employment with Indah Water. A female employee receives paid Maternity Leave for a period up to 60 days. A male employee is also given three days' Paternity Leave for the birth of a legitimate child.

Employees may apply for Compassionate Leave upon the death or serious illness of an immediate family member. Compassionate Leave may also be given to an employee who and/or whose property is affected by natural disaster.

Indah Water also allows employees time to sit for examinations. Employees may also apply for Annual or Unpaid Leave for the time preceding the examination in order to study.

A Muslim employee is entitled to a Haj leave provided a minimum of one year has been served. The maximum period of Haj Leave is 40 consecutive days and this benefit is given once in the employee's career.

A health check-up is provided to all field employees every two years. All employees over 40 years of age also receive this benefit.

## Long Service Award

We have introduced a long service award to recognise loyal employees who have served the Company for 10 and 15 years. In 2011, there were 128 and 135 recipients respectively who received this award. They were presented with Long Service Certificates by our CEO during his visit to the respective Unit Offices and Departments.

## Workplace Ethics

### Sexual Harassment and Non-discrimination

We believe in a workplace that is free from any form of sexual harassment. We do not tolerate sexual harassment of any kind whether it involves our employees, vendors or customers. Employees must not engage in any unwanted conduct of a sexual nature comprising verbal, non-verbal, visual, psychological or physical harassment. Sexual harassment encompasses both sexual coercion and sexual annoyance.

Every employee is responsible for maintaining a discrimination-free working environment based on race, colour, sex, religion, age, disability or other legally protected statuses.

### Human Rights

Indah Water recognises that it has a responsibility to protect employees' Human Rights. It ensures relevant procedures are respected, implemented and executed throughout all operations. These include policies and procedures for non-discrimination, freedom of association, ethical behaviour and employee grievances. Human Rights have been included in our Human Resources practices and are incorporated in our procurement practices as part of our supplier screening. This policy is clearly stated in our employee handbook, which is distributed to all new recruits, including security personnel. Indah Water operations are structured by the Malaysian Employment Act 1955, which outlaws exploitative labour practices. The Company also adheres to the Children and Young Persons (Employment) Act 1966, which prohibits the employment of children under the age of 14, and other applicable international agreements preventing child labour.

We are pleased to report that there have been no incidents of discrimination or risk to freedom of association and collective bargaining. There have been no reported incidents of risks of child, forced or compulsory labour. There were no violations of human rights involving the rights of indigenous people at any time in the Company's history.

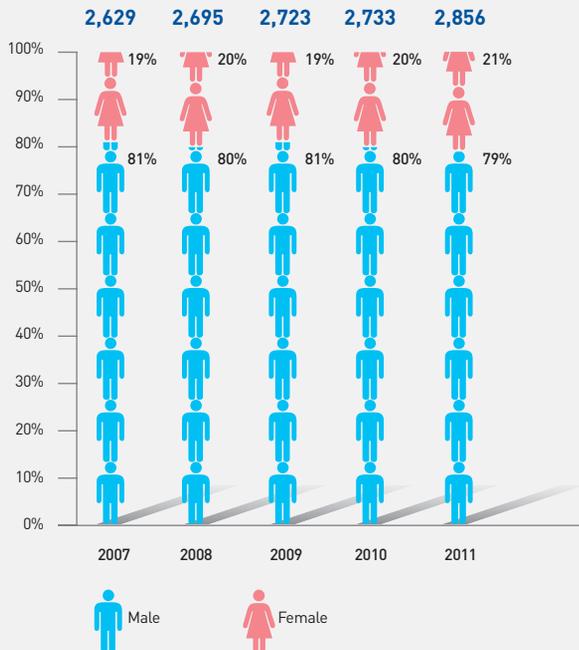
### Diversity in the Workplace

As a Company that upholds equal opportunities, we do not discriminate against our employees based on age, gender or race. We acknowledge that employees are instrumental to the success of our Company and we are committed to providing them with continuous career growth.

### Breakdown of Workforce by Gender

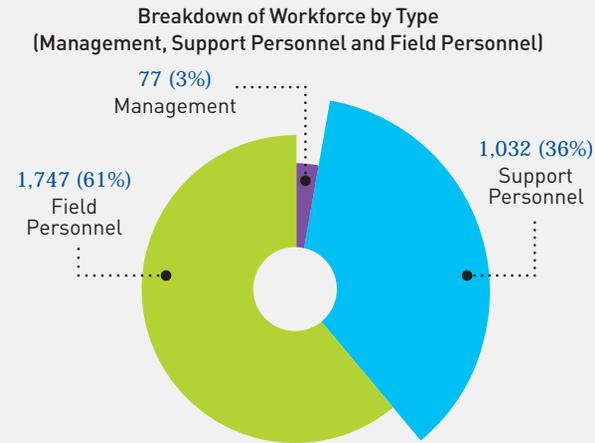
Due to the nature of our operations, our workforce typically comprises more male than female employees. In 2011, the percentage of female employees in our total workforce was 21%, which was slightly higher than the previous year. We continue to empower our female employees through various training opportunities. When vacancies open, we promote these employees to higher levels if their education and skills meet the job requirements.

Breakdown of Workforce by Gender from 2007 to 2011



### Breakdown of Workforce by Type in 2011

Our employees by type are presented in the chart below. We operate and maintain more than 6,500 STPs and NPSs. This requires many field employees to handle the work which explains 61% of our workforce being field personnel.



**Management:**

Assistant General Managers and above including the first level which reports directly to them

**Support Personnel:**

Personnel who work primarily in the office

**Field Personnel:**

Operations and maintenance field employees (Treatment, Desludging and Network)

The ratio between our Executive and Non-Executive employees has remained fairly static, fluctuating by slightly more than 1% over the last five years. The number of Non-Executive employees decreased from 74.53% in 2010 to 74.05% in 2011.

Breakdown of Workforce by Type (Executive and Non-Executive) from 2007 to 2011



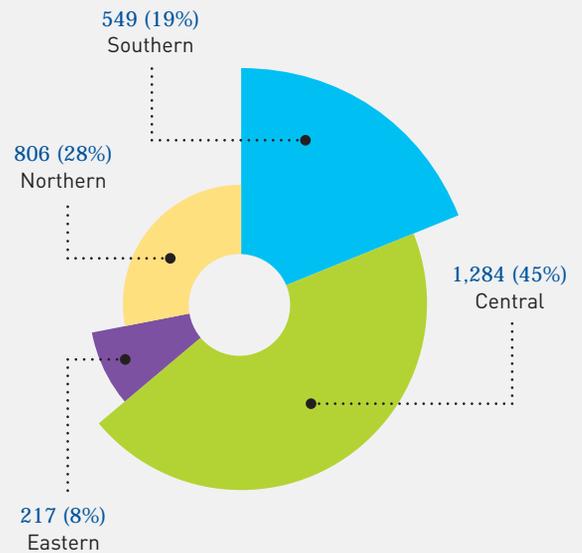
**Breakdown of Workforce by Contract from 2007 to 2011**

Our employees by contract type from 2007 to 2011 are as presented below. Although we try to use permanent employees whenever possible, there are times when it is necessary to use employees who are on non-permanent contracts. This is kept to a minimum and our non-permanent employees represented 0.77% of our entire workforce in 2011 in comparison to 0.48% in 2010.



**Breakdown of Workforce by Location in 2011**

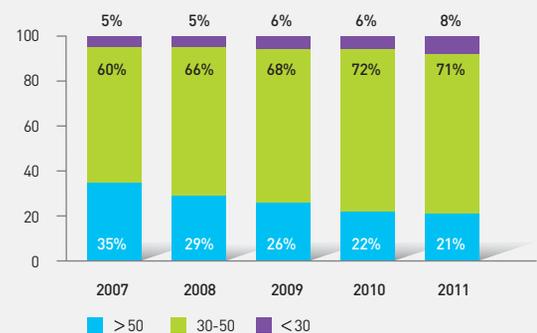
All our employees are based in Malaysia because our operations are based entirely in the country. The majority of our plants are located in the Central Region, which is in line with Malaysia's population concentration. Our manpower in this Region represents 45% of our total workforce.



**Breakdown of Workforce by Age Group**

Employees aged below 30 have decreased each year from 2007 to 2011. The majority of our employees are experienced and aged between 30 to 50 years. The percentage of employees over 50 years old has been increasing since 2008. In 2011, our succession planning was mooted and we will continue to follow-up on its development in 2012.

**Breakdown of Workforce by Age from 2007 to 2011**



## Workforce Turnover

Our employee turnover data is presented below. The turnover rate of female employees is higher than their male counterparts throughout the last five years. Turnover rate by age group is highest in the above 50 category. In 2011, the turnover rate of this group nearly doubled from the previous year due to more employees retiring. The Eastern Region recorded the lowest turnover rate by region. Overall, our employee turnover was due to resignation, retirement, death, termination and various medical reasons.

Year	% Turnover by Gender		% Turnover by Age Group			% Turnover by Region			
	Male	Female	< 30	30-50	> 50	Central	Northern	Southern	Eastern
2007	8.6%	12.2%	14.8%	5.5%	14.8%	12.8%	6.0%	7.1%	4.7%
2008	8.5%	15.6%	18.4%	5.2%	21.1%	13.2%	6.4%	7.7%	7.8%
2009	6.9%	11.8%	14.9%	4.2%	19.4%	9.1%	6.1%	8.6%	4.5%
2010	7.0%	7.3%	14.6%	3.7%	19.5%	9.1%	5.4%	5.7%	4.7%
2011	7.5%	8.3%	6.2%	4.8%	37.4%	9.7%	6.2%	6.6%	3.7%

## Personnel Competency, Awareness and Training

The Heads of Department and Heads of Section ensure that all existing and new employees are competent and display appropriate training, skills and experience. Competency criteria for each employee category are determined and documented in the job description. Employees not meeting these requirements work with their superiors to devise a development plan. Upon completion of training, the employee's superior evaluates its effectiveness and records his or her progress.



## Performance Appraisals

Performance appraisals are designed to recognise the value of effective two-way communication. It encourages the discussion of goals and objectives between the employee and management. It also provides employees with the opportunity to give feedback. They can use the appraisal process to alert supervisors where procedures and practices have created barriers to good performance.

The criteria included in our appraisal process are:

- KPI Measurement
- Performance and work attitude
- Competency matrix
- Areas for improvement

Upon appraisal completion, employees are invited to comment on the process, reinforce what they expect from the Company and highlight areas for strengthening and improvement. Once the results from the appraisal and the employee's comments have been noted, the appraiser proposes career advancement solutions to the Management. This appraisal process is available in Bahasa Malaysia and English to ensure both parties understand the discussion clearly as it affects the employee's remuneration and career development plans. Employees are promoted based on their work performance when positions become available.

### Training

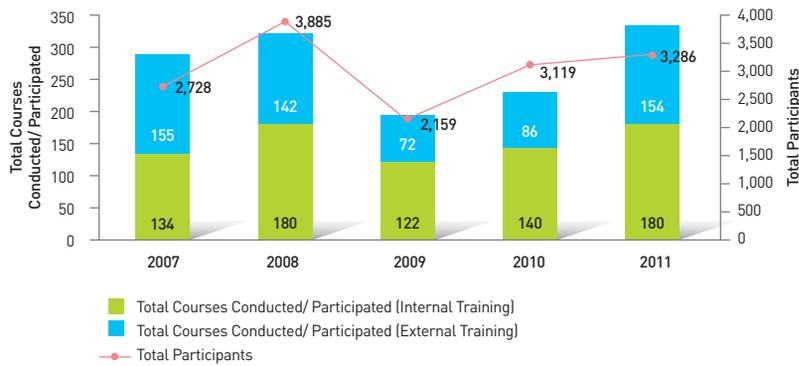
Indah Water recognises the sewerage sector workforce must possess relevant knowledge, skills and competencies. We effectively plan, operate and maintain the sewerage facilities in the country through a structured training and development programme. Emphasis has been placed on human capital development throughout the years.

Since 2010, all Heads of Departments' KPIs include training their employees at least once a year. In 2011, 1,743 or 62% of the 2,801 average headcount attended at least one training programme. This represents an 11% increase from 2010 in which 51% of the 2,726 average headcount received training.

### Employees Training

There were 334 training courses attended by 3,286 participants in 2011. We have spent a total of RM1.79 million on training and more employees attended the courses than in previous years.

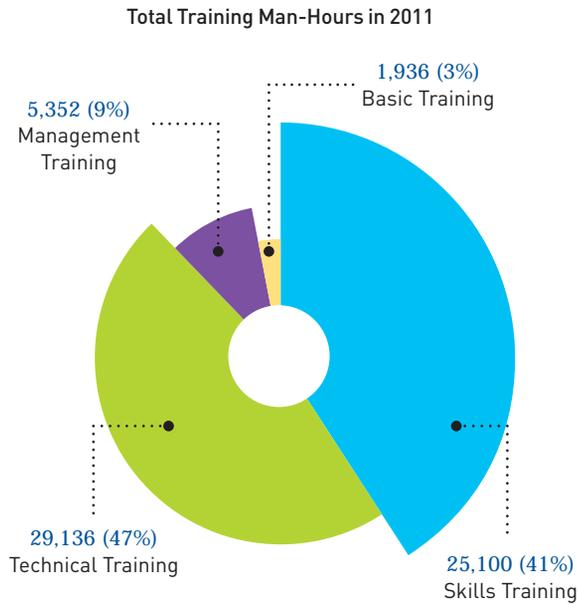
Total Training Courses and Participants



Training Cost per Participant



**Employee Training Hours**



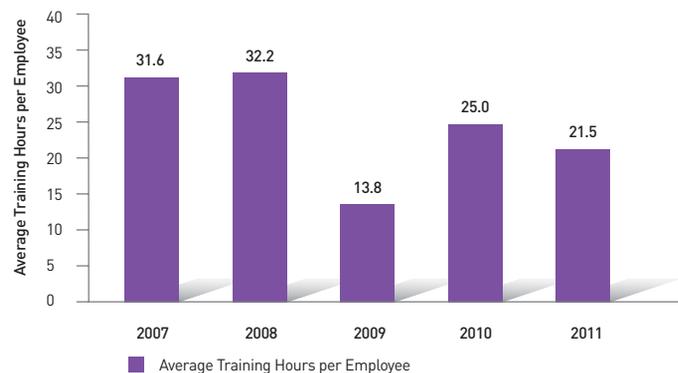
The majority of the training courses attended by our employees are of technical and skills nature. All our field personnel and technical employees are encouraged to attend these courses which have been designed and developed to enhance their competence in these areas.

The average training man-hours reduced from 25.0 in 2010 to 21.5 in 2011. In 2007 and 2008, the average training man-hours per employee was higher due to the establishment of our own Technical Training Centre in our Sg. Besi Regional Plant in 2006. As a result, our employees were sent for the majority of technical trainings in 2007 and 2008. In 2009, the allocated budget for training was reduced, resulting in lower training hours. The average training hours for 2010 and 2011 has been fairly stable with only a minimal decrease due to the shortage of manpower administering the training programmes.



**Average Training Hours**

	2007	2008	2009	2010	2011
Total Training Man-Hours	83,186	86,692	37,480	68,456	61,524
Total No. of Employees	2,629	2,695	2,723	2,733	2,856



One of Our Technical Courses:

## Confined Space Training For Authorised Entrant (AE) and Stand-By Person (SP)

Confined space according to the Industry Code of Practice for Safe Working in a Confined Space 2010 (JKKP DP(S) 127/379/3-1) is defined as a space which is not intended for a regular workforce which has restricted entry or exit. Confined spaces include sewers, manholes, chambers, wet and dry wells, sewage and sludge tanks, septic tanks, tanker barrel, air filter houses, road tankers and underground tanks.

Many lives have been lost in confined space due to poisonous gas inhalation throughout the world. Nearly all deaths are due to suffocation, poisoning by inhalation of toxic gasses and injuries caused by explosion resulting from the ignition of flammable gases. Almost all these gas related deaths could have been prevented. At Indah Water,

all personnel involved in entering and working in confined spaces must be physically fit and free from any of the medical conditions or impairment mentioned in the Code of Practice for Safe Working in a Confined Space. These personnel must attend the confined space training, which provides practical safety training for participants involved in entering and working in confined spaces.

Participants who undergo this training understand the danger of working in confined spaces. They know the general precautions to be observed; can use equipment such as a gas detector properly; comprehend the use of a Self-Rescue Breathing Barriers for safely escape; and are familiar with emergency procedures.



## 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.

March 2010

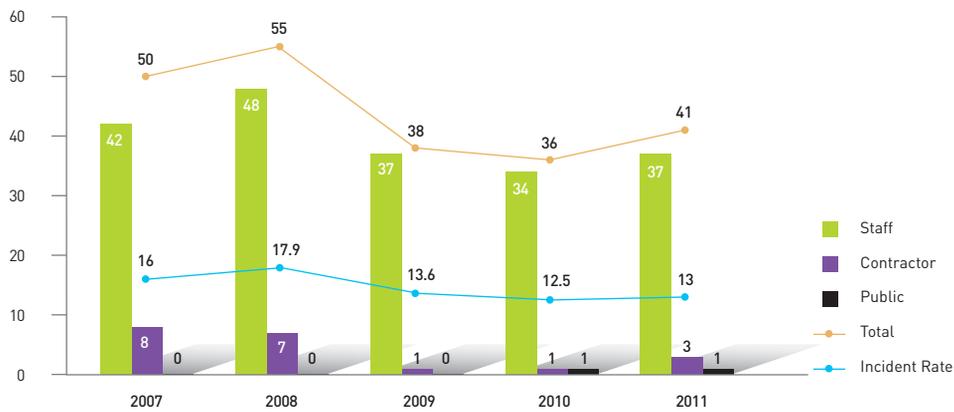


### Health and Safety

We believe that health and safety accountability and responsibility begins at the top of the organisation. Top-down commitment is critical to ensure our health and safety (H&S) management systems and standards are adhered to throughout Indah Water.

Our typical health and safety incidents include traffic accidents, lifting related incidents, slips and falls. There was a 13.9% increase of total incidents from 36 in 2010 to 41 in 2011. The increase was mainly due to traffic accidents involving employees.

#### Incident Statistics from 2007 to 2011

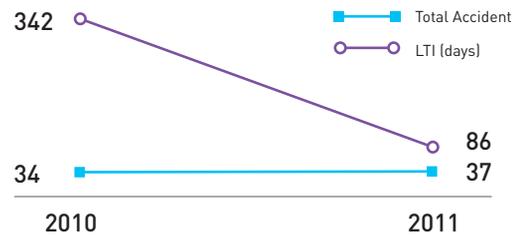


Incident rates also increased 4% in 2011 in comparison with 2010. The incident statistics from 2007 to 2011 recorded are presented above. Our incident rates are calculated as:

$$\text{Incident rate} = \frac{\text{Number of accidents} \times 1,000}{\text{Annual average number of employees}}$$

**We are pleased to report there were no employee fatalities during 2011.**

#### Our Employee Lost Time Injury (LTI) for 2010 and 2011



There were 37 employee incidents reported in 2011 which represents 8.8% more than the 34 incidents in 2010. However, we have recorded a lower severity rate with a reduction of Lost Time Injury (LTI) from 342 in 2010 to 86 days in 2011 which represents approximately a 74.9% year-on-year reduction.

### Contractor and Public Fatal Accident In 2011

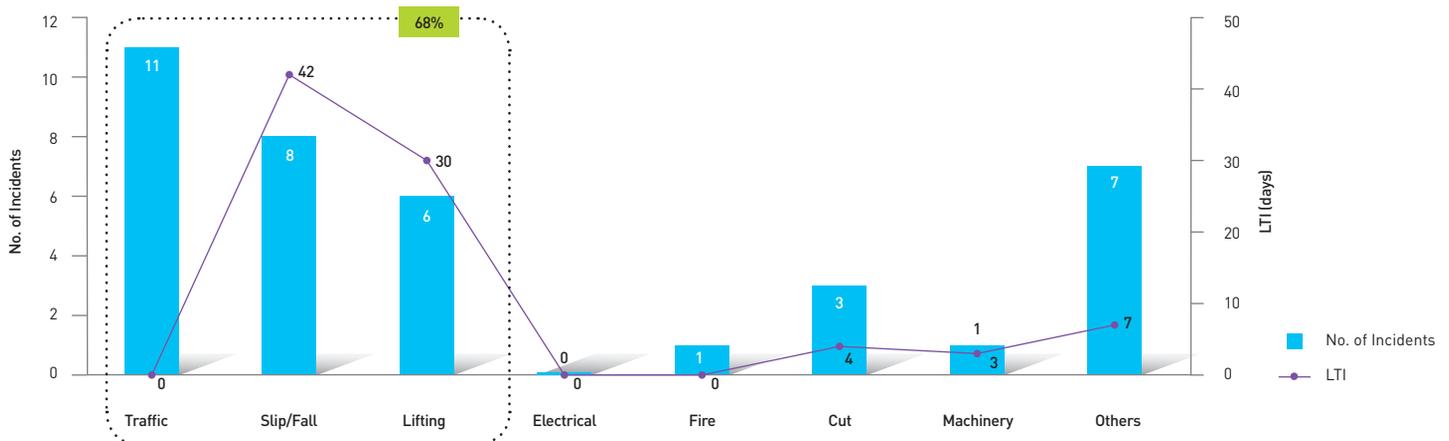
There were, however, two accident fatalities involving a contractor and a member of the public.

State	Classification	Accident Description	No. of Fatalities
Johor	Contractor	An O&M contractor slipped and fell into a clarifier tank while performing maintenance work. The worker did not wear a safety life jacket and unfortunately drowned.	1
Perlis	Public	A four year old boy, who trespassed into Indah Water treatment plant through the drain discharge opening below the fence kerb, drowned in the sludge holding tank.	1

Several improvements were suggested during the safety and health inspection and public awareness programmes. It was recommended that perimeter drain discharge sizes are specified and “eye customers” be appointed for plants that are near residential areas. The “Eye Programme” commenced in 2003 when selected domestic customers were appointed to observe any suspicious and unusual events occurring at our plant areas. In return, these customers enjoy a free service by Indah Water. We have a total of 228 customers participating in the “Eye Programme” as at December 2011.

Safety initiatives to increase contractor safety include a tool box talk before start of work; training and scheduled briefings; and periodical safety and health inspections to be conducted by contractors and Indah Water personnel.

Our Employee Incident and LTI by Type in 2011



Our Health and Safety section also analysed the types of incidents in 2011. We found that slip and fall, lifting related and traffic accidents comprised 68% of total accidents involving Indah Water employees in 2011. Slip, fall and lifting related incidents resulted in a total 84% of the LTI in the year. Continuous Improvement Projects (CIPs) were conducted by the Unit Offices to reduce these three highest incidents. We have also introduced a defensive driving training programme to alleviate the traffic accidents.

**H&S Incident Performance In 2011**

Last year, we aimed to reduce employee incidents and severity rates by 10%, and achieve zero accidents for our contractor and the public. Our actual results are presented below.

**Overall H&S Incident Performance in 2011**

2011 result showed that the Indah Water employee incident rate increased by 4%; however, severity rate has reduced by 79.1%.

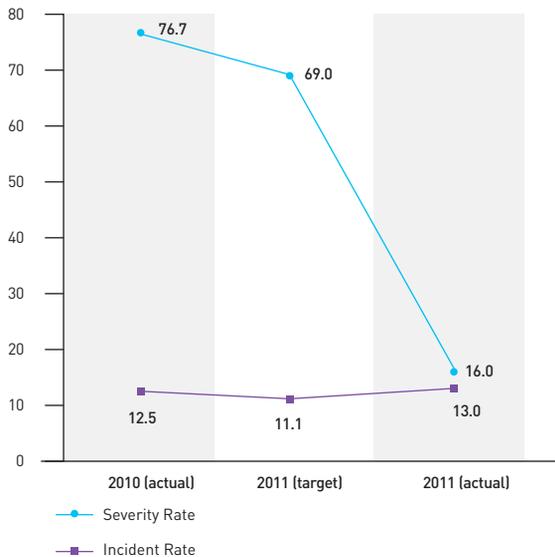
*(Note: This statistic includes near miss incidents.)*

**Excluding near miss incident, our employee incident rate is 8.0.**

Contractor : Target 0  
                   Actual 3 (2 near misses)

Public : Target 0  
                   Actual 1

**Employee H&S Incident Performance in 2011**



In 2012, we will continue to set targets to reduce incident rates for our employees by 10%. We also aim to achieve zero fatal accidents for our employees, contractors and the public.

**Health and Safety at Work**

We continue to improve our safety performance and protect the health and safety of our employees, partners and the community. Our safety and health management systems, processes and likely outcomes are instrumental to our operational excellence. We perform risk assessments to identify occupational and process safety. We also examine contractor risks management to determine appropriate risk mitigation measures. Management, employees and contractors are expected to reinforce safety expectations and ensure competence in safety matters inherent to their roles.

**Health & Safety Activities**

In 2011, we continued to promote a safety culture and effectively manage our health and safety programmes. This minimises the risk of injury to our employees, contractors and the public. It also reduces damage to property. The following successful safety events were completed:

**i. Best H&S Committee**

In 2011, we launched a friendly competition with all Health and Safety Committees (HSC) to select the Best HSC of 2011. Points were awarded by comparing guide compliance and documentation received. The main objectives were to encourage HSCs to perform self-checks from guidelines, improve HSC management and educate on the importance of HSC, share best practices and identify areas for improvement.



## ii. Awareness for Serious Diseases

We conduct various awareness programmes through seminars and visuals throughout our offices. Areas include any serious diseases such as H1N1, dengue and pandemic flu. Posters, email campaigns and other advertising materials are made available in English and Bahasa Malaysia.

In 2011, three health talks were conducted to provide employees with opportunities to raise any health concerns; create awareness of the importance of early detection; and prevent and promote their wellbeing. The topics covered during these three sessions were:

- The Silent Killers – Diabetes, Hypertension, High Blood Cholesterol by BP Healthcare Group
- Carpal Tunnel Syndrome – Health problem related to computers by PM Care Sdn. Bhd.
- Stress Management by *Unit Kesihatan Mental, Kementerian Kesihatan Malaysia*



## iii. Other activities include:

- A Poster & Slogan competition to reinforce and raise road safety awareness among all employees (30 participants).
- A Health & Safety Quiz covering important H&S issues that each employee should know while performing his or her duties (48 participants).
- A pocket sized Health & Safety Handbook was developed in Bahasa Malaysia to serve as a quick reference guide for safe work procedures. It was distributed to all employees and made available at all times.
- Health & Safety Continuous Improvement Projects focused directly on the three highest incidents: slip and fall, lifting related and traffic accidents.
- An Unit Adoption Programme with Kuantan and Gombak Unit Offices selected for direct support in terms of expertise, experiences and consultation in order to improve the H&S performance of the sites.
- A Health and Safety Management Audit was conducted each at Ipoh UO, Skudai UO and the Capital Works & Refurbishment Department (CWRD).
- 24 H&S training courses, comprising eight external and 16 internal courses, were initiated by the H&S Section.
- A Spot Site Inspection and Compliance Check was conducted by the H&S Manager on contractors in five locations to ensure H&S of contractors was strictly followed.
- A Fire Drill was conducted for the first time at our Head Office on 20 December 2011.

### Health and Safety Action Plan for 2012

<b>OHSAS 18001 &amp; MS 1722 Certification</b>	<p>Our headquarters have been selected for the initial pilot project for this certification programme. The scope will include our O&amp;M, all departments in the HQ and project sites.</p>
<b>Nationwide Health &amp; Safety Campaign</b>	<p>We plan to have a two-day nationwide safety campaign at our Bukit Jalil Technical Training Centre in October 2012 to create awareness among our employees and contractors.</p>
<b>Health &amp; Safety Training Programme</b>	<p>A Health &amp; Safety Training programme will be delivered to employees of all levels in addition to safety awareness for managers and managing people at work for supervisors. Other training programmes include competency training, defensive driving training and chemical safety training.</p>
<b>Health &amp; Safety as part of the CIP Activity</b>	<p>In 2012, the Continuous Improvement Programme (CIP) will focus on three main types of accidents: slip, fall and lifting.</p>
<b>To facilitate department on latest Industrial Code of Practice (ICOP)</b>	<p>Our Health and Safety Section will liaise with DOSH on the latest ICOP 2010 and follow up on the acknowledgement for Indah Water as a registered training provider for confined space.</p>
<b>To conduct site inspection and monitor contractor compliance</b>	<p>Our H&amp;S Department will conduct unscheduled inspections of all contractors in each region. Contractors who do not meet our safety standards will be terminated. We will conduct a minimum of 10 planned inspections throughout the nation covering all regions.</p>
<b>Corporate H&amp;S Management Audit</b>	<p>The Corporate H&amp;S audit for 2012 will be conducted in five locations: three from O&amp;M and two from Project Management. Our H&amp;S Audit will verify actions planned for public protection and contractor management.</p>
<b>Health &amp; Safety Quiz</b>	<p>A Health and Safety Quiz is scheduled from April to the end of May 2012.</p>
<b>Fire Drill</b>	<p>Starting from 2012, a full scale fire drill will be conducted.</p>

## Engagement with Our Employees

We engage with our employees at regular departmental meetings. Informal meetings, team-building and recreational activities are also regularly held to strengthen the spirit of solidarity between our employees and the Management Team. Our notice board serves as the main communication channel to post information such as monthly KPIs, health and safety, news and other announcements.

Indah Water's monthly bulletin continues to be an active communication mechanism for our internal stakeholders. The bulletin is downloadable from the intranet. We also place a suggestion box at each department and UOs for employees to submit their concerns and feedback. Employees can also submit their concerns directly to the CEO via email. Our webpage serves as the main communication channel with our internal and external stakeholders.



## Employee Relations Visits

The objectives of our employee relations visits are to:

- Enable Employee Relations (ER) to identify industrial relations issues that may be present at the Unit Offices and obtain employee suggestions for further improvements;
- Help ER assess the Unit Offices employees and management level awareness of the HR policies, disciplinary processes, procedures and implementation from their feedback;
- Highlight pertinent industrial relations issues that may exist and require action from the Unit Office management at the end of each visit;
- Provide guidance and necessary action, where required, to resolve these industrial relations issues;
- Ensure all employee disputes are investigated or resolved and that no new unresolved issues prior to the visit are subsequently raised.



### Issues and Concerns Raised by Employee Relation Visits in 2011

UO	Date of Visit	Issues Raised	Indah Water's response
Seremban	19-20 April 2011	<ul style="list-style-type: none"> <li>i. Salary Structure – stagnant when senior employees have reached the ceiling salary</li> <li>ii. Desludging workforce felt there was no room to progress as core business is treatment</li> <li>iii. Hospitalisation (Room and Bed) of RM80 is not enough as current rate is RM100</li> <li>iv. Tendency to recruit external candidates resulting in no opportunities for internal employees</li> </ul>	<ul style="list-style-type: none"> <li>i. Review at Collective Agreement (CA) negotiation completed</li> <li>ii. Have advised staff to “look-out” for positions in other sections for promotion</li> <li>iii. Issue has been dealt with during CA negotiation</li> <li>iv. Priority is given to internal employees before external candidates are considered</li> </ul>
Seberang Perai	29 June 2011	<ul style="list-style-type: none"> <li>i. Promotion for Customer Service Relations (CSR) and clerical employees limited because they do not have the right qualifications and criteria</li> <li>ii. PED Executive had a personal problem with a colleague</li> <li>iii. Preselecting candidates, such as relatives, for position</li> </ul>	<ul style="list-style-type: none"> <li>i. HR policy applies to all and employees must address this issue by enrolling on courses</li> <li>ii. Immediate superior to address this issue and communicate with relevant parties</li> <li>iii. Matter was brought up to Unit Manager (UM) to emphasise that selection process is to be based on merit</li> </ul>
Kuala Terengganu	4 October 2011	<ul style="list-style-type: none"> <li>i. Unhappy with authoritative Business Service Executive (BSE)</li> <li>ii. Grievance raised by CSR against BSE</li> </ul>	<ul style="list-style-type: none"> <li>i. BSE handles matters on CSR, Administration and Human Resources. This is a directive from Head Office</li> <li>ii. Met the BSE in presence of a Union representative and HR General Manager</li> </ul>

UO	Date of Visit	Issues Raised	Indah Water's response
Gombak	10 November 2011	<ul style="list-style-type: none"> <li>i. Handphone allowance for Operators is too low – Head of Section (HOS) expect to be called</li> <li>ii. Treatment Section is understaffed due to high absenteeism</li> <li>iii. Feels Front Line Maintenance (FLM) course is not effective and motivational courses for senior level employees are proposed</li> </ul>	<ul style="list-style-type: none"> <li>i. Addressed during CA negotiation</li> <li>ii. HOS to address this issue</li> <li>iii. Explained that FLM course is a requirement. The motivational courses are on-going</li> </ul>
Langkawi	17 November 2011	<ul style="list-style-type: none"> <li>i. Additional panel clinic for employees, spouses and children</li> </ul>	<ul style="list-style-type: none"> <li>i. Clinic has been sourced after highlighting to Human Resources Department, Head Office</li> </ul>
Alor Setar	7 December 2011	<ul style="list-style-type: none"> <li>i. An employee was unhappy that he was issued Letter of Caution for insubordination</li> <li>ii. Employee complained Business Service Manager (BSM) was difficult to work under</li> <li>iii. Safety concerns on travelling to the bank by motorcycle</li> </ul>	<ul style="list-style-type: none"> <li>i. As long as the directive from his immediate superior is lawful, refusal by employee is tantamount to insubordination</li> <li>ii. Matter was brought up to BSM's attention during the last session with HOS/UM</li> <li>iii. UM/BSM to address this issue and it is proposed that a security guard at Unit Office accompanies employee to the bank</li> </ul>

### Collective Bargaining Agreement and Freedom of Association

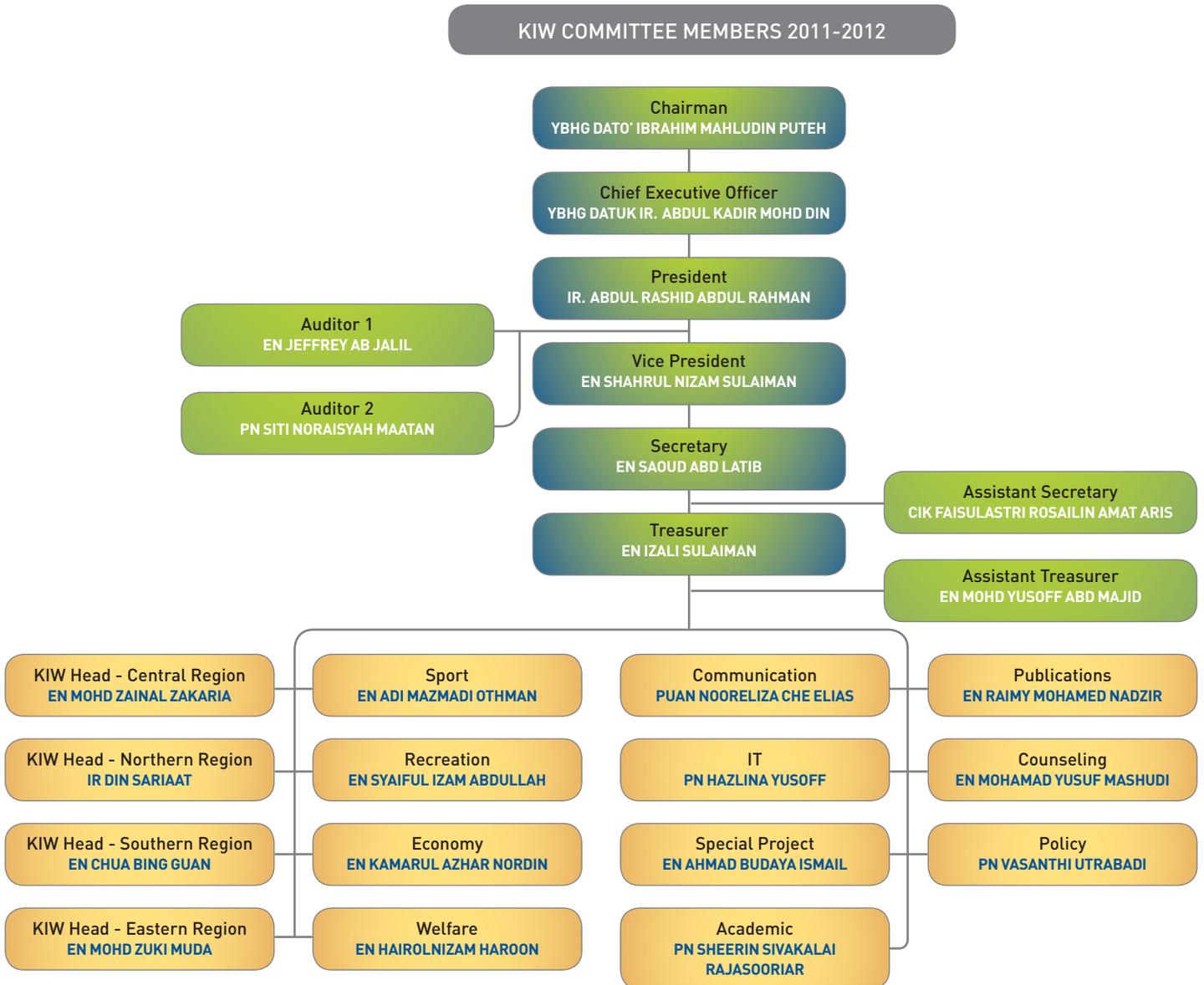
Indah Water respects its employees' rights to be members of trade unions. We regularly conduct open employee and management discussions on any work-related issues. Since 1997, Indah Water management representatives have actively engaged with in-house employees over issues raised by Union members. The

Management has improved the harmonious working relationship with the members. At December 2011, 1,545 or 73% of the total 2,115 non-executive employees were Union members. The Collective Agreement (CA) at Indah Water ended in September 2011 and the next three-year CA is still pending approval from the MoF.

**Kelab Indah Water (KIW)**

Through KIW, we promote the culture of bottom-up management where employees are encouraged to voice their concerns and play an active role in creating a better workplace. We hope that employees will feel a greater sense of control and belonging

to the Company. KIW had 1,252 members at December 2011. 90 activities comprising community services, sports activities, technical visits, seminar and recreational events were conducted in 2011. A total budget of RM653,000 was approved for KIW activities and RM630,849.60 was actually spent.



Employee Engagement Events



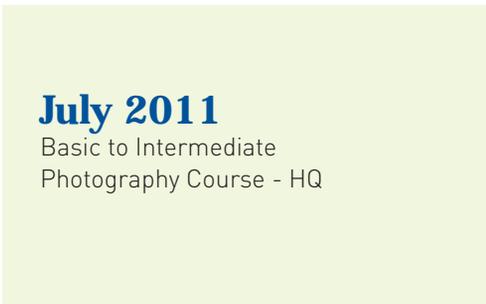
**March 2011**

*Kejohanan Badminton Terbuka Skudai 2011 - Skudai Unit Office*



**May 2011**

The Best Employee Award, the 'Dato' Ibrahim Mahaludin Award and the Best EA Plant Competition Award Ceremony



**July 2011**

Basic to Intermediate Photography Course - HQ



Employee Engagement Events

**July 2011**

Family Day Year 2011 -  
Kuantan Unit Office



**July 2011**

Kejohanan Bowling IWK -  
Gombak Unit Office



**August 2011**

Inter-departmental Aidilfitri  
Decoration Competition - HQ

**September 2011**  
*Majlis Sambutan Aidilfitri - HQ*



**October 2011**  
*Kejohanan Sepak Takraw  
Jemputan IWK 2011 -  
Kuala Lumpur Unit Office*



**September 2011**  
*KIW Bowling Tournament  
Invitational 2011 - HQ*



**December 2011**  
*Annual Dinner 2011 -  
Celebrating 17 Years*





# Sustainability in Our Marketplace

Being the operator of the nation's sewerage assets, we recognise the importance of delivering the highest quality of standards throughout our operations life-cycle. We work closely with our supply chain partners to provide the best service experience for our customers. Our sewage treatment plants (STPs) are regularly inspected to ensure our plants are fully functional at all times.

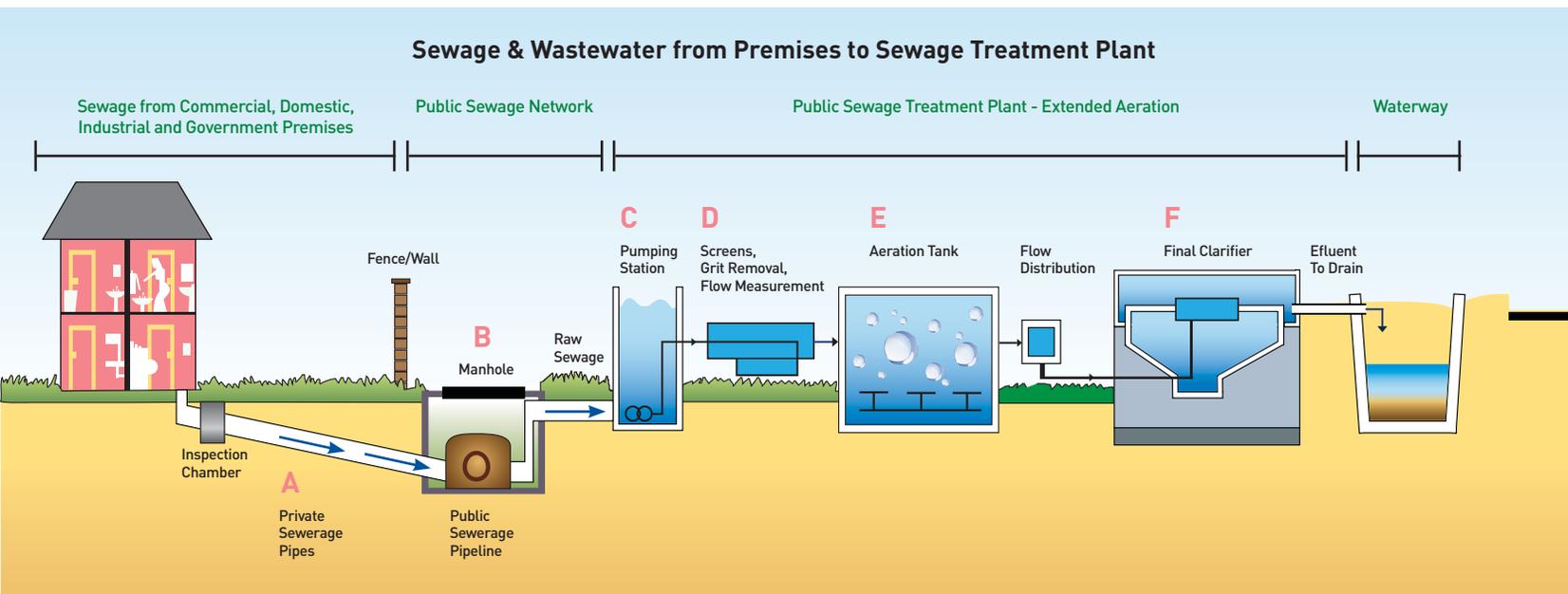
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- 56 Life-cycle of the Sewage Treatment Process: Extended Aeration System
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  - 67 Our Supply Chain
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Indah Water operates and maintains 5,749 STPs, 14,991 km underground sewer pipelines, 829 pumping stations and 58 sludge treatment facilities. Our STPs serve a nationwide population of approximately 19 million.

### Life-cycle of the Sewage Treatment Process: Extended Aeration System

Over half of the total plants operated and maintained by Indah Water use an Extended Aeration (EA) system. EA is a mechanical secondary treatment system that removes biodegradable organic and suspended solids, mainly using biological unit processes.

The diagram below depicts the flow of sewage and waste from your premises toilets, bathrooms and kitchen to a public sewage treatment plant. The flow travels through the internal (private) sewerage pipes on your premises to the underground public sewer network. Sewage and wastewater are treated before the effluent is released back into the waterways or drains.



#### **A** Underground Sewerage Pipes

Premises are connected to the STPs through underground pipelines. Rubbish thrown into the toilet such as diapers, napkins, sanitary towels, newspapers, magazines, boxes, toothpaste tubes and other solid waste may cause blockages in the pipelines. Hardened oil, grease and solid waste from the food industry can also clog the pipelines. This blockage will result in back flow or overflow of wastewater and sewage into the toilets, bathrooms and the kitchens of all premises in the immediate surrounding areas.

#### **B** Manhole

Manholes are sealed chambers that are attached to network of sewerage pipelines. Access to underground sewerage pipelines to perform maintenance work is through a manhole.

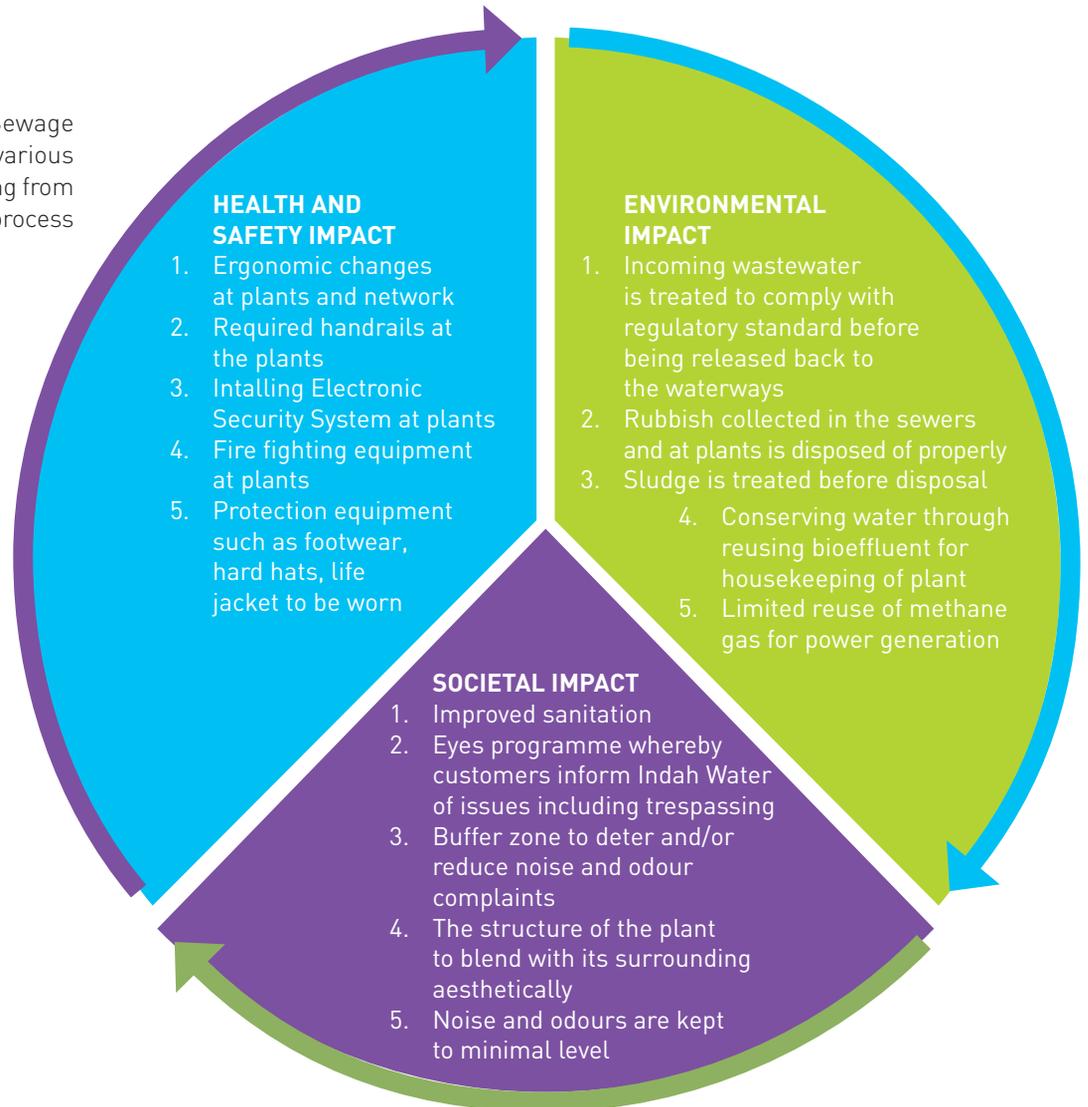
#### **C** Pump Station

A pump station lifts sewage for treatment and provides a consistent inlet flow. The pump stations are equipped with good ventilation and odour control systems to contain, exhaust and treat odorous sewage gases. This helps minimise unpleasant smell to the neighbouring premises.

<b>D</b> <b>Screen</b>	Coarse material, such as rocks, roots and rags, are removed through a screen. Sand, gravel and other inorganic materials are removed through a second screen. Oil and grease are also partially separated.
<b>E</b> <b>Aeration Tank</b>	The Aeration Tank is the heart of the sewage treatment process. The sewage is biologically treated and broken down by living micro organisms such as bacteria. Bacteria require oxygen to break down the organic material sewage. Bubbles of air are injected into the aeration tank for the bacteria to function properly.
<b>F</b> <b>Clarifier</b>	<p>The settled sludge and the treated effluent are separated at the final clarifier. The effluent is discharged to the receiving environment and monitored for its compliance with the environmental standards stipulated under the Environmental Quality Act. This ensures the effluent released back to the waterway is environmentally safe.</p> <p>The sludge is channelled to a sludge treatment facility for further treatment before disposal in order to reduce the potential detrimental effect on the environment.</p>

**Impacts Identified from Our life-cycle Process**

The life-cycle of the EA Sewage Treatment System contains various process stages. Impacts resulting from any one stage of the life-cycle process are summarised here.



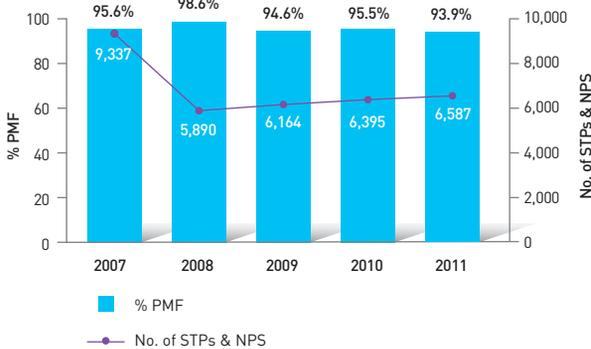
## Responsible Operations

Indah Water is appointed by Suruhanjaya Perkhidmatan Air Negara (SPAN) to provide sewerage services to the nation. We recognise our responsibility to uphold the quality of our sewerage services to protect public health, preserve water resources and the environment.

### 1. STP Operations and Maintenance

The operational service and maintenance of our STPs is conducted regularly to ensure our plants are fully functional at all times. Malfunctioning equipment in the treatment process is repaired or replaced immediately. The percentage of plant maintenance frequency in 2011 has dropped 1.6% in comparison to 2010. This drop is due to the maintenance of more STPs during the year and limited manpower resources.

Percentage Plant Maintenance Frequency (PMF) Vs. Total Plants from 2007 to 2011



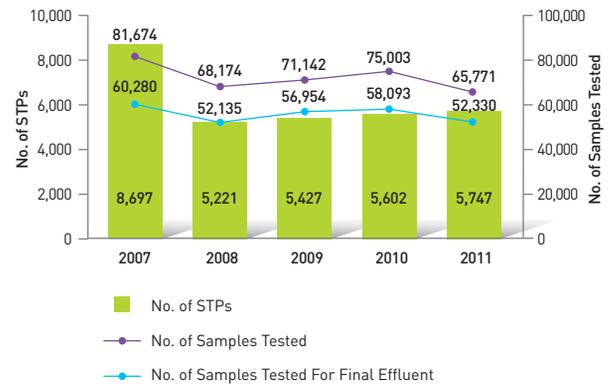
Note: With the enforcement of the Water Services Industry Act (WSIA) 2006 in 2008, Indah Water is no longer responsible for maintaining the CSTs. As a result, the total plants had dropped significantly from 2007 to 2008.

### 2. Sampling of STPs

Indah Water is responsible for monitoring the quality of effluent that is discharged from its treatment plants and reporting the compliance data to the Regulators, SPAN and the Department of Environment (DOE) regularly. Effluent sampling and testing are critical to monitoring our plants

performance and complying with the EQA requirements. This ensures that the effluent is safe to be discharged to the receiving waters. Effluents from treatment plants are regularly sampled and tested in our three regional laboratories. We are building a new laboratory at Bukit Tinggi, Klang which should be completed in 2013.

Number of Samples Tested from 2007 to 2011



Note: The privately maintained STPs are excluded from the effluent compliance monitoring.

### 3. Operating Procedure Instructions (OPIs)

Written set of policies and procedures known as OPIs are developed to provide consistent conformance to technical and quality systems requirements. The OPIs are grouped into the following five categories:

- Operation & Maintenance: inspection frequency and single manning
- Sampling: sampling instruction, joint sampling with the DOE, sampling for bacteriological examination and sludge disposal site sampling requirements
- Mechanical & Electrical: working on electrical panels machinery systems, isolation of plant and machinery and nationwide, regional or district power failure
- Fleet: drivers' daily checks and maintenance servicing, handling/taking over of vehicles, traffic accident procedure and vehicle modification
- Health & Safety: fence/security inspection, entry into confined spaces, safe working by contractors and Emergency Response Plan (ERP) for unit operations office

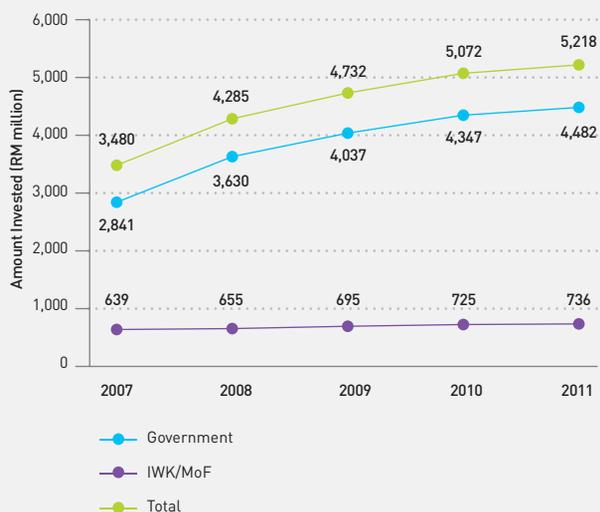
#### 4. Refurbishment and upgrading of existing STPs

Many of the existing STPs taken over by Indah Water are old and dilapidated. These older plants are unable to meet the EQSR 2009 effluent standards. These plants are being rehabilitated and refurbished under our Refurbishment Programme to enhance the functionality, effectiveness and efficiency of their sewage treatment processes. This Refurbishment Programme also improves the health and safety, and aesthetics aspects of these plants.

Summary of Refurbishment Work Implemented by Indah Water as at December 2011

Category of Refurbishment Work	No. of Plants under Refurbishment Programme	No. of Plants Refurbished	Cost of Refurbishment Works (RM Million)	% of Plants Refurbished
Category 2 & 5 (Safety, Security, Cleanliness and Aesthetics)	3,784	2,303	25.34	61%
Category 2 to 5 (Safety, Security, Cleanliness, Aesthetics, M&E and Serviceability)	2,451	1,513	349.62	62%
Major Treatment Performance (Total Upgrading / Replacement of Plants)	56	48	76.43	86%
	<b>6,291</b>	<b>3,864</b>	<b>451.39</b>	<b>61%</b>

#### Cumulative CAPEX Investment in Sewerage Development To-Date by the Government and Indah Water



Up to 2011, the amount of capital investment for sewerage development has totaled up to RM5.22 billion, of which RM4.48 billion was invested by the Government and the remaining RM736 million was from Indah Water/MoF. These capital investments are for the construction of centralised STPs; sludge treatment and disposal facilities; rationalisation of old and small STPs; upgrading of STPs and sewer rehabilitation.

## 5. Equipment standardisation

Equipment standardisation leads to the operation and maintenance of fewer types of equipment. This allows the operators to become specialists in the equipment used. Standardisation also makes bulk purchases possible which result in cost savings. Training courses on equipment for operators can also be reduced. This ongoing standardisation exercise focuses on critical equipment such as pumps, blowers and aerators.

## 6. Rationalisation of Plants

Rationalisation refers to replacing and redirecting the flow of wastewater from many smaller STPs to one larger STP. The existing small STPs are decommissioned which result in the following benefits:

- One large STP is more cost efficient than several smaller STPs due to economies of scale
- Plant performance can be constantly monitored with supervisory control and data acquisition (SCADA), and an Early Warning System (EWS) at the large STP.

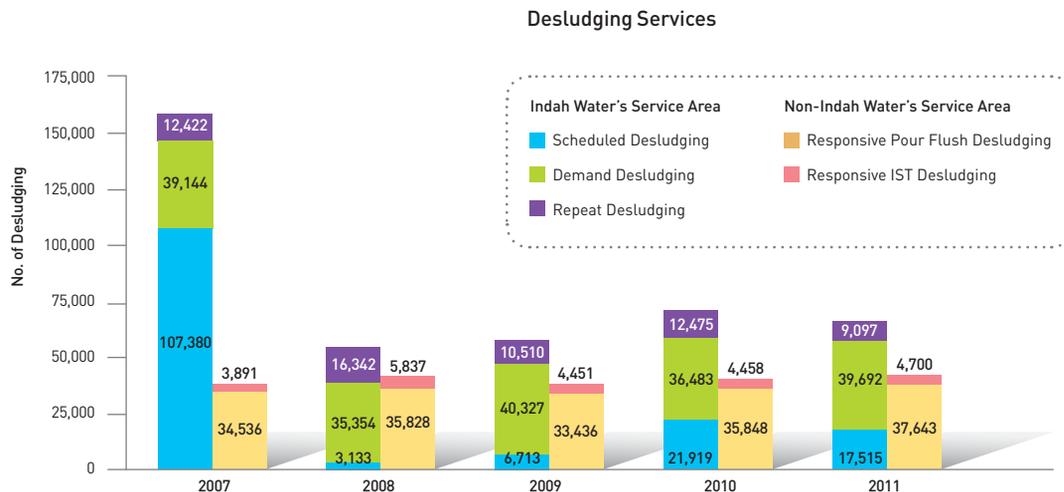
## 7. Asset Management

Our business is very much dependent on the physical performance and availability of our assets, the accuracy and depth of the assets data, and the assets maintenance strategies. We have implemented several data management systems at different levels and functions to support operations and business processes. We have established our Asset Management policy; drafted an Asset Management Strategy and Action Plan; and developed Unit Office based Asset Management Plans.

## Desludging Services

The regular desludging or removal of accumulated sludge in the tank is critical in preventing water pollution. Without it, untreated sewage and sludge solids will be released into rivers resulting in the death of aquatic life. It may also threaten public health with deadly diseases, such as cholera, typhoid and hepatitis A.

Section 65 of the Water Services Industry Act, 2006 states that the owner, management corporation or occupier of any premises with a septic tank is responsible for maintaining it and all its accessories so it is not a nuisance or harmful to health. The septic tank must also be serviced by a service licensee or permit holder. Contravening this section of the Act is an offence that carries a fine up to RM50,000. The desludging work conducted from 2007 to 2011 is summarised below.



# Customer Charter

Our customer charter discloses our commitment to addressing emergencies, complaints, service response times and answering phone calls. The charter contains Level of Service (LOS) targets for providing services to our customers 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 SPAN;
- Providing desludging service of septic tanks upon customers' request;
- 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 three 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 by complying with the above standards, which are regulated and monitored by SPAN.



### Responding to Our Customers' Complaints

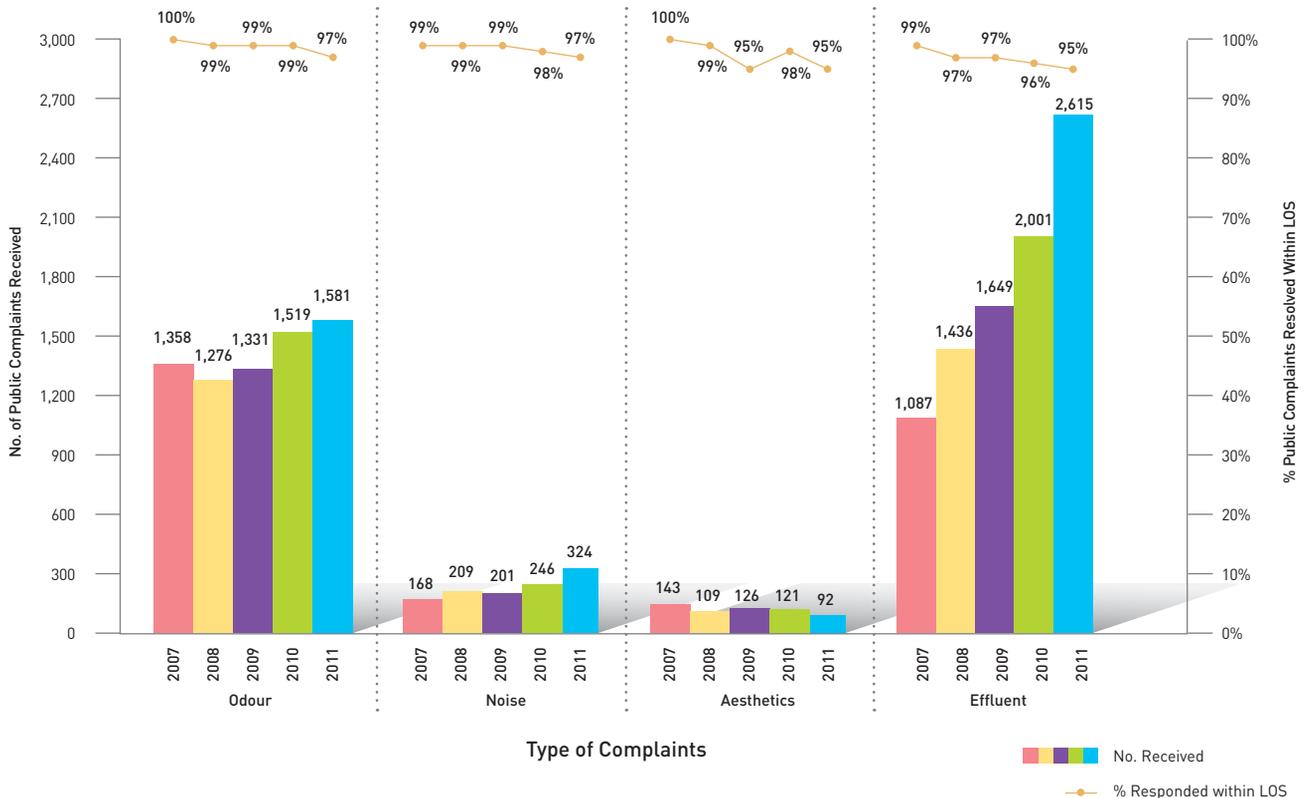
Environment impacts and public nuisances such as odour, noise, aesthetics and sewage overflow are easily detected by the public and usually lead to complaints. We monitor and attempt to respond to these complaints within the Level of Service (LOS) stated in our Customer Charter.

Four major public complaints received from our STPs were odour, noise, aesthetics and effluents related. The root causes of each complaint were:

Odour	Malfunction of processes or equipment, surcharge of raw sewage and improper sludge treatment
Noise	Noise generated from equipment in STPs
Aesthetics	Overgrowth of weeds, rubbish and pests at the plant
Effluents	Overflowing of STPs and manholes

The LOS performance in resolving complaints has reduced from the previous year. This is due to increased number of STPs being taken over; a shortage of manpower to operate the STPs; and theft of equipment and vandalism. One proposed solution is to rationalise the small plants to a large plant equipped with SCADA and EWS.

Public Complaints Received by Type from 2007 to 2011



### Emergency Complaints

Any sewer collapse or pipeline blockage complaints are considered an emergency. The LOS response time for both the complaints is within 24 hours from the complaints received time.

Public Blockages Complaints Attended within LOS



The LOS performance in resolving public blockages complaints in 2011 has improved from 96% in 2010 to 97% in 2011. This has resulted in 2,937 (13%) fewer complaints being received in 2011.

Sewer Collapse Complaints Attended within LOS

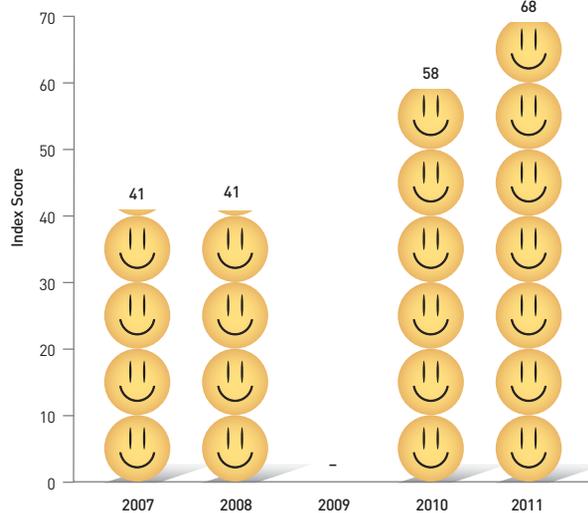


The total sewer collapse complaints received in 2011 has increased by 116 (56%) compared to previous year of 206. The LOS performance in resolving the complaints in 2011 reduced from 97% in 2010 to 96% in 2011 as a result.

### Customer Satisfaction Survey

Indah Water conducts customer satisfaction surveys periodically to obtain customers' feedback and gauge perception regarding the sewerage services offered throughout the year. The last four surveys, which were carried out by a third party in 2007, 2008, 2010 and 2011, showed a marked improvement over this period.

Indah Water Customer Satisfaction Index 2007 to 2011

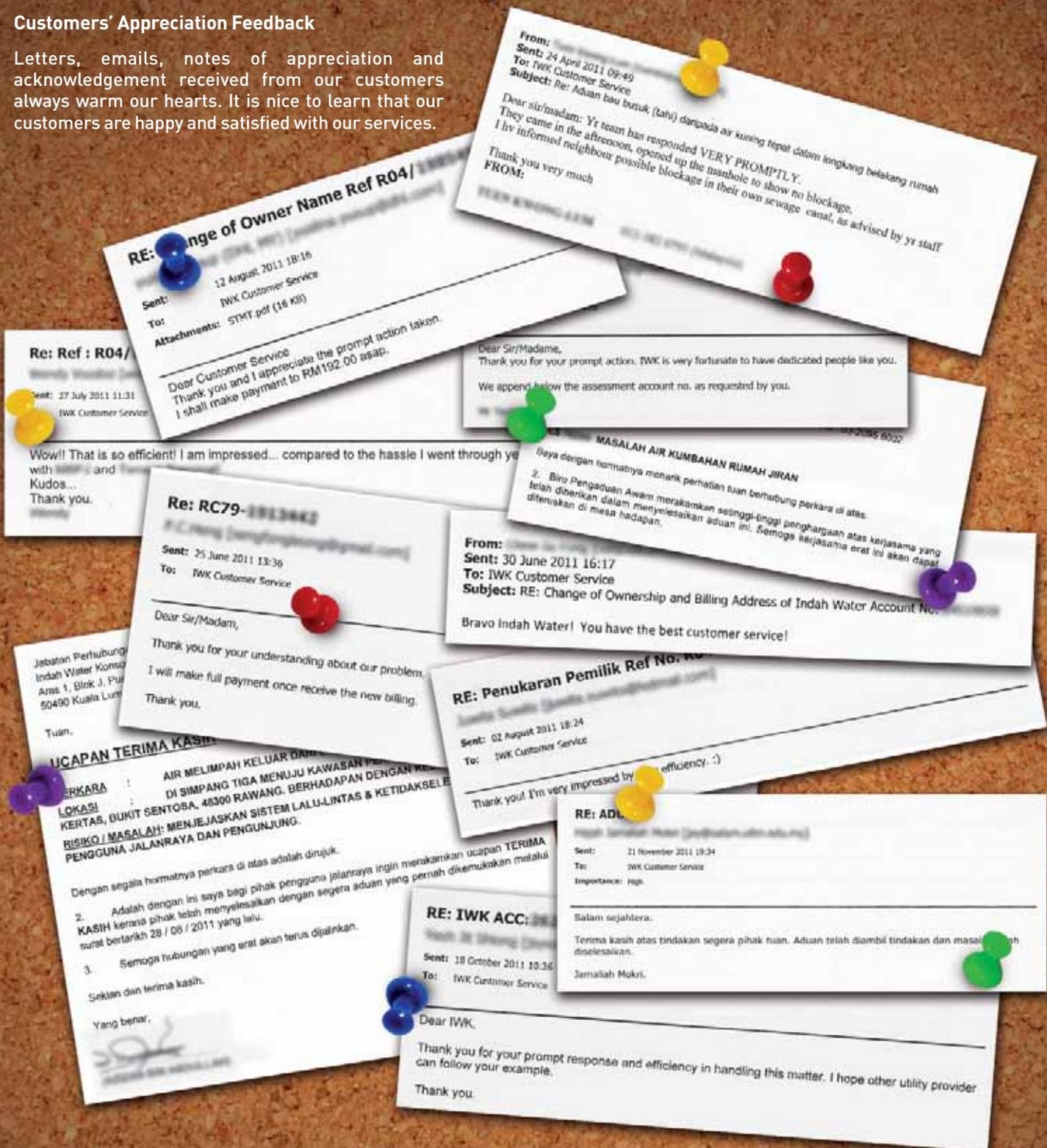


In 2011, the Customer Satisfaction Survey showed that our Customer Satisfaction Index (CSI) of 68 was 9 points above the global norm of 59. In comparison to 2010, the CSI in 2011 has improved by 10 points.

Despite the upward trend, Indah Water is never complacent. We will continue to strive for continuous improvement by providing efficient and effective sewerage services to all our valued customers.

## Customers' Appreciation Feedback

Letters, emails, notes of appreciation and acknowledgement received from our customers always warm our hearts. It is nice to learn that our customers are happy and satisfied with our services.



## Customer Service Management

Customer service management is prioritised to deliver high quality service and timely response to customers. Significant improvements have been achieved due to strategic changes in processes and the innovative use of technology. Response time reduction was prioritised for technical and administrative requests from customers. Transparent communication channels for customers were also provided.

All billing related calls are forwarded to our centralised contact centre, which is located at our Head Office. This contact centre ensures all customer contacts are attended to promptly and efficiently.

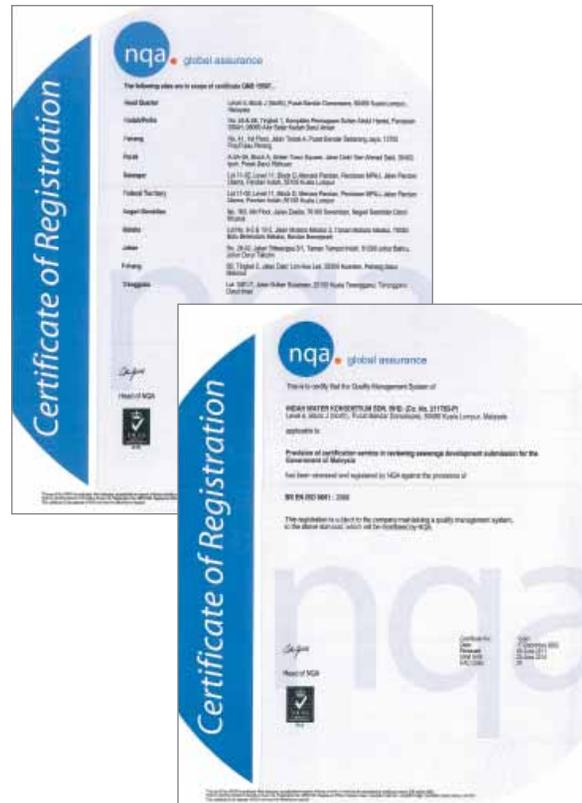
Customer enquiries and billing complaints can be made via telephone, in writing or in person. In July 2005, a Short Messaging Service (SMS) method was introduced to expand the communication channels for customer complaints.

In addition to the campaigns conducted, Indah Water is also committed to:

- Continuing to distribute company announcements, news releases and informative articles through print and electronic mass media.
- Organising forums and activities to educate and share information with various consumer groups.
- Liaising with Government agencies, namely the DOE, DOSH and the Department of Irrigation and Drainage, to organise events and activities, and enhance working relationships.
- Commissioning an independent research survey on brand recognition.
- Soliciting and gathering feedback from customers on billing and operational service to monitor customer satisfaction.
- Organising on-site community events with customers at strategic locations with the view to educate and obtain feedback.
- Introduce educational programmes, activities and workshops with print media and non-governmental organisations.

## Indah Water as a Certified Agency

Indah Water has been appointed by SPAN as the Certifying Agency (CA) for Sewerage Works Approvals in accordance with Section 174 of Water Services Industry Act 2006 (Act 655) effective from 1 January 2008. This appointment applies to all States in West Malaysia, except for Kelantan, and Wilayah Persekutuan Labuan. There are 10 CA offices nationwide providing certification services. These services cover certification of the overall planning of any proposed development and the detailed design of the proposed sewerage systems for a particular development. Upon planning and design approval by CA, periodical inspections during construction will be overseen by the CA. After full testing and commissioning of the new sewerage system, the CA recommends Certificate Fitness of Occupation. The developers then deliver the public sewerage systems to Indah Water for maintenance. In accordance with the Water Services Industry Act 2006, no development can proceed without prior submission and approval by the CA. All sewerage works must adhere to the approved drawings.



*Believe it or not!*

**27 sen**  
**Day House Family Malaysia**

Basic necessities in life that are sometimes taken for granted....

If there is no...	Pipe Water	Electricity	Mobile Phone	Cable Television	Sewerage System
Alternatives	Well water or Bottled water	Candle, Lamp or Generator	Public Telephone	Radio, Cinema or Newspaper	Public Toilet
Effects to Life	Essential to Life	Light-up Your Life	Lifestyle	Entertain Life	Protects Life
*Monthly Charge (RM)	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

Believe it or not, Indah Water sewerage service charge to your house is only RM8.00 per month or 27 sen a day. For this payment, we ensure that sewage and wastewater from your house are treated in the public sewage treatment plants to safeguard public health, protect the water resources and long-term preservation of the environment.

Help us to help you preserve our environment

We strive to serve you better. You can reach us through:  
Tel: 1-800-88-3495 | Fax: 03-2095 6002  
Email: care@iwk.com.my Website: www.iwk.com.my

**SMS 36399 (Type IWK<space>Message)**

## Our Pricing and Operating Overheads

Tariffs are the most important element influencing the sustainability of the sewerage industry. Our tariff charge is decided by the Government. This tariff has been reduced three times since 1997. Hence, our sewerage service charges do not reflect the true cost of the service as the charges are lower than the cost of service. The operating cost of Indah Water has also risen over the years.

### Operating Overheads from 2007 to 2011



Note: Operating overheads excludes doubtful debt provision, depreciation and interest.

The increase in operating costs is due to:

- i. An incremental number of treatment plants being taken over yearly resulting in a larger customer base. However, the occupation of the new premises in some developments is usually low
- ii. Higher STP performance expectations with short plant downtime and high customer demand in terms of prompt response time and services
- iii. More stringent effluent standards requirements for STP performance to comply with
- iv. Electricity tariff hike in 2008 and 2011
- v. Increased requirements for equipment servicing, replacements and infrastructure maintenance
- vi. Greater legal services and debt recovery costs due to a larger customer base
- vii. Takeover of regional plants, which are highly mechanised

These have resulted in an increasingly large gap between revenue and costs.

## Our Supply Chain

Our suppliers, contractors and consultants are key stakeholders in our supply chain. We recognise the importance of supply chain management and the influence it has on meeting our environment objectives. We have established prequalification criteria and annual evaluation exercises for suppliers and contractors to ensure compliance with regulatory requirements.

Our Tender Committee is responsible for adhering to the tender procedures defined in the Tender Manual. They also ensure all the necessary tender criteria, specifications and requirements are met.

As a responsible corporate citizen, we continue to encourage the development of our nation by providing opportunities to our local suppliers and contractors. All of our suppliers and contractors are locally sourced presently.



## Sustainable Procurement Practices

In 2011, Indah Water fully implemented its Internet-based e-Procurement system. This approach improves process transparency and reduces human intervention. It also increases the competitiveness of the procurement process with increased participation from contractors and suppliers during tenders and the issuing of quotations.

Our e-catalogue comprises 11 product categories: furniture, information technology products, major equipment, major spares, materials, minor equipment, office equipment, office supplies, safety, uniforms and vehicles.

Each category has several items of products. The total products listed in the e-catalogue as at 31 December 2011 are:

- 3,761 items (contract)
  - users can issue Purchase Requisitions directly from the system
- 3,867 items (reference)
  - as price reference for users

The full nationwide implementation of the e-Procurement Phase 2 and Central Contract module was completed and introduced to all regions in November 2011. The enhanced capability allows Unit Offices to order products through an online catalogue. This simplifies the procurement process. Users can also review a price reference database for products and services to obtain competitive prices and rates. The system is also equipped with more than 30 new business intelligence reports to conduct spend analysis, which is useful for future purchases.

The e-Procurement system has increased our competitiveness and transparency over the past three years. The system also helped manage quotations more efficiently and achieved a faster acquisition turnaround time. Standards and specifications for 43 products were also developed to ensure quality and performance.

We also accept tender submissions through our tender box. All documents removed from the tender box must be kept in the Tender Scheduling Room until the scheduling process is completed and the schedules are signed.

## Our e-Procurement Achievements

	2007	2008	2009	2010	2011
Purchase Volume (RM million)	1.2	15.7	120.7	155.0	<b>137.4</b>
No. of Transactions	4	937	2,426	3,979	<b>4,573</b>
Estimated Savings (RM million)	0.06	1.71	9.65	23.57	<b>17.06</b>

24 reports were compiled and uploaded to the e-Procurement portal to provide users with market intelligence on product options. Our Procurement Department also visits suppliers' and contractors' sites regularly and conducts monthly e-Procurement training. An average of 24 participants attended each session.

Companies and individuals with a controlling interest in other companies or businesses, which are registered with Indah Water that have committed an offence and face the risk of being suspended. In 2011, 14 registered companies were suspended. The duration of suspension is dependent on the seriousness of the offence committed by the contractor, supplier or consultant.

Severity	Suspension Term
Severe	5 years
Major	1 year to 3 years
Minor	3 months to 6 months

### Indah Water's Technical Training Courses

The sewerage industry is considered an area for highly skilled professions that require well trained personnel with a knowledge of chemistry, microbiology, hydraulics and other related subjects. Indah Water sees the need for the sewerage industry to have a skilful and knowledgeable workforce and practitioners to effectively and efficiently plan, operate and maintain the sewerage facilities.

A wide range of sewerage technical training courses has been designed by Indah Water for its employees' capacity building. These courses are also offered to other practitioners in the sewerage industry.

Some of our training courses have been certified by SPAN. We also aim to obtain international accreditation from the relevant international bodies.

Our training courses cover the following key learning areas:

- i. Executive Technical Training Programme - This programme is designed for Executives, Engineers and Managers. It covers courses on the planning, design, construction, testing, commissioning, operation and maintenance of sewerage systems.
- ii. Operational Training - This programme covers skill development; health and safety; and a course for managerial development. Skills development training is designed for operators, technicians, supervisors, electricians and mechanical fitters. The Health and Safety related courses involved safe working procedures. These development courses are designed for supervisors and managers to equip them with the necessary knowledge and skills to manage and deal with people effectively.
- iii. Product and Equipment Training - Indah Water places emphasis on keeping its employees abreast with the latest product and equipment innovations, and technology. Product and equipment training, which is periodically organised, covers product theory and operations.

Currently available courses for the sewerage industry practitioners include:

- Working in sewers and confined spaces
- Sewer network maintenance
- Solids handling, treatment and disposal
- Basic maintenance of pumps and blowers
- Sludge conditioning processes
- Desludging of individual septic tanks
- Sampling techniques and records

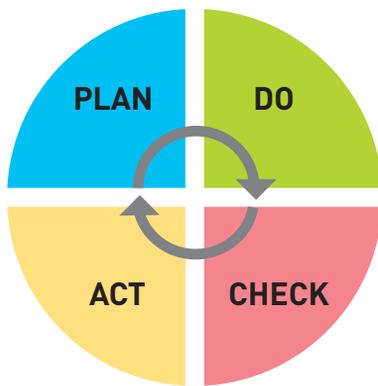
In 2011, the following six local level capacity building programmes were conducted for other local sewerage industry practitioners:

- i. Treatment Process Operator Course for Majlis Bandaraya Johor Bahru
- ii. Training for Faber Medi-Serve Sdn Bhd in Alor Setar
- iii. Pilot For DOE-EiMas & MyWA - the Certified Environmental Professional Sewage Treatment Plant Operators Course (CePSTPO)
- iv. Training for Jabatan Kerja Raya Sabah
- v. 2nd CePSTPO training For DOE-EiMas & MyWA
- vi. Training on Sampling of Sewage for Politeknik Sultan Idris Shah

## Our Sustainability Innovative Effort

### Continuous Improvement Project (CIP)

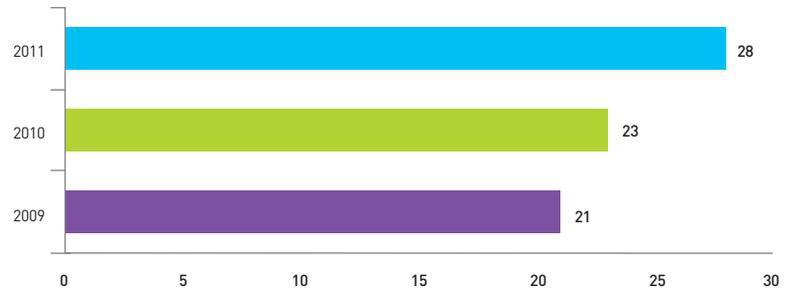
Continuous improvement is a systematic and ongoing effort to raise our performance against Accreditation Standards. It involves establishing and supporting a work culture for better practice in sewerage management and services.



We have introduced the CIP Programme in our Unit Offices since 2008. This Programme is based on the four-step model of Plan Do Check Act (PDCA) cycle. As a circle has no end, the PDCA cycle constantly repeated for continuous improvement. Our objectives are to create an innovative and continuous improvement mindset in our workforce, especially among our Unit Offices. We also hope to encourage innovative ideas in our daily work processes in order to improve our STPs' performance in terms of reliability, efficiency, effectiveness and cost.

Under the programme, each Unit Office is to initiate a CIP every year and the initiative is compulsory under the Unit Office KPI. Up to 2011, our Unit Offices have initiated a total of 72 CIPs.

**Total CIPs Initiated**



In 2009, of the 21 CIPs, the following four projects were selected as best practices to be implemented by UOs with similar conditions or problems.

- i. Reduce public complaints caused by pump failures
- ii. Reduce the number of failures of aeration devices
- iii. Optimise sewer cleaning works by jettor / Sewer Cleaning Vehicles (SCV)
- iv. Improve all plant maintenance visits using a vehicle tracking system

Three of the 23 CIPs initiated in 2010 were selected as Standard of Procedures to be implemented by all UOs in 2011. The CIPs:

- i. Reduce capturing of fine sand by controlled desludging methods using prototype hose cap for application in pit latrines
- ii. Improve control panel locking system to reduce theft
- iii. Improve tankering performance and revenue using geotube/geobag

In 2011, a total of 28 CIPs were initiated by the UOs: 26 CIPs were approved and 10 were shortlisted. These 10 shortlisted CIPs will be contested for a competition in 2012 based on creative and innovation solution proposed. They will also be judged on value creation to the environment, customers and Indah Water.

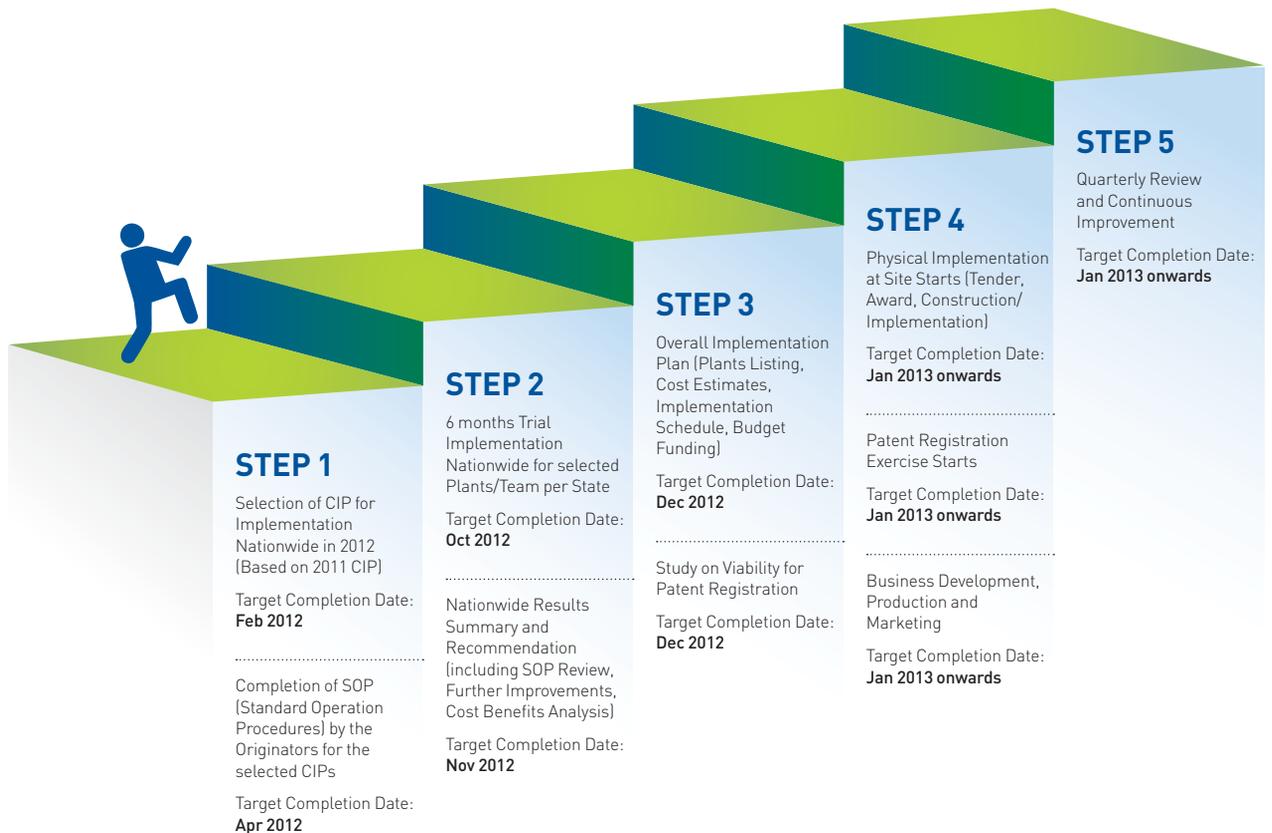
The 10 shortlisted CIPs were:

1. To Improve Tankering Performance and Revenue by using Geotube / Geobag
2. Ergonomic Tools to Open Sewer Line Manhole Covers
3. To reduce and minimise occurrence of sludge rising phenomenon in hopper type clarifiers
4. Identification of bio-indicator (Biota) for various effluent quality and operation conditions (KLR129)
5. Increase the successful rate on Resolve Enquiry (Demand, Responsive and Pour Flush)
6. Capital savings From Total Refurbishment Programme on Pump and Valve
7. Aeration System – optimisation of diffuser
8. Design of special tool for disassembling the moveable lid covers of pour flush latrines to ease desludging operation in Langkawi

9. To reduce the number of PLC failures due to actuator malfunction (fixed) by using fluctuate decanter
10. Improvement in poor performance of mechanised rotary drum thickener by selecting suitable mesh screen for plant KLR336

### Way Forward for 10 Selected CIPs

The chart below presents the realisation of the selected CIPs, which illustrates detailed steps from the selection of CIPs to product development and marketing. The result of these CIPs can be realised during the eighth month of implementation. This result serves as a benchmark for gap identification and future development.





### **Continuous Improvement Project (CIP): The Use of Geotube to Improve Tankering Performance and Desludging Revenue**

A pilot project on geotube usage was conducted to improve tankering performance and desludging revenue. A State was chosen where IST customers were located over a large area and the centralised sludge treatment site was located more than 50 to 100 km from septic tank customers.

The Geotube/Geobag was selected due to its unique characteristics. It is easy to use; durable; easily maintained; requires no electricity or additive chemicals; and materials used are recyclable. The travel distance to treat and dispose of sludge can be shortened, which vastly improves the tankering productivity and desludging revenue. It can be used as a substitute for transfer stations.

With a proper study conducted including application methods, the Geotube may be used as an alternative dewatering option because less mechanical equipment is required. The filtrates can be recycled into the treatment plant for further processing as with most conventional dewatering methods. Using the Geotube as a dewatering unit is operationally advantageous because it is a dewatering and containment in a single operation. The improvement results of our CIP in applying these geotubes are as follows:

- Reduction in travel costs as the travelling distance per IST is reduced

- Reduction in cost per cubic metre of sludge handled due to increase in tanker performance and reduction of cost per IST desludged
- Reduction in operations cost compared to Mechanical Dewatering as geotube cost is 37% lower as it requires no electricity, water, polymer or manning
- Increase in tanker performance as more sludge can be handled in the same period
- Increased total desludging capability

### **Our Research and Development (R&D)**

The sewerage industry is facing increasingly stringent regulatory requirements. Civil society is becoming more sophisticated and demands a more environmentally sustainable future. Conscious of this trend, our R&D supports our Company in developing environmentally sustainable services to continually:

- Improve the cost effectiveness of sewage treatment performance
- Reduce energy consumption and waste
- Increase reuse of bio-solids and treated effluent

Indah Water initiated several R&D programmes during 2011. Three of these R&D programmes are highlighted below.

#### **INDAH WATER-UPM-MAAHB R&D on “Effect of Bio-solids Application on Landscape Plants”**

An R&D collaborative study between Indah Water, Malaysian Airport Agriculture-Horticulture Berhad (MAAHB) and Universiti Putra Malaysia (UPM) was completed on 30 June 2011. The “Effects of Bio-solids Application on Landscape Plants” study took two years. The R&D findings showed that the effect of landscape plants using bio-solids were better in terms of physical evidence, chemical characteristic of soil and agronomic analysis compared to commercial fertiliser. The fertiliser contained a high content of nitrogen, which is essential for chlorophyll formation. The heavy metal contents such as arsenic, lead, nickel, chromium and cadmium, were also far below the United State Environmental Protection Agency (USEPA) standards, which do not affect the landscape plants growth. The R&D study concluded that the bio-solid has beneficial effects on the landscape plants compared to commercial fertilisers and also provided potential cost savings.

Following the positive outcome of the study, we approached Majlis Perbandaran Port Dickson (MPPD) on 15 December 2011. We explored the potential of using bio-solids and treated effluent as fertiliser based on several studies conducted. A pilot trial at nursery and trial plots at selected MPPD landscape areas are being jointly conducted by Indah Water and MPPD to assess and demonstrate applications of bio-solids and treated effluent on different species of landscape plants before the full implementation of "Green Product" commences next year.



#### **IWK-Universiti Teknologi Petronas (UTP) R&D on "Fuel Characterization from Wastewater Sludge Generated at STP"**

Previous R&D studies on sludge characteristics have shown that it contains a high proportion of organic matter. A research agreement was signed by Indah Water and UTP in August 2011 to conduct comprehensive research on energy recovery from sludge generated at our STPs. UTP was selected for its expertise in fuel and energy recovery systems development. The project started on 15 September 2011 with fuel characterization of bio-solids. During this stage, sludge cake samples from sludge dewatering facilities around Malaysia were tested and analysed before the energy from bio-solids optimisation can proceed.

#### **INDAH WATER-UMP R&D on "Anaerobic Digester Optimisation at Pantai Sewage Treatment Plant"**

Biogas is also being researched in a collaborative study between Indah Water and Universiti Malaysia Pahang (UMP). The study aims to improve biogas yield and optimise the digestion process in the anaerobic digester unit in our Pantai STP. Our Pantai STP is one of the largest mechanised STPs in the Klang Valley. The study evaluates the baseline anaerobic digester and investigates methods to increase biogas production. The collaborative study is expected to be completed by the middle of 2012.

#### **Our Green Technology Initiatives**

There are three key by-products produced by our sewage treatment plants: treated effluent (bio-effluent), sewage sludge (bio-solid) and methane gas (bio-gas). We have embarked on green technology applications since 1990s when we commenced R&D works with local universities to reuse sewage by-products. We are venturing into collaboration with interested parties to develop field applications, pilot scale and the commercialisation of the following sewage by-products:

- i. Reuse of bio-solids as soil conditioner, energy fuel and fertilisers
- ii. Reuse of bio-effluent for landscaping, irrigation, non-potable and industrial purposes
- iii. Reuse of bio-gas as fuel source for power generation

The benefits of reusing these sewage by-products include:

- i. An environmental friendly outlet for bio-solids
- ii. An alternative source of electricity
- iii. Minimising greenhouse gas emissions
- iv. Improving environmental quality
- v. Sustainable development balancing environment, financial and social concerns
- vi. Stakeholders' satisfaction

In 2011, we undertook a green technology project for each key by-product in collaboration with third party organisations.

### 1. Reuse of Bio-gas and Bio-effluent

We assisted UNITEN to secure an Akaun Amanah Industri Bekalan Elektrik (AAIBE) of RM7.3 million for conducting R&D projects in collaboration with Indah Water. We aimed to harness renewable energy potential from STP biogas and generate electricity from treated wastewater. The collaboration study covers the development of 500kW bio-gas and a 50kW Micro Hydro Power Plant for our Pantai STP. The generated renewable energy will be used for Pantai STP internal consumption.



### 2. Reuse of Bio-solids

Indah Water has signed a contract with a local company in October 2011 for the collection of bio-solids to produce soil conditioner, energy fuel and fertilisers. The company will collect bio-solids from five of our Kuala Lumpur STPs: STP JBIC Pantai, STP JBIC Bonus, STP JBIS Bandar Tun Razak, STP JBIC Taman Tun Dr. Ismail and STP Sungai Besi. With the removal, collection and transportation of bio-solids by the company, Indah Water would be able to save on the bio-solids disposal costs while promoting the use of bio-solids.



### 3. Reuse of Bio-effluent

A MoU was signed by our Pilot Water Reclamation Unit and a Korean company in June 2011 using a PORE Controlled Fibre Filter System (PCF). The Korean company will invest in a pilot project at our Cyberjaya plant to demonstrate the performance and proof of concept of the proposed Water Reclamation Unit as a cost efficient technology compared to the conventional technology of membrane and RO systems for water reclamation. The results of the pilot study will provide data for future commercialisation of cost effective water reclamation technology at the STPs to supply recycled water to industries.

## Engagement Events With Marketplace Stakeholders

**12  
March 2011**

World Water Day 2011  
National Level  
at Pekan, Pahang



12 March

**15-17  
March 2011**

The 2nd Asia Pacific  
Regional Water Conference  
and Exhibition at the Grand  
Dorsett Hotel, Subang Jaya,  
Selangor



15-17 March

**4 April 2011**

*Program Sehari Bersama Pelanggan Anjuran KeTTHA*  
Indah Water participated in the *Sehari Bersama Pelanggan*  
programme organised by *Kementerian Tenaga, Teknologi  
Hijau dan Air Malaysia* at Pullman Hotel and an  
environmental talk at Accountancy Faculty of UiTM,  
Kuching, Sarawak.



5-7 April

**5-7  
April 2011**

Water Malaysia 2011 at  
PWTC, Kuala Lumpur



4 April

**28  
June 2011**

Technical visit by YB  
Minister KeTTHA and YAB  
Chief Minister Malacca to  
JBIC Alor Gajah, Melaka



28 June

**14  
July 2011**

A briefing on sewerage  
bill (PUKAL) to 50 Perak  
government officers



14 July

**22  
August 2011**

Visitors from Investment  
Section of the Minister  
of Finance Incorporated  
visited our Pantai STP.



22 August



**7-10  
September  
2011**

International Greentech & Eco Products Exhibition & Conference Malaysia 2011 (IGEM 2011) at Kuala Lumpur Convention Centre

7-10 September

**15-16  
October 2011**

*Karnival Apresiasi  
Sumber Air Negeri Johor*



15-16 October

**29 November -  
3 December  
2011**

Corporate exhibition in conjunction with UMNO General Meeting



29 November -  
3 December 2011

**30 November 2011**

Indah Water-Politeknik Sultan Idris Shah Memorandum of Understanding Signing Ceremony for Environmental Engineering (Water & Wastewater) training course.

**17 December 2011**

*Program 1Hijau, 1Komuniti di Sekinchan, Selangor*  
Indah Water took part in the 1Hijau, 1Komuniti programme at Dewan Sri Sekinchan, Sekinchan, Selangor organised by Ministry of Energy, Green Technology & Water. This programme was officiated by Y.B. Datuk Sri Peter Chin Fah Kui, Minister of Energy, Green Technology & Water. Activities conducted included an exhibition of green technologies, recycling and a colouring contest



30 November



17 December

**20  
December  
2011**

Ministers visited our Bonus STP



20 December





# Sustainability in Our Community

At Indah Water, we support the upgrading of local communities through active engagement and development activities. The Company welcomes visitors from the local community, younger generations and the public at large to come and explore our operations. We also conduct regular dialogue sessions to understand concerns facing the surrounding community.

- 78** Charity Desludging
- 78** Active Engagement with the Local Community
- 87** Sharing and Promoting Best Practices at Regional Level
- 87** Public Policy, Development and Lobbying

Indah Water recognises the importance of giving back to the society, especially to those who are directly affected by or affecting our operations. As part of our social commitment, we continue to engage with local communities through various engagement methods. These methods include educational programmes, the media, exhibitions, events, dialogues and other philanthropic activities. In 2011, a total of RM 89,880 was donated to various good causes such as charity dinners, family days and religious homes.

Year	Special School Programmes	Advertisements	Radio & Talks	TV Advertisements & Appearances	Observation Tours (OTs) - Local	OTs - Foreign	Exhibitions	Community Events	Briefings/ Dialogues for Public/ Schools/ PLKN	Electronic Billboard Advertisements
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	-
2011	17	53	2,930	10	52	11	33	13	83	33,062

### Charity Desludging

Indah Water performed desludging for free at all non-profitable (tax exempted) organisations, such as religious centres and welfare homes. This activity is in accordance to the Sewerage Services (Charges) Regulations 1994. In 2011, we conducted a total of 714 charity desludging services nationwide compared to 795 charity desludging services in 2010.

### Active Engagement with the Local Community

#### Educating Our Young

Since 2001, Indah Water has continuously educated and created awareness on the importance of sewerage services. Our school programmes target students from secondary schools, higher learning institutions and Pusat Latihan Khidmat Negara (PLKN) programmes. These programmes involve various activities including a briefing on the development and importance of sewerage services in Malaysia; a video presentation, and a questions and answers session; and observation tours. During these tours, visitors are provided with opportunities to view sewage treatment plant operations and maintenance processes.

**Sewerage Educational Programme for Secondary Schools**

We continue to educate Malaysians on the importance of a modern and efficient sewerage system. We have introduced an exclusive educational programme, which is supported by the Ministry of Education and other State Education Departments. Introduced in 2005, this programme caters to students of Forms Four, Five and Six. Currently, there are 202 secondary schools nationwide, which have benefited from this programme.

The half-a-day programme includes a video presentation; a briefing; a questions and answers session; and an overview of Malaysia’s current sewerage system. Topics discussed during the programme include:

- The development of sewerage systems in the country
- The importance and benefits of a modern and efficient sewerage system
- A joint effort between Indah Water, the Government and all Malaysians in preserving the cleanliness of the environment

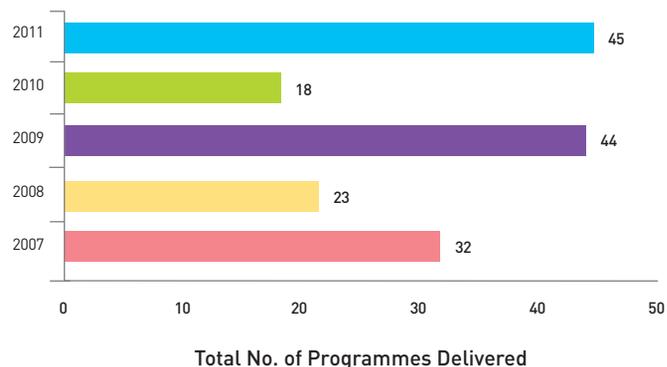


**National Services (PLKN)**

Indah Water has been working closely with the Jabatan Latihan Khidmat Negara (JLKN) since 2006 when Indah Water first delivered its education programme on sewerage services to the trainees at PLKN Relau, Penang. The Company had conducted 214 programmes at PLKNs in Peninsular Malaysia by the end of 2011.

Our two-hour programme targets the 17 to 20 years old age group. The programme creates awareness and understanding on the importance of sewerage services in our lives and the roles and functions being played by Indah Water. Participants are exposed to Indah Water’s core business, treatment processes, by-products and billing systems. Some sessions involve actual visits to Indah Water’s STPs.

We will continue to working with JLKN to ensure continuous understanding in the community. The total PLKN programmes delivered each year from 2007 to 2011 are as follows:



### Educating Our Community

As part of our commitment to educating community members, we encourage visits to our treatment plants by organising a plant open day. Various interesting activities are conducted such as colouring contests, quizzes, briefings and a plant tour.

Recently, we have launched a desludging carnival to encourage the desludging of septic tanks, which are required to be desludged at least once every two years.



### Desludging Carnivals

Under the Water Services Industry Act (2006), owners or occupiers of premises using individual septic tanks (ISTs) will be responsible for their condition, maintenance and desludging of their ISTs. Indah Water no longer schedules IST desludging and the service is provided on demand.

The objective of our desludging carnival is to:

- Create awareness of the importance of regular desludging of IST to prevent environmental pollution
- Inform the public of our services and functions in providing sewerage services



The desludging carnivals, which were initiated by KeTTHA and driven by SPAN were jointly held with Indah Water. Up to 2011, the events were attended by more than 5,000 people. We hope to reduce sewage pollution in our rivers by educating all septic tank owners on the importance of desludging their septic tanks every two years. It is hoped that the programme will increase the acceptance level by 10%.

The following five desludging carnivals were conducted in 2011:

- Desludging Carnival in Jitra, Kedah on 25 June 2011
- National Launching Event in Muar, Johor on 26 June 2011
- Desludging Carnival in Temerloh, Pahang on 16 July 2011
- Desludging Carnival in Port Dickson, Negeri Sembilan on 13 November 2011
- Desludging Carnival in Sg. Besar, Selangor on 26 November 2011

**Dialogue Sessions with the Community**

We educate the community on our operations and address their concerns through dialogue sessions. In 2011, a number of dialogue sessions were held involving residents, local authorities and the general public.



Issues Raised	Our Response
<p><b>STP Relocation</b> Many residents requested the relocation of STP away from their immediate surrounding areas.</p>	<p>The STP was designed and approved by authorities based on the overall development programme. It complies with the specific technical requirements on the land; buffer zone; capacity requirement; equipment such as odour and noise control; and aesthetic factors. Relocating STPs involve tens or hundreds of millions ringgit and the Government is unable to meet this request.</p>
<p><b>Odour &amp; Noise Issues</b></p>	<p>Most odour issues are addressed immediately by our O&amp;M team under our LOS. However, in some cases, frequent odour problems resulted from theft of pumps and other valuable electrical equipment. Residents are encouraged to support our Eye Programme and report any suspicious movements at STPs to prevent equipment from being stolen.</p>
<p><b>Private Boundary</b></p>	<p>Occupants of high rise buildings are confused about their responsibilities on the service boundary. We explained that we only serve the public sewerage pipes outside of their buildings. The pipes within the perimeters are the responsibility of building maintenance.</p>
<p><b>Billing Issues</b></p>	<p>Most of the billing issues raised in dialogue sessions resulted from the incorrect classification of premises; excessive charges for water consumption; vacant premises; owner or tenant did not pay previous charges; changes of ownership; and high outstanding charges. Customers will be required to submit the supporting documents and all claims will be processed accordingly and the site will be visited, if necessary. Customers with high outstanding bills were offered an easy payment option.</p>

## Community Events

①

**29 January 2011**Desludging Carnival at  
Sungai Isap, Kuantan, Pahang

②

**26 February 2011**Sewage Treatment Plant Open Day  
in Taman Putri, Kulai, Johor

③

**3 March 2011***Majlis Bersama Rakyat* at  
Debunga Wangi Sewage Treatment  
Plant, Merlimau, Melaka

④

**11-12 March 2011***Hari Air Sedunia Pekan, Pahang*

⑤

**8 May 2011**Opening Ceremony of the  
Mechanical Dewatering Unit,  
Gong Badak, Kuala Terengganu

⑥

**21 May 2011***Program Gotong-royong &  
Pameran Rakan Alam Sekitar,*  
Jitra, Kedah



7

**25 June 2011**

*Majlis Mesra Bersama Komuniti at Taman Rasa Sayang in Jitra, Kedah*

8

**26 June 2011**

*Desludging Carnival at Sungai Abong, Muar, Johor*

9

**16 July 2011**

*Desludging Carnival at Taman Temerloh Jaya, Temerloh, Pahang*

10

**16 August 2011**

*Majlis Berbuka Puasa Indah Water at Masjid Asy-Syakirin, KLCC*



11

**5 November 2011**

*Hari Bersama Pelanggan at Terminal One, Seremban*

12

**13 November 2011**

*Desludging Carnival at Taman Dato' Hj. Abdul Samad, Port Dickson*



13

**26 November 2011**

*Desludging Carnival at Sg. Besar, Selangor*

## Foreign Visitors



12 April 2011



4 July 2011



4 May 2011



23 August 2011



7 June 2011



8 September 2011

**12 April 2011**

Delegates from various environment and water development agencies of South Korea visited our Bandar Tun Razak STP

**4 May 2011**

Delegates from Government of Balochistan, Pakistan visited our Pantai Dalam STP

**7 June 2011**

Students from Universitas Tanjungpura, Kalimantan, Indonesia visited our Bandar Tun Razak STP

**4 July 2011**

Students from Sekolah Menengah Analisis Kimia, Padang, Sumatera visited our Putrajaya STP

**23 August 2011**

Civil Engineering and Environment Technology Students from various Universities in South Korea visited our Bunus STP

**8 September 2011**

Delegates from South Korean companies visited our Bunus STP



13 September 2011



12 October 2011



14 September 2011



21 November 2011



24 November 2011

### 13 September 2011

Delegates from various agencies from the Cambodian Government visited our Bunus STP

### 14 September 2011

Government officials from Laos visited our Pantai STP

### 12 October 2011

Participants from various countries (Pakistan, Maldives, Sri Lanka, Bhutan and Malaysia) visited our Bandar Tun Razak STP

### 21 November 2011

IWA delegates visited our Bunus STP

### 24 November 2011

Officials from the Japan Sanitation Board visited our Klang Unit Office



### TV & Radio Programmes

We understand the power of mass media to consistently and effectively promote environmental awareness and the importance of sewage treatment. This helps create awareness and develop good habits of preserving the environment. We carefully craft and streamline both our internal and external flow of communications. We also relentlessly engage with various stakeholders via online interactive web pages; local and internal forums; seminars; radio and public cable television programmes. In 2011, we broadcasted 2,930 radio advertisements and talks. We also made 10 television appearances on the following topics:

Date	Topic
5 January 2011	Galeri Nasional ( <i>Evolusi Sistem Pembetungan di Malaysia - Part 1</i> )
6 January 2011	Galeri Nasional ( <i>Evolusi Sistem Pembetungan di Malaysia - Part 2</i> )
19 July 2011	<i>Kempen Pengosongan Tangki Septik, Temerloh</i> (RTM)
11 October 2011	<i>Indah Water pastikan hidup rakyat terpelihara</i> (TV3)
13 October 2011	<i>Loji olahan kumbahan terancang dan terbesar di dunia</i> (TV3)
27 October 2011	Hello Malaysia (Bernama TV) – <i>Kempen Pengosongan Tangki Septik</i>
12 November 2011	CST desludging awareness (NTV7)
14 November 2011	CST desludging awareness (TV1)
26 November 2011	Desludging Carnival, Sg. Besar (TV3)
30 December 2011	Politeknik Sultan Idris Shah - Indah Water signing ceremony (TV3)

## Sharing and Promoting Best Practices at Regional Level

Indah Water has been appointed as an Environmental Cooperation-Asia (Eco-Asia) training partner since 2008 for capacity building programmes in Asian countries such as Vietnam, Indonesia, India and the Philippines. This training has been conducted through the United States Agency for International Development's (USAID) partnership twinning programme to help these countries improve their sewerage management.

Indah Water won the 2010 WaterLinks Award due to its significant contribution and participation. This award was supported by the Asian Development Bank (ADB), The International Water Association (IWA) and USAID.

We have conducted 22 international capacity building and technical visits to-date. Four capacity building programmes were completed in 2011:

- i. Multiple Water Operator Partnerships (WOPs) for sewerage management improvements in the Philippines
- ii. Multiple WOPs for sewerage management improvements in Indonesia
- iii. Regional scale up training on the testing and commissioning of newly constructed STPs for Maynilad Water Services Inc, Philippines
- iv. Regional scale up training on improvements to desludging operations for Hai Phong Sewerage and Drainage Company, Vietnam.

## Public Policy, Development and Lobbying

Indah Water's public policy development and lobbying is through providing views and feedback to safeguard and benefit the business either in Industry Working Groups, Public Inquiry or Public Consultation Papers. The Company cannot make any political contributions as stipulated in our best practices. We work closely with the MoF to report our projects update, approvals and assistance.

Indah Water carries out a Social Impact Assessment (SIA) study for proposed new development of Centralised STP to obtain public feedback from residents and stakeholders that reside within 3km radius from the proposed site. The SIA documents perceptions and concerns of the residents and stakeholders about the proposed new development. It also identifies ways to improve the projects and overcomes potential adverse impacts and concerns raised from the proposed project. The SIA study focuses on group dialogues, questionnaire surveys and one-to-one unstructured interviews.

Indah Water has completed two SIAs studies for the proposed new development of a Centralised STP each at Mukim Balai Panjang, Melaka and Lot 130, South Klang Valley, Selangor in 2010 and 2011 respectively.

### Anti-competition

Indah Water believes in competing fairly to ensure all parties benefit from fair, free and open markets. Being the national sewerage service provider, competition does not apply to our nature of business. We provide a fair service to the public.





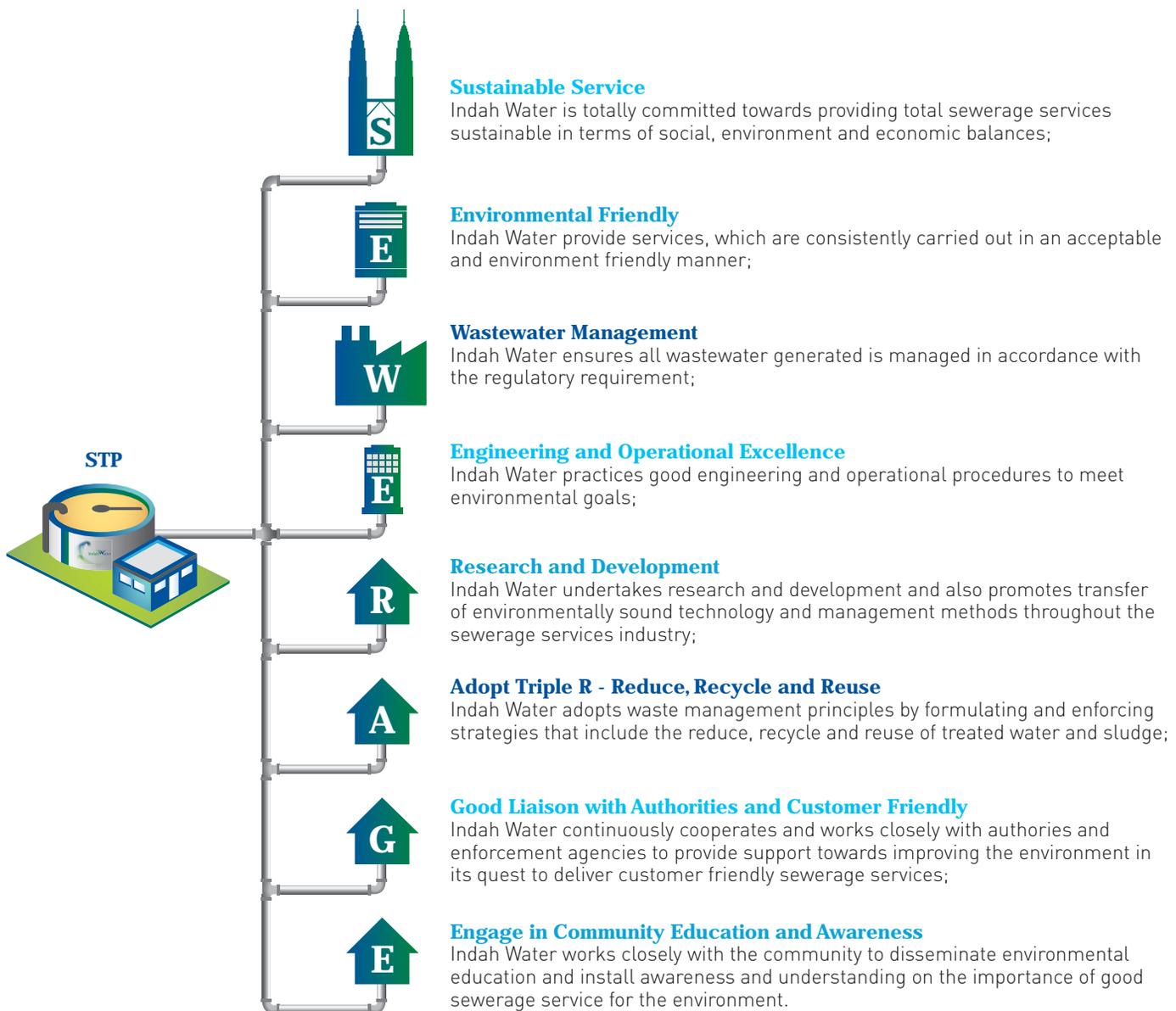
# Sustainability in Our Environment

We are committed to delivering our highest quality services to meet all environmental regulations and contribute to environmental protection and sustainability. A Master Plan for ISO 14001:2004 for Indah Water has been developed. It is also a guidance document for our strategy and action plans to implement ISO 14001:2004 for our operations and maintenance activities.

- 90** Environmental Policy Framework
- 91** Our Commitment to the Environment
- 93** Our Environmental Performance
- 98** Our Approach to Climate Change and Global Warming
- 101** Reuse of Our Sewage Treatment By-Product
- 101** Environment Management System

# Environmental Policy Framework

Our company policy and working culture centres on the word “sewerage” - the business that we manage holistically for environmental excellence;



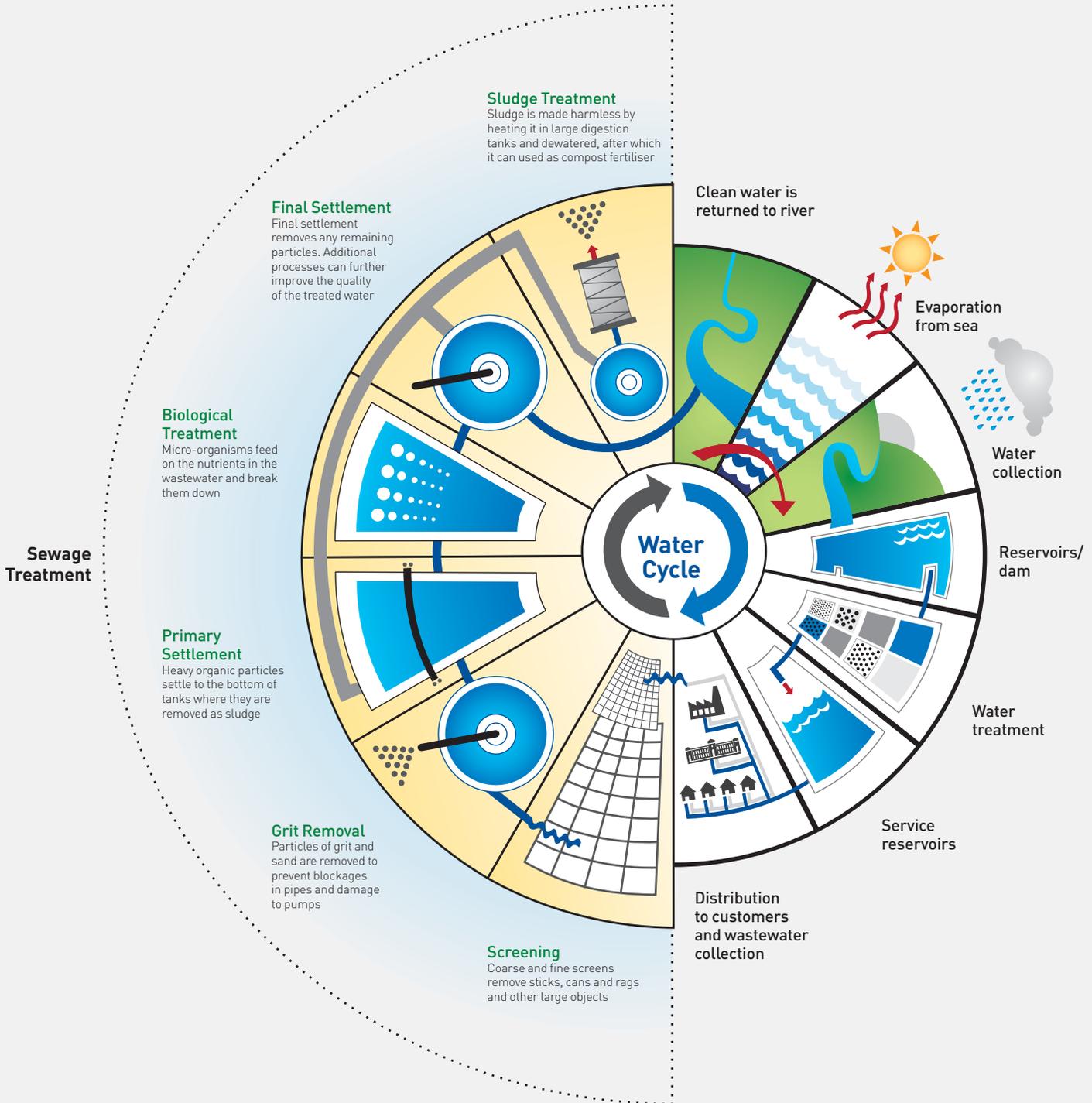
## Our Commitment to the Environment

We are committed to delivering our highest quality services to meet all environmental regulations and contribute to environmental protection and sustainability. In general, sewerage treatment produces two stream of waste: effluent discharged from sewage treatment plants (STPs) and sludge, the solid by-product of sewage treatment. We must ensure the effluent discharge and solid disposed from our STPs does not contaminate the environment. The performance of our STPs is bound by strict regulatory compliance including:

- 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 Contribution to the Water Cycle

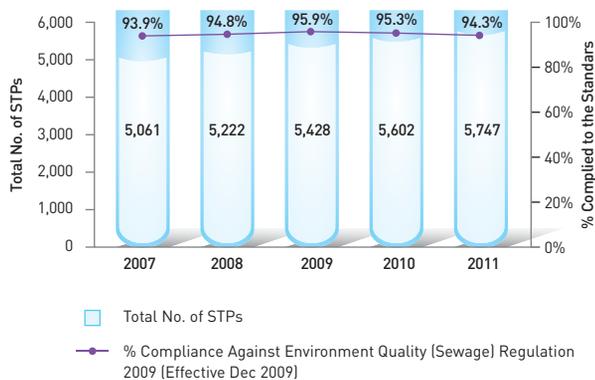


## Our Environmental Performance

### STP Effluent Sampling and Compliance

The treated sewage effluent discharge from our plants is closely monitored for its compliance with the environmental standards stipulated under the Environmental Quality (Sewage) Regulations 2009 (EQSR 2009). We regularly report our STPs' compliance to the DOE.

#### STP Effluent Compliance from 2007 to 2010



Note: The privately maintained STPs are excluded in the effluent compliance monitoring.



The compliance percentage of our STPs has decreased slightly from 95% in 2010 to 94% in 2011. The majority of non-compliance was due to the deterioration of equipment at the STPs, structural issues, illegal discharge, frequent theft cases, refurbishment and upgrading exercises. Challenges faced in 2011 included:

- i. Plants non-compliance due to structural issues and defective process equipment installed by developers before handover or forced takeovers.
- ii. Plants are highly susceptible to theft and vandalism due to the high value of scrap equipment and materials.
- iii. Plants non-compliance with effluent standards due to the illegal discharge of chemicals, industrial waste, fats, oil and grease into sewerage systems.
- iv. Lack or insufficient investment in the building of large Regional STPs by Government resulting in the proliferations of small plants for new developments.
- v. Non-compliance with Malaysia Sewerage Industry Guidelines due to:
  - Site constraints
  - Phase development
  - Catchment strategy
- vi. Provision of excess treatment facilities due to:
  - Provision of future capacity
  - Lack of Sewerage Capital Contribution provision
  - Slow phase development
- vii. Abandoned private STPs, which result in odour, backflow and overflow problems affecting customers. Adverse publicity by mass media on sewerage issue implicating Indah Water. Some politicians take advantage of these situations for political reasons.
- viii. Indah Water is incurring costs on CSTs even though it is not responsible for them and cannot bill these customers. The maintenance cost for the CST is currently not recoverable from any parties.

### Department of Environment (DOE) Compounds Received in 2011

In 2011, we received a total of 12 compounds totalling RM14,250 from the DOE for non-compliance with regulatory requirements. We have taken necessary corrective action for all offences.

Unit Office / Plant Reference Number	Date of Compound	Offence Description	Fine Paid (RM)	Corrective Action
Shah Alam (PTG204)	February 2011	Nuisance from public drains releasing foul-smelling and blackish sewage water	250	Chemical dosing has been performed and the visitation frequency has increased from eight times to 20 times per month.
Shah Alam (PTG031)	February 2011	Nuisance from public drains releasing foul-smelling and blackish sewage water	250	Plant operation as normal and cleaning of the dropping carried out regularly. UO proposed the installation of skirting to cover the opening below the drum screen to contain odours.
Seremban (SEN262)	March 2011	Exceeded effluent parameter for BOD & COD	1,500	Established joint task force involving Indah Water Seremban UO, SPAN Southern Region, DOE, MPS & Giant Hypermarket Management
Seremban (SEN330)	March 2011	Failed to notify the DOE of bio-solid disposal work	2,000	Established sludge disposal site at Kuala Sawah STP (SEN105) as approved by the DOE
Pulau Pinang (PED073)	May 2011	Installation of a generator unit without written approval from the Director General of Environmental Quality (Rule 36, Rules of Environmental Quality (Clean Air) Regulations 1978	1,000	Application for the installation of the generator unit had been submitted to DOE on 25/4/11. Subsequently, a written approval from the DOE was received by UO.

Unit Office / Plant Reference Number	Date of Compound	Offence Description	Fine Paid (RM)	Corrective Action
<b>Pulau Pinang</b> (PED073)	May 2011	Installation of a chimney unit without prior written approval from the Director General of Environmental Quality	1,000	Application for the installation of the chimney unit had been submitted to DOE on 25/4/11. Subsequently, a written approval from the DOE was received by UO.
<b>Skudai</b> (JPN040)	May 2011	BOD exceeded permissible limits	1,500	Unit has increased the duration of aeration and extended the time of RAS (recycling) and frequent sludge wasting.
<b>Seremban</b> (SED023)	May 2011	Failed to notify the DOE of untreated effluent discharge to drainage	1,500	Repaired malfunction clarifier and two RAS pumps
<b>Shah Alam</b> (PJA093)	July 2011	High level of BOD discharge to drainage	2,000	Repair work on outlet and cell desludging completed on 29/8/2011. Plant is working normally.
<b>Shah Alam</b> (PTJ128)	October 2011	Nuisance from public drainage discharging untreated effluents	250	Plant is receiving illegal discharge from nearby small industries. Joint inspection has been conducted with Local Authority in November 2011. Additional blower is used to increase process efficiency.
<b>Kuala Lumpur</b> (KLR212)	October 2011	BOD exceeded permissible limits	1,000	CWRD is constructing an additional oil and grease separator at the inlet to remove the potential shock loading of chemical waste. The job will be completed in February 2012 and the unit will monitor the effectiveness and efficiency of the oil and grease separator.
<b>Pulau Pinang</b> (PEG061)	December 2011	Underground pipe leakage	2,000	A contractor has been appointed to remove the blockages of stones and other materials.

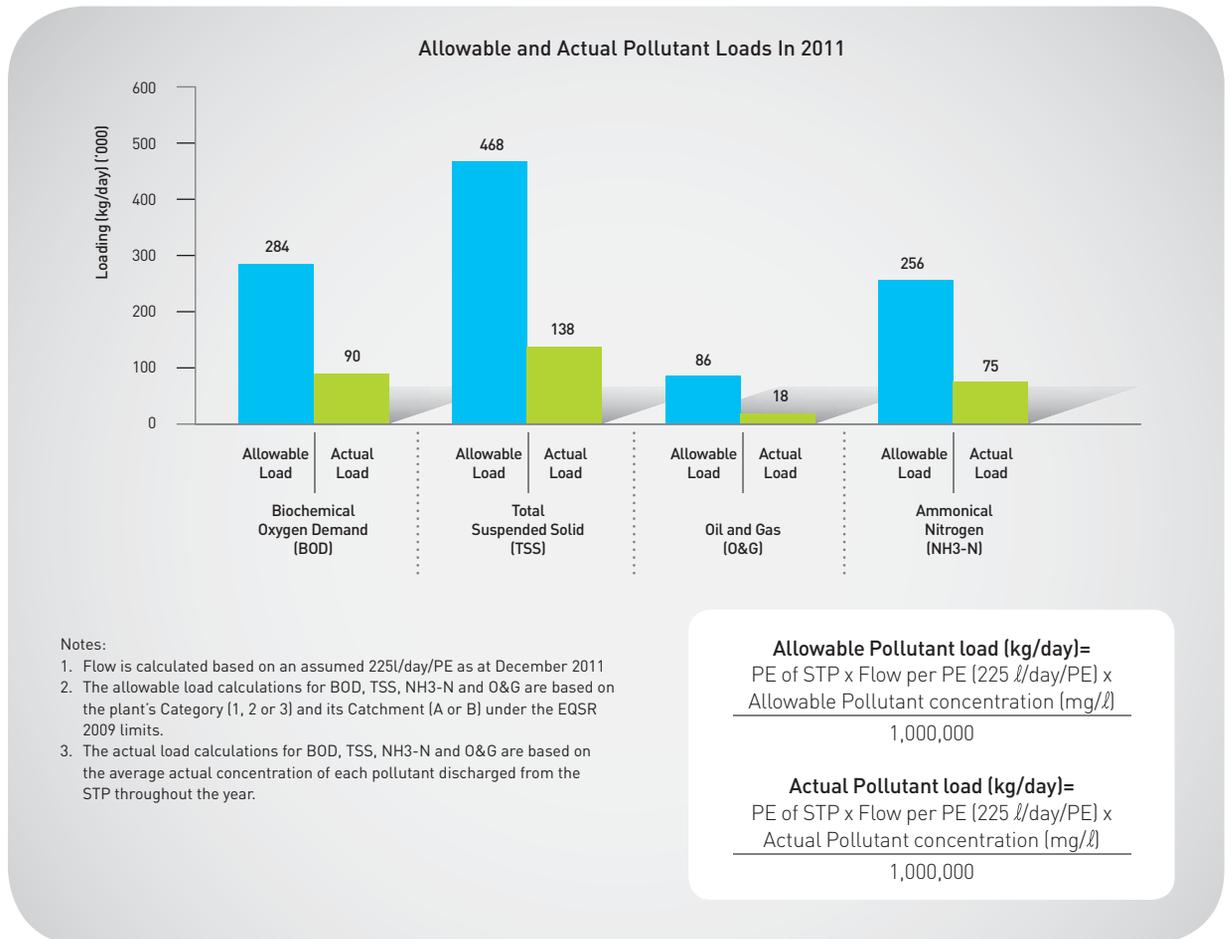
**Sewage Pollutant Loads in Discharged Effluent**

The sewage effluent is treated before being discharged into the waterways. This ensures the load of BOD, SS, O&G and NH3-N from our discharged effluent is below the allowable load. The allowable load is calculated based on the concentration limit of the parameters stipulated in the EQSR 2009. The pollutant load refers to the quantity (mass or weight) of the pollutant released into the waterways. When the sewage pollutant load is high and reaches the self-purifying capability of the

river, the natural aquatic ecosystem will be disturbed and harmed. It is important to reduce the sewage pollutant loads and contamination into the waterways.

In 2011, the overall actual load of BOD, SS, O&G and NH3-N from our treated discharge was below the allowable load of the respective parameter. The low actual pollutant loads indicates that our plants are generally functioning well in treating the sewage effluent before discharging into the waterways.

**The Pollutant Loads Performance of Our Plants in 2011**



## Effect of Pollution Load Parameters on the Environment

### Biochemical Oxygen Demand (BOD)

Oxygen consumed in the decomposition process removes oxygen required by other aquatic organisms to live. High BOD reduces oxygen in river water and the overall dissolved oxygen level causing chronic suppression of the habitat and death of fish and other aquatic life.

### Total Suspended Solids (TSS)

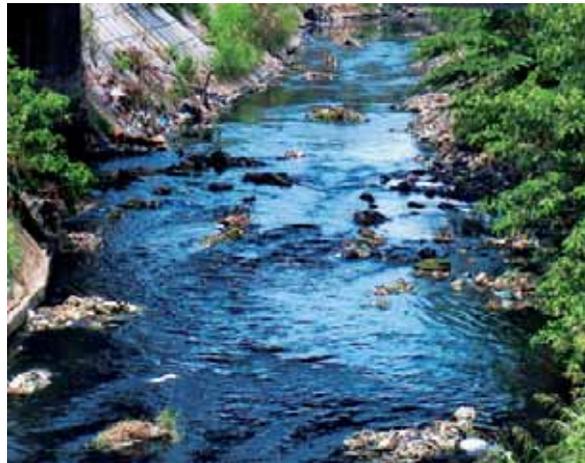
An increase in stream water turbidity can decrease rates of photosynthetic activity or growth rates of submerged plants and reduces dissolved oxygen levels in the water. It can also cause damage to fish gills by abrasion and clogging, leading to a reduction in fish populations.

### Oil and Grease (O&G)

Accumulation of oil and grease prevents the transfer of oxygen and carbon dioxide at the surface water and causes a reduction in dissolved oxygen levels in the water. It is directly toxic to fish and invertebrates, tainting fish flesh and creating a barrier for fish to move.

### Ammonical Nitrogen (NH<sub>3</sub>-N)

It is a toxic pollutant that can directly poison humans and upset the equilibrium of water systems. Its toxicity is increased in alkaline conditions and will endanger the aquatic animal lives, particularly fish and invertebrates.



### **Our Approach to Climate Change and Global Warming**

Both climate change and global warming affects our sewage treatment facilities and their operations. An effect of climate change that affects the operations of our plants is heavy rainfall. Heavy rainfall infiltrates into our aging sewer line at double or triple rate than normal during periods of heavy rain. This excessive infiltration leads to higher pumping costs and increased energy use for pumping the sewage to our plants and its frequency. Heavy rainfall can also cause flooding resulting in service disruption, sewage overflows and increased treatment requirements due to hydraulic overload. There will also be challenges to maintain quality of effluent discharges to drains, streams and rivers. At Indah Water, we have identified some of the flood prone STPs and we are working on the possibility of rationalising these plants to other nearby STPs.

Global warming leads to rising sea water which increases the salinity of sewerage. This can corrode and decrease the life span of our pipelines. Pump stations in low lying areas must be raised and treatment plants relocated to avoid rising sea water from rendering them inoperable.

We will continue to look into details of how climate change and global warming impact our operations and develop mitigation plans in response to the related issues.

It is generally accepted that both climate change and global warming are due to excessive greenhouse gas (GHG) emissions, particularly carbon dioxide from the burning of fossil fuels. We are researching ways to reduce GHG emissions from our operations to reduce our climate change and global warming footprints.

### **Our Carbon Footprint**

We would like to present our carbon footprint for 2011. Fuel consumption by our tankers and company vehicles is extracted from fuel fleet card monitoring. Energy consumption data was derived from compilation of energy bills from our thousands of STPs and NPSs by 18 unit offices and the head office. These initiatives are still new and we hope to enhance 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 is relatively insignificant in the inert sewer lines and sludge storage facilities. Most of our digesters are relatively new and any methane gas is currently flared.

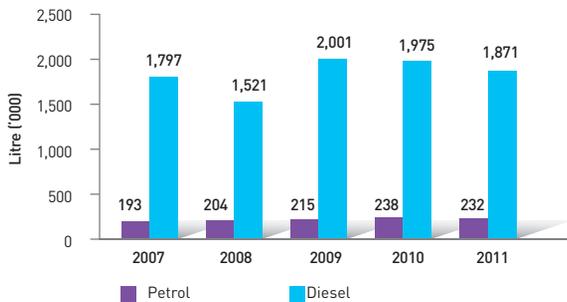
The process of minimising our carbon footprint is in its early stage. We are aggressively identifying new ways to reduce our carbon dioxide emissions, energy cost and fossil fuel consumption. Energy and fuel consumption of our tankers and vehicles are our major sources of GHG emissions. We have yet to determine the precise quantity of carbon emissions.

### Fuel Consumption and CO2 Emissions

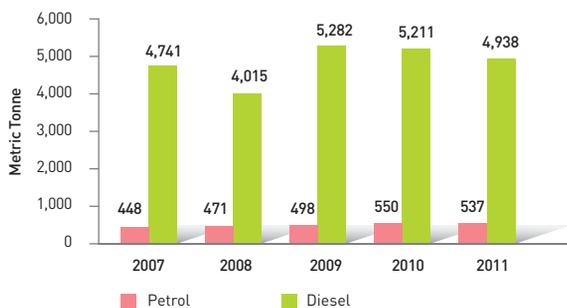
We measure fuel consumption of all our desludging tankers, company vehicles and also the personal vehicles of Heads of Departments for all operations in Malaysia. The emissions are calculated based on 2008 Guidelines to DEFRA GHG conversion factors with emission factors of 0.002639 MT CO<sub>2</sub>/litre for diesel vehicle and 0.002315 MT CO<sub>2</sub>/litre for petrol vehicle.

In 2011, the consumption of petrol and fuel in 2011 has reduced by 2.5% and 5.2% respectively compared to 2010. Our GHG emissions from petrol and fuel consumption have reduced by 14 MT and 273 MT respectively. This reduction was due to fewer vehicles, the introduction of GPS optimisation routes, preventive maintenance, the replacement of old vehicles with more fuel efficient alternatives and monitoring tyre pressure.

Annual Fuel Consumption from Year 2007-2011



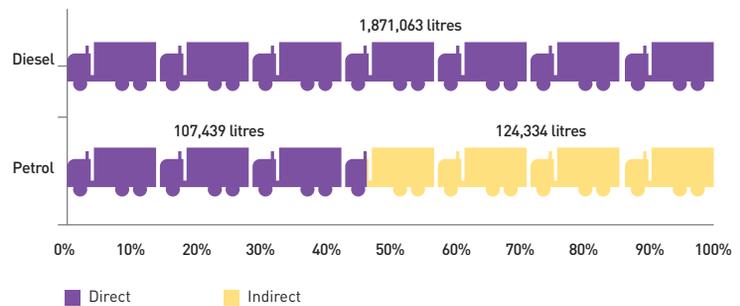
Annual CO<sub>2</sub> Emission from Year 2007-2011



### Direct and Indirect Fuel Consumption for 2011

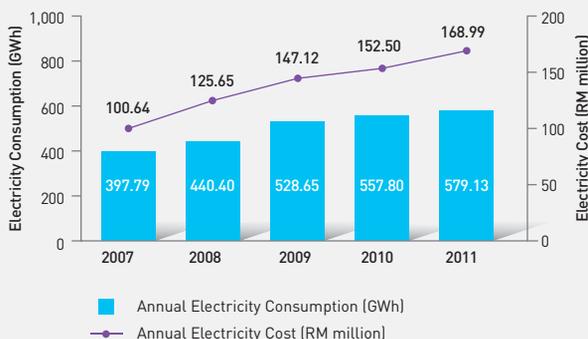
The table below presents our direct and indirect fuel consumption for 2011. At Indah Water, direct fuel includes vehicles that are used for operational or business purposes. Company-owned vehicles include desludging tankers, jettors, sewer cleaning vehicles, sampling vans, operational vehicles and others. Indirect fuel vehicles include vehicles owned by Top Management who use a fuel fleet card.

We did not categorise our direct and indirect fuel consumption prior to 2011.

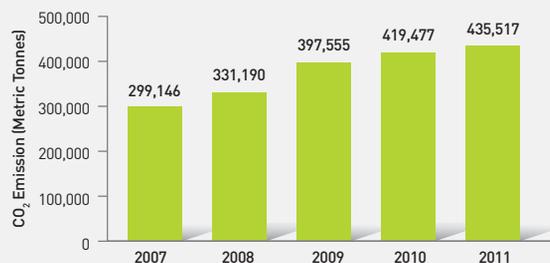


### Electricity Consumption

Annual Electricity Consumption and Electricity Cost from Year 2007-2011



Annual CO<sub>2</sub> Emission from Electricity Consumption from Year 2007-2011



The Malaysian Green Technology Corporation CDM Electricity Baseline emissions factor for electricity is 0.672 tonnes CO<sub>2</sub>/MWh. Over 70% of public STPs are mechanical treatment systems, which consume large amounts of energy. We have continued our energy conservation efforts since 2007. In 2009, our electricity consumption increased by 20% compared to 2008. There was an additional year-on-year increase of 5.5% in 2010 and 3.8% in 2011. Even though electricity consumption has increased over the years, the rate of increase has reduced compared to the previous years. Our electricity cost in 2011 increased due to the tariff increase in the middle of 2011, an increased number of plants being taken over and the upgrading of non-mechanised to mechanised plants.

### Water Consumption for STPs

In 2011, our water consumption was significantly greater than the previous year due to the sewer line cleaning work conducted using high pressure jettors. We also experienced a loss of water due to theft and leakage. We continue to identify courses of action to prevent such risks in the future. The increased water consumption in 2011 was also due to an increased number of STPs.



## Reuse of Our Sewage Treatment By-Product

At Indah Water, we are practicing the reuse of our sewage by-products at some of our plants as our initial effort to conserving water, energy and the environment.

The reuse of the treated effluent from our plants is currently confined to internal housekeeping or non-potable usage such as plant compound cleaning, vehicles cleaning and the watering of plants. The treated effluent is also recycled as make up water for polymer preparation. Currently, we have 13 regional plants that are practicing the reuse of treated effluent. The treated effluent is also used as water filling or re-filling into the jettors or sewer cleaning vehicles for sewer cleaning maintenance work as well as clearing of blockages.

The use of biogas to generate electricity for internal consumption is practiced at our Jelutong STP in Pulau Pinang. The Jelutong plant is currently producing an average of 800 m<sup>3</sup>/day biogas. The plant generates electricity from the released biogas for lighting within the plant compound, odour control system and lift for digester equipment building. The Jelutong plant also reuses the treated effluent for cleaning the plant area and landscaping.

## Biodiversity Conservation

Without a proper sanitary system, our rivers will be polluted with faeces, faecal coliform, high BOD and ammoniacal nitrogen. STPs are able to treat these pollutants and eliminate diverse sources of pollutants and wastewater to the required standard whilst conserving the biodiversity of the receiving watercourse and rivers.

As part of natural biological indicators, several types of fish naturally breed in our oxidation ponds and facultative ponds. When the nutrients and required oxygen is naturally available in these ponds, the biodiversity of the natural habitat and fish populations are maintained. In several parts of receiving water bodies, fish of various sizes have been observed in the effluent discharge area within the receiving water bodies.

## Environment Management System

We developed a Master Plan for ISO 14001:2004 in 2010. The Master Plan serves as a benchmark and a guidance document for the strategy and action plans of the Operations & Maintenance Department to implement ISO 14001:2004 for Treatment, Network and Desludging Sections.

In 2011, we initiated awareness training, design and development activities to implement ISO 14001. We hope to complete the aspect-impact assessment, preparation of manual, audit and certification of ISO 14001:2004 for Operations & Maintenance Department at our headquarters. Two pilot manned plants in Kuala Lumpur Unit Office (for Network and Desludging) and Puchong STP (for Treatment) and one unmanned plant will be focused on in 2012. Once certified, the manuals and procedures will be duplicated for other operation units.



## Environmental Risk Management

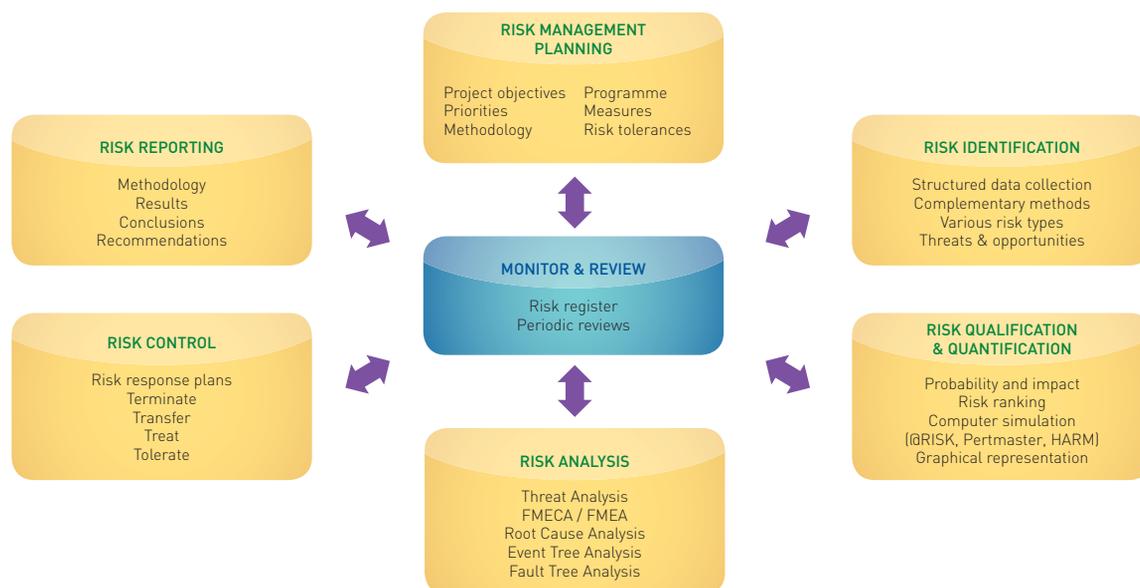
Environmental risk management is an important part of our planning. Our risk assessment is designed to reduce or eliminate the risk of certain kinds of events from occurring or having an impact on the surrounding environment. This mainly involves managing physical infrastructure assets and their related risk profile. A list of STP related risks were identified in 2011 and 11 STPs risk types were highlighted as major risks for further study. These risks included flooding, ground settlement, illegal discharge, non-compliance of STPs, odour, overloaded, repeated complaints/incidents, slope stability issues, theft and undersized sewer/syphon.

### Plants Major Risk Identified in 2011 and our mitigation actions/plans

Risks Identified	Mitigation Actions and/or Plans Already In Place	Mitigation Actions and/or Plans Proposed
Flooding	Established ERP provide monitoring and security system and identification of spare equipment	Indah Water will conduct rectification work for the minor issues. Major issues will be referred to SPAN for CAPEX assistance. The possibility of rationalising the flood prone STPs to nearby STPs will be investigated.
Ground settlement	Frequent monitoring and surveillance	Indah Water will conduct rectification work for the minor issues. Major issues will be referred to SPAN for CAPEX assistance.
Illegal discharge	Notify SPAN and apply for Licence To Contravene (LTC) from the DOE	Identify suitable bio-remediation and chemical product, and inform regulators for enforcement.
Non-complying STPs (despite being within design PE and no illegal discharge, structure defect, external factor, etc.)	Notify SPAN and apply for Licence To Contravene (LTC) from the DOE	Identify suitable bio-remediation and chemical products.
Odour	Conduct preventive maintenance (PPM), increase plant maintenance frequency and seek technical support from internal and external parties	Identify suitable bio-remediation and chemical products.
Overloaded (organic or hydraulic) inflow	Inform regulators to undertake enforcement action	Identify suitable bio-remediation and chemical products.
Repeated complaints / incidents (>3/year) for sewer collapse, manhole overflow, blockage	Increase plant maintenance frequency, undertake PPM and install early warning system	Identify suitable bio-remediation and chemical products.

Risks Identified	Mitigation Actions and/or Plans Already In Place	Mitigation Actions and/or Plans Proposed
Slope stability issues	Frequent monitoring, surveillance and inform regulator and local authorities	For minor issues, Indah Water will perform the rectification work. Major issues will be referred to SPAN for CAPEX assistance.
Structural Defects	Frequent monitoring, surveillance and inform regulator and local authorities	For minor issues, Indah Water will perform the rectification work. Major issues will be referred to SPAN for CAPEX assistance.
Theft	Install Early Warning System (EWS), install Electronic Security System (ESS), employ static guard, increase plant maintenance frequency, appoint customer under the “eye programme” and make temporary equipment available	To replace steel materials with FRP material and install ESS at the STP areas exposed to theft and vandalism
Undersized sewer/Syphon	Increase plant maintenance frequency and perform regular sewer and manhole cleaning	Formulate strategy for upgrading programme and forward to SPAN for CAPEX assistance

We are in the process of improving our management of risks and aim to map these risks by their likelihood of occurrence in the near future. We are introducing a risk management framework in 2012. This framework helps to map risks against the impact severity for each business priority. The risk management framework is presented below:



### Disaster Recovery Management

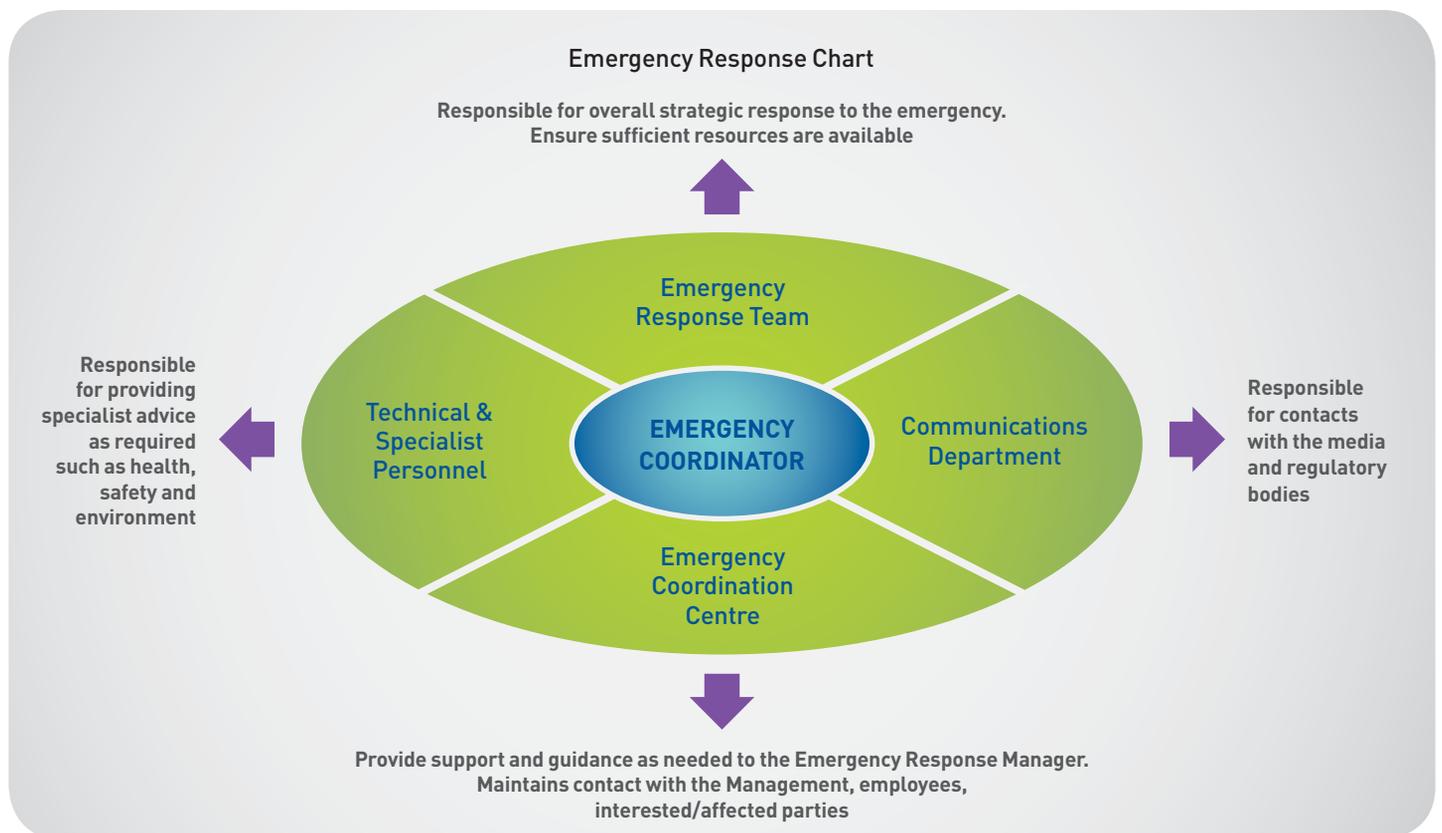
A Disaster Recovery Plan has already been introduced for critical situations in our Operational System. The plan encourages a quick response to system failures in our plants and sewer reticulation. This can avert harmful effects to health and the environment as well as causing severe service interruptions.

An in-house Emergency Response Plan is part of the Disaster Recovery Management. This plan has been implemented to deal with a major emergency or crisis at operations level. A structured and organised means of emergency action plan at Operation Office Level deals with situations and lines of communication with relevant parties. This applies particularly to Senior Management, Regulators, local politicians, clients and the media.

The plan covers fire or explosion, severe weather or storms, flooding, bomb threats, communicable diseases and sewage spillage. The objectives are to:

- Protect the lives and well-being of the staff and civilians in the surrounding neighbourhood
- Minimise damage to equipment, property, work area facilities and our customers
- Minimise economic loss and disruption to work area activities by expediting the safe resumption of operations
- Effectively coordinate all actions with external agencies providing regulatory and emergency assistance in the event of a crisis or emergency

Our emergency response chart is summarised below.



## Moving Forward

We expect that we will make a difference to people's lives through more sustainable operations. We continuously develop our competencies by enriching our skills internally and assist in various innovative projects. Some examples of our upcoming business agenda are summarised below.

### **Restructuring of the sewerage industry for sustainable future**

KeTTHA has developed the progression path for the sewerage services industry. It is expected that the industry is restructured with the formation of National Sewerage Company (NASCO), the Sewerage Facilities Licensee in accordance to the Water Services Industry Act, 2006 (WSIA). It also reviews the sewerage services tariff, which will be implemented in phases, to make the sewerage services sustainable long term. We fully support this restructuring by the Government and will do everything we can to ensure programmes are successfully implemented. We will continue to comply with all relevant Acts and support the regulators' initiatives toward achieving a cleaner and greener tomorrow.

### **Greater Kuala Lumpur/Klang Valley (GKL/KV) National Key Economic Area (NKEA)**

Indah Water participated in the GKL Sewer Improvement Project to transform GKL into one of the world's most modernised cities and aim to reach the top 20 most livable cities and the top 20 in economic growth. The 10 Local Authorities involved in this 10-year project are Kuala Lumpur, Putrajaya, Selayang, Ampang Jaya, Petaling Jaya, Subang Jaya, Shah Alam, Klang, Kajang and Sepang.

#### **i. "The River of Life" (RoL) as an "Entry Point Project (EPP)"**

The RoL programme aims to transform Sungai Klang into a main river attraction with high economic value. This programme includes river cleaning; river planning and development; and beautifying of the river. Two initiatives have been identified under the Jabatan Perkhidmatan Pembetungan (JPP):

- To upgrade the available sewerage facilities, which will reduce pollution in Sungai Klang
- To regionalisation and rationalisation at Batu, Bunus, Jinjang – Kepong and Bukit Antarabangsa.

#### **ii. "Sewerage Non-River of Life"**

This project involves activities such as refurbishing and upgrading current STPs; recovering and shifting problematic sewerage pipes; and regionalisation work for sewage treatment plants. This project was introduced to accommodate the growing population of Kuala Lumpur and Klang Valley from six to ten million people. There are two 'quick win' and seven 'non-quick win' projects planned from 2011 to 2020.

### **Sale of by-products (bio-solids and bio-effluent)**

We aim to commercialise bio-solids and bio-effluent by-products. We are discussing with Majlis Perbandaran Port Dickson on the supply of dried bio-solids as fertilisers and bio-effluent for the watering of landscape plants. We hope our STPs will be labelled as Green, which would eventually be transformed into a resource centre that is able to produce value added products from wastewater by-products. These products could become an additional income source to Indah Water while contributing to our long-term sustainability efforts in achieving a cleaner and safer tomorrow.

### **IT certification**

Our IT Department is currently implementing the Information Security Management System (ISMS), which is required based on the Cabinet Ministers meeting on 24th February 2010. The introduction of the ISMS is one approach to comply with the Cyber Security Policy by increasing the security level against cyber threats and computer frauds. The objectives of the ISMS are to ensure that information can only be accessed by those with proper authorisation; safeguard the accuracy and completeness of information and the ways in which they are processed; and to ensure that authorised users have access to information whenever required. The target date for ISMS completion is December 2012. ISMS will then be audited by SIRIM for ISO27001 certification.

### **Personal Data Protection Act 2010 (PDPA) Compliance Exercise**

We have introduced various mechanisms in response to the PDPA, which was gazetted on 10 June 2010. We aim to safeguard confidential information of our employees and customers. This Act is expected to be enforced soon. An external counsel was appointed by the Legal Department in August 2011 to conduct a Privacy Impact Assessment (PIA) & PDPA 2010 Compliance Exercise to determine the full impact of the PDPA.

The PIA & PDPA 2010 Compliance Exercise was still on-going and pending completion of the PIA by the external lawyers on 31 December 2011. We are still in the process of identifying a privacy officer to help us ensure the upholding of this Act within Indah Water.

### **Lessons Learned**

As part of continuous improvement, we are moving towards establishing our knowledge management system. We aim to encourage a learning culture among our employees. Our online system will be able to capture and store this experience via our lessons learned documentation. We envisage our fellow workers sourcing for useful tips in this online knowledge management system.

### **Our Pledge**

As Malaysia's national sewerage company, we have been entrusted with the task of developing and maintaining a modern and efficient sewerage system for all Malaysians. This system is vital for the country to ensure that wastewater is treated before being discharged into our rivers. Our innovative way ensures that we continue to preserve the country's water resources, protect public health and provide a cleaner and safer environment. We continue to innovate to provide the most efficient and environmentally friendly sewerage system that is sustainable in the long-term.

## GRI G3.1 Index

**Status :** ✓ Fully Reported; / Partially Reported; X Not Reported

G3.1 Content Index				
STANDARD DISCLOSURES PART : Profile Disclosures				
1. Strategy and Analysis				
Profile Disclosure	Description	Status	Cross-Reference	Reason for omission and explanation
1.1	Statement from the most senior decision-maker of the organisation	✓	P10-15	
1.2	Description of key impacts, risks, and opportunities	✓	P18-19, P102-103	
2. Organisational Profile				
2.1	Name of the organisation	✓	Front Cover	
2.2	Primary brands, products, and/or services	✓	P8-9	
2.3	Operational structure of the organisation	✓	P31	
2.4	Location of organisation's headquarters.	✓	P3	
2.5	Number of countries where the organisation operates	✓	P7	
2.6	Nature of ownership and legal form	✓	P5	
2.7	Markets served	✓	P7	
2.8	Scale of the reporting organisation	✓	P2-3	
2.9	Significant changes during the reporting period	✓	P10-14	
2.10	Awards received in the reporting period	✓	P4	

## G3.1 Content Index

## STANDARD DISCLOSURES PART : Profile Disclosures

## 3. Report Parameters

Profile Disclosure	Description	Status	Cross-Reference	Reason for omission and explanation
3.1	Reporting period	✓	P2	
3.2	Date of most recent previous report	✓	P2	
3.3	Reporting cycle	✓	P2	
3.4	Contact point for questions regarding the report or its contents	✓	P3	
3.5	Process for defining report content	✓	P2-3	
3.6	Boundary of the report	✓	P2-3	
3.7	Specific limitations on the scope or boundary of the report	✓	P2-3	
3.8	Basis for reporting on joint ventures, subsidiaries, etc	✓	P2-3	
3.9	Data measurement techniques and the bases of calculations	✓	P99-101	
3.10	Explanation of the effect of any re-statements of information	✓	P2-3	
3.11	Significant changes from previous reporting period	✓	P10-14	
3.12	Table identifying the location of the Standard Disclosures	✓	GRI G3.1 Index	
3.13	Policy and current practice with regard to seeking external assurance for the report	✓	Assurance Statement	

## 4. Governance, Commitments and Engagement

4.1	Governance structure of the organisation	✓	P24-25	
4.2	Indicate whether the Chair of the highest governance body is also an executive officer	✓	P24-25	

Status : ✓ Fully Reported; / Partially Reported; X Not Reported

## G3.1 Content Index

## STANDARD DISCLOSURES PART : Profile Disclosures

## 4. Governance, Commitments and Engagement

Profile Disclosure	Description	Status	Cross-Reference	Reason for omission and explanation
4.3	Independent and/or non-executive members of the Board	✓	P25	
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	✓	P26	
4.5	Linkage between compensation and the organisation's performance	✓	P27	
4.6	Processes in place to ensure conflicts of interest are avoided	✓	P28	
4.7	Qualifications and expertise of the Board	✓	P24-25	
4.8	Internally developed statements of mission or values, codes of conduct, and principles	✓	P6	
4.9	Identification and management of economic, environmental, and social performance, conduct, and principles	✓	P46	
4.10	Processes for evaluating the highest governance body's own performance	✓	P27	
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organisation	✓	P28	
4.12	Externally developed economic, environmental, and social charters, principles	✓	P46, P57	
4.13	Memberships in associations	✓	P22-23	
4.14	List of stakeholder groups engaged by the organisation	✓	P22-23	
4.15	Basis for identification and selection of stakeholders with whom to engage	✓	P22-23	
4.16	Approaches to stakeholder engagement	✓	P22-23	
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organisation has responded to those key topics	✓	P79, P81, P86	

## STANDARD DISCLOSURES: Performance Indicators

## Economic

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Economic performance</b>				
EC1	Direct economic value generated and distributed	✓	P20-21	
EC2	Financial implications and other risks and opportunities for the organisation's activities due to climate change	✓	P98	
EC3	Coverage of the organisation's defined benefit plan obligations	✓	P34	
EC4	Significant financial assistance received from government	✓	P4, P66	
<b>Market presence</b>				
EC5	Standard entry level wage vs. local minimum wage	✓	P34	
EC6	Policy, practices, and proportion of spending on locally-based suppliers	✓	P67	
EC7	Procedures for local hiring	✓	P67	
<b>Indirect economic impacts</b>				
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit	✓	P78	
EC9	Understanding and describing significant indirect economic impacts	✓	P82-85	

Status: ✓ Fully Reported; / Partially Reported; X Not Reported

STANDARD DISCLOSURES: Performance Indicators

Environmental

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Materials</b>				
EN1	Materials used by weight or volume	X	-	This information is found to be not available at this stage. We will continue to improve our monitoring process and hope to have this information available in the future.
EN2	Percentage of materials used that are recycled input materials	X	-	This information is found to be not available at this stage. We will continue to improve our monitoring process and hope to have this information available in the future.
<b>Energy</b>				
EN3	Direct energy consumption by primary energy source	✓	P98-100	
EN4	Indirect energy consumption by primary source	✓	P100	
EN5	Energy saved due to conservation and efficiency improvements	X	-	This information is found to be not available at this stage. We will continue to improve our monitoring process and hope to have this information available in the future.
EN6	Initiatives to provide energy-efficient or renewable energy	✓	P73	
EN7	Initiatives to reduce indirect energy consumption and reductions achieved	✓	P71, P98-99	
<b>Water</b>				
EN8	Total water withdrawal by source	/	P100	The total water withdrawn is disclosed in absolute number instead of by source. We will continue to improve our monitoring process and hope to have this information available in the future.
EN9	Significant impact of withdrawal of water	✓	P100-101	
EN10	Percentage and total volume of water recycled and reused	X	-	This information is found to be not available at this stage. We will continue to improve our monitoring process and hope to have this information available in the future.

## STANDARD DISCLOSURES: Performance Indicators

## Environmental

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Biodiversity</b>				
EN11	Location and size of land owned, leased, managed in, or adjacent to, protected areas	✓	P101	
EN12	Description of significant impacts of activities, products, and services on biodiversity in protected areas	✓	P101	
EN13	Habitats protected or restored	X	–	This indicator has been found to be not relevant to our nature of business.
EN14	Strategies, current actions, and future plans for managing impacts on biodiversity	✓	P101	
EN15	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations	X	–	This indicator has been found to be not relevant to our nature of business.
<b>Emissions, effluents and waste</b>				
EN16	Total direct and indirect greenhouse gas emissions by weight	✓	P98-100	
EN17	Other relevant indirect greenhouse gas emissions by weight	✓	P100	
EN18	Initiatives to reduce greenhouse gas emissions and reductions achieved	✓	P101	
EN19	Emissions of ozone-depleting substances by weight	X	–	This information is found to be not available at this stage. We will continue to improve our monitoring process and hope to have this information available in the future.
EN20	NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions by type and weight	X	–	This information is found to be not available at this stage. We will continue to improve our monitoring process and hope to have this information available in the future.

**Status:** ✓ Fully Reported; / Partially Reported; X Not Reported

STANDARD DISCLOSURES: Performance Indicators

Environmental

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Emissions, effluents and waste</b>				
EN21	Total water discharge by quality and destination.	/	-	The total water discharged was disclosed in absolute terms instead of by quality and destination. We will continue to improve our monitoring process and hope to have this information available in the future.
EN22	Total weight of waste by type and disposal method	X	-	This information is found to be not available at this stage. We will continue to improve our monitoring process and hope to have this information available in the future.
EN23	Total number and volume of significant spills	X	-	This information is found to be not available at this stage. We will continue to improve our monitoring process and hope to have this information available in the future.
EN24	Weight of transported, imported, exported, or treated waste deemed hazardous	X	-	This information is found to be not available at this stage. We will continue to improve our monitoring process and hope to have this information available in the future.
EN25	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the reporting organisation's discharges of water and runoff	✓	P100-101	
<b>Products and services</b>				
EN26	Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation	✓	P97	
EN27	Percentage of products sold and their packaging materials that are reclaimed by category	X	-	This indicator has been found to be not material to our nature of business.
<b>Compliance</b>				
EN28	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	✓	P101	

## STANDARD DISCLOSURES: Performance Indicators

## Environmental

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Transport</b>				
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organisation's operations, and transporting members of the workforce.	✓	P99	
<b>Overall</b>				
EN30	Total environmental protection expenditures and investments by type.	✓	P20-21	
<b>Social: Labour Practices and Decent Work</b>				
<b>Employment</b>				
LA1	Total workforce by employment type, employment contract, and region	✓	P35-36	
LA2	Total number and rate of employee turnover by age group, gender, and region	✓	P37	
LA3	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by major operations	✓	P34	
LA15	Return to work and retention rates after parental leave, by gender.	X	-	Parental leave is not being practiced at our workplace presently. We will only be able to report on this indicator if we have the benefit in the future.
<b>Labour/management relations</b>				
LA4	Percentage of employees covered by collective bargaining agreements	✓	P50	
LA5	Minimum notice period(s) regarding significant operational changes, including whether it is specified in collective agreements	✓	P47	

Status: ✓ Fully Reported; / Partially Reported; X Not Reported

STANDARD DISCLOSURES: Performance Indicators

Social: Labour Practices and Decent Work

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Occupational health and safety</b>				
LA6	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	✓	P44-46	
LA7	Rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities by region	✓	P42-46	
LA8	Education, training, counselling, prevention, and risk-control programs in place to assist workforce members, their families, or community members regarding serious diseases	✓	P44-46	
LA9	Health and safety topics covered in formal agreements with trade unions.	✓	P46	
<b>Training and education</b>				
LA10	Average hours of training per year per employee by employee category	✓	P38-39	
LA11	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	✓	P38-39	
LA12	Percentage of employees receiving regular performance and career development reviews	✓	P37	

## STANDARD DISCLOSURES: Performance Indicators

## Social: Labour Practices and Decent Work

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Diversity and equal opportunity</b>				
LA13	Composition of governance bodies and breakdown of employees per category according to gender, age group, minority group membership, and other indicators of diversity	✓	P35-36	
<b>Equal remuneration for women and men</b>				
LA14	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	✓	P34	
<b>Social: Human Rights</b>				
<b>Diversity and equal opportunity</b>				
HR1	Percentage and total number of significant investment agreements that include human rights clauses or that have undergone human rights screening	✓	P34	
HR2	Percentage of significant suppliers and contractors that have undergone screening on human rights and actions taken	✓	P34	
HR3	Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	✓	P34	
<b>Non-discrimination</b>				
HR4	Total number of incidents of discrimination and actions taken	✓	P34	

**Status:** ✓ Fully Reported; / Partially Reported; X Not Reported

STANDARD DISCLOSURES: Performance Indicators

Social: Human Rights

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Freedom of association and collective bargaining</b>				
HR5	Operations identified in which the right to exercise freedom of association and collective bargaining may be at significant risk, and actions taken to support these rights	✓	P34	
<b>Child labour</b>				
HR6	Operations identified as having significant risk for incidents of child labour, and measures taken to contribute to the elimination of child labour	✓	P34	
<b>Forced and compulsory labour</b>				
HR7	Operations identified as having significant risk for incidents of forced or compulsory labour, and measures to contribute to the elimination of forced or compulsory labour	✓	P34	
<b>Security practices</b>				
HR8	Percentage of security personnel trained in the organisation's policies or procedures concerning aspects of human rights that are relevant to operations	✓	P34	
<b>Indigenous rights</b>				
HR9	Total number of incidents of violations involving rights of indigenous people and actions taken	✓	P34	

## STANDARD DISCLOSURES: Performance Indicators

## Social: Human Rights

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Assessment</b>				
HR10	Percentage and total number of operations that have been subject to human rights reviews and/or impact assessments	✓	P34	
<b>Remediation</b>				
HR11	Number of grievances related to human rights filed, addressed and resolved through formal grievance mechanisms	✓	P34	
<b>Community</b>				
S01	Nature, scope, and effectiveness of any programs and practices that assess and manage the impacts of operations on communities, including entering, operating, and exiting	✓	P81	
S09	Operations with significant potential or actual negative impacts on local communities	✓	P81	
S010	Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities	✓	P78-81	

**Status:** ✓ Fully Reported; / Partially Reported; X Not Reported

STANDARD DISCLOSURES: Performance Indicators

Social: Human Rights

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Corruption</b>				
S02	Percentage and total number of business units analysed for risks related to corruption	✓	P28	
S03	Percentage of employees trained in organisation's anti-corruption policies and procedures	✓	P28	
S04	Actions taken in response to incidents of corruption	✓	P28	
<b>Public policy</b>				
S05	Public policy positions and participation in public policy development and lobbying	✓	P87	
S06	Total value of financial and in-kind contributions to political parties, politicians, and related institutions by country	✓	P87	
<b>Anti-competitive behaviour</b>				
S07	Total number of legal actions for anti-competitive behaviour, anti-trust, and monopoly practices and their outcomes	✓	P87	
<b>Compliance</b>				
S08	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	✓	P87	

## STANDARD DISCLOSURES: Performance Indicators

## Social: Product Responsibility

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Customer health and safety</b>				
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures	✓	P56-57	
PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes	✓	P56-57	
<b>Product and service labelling</b>				
PR3	Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements	✓	P65-66	
PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labelling, by type of outcomes	✓	P65-66	
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	✓	P62-63	

Status: ✓ Fully Reported; / Partially Reported; X Not Reported

STANDARD DISCLOSURES: Performance Indicators

Social: Product Responsibility

Performance Indicator	Description	Status	Cross-reference	Reason for omission and explanation
<b>Marketing communications</b>				
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.	✓	P62-66	
PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion, and sponsorship by type of outcomes	✓	P61-66	
<b>Customer privacy</b>				
PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.	✓	P106	
<b>Compliance</b>				
PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	✓	P58-59	



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## *Independent Verification Statement*

### *Scope and Objective*

SIRIM QAS International Sdn. Bhd., a third party Conformity Assessment Body in Malaysia, with extensive expertise and experience in the provision of sustainability related assurance services, was engaged by Indah Water Konsortium Sdn. Bhd. (IWK) to perform an independent verification of its 2011 Sustainability Report. The main objective of the verification process is to provide IWK and its stakeholders with an independent opinion of the accuracy of the information presented in the report. This was confirmed through checking and verifying claims made in the report. The verification audit by SIRIM QAS International covered all sustainability related activities which had been included in the 2011 Sustainability Report. The report was also assessed against the Global Reporting Initiative - Sustainability Reporting Guidelines, Version 3.1.

The information in the Sustainability Report is the responsibility of the management of IWK. The objectivity and impartiality of this verification statement is assured as no member of the verification team and no other employee of SIRIM QAS International was involved in the preparation of any part of the Sustainability Report.

### *Methodology*

The verification process was carried out by SIRIM QAS International in April 2012. It involved the following activities:

- Reviewing and verifying the accuracy of data collected from various sources and that are presented in the report;
- Reviewing of internal and external documentation and displays such as reports, newsletters and newspaper cuttings;
- Interviewing of key personnel responsible for collating information and writing various parts of the report in order to substantiate the veracity of the claims:



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- Evaluating the adequacy of the Sustainability Report of IWK and its overall presentation against the Global Reporting Initiative (GRI) requirements.

During the verification process, issues were raised and clarifications were sought from the management of IWK relating to the accuracy of some of the data and statements contained in the report. The report was reviewed and revised by IWK as a result of the findings of the verification team. 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:

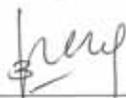
- Only the corporate office was visited as part of this assurance engagement. The verification process did not include physical inspections of any of IWK's operating assets; and
- Contractor and third party data was not reviewed in detail.

### ***Conclusion***

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

- The IWK 2011 Sustainability Report is in accordance with the A+ Application Level of the Global Reporting Initiative - Sustainability Reporting Guidelines, Version 3.1.
- The level of accuracy of data included in the report was found to be acceptable;
- The information has been presented in an appropriate manner;
- The personnel responsible were able to reliably demonstrate the origin(s) and interpretation of data;
- IWK has satisfactorily addressed, in the final version of the report, all issues that had been raised during the verification audit;
- The report provides a reasonable and balanced presentation of the sustainability performance of IWK.

Prepared by:

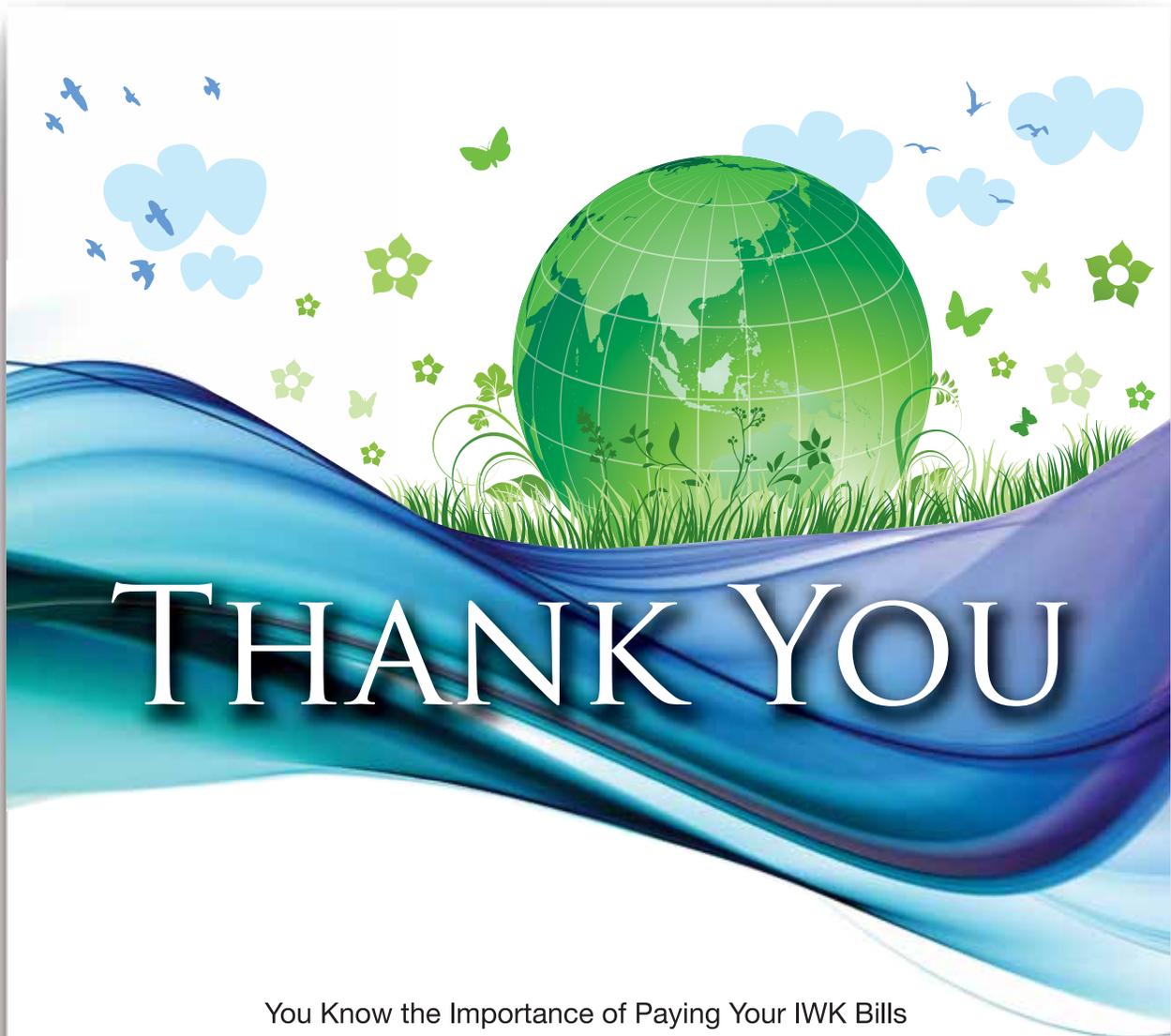


**AMINAH ANG**  
Verification Team Leader  
Sustainability Certification Section  
Management System Certification Department  
SIRIM QAS International Sdn. Bhd.  
Date : 6<sup>th</sup> July 2012

Approved by:



**PARAMA ISWARA SUBRAMANIAM**  
Senior General Manager  
Management System Certification  
Department  
SIRIM QAS International Sdn. Bhd.  
Date : 6<sup>th</sup> July 2012



# THANK YOU

## You Know the Importance of Paying Your IWK Bills

You know IWK ensures that all wastewater and sewage are treated before being released back into our waterways. By paying your bills, you help us maintain a clean and safe environment, look after and promote public health by protecting our precious water resources.

Do you know that IWK tariff rates for domestic premises have not been revised since 1997? Imagine your salary being static that long...Nevertheless, we at IWK still take pride in carrying out our duties as Your National Sewerage Company. We do our best to serve you.



Your National Sewerage Company

Level 1-4, Block J, Pusat Bandar Damansara, 50490 Kuala Lumpur, Malaysia.

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