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Our Vision

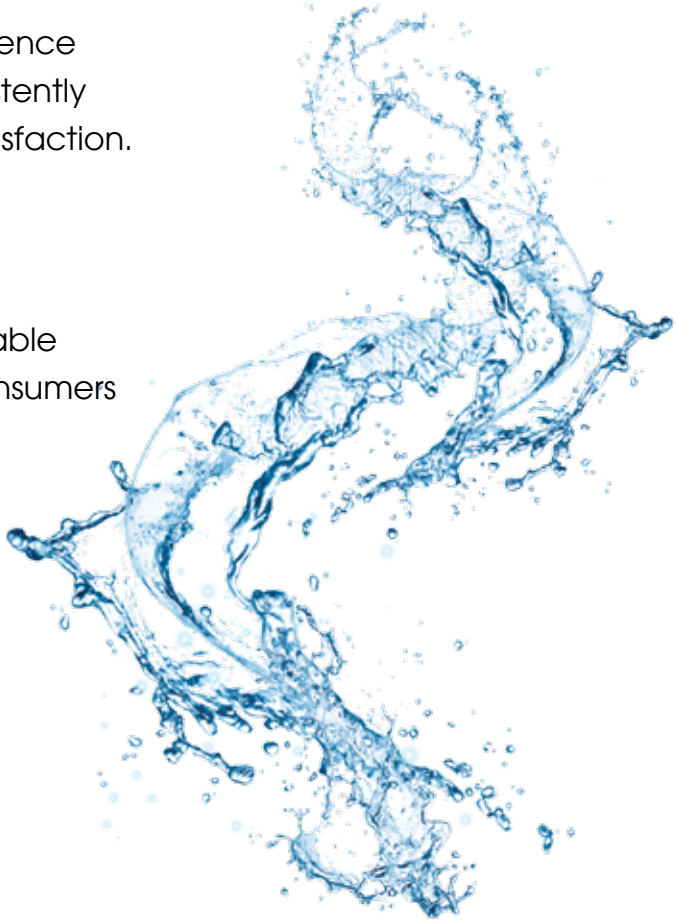
To Be a Dedicated and Dynamic Water Supply Agency with Culture and Values that are Excellence Driven and Performance Oriented which Consistently Provides Services that meet Full Consumers' Satisfaction.

Our Mission

To Provide Adequate and Reliable, Quality Potable Water Supply at Acceptable Charges to All Consumers within its Area of Jurisdiction at the Highest Attainable Standards in Quality and Service.

Our Slogan

Towards Service Excellence



CHAIRMAN'S STATEMENT

Dato Sri Ahmad Tarmizi B. Hj. Sulaiman
Chairman
Kuching Water Board

Introduction

On behalf of the Board, I am pleased to present the Annual Report and Audited Accounts of the Board for the financial year ended 31st December 2011.

Review Of Financial Performance

For the Financial year ended 2011, the Board has recorded a net profit after taxation of RM9,951,228. Total revenue and tax adjustment was RM104,819,275 while expenditure was RM94,868,047.

The overall financial performance of the Board remains healthy. The asset rose by 6% to RM764,790,869 and the reserves increased by 7% to RM154,159,730.

The Board will continue to seek interest free loans or grants from the government to finance major development projects with long payback period. As at 31st December 2011 total loan received from the State and Federal Government was RM223,363,876.

Planning And Development

The Board's development programme for the year had been drawn up to meet the projected increase in water demand due to growth and development in the Kuching City and its surrounding areas in line with the State's socio-economic development plan.

Construction work for another three (3) elevated reinforced concrete reservoirs (capacity of 4.5MI each) at Sama Jaya Free Industrial Zone to further increase the water storage and reliability of water supply in the area commenced on the 11th June 2008 and was practically completed on 19th May 2011. It was handed over to KWB on 18th August 2011 upon rectification of defects.

Construction work for the new 100 megalitres Module 8 at the Batu Kitang Water Treatment Plant Complex commenced on the 29th August 2009 and commissioned on 2nd September 2011.

Enhancement of the raw water source within the Sungai Sarawak Kiri Water Catchments with the construction of the Bengoh Dam commenced on 7th August 2007 and was completed in 2011.

Production And Consumption

In 2011, the Board produced 155,693 megalitres of fully treated water representing an increase of 1.67% over the 2010 water production.

An estimated 680,000 inhabitants in the Kuching City and its surrounding areas enjoyed the supply of fully treated water.

The average daily consumption raised from 419 megalitres in 2010 to 427 megalitres in 2011 an increased of 1.91%. The maximum daily consumption during the year was 480 megalitres per day whereas the minimum daily consumption was 317 megalitres per day.

Water Quality Control

In compliance with the National Drinking Water Quality Surveillance Programme, **6,679** water samples were collected for bacteriological examination and 21,242 water samples were collected for physico-chemical testing and sent to the Department of Chemistry for analysis. For treated water, Kuching Water Board registered a bacteriological compliance rate of 91.4%. Practically all or close to 99.1% of the treated water samples were free from Faecal Coliform bacteria throughout the year.

Information Technology

In line with the Board's effort to upgrade and enhance its computer systems in order to provide better service to its customers, the Board is also actively working on the implementation of more sophisticated Customer Relations and Billing System (CRBS) software to replace the existing Customer Information and Billing System (CIBS) water billing software. The CRBS is used to strengthen management credit control functions on outstanding water bills and also to enhance the customer relations management by the Board. The Board also put to full use Bentley Water Solution, Micro station and Bentley Water GEMS, Network Modeling Software for its Drawing and Network Office.

Human resource Development

Human Resource Development had continued to be given the emphasis in year 2011.

During the year, the Board had also been collaborating with the Jabatan Ketua Menteri (JKM), Jabatan Bomba dan Penyelamat, Agensi Kaunseling Dan Pengurusan Kredit (AKPK), Jabatan Pengangkutan Jalan (JPJ) and other training institute to help further develop and harness the human resource potential of Kuching Water Board, thereby improving the quality of service to consumers.

The year 2011 had seen an active participation by staff in the Human Resource Development Programme. A total of 507 officers attended in-house programmes and 368 officers attended various external programmes locally and in Semenanjung Malaysia.

The Board had also provided industrial training for thirteen (13) students from various institutions of higher learning.

Appreciation

On behalf of the Board, I wish to thank the Management and staff for their hard work, dedication and loyalty throughout the year in their efforts to provide the best service to our consumers.

To our Board Members, I wish to thank them for their dedicated service and valued contributions towards the positive progress and performance of Kuching Water Board.

I also wish to thank both the State and Federal Governments for their continued support, the Minister of Public Utilities, the Permanent Secretary, Ministry of Public Utilities and JKR Personnel for their guidance, assistance and support.

Last, but not least, I wish to thank our customers for their support and cooperation especially in promptly reporting water leakages and other supply shortcomings to Kuching Water Board. We will continue to upgrade the level of service and enhance our capacity in our endeavour to provide safe, reliable and consistent supply of water to our customers.

Dato Sri Ahmad Tarmizi B. Haji Sulaiman
Chairman
Kuching Water Board

Members of the Board

CORPORATE INFORMATION

Chairman

State Financial Secretary
YBhg. Dato Sri Ahmad Tarmizi B. Hj. Sulaiman,
PNBS, DJBS

Members

Permanent Secretary, Ministry of Public Utilities
Tuan Haji Ubaidillah Bin Haji Abdul Latip,
PPC, PBK, PPB

Director of Public Works
Ir Zuraimi B Hj Sabki (w.e.f 1.9.2011)
PPC, PPB

Director of Medical Services
Dr. Zulkifli Jantan

Chairman, Padawan Municipal Council
Cr. Ir. Lo Khere Chiang

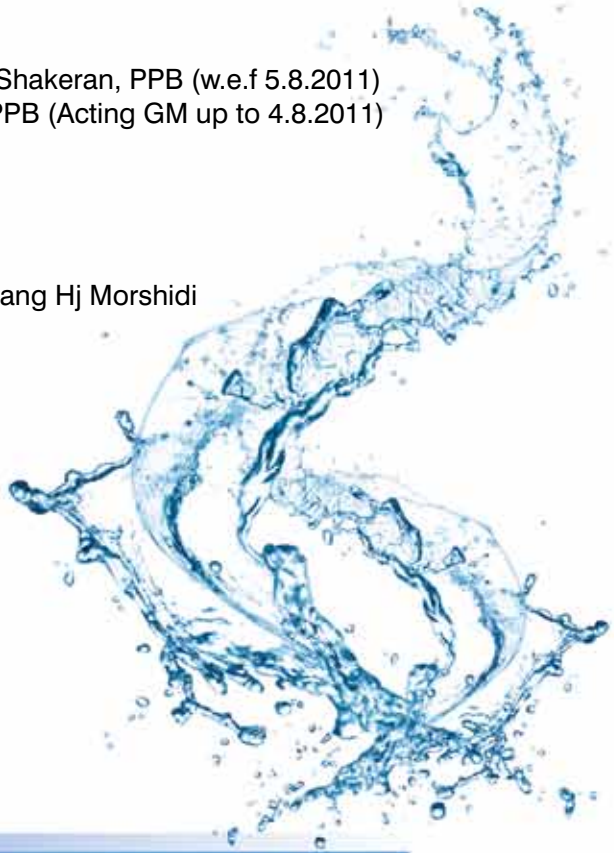
Encik Lau Ting Ping (up to 31.3.2012)
Dr. Azizah Binti Abdullah (up to 31.3.2012)
Encik Mahran Bin Jamel (up to 31.3.2012)
Encik Chai Ming Lu (up to 31.3.2012)
Encik Bong Joon Fook (up to 31.3.2012)
Encik Lucas Yong Kuet Chung (up to 31.3.2012)

General Manager

Encik Mohamad Sabari B. Shakeran, PPB (w.e.f 5.8.2011)
Ir. Paul Chan Phoo Thien, PPB (Acting GM up to 4.8.2011)

Board Secretary

Puan Dayang Amelia Bt Abang Hj Morshidi



Members of the Board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1. YBhg. Dato Sri Ahmad Tarmizi Bin Haji Sulaiman
2. Ir. Zuraimi B. Hj Sabki
3. Tuan Haji Ubaidillah Bin Haji Abdul Latip
4. Dr. Zulkifli Bin Jantan
5. Cr. Ir. Lo Khere Chiang
6. Encik Lau Ting Ping
7. Dr. Azizah Binti Abdullah
8. Encik Mahran Bin Jamel
9. Encik Bong Joon Fook
10. Encik Chai Ming Lu
11. Encik Lucas Yong Kuet Chung

SENIOR MANAGEMENT

General Manager	Mohamad Sabari B. Shakeran, PPB (w.e.f 5.8.2011) Ir. Paul Chan Phoo Thien, PPB (Acting GM w.e.f 1.9.2010)
Deputy General Manager Planning, Development & Production Department Cum Senior Chemist	Wong Soon Sing, PPB (w.e.f 1.8.2011)
Deputy General Manager Distribution Department	Moses A. Joseph, ABK
Board Secretary Administration & Human Resource Department	Dayang Amelia Bt. Abang Haji Morshidi (w.e.f 28.6.2010)
Chief Accountant	Chebby B Loren, ABS (w.e.f 19.9.2011)
Auditor	Auditor General Malaysia
Head Office	Kuching Water Board Jalan Batu Lintang 93200 Kuching, Sarawak Tel: 082-240371 Fax: 082-244546 Website: www.kwb.gov.my

INTRODUCTION

This annual report covers the fifty-two years of operations of the Kuching Water Board that is from 1st January 2011 to 31st December 2011.

The Board was established on 1st January 1959 by authority of the Kuching Water Board Order 1959, Notification No. S.12 of 1959, made under Sections 2 and 3 of the Water Supply Ordinance to take over the Kuching Water Supply from the Public Works Department, Sarawak.

The Board is responsible for the administration, management and supervision of all waterworks situated within its jurisdiction of supply. The policy of the Board is to extend mains and to develop other facilities to provide adequate and reliable supply of fully treated quality water within its area of supply. The water supply system conforms in all aspects to modern requirements, and the development programme is drawn up to meet the projected growth in demand.

Originally, the area of supply covered only 44.8km^2 (17.3 sq. miles). The supply area was subsequently increased in stages over the years to cater for the water demands of developments outside it as they could not be conveniently or feasibly supplied by the Public Works Department. In 1963 and 1973, the supply area was increased to 90.7km^2 (35 sq. miles) and 225km^2 (87 sq. miles) respectively. The supply boundary was extended further in 1988 to cover the current area of 730km^2 (282 sq. miles) as shown in Appendix 21.

On 1st June 1995, the existing Water Supply Ordinance (Sarawak Cap. 141) was repealed and replaced by the Water Ordinance 1994. On 1st January 2001, the Board was re-established under the Kuching Water Board Order, 2001 and effective from the same date, the Board consists of the following members:-

- the State Financial Secretary or his nominee (Chairman);
- the Director of Public Works, Sarawak;
- the Director of Health, Sarawak;
- the Permanent Secretary, Ministry of Public Utilities;
- the Chairman of Padawan Municipal Council; and
- six (6) other members to be appointed by the Minister.

Full Board Meetings were held on three occasions during the year as follows:

- 17th February 2011
- 19th April 2011
- 15th June 2011

ORGANISATION

Since the Board's inception in 1959, it has operated as an independent state owned organisation. It has its own offices, treatment plants, workshops, stores and transport facilities. The Board operates two SBBS Counters to cater for the public's needs, one at Jalan Song Thian Cheok and another at its Head Office at Jalan Batu Lintang.

STAFF

In April 1966, legislation was passed specifying the Kuching Water Board as a public body for the purpose of the Pensions and Widows and Orphans Pensions Ordinance. In November 1968 the Gazette Notification in respect of the Board's Pensionable Officers was approved by the Yang Di-Pertuan Agong. By early 1969, eligible contract staff and daily paid personnel were transferred to Pensionable Establishment.

In September 1969, the Employees Provident Fund (EPF) was extended to Sarawak and staff that were not on pensionable terms of employment were registered with the Employees Provident Fund. Commencing 15th October 1973, the Board's employees were covered by the Employment Injury Insurance Scheme under the Employees' Social Security Act 1969.

When SALA Act (Act 239, Pension for Statutory Bodies and Local Authorities) was implemented, the Board's Established Staff who were holding pensionable posts under the Sarawak Pension Ordinance (Cap. 89) became pensionable under this Pension Act and all staff who had completed 10 years' services were emplaced into pensionable status. Those who have yet to complete the 10 years' service including daily paid staff continued to contribute to EPF until such time when they have completed 10 years' service and is eligible for emplacement into pensionable status.

In 1976, all staff was absorbed under the Jawatankuasa Khas Kabinet (JKK) scheme of service. On 1st January 1992, a new scheme, Sistem Saraan Baru (SSB) was implemented and all staff opted for it. Subsequently, all staff opted to adopt the improved version of the SSB known as Sistem Saraan Malaysia (SSM) which

took effect from 1st November 2002. Under SSB, staff could either opt for pensionable scheme after 10 years of service or continue to contribute to the EPF. Under the SSM, probationary staff that has passed the requirements under their respective scheme of service from 1 to 3 years can be confirmed and were given the option to either opt for pensionable scheme or continue to contribute to EPF.

Manpower

The actual manpower for the years 2008, 2009, 2010 and 2011 are as follows:-

Year	Professional & Managerial	Support Group	Total
2008	18	508	526
2009	19	541	560
2010	21	553	574
2011	22	542	564

FINANCE AND ACCOUNTS

The financial performance of the Board for the year 2011 remained healthy. The total revenue recorded a slight increased of 1% at RM103,011,373. The total revenue consisted of RM86,690,824 in water sales and RM16,050,549 in other operating income. During the period, total expenditure increased by 4% at RM94,868,067. The summary for 2011 expenditure is as follows:

	RM
Water Production	38,804,759
Distribution & Sale	36,872,550
Administration	14,185,462
Other Operating Expenses	4,933,968
Finance Cost	71,308

The financial year of 2011, the Board has recorded a net profit of RM9,951,228 after taking into account the deferred tax adjustment of RM2,077,902 showing a decreased by 22%. This is due to higher cost of production, distribution and administration cost which increased by 6% as compared to 1% increased in revenue. Retained profit as at 31st December 2011 stood at RM154,159,730 an increased of 7%.

CONSUMPTION *(Appendix Nos. 3, 4, 5 & 10)*

About 680,000 residents in Kuching City and its surrounding areas enjoyed the supply of fully treated water.

The average daily consumption rose from 419 megalitres in 2010 to 427 megalitres in 2011, an increase of 1.91%. The maximum day consumption during the year was 480 megalitres per day, whereas the minimum day consumption was 317 megalitres per day.

The total number of services as at end of 2011 was 147,147.

PRODUCTION *(Appendix Nos. 3, 8 & 15)*

The Board's Treatment Plants at Batu Kitang and Matang produced a total of 155,693 megalitres of fully treated water in 2011. This represents a 1.67% increase over 2010 treated water production volume.

Batu Kitang Waterworks

The Batu Kitang Treatment Plant Complex is situated near the bank of Sungai Sarawak Kiri, about 64.37km from the sea. Raw water is pumped from the river to the Treatment Plant where it undergoes the conventional treatment process of coagulation, flocculation, sedimentation, filtration, disinfection and pH adjustment. Coagulation is by the alum-lime process and disinfection is by chloramines. Fluoridation has been practiced since 1966. The fully treated water is later pumped to the various reservoirs and service tanks in and around the Kuching Network System for distribution.

Module No. 1 of the Treatment Plant with its first raw water intake and a capacity of 14MLD (3MgD) was commissioned in 1957. In 1965, the capacity was increased to 18MLD (4MgD) after the changing of the pump impellers and the construction of a second stage pumping station as well as two underground reservoirs at Batu Lintang. Extension works to further increase the plant capacity to 27MLD (6MgD) commenced in October 1968 and was completed in 1970. The extension of this Module No. 1 was then designated as the plant's Module No. 2.

In November 1976, construction work on Module No. 3, with a present capacity of 41MLD (9MgD) and comprising of a new treatment plant and raw water intake, was started and commissioned in November 1978.

To cope with the ever increasing demand for water, construction work on Module No. 4 commenced in November 1983. As an extension of the Module No. 3, the maximum capacity of this Module No. 4 is 55MLD (12MgD). It was substantively commissioned towards the end of 1986.

The construction of Module No. 5 Treatment Plant with a capacity of 100MID including a new raw intake under the Stage 2 Expansion of Kuching Water Supply "Big Leap" Development Project commenced in December 1991 and was substantively completed and commissioned in August 1994.

In order to cater for the increasing water demands and to ensure reliable supply up to the completion and commissioning of Module No. 5 Plant in 1994, major staged improvement works to Raw Water Intake Nos. 1 and 2, including the laying of an 840mm diameter steel raw water pumping main from Intake No. 2 to Module Nos. 3 and 4 were commenced in 1990 and were substantively completed by the end of 1992. The improvement works included installation of new submersible pumpsets, booster pumpsets, back rack screens for debris removal and desludging systems at both intakes and refurbishment of existing Kubota pumpsets at Intake No. 2. Other notable improvement works carried out in 1994 included the upgrading of standby power generator set for Module Nos. 3 and 4 and Intake No. 2.

Around mid-1996, work commenced on the design and construction for the Batu Kitang Module 6 of 100MID capacity to meet the rapidly increasing water demands of the Kuching City and its surrounding areas for another 10 years.

Construction works on the Module 6 Plant commenced on 24th March 1998 and was practically completed and commissioned in May 2000.

Detailed design for the Module 7 Plant 4 was substantively completed in 1998. Earthwork for the Module 7 Plant commenced on 1st December 1997 and was practically completed in September 1998. However, due to KWB's tight financial position, the construction of the 100MID capacity of the Plant had to be deferred to commence early in the 8MP. Construction work for Module 7 Plant 4 actually commenced in June 2002 and was completed and commissioned on 9th August 2006.

Construction work for Module 8, Plant 4 Water Treatment Plant commenced on 29th August 2009 and was commissioned on 2nd September 2011.

Batu Kitang Treatment Plant Complex accounted for 99% of the total water production in 2011.

Matang Waterworks

The original waterworks constructed by the White Rajahs to supply water to Kuching Town was situated in the Matang Hills, some 12 miles from the town. The water was relatively clear and distributed untreated.

This source continued to be in use even after the Batu Kitang Plant was commissioned in 1957. In 1960, chlorination was introduced and the possibility of building a treatment plant in the Hills was investigated.

Construction of a 9MLD (2MgD) treatment plant near the Matang Dam commenced in 1964 and the plant was put into operation in March 1966. Raw water from the mountain streams was piped to the plant where full treatment similar to that at Batu Kitang Plant was carried out before it gravitates into the distribution system.

However, production from Matang Treatment Plant was dependent on rainfall and during the dry months output may fall to as low as 10% of its maximum capacity. To improve the reliability of the water supply, work was commenced in December 1973 on the construction of a 60 million gallon earth storage basin at Matang, below the Sungai Sebubut catchment. The storage basin was completed in February 1976.

With the development of the Kuching North Bank, it was decided that the Matang Treatment Plant be extended to increase the capacity from 9MLD (2MgD) to 16MLD (3.5MgD). Extension works which included the construction of a 1.5 million gallon balancing reservoir commenced in January 1976 and was completed in April 1977. The extension was commissioned in July 1977.

The Matang Water Sources continued to be an important supply of treated water in particular to areas around Matang, which is being developed at a rapid pace. To ensure that Matang Treatment Plant can adequately sustain its reliability and to meet the demands for treated water, upgrading and retrofitting works at the Matang Treatment Plant proper commenced in early January 2001 and was substantively completed at the end of March 2002. Two other major works, also implemented in tandem to ensure continued reliability and sustainability of Matang raw water sources were the renewal of the raw water pipeline from Sungai Cina to Matang Plant

which commenced in March 2001, and the raising of the Sungai Sebubut Storage commenced in January 2002 to increase live storage to 520 Ml. These works were substantively completed in July 2003 and April 2003 respectively.

The Matang Treatment Plant accounted for about 0.93% of the total water production in 2011.

QUALITY CONTROL *(Appendix Nos. 6 & 7)*

The execution of the Board's stringent water surveillance programme augmented by the National Drinking Water Quality Programme ensured that safe and wholesome drinking water supply was maintained throughout the year.

During the year, a total of 27,921 water samples from Raw Water Source, Treatment Plant Pumping Mains, Reservoirs & Tanks and Distribution Systems were taken for Physico-chemical and Bacteriological Examination. Out of the total number, 21,242 samples were analysed physico-chemically while the remaining 6,679 samples were examined bacteriologically.

A total of 26,033 samples or 93.24% were analysed at the Board's Water Quality Control Laboratory while the rest of 1,888 samples or 6.76% were sent to the Department of Chemistry for analysis. The breakdown of samples analysed is shown below:-

Parameter Location	Board's Laboratory	Chemistry Department
Physico-chemical Examination		
Intakes & Sources	962	47
Water Treatment Processes	15,248	-
Treatment Plant P.M.	1,788	87
Reservoirs & S. Tanks	778	88
Distribution System	1,629	90
Special Sample (Sungai Sarawak)	505	20
Total	**20,910**	**332**
Bacteriological examination		
Intakes & Sources	956	205
Treatment Plant P.M.	1,786	377
Reservoirs & S. Tanks	777	397
Distribution System	1,604	557
Special Sample (Sungai Sarawak)	-	20
Total	**5,123**	**1,556**

PIPE'S MAINTENANCE

Mains

During the year 2011, 464 repairs were carried out on trunk and distribution mains. The total length of water mains within the Board's Distribution Network as at the end of year is 2,241km.

The Board's emergency service was operated on a 24 hour basis with the number of service calls and minor repairs received and attended to during the year was at 6,317.

Regular flushing of dead end mains was carried out during the year while exposed mains and valve boxes were repainted. Pipelines and valves were inspected regularly. An annual water main flushing programme and schedule was re-introduced since 1st September 2010 to improve the quality of water within the distribution network.

Meters

Routine checking on water meters were carried out. A total of 93 meters were repaired and 8,410 meters were renewed during the year.

New Service Connections *(Appendix No.17)*

The total number of new services connected during the year was 3,545. Of this 2,877 or 81.16% of connections were for domestic consumers and 668 or 18.84% were for commercial consumers.

DEVELOPMENT

During the year, the Board expended RM38,702,252 on development works. Major water supply projects are briefly outlined as follows:-

i. Batu Kitang module 8 Water Treatment Plant

The construction work for the Module 8 Water Treatment Plant commenced on 29th August 2009 and is scheduled for completion on 28th February 2011 with a completion period of 18 months and a contract sum of RM82.8 million. The scope of works includes mechanical and electrical equipment for intake, and a modular Dissolved Air Floatation (DAF) Plant which was later revised to a hybrid of Dissolved Air Floatation (DAF) and Filter Plant and treated water pumping plant with a designed capacity of 100 megalitres per day.

ii. Capturing of Network System Data Into Digital Geographical Positioning System (DGPS)

Upon the completion of the calibrated network model, the Board commences with the capturing of the network system data into DGPS. This is an on going process and as at 31st December 2010, 50km of the Board existing network system had been captured and digitized and is picking up speed.

RURAL WATER SUPPLY

Under the 9th and 10th Malaysia Plan, the Rural Water Supply Schemes were implemented on turnkey basis through a 100% Federal Grant by the Federal Ministry of Rural & Regional Development, contrary to the 80% loan with 20% grant in the previous Malaysia Plans.

MAIN EXTENSION *(Appendix No.9 & 18)*

A total length of 36.30km of new water mains ranging in size from 100mm to 600mm was laid in-house during the year. They were all laid by developers to serve housing estates and commercial developments.

Appendix 9 shows the comparison of pipe lengths laid (km) against pipe type and size (mm) for 2011.

NON-REVENUE WATER (NRW)

(Appendix No. 16)

Active Leakage Control

Since 1993, leakage control programmes were implemented with the setting up of Leakage Control Zones (LCZ), each comprising of 200 to 2000 consumers. The leakage control zones have to be continuously monitored and its leakage level controlled and maintained at an achievable economic level. As at 31st December 2011 a total of 183 Leakage Control Zones had been set up within the Kuching Water Board Supply Network to monitor and manage leakage level of the Board's distribution network system. Since the implementation of active leakage control in year 1993, a total of 2,730 nos. of leaks from pipes and services and 933 nos. of water thefts had been detected and addressed.

NRW Level & Target

The Board's Non-Revenue Water (NRW) level for the year was 34% as compared with the national average of about 40% and the nationally accepted satisfactory level of 25%. The Board targets to reduce the percentage of its NRW within the range of 2% - 3% annually from the present NRW level of about 34%, and to achieve an NRW level of 20% by the end of 2015, in line with the Ministry of Public Utilities/ State Government's NRW target of 20% for all Water Authorities in the State by the same period.

Approach in Reducing NRW

The Board had implemented a holistic approach towards reducing its NRW by ensuring a faster renewal/ upgrading of leakage prone pipelines, particularly asbestos cement pipelines, prompt detection and repair of all leakages, a continuous replacement of old water meters to minimize meter under-registration, quality design and construction of new distribution system, as well as pressure/flow monitoring and management of the distribution network system. Inculcating a culture of leakage reporting and other supply shortcomings, both within the Department and from the public, such as through the introduction of "Friends of KWB" programme is part of the Board's strategy to help achieve earlier detection and repair of leakages. During the year, a total of 4,694 numbers of leaks from pipes and services and 116 cases of water stealing were repaired and addressed.

The Board's NRW Task Force Committee in the year 2000 had concluded that most of the NRW was attributed to leakages from the pipeline network system, particularly from the aged asbestos cement pipes. About 40% of the Board's total pipelines then were of asbestos cement and they contributed to about 70% of all pipeline bursts. Replacement of leakage prone old asbestos cement and lead jointed cast iron pipes, with priority accorded to the worst areas, is one of the priorities in tracking NRW for the Board.

Mains Renewal/Upgrading

Commencing from year 2000, action was initiated to renew/upgrade the existing aged asbestos cement pipes and other old pipes in a more systematic manner. A total length of 77.88km of pipelines had been renewed/upgraded during the 9th Malaysia Plan (9MP). As at the end of 2011, 37.5% or about 225km of some 600km of old asbestos cement and cast iron pipes had been renewed/upgraded.

Mains renewal involves high capital expenditure. Therefore, in order to ensure a more efficient and effective approach in the reduction of water loss from the distribution network system, replacement of aged and leak-prone water mains shall be prioritized accordingly based on pipe burst records and water loss flow measurements via district metering.

NRW Management Programme

NRW Management Programme for KWB has been in place since 2006. The Board needs to intensify its NRW reduction efforts, including better and more effective leakage control and management, as well as extensively implement of other NRW reduction and control strategies such as pressure management, district metering and GIS/Asset Management.

The scope of the Board's NRW Management programme encompasses pressure management, meter replacement, mains and communication pipes renewal, district metering zones (DMZs), asset management and geographical information (GIS).

TRAINING

Kuching Water Board is committed to its Human Resource Development. For the year 2011, a total sum of RM380,000.00 was allocated for training and training related activities. This is to cater for the Board's in-house as well as the external training programmes. A total of 507 officers had attended the in-house training programmes while 368 officers attended external courses, conducted both locally and in West Malaysia.

Ten (10) in-house programmes were conducted to cater for the training needs of all levels of staff in the Kuching Water Board. A motivation talk on "Pembangunan Diri & Kerjaya" was the first in house training for the year 2011 which was targeted for the Support Group. While another motivation talk titled "Seminar Kenali Potensi Diri" was held on 24th March 2011.

A Health Talk programme was conducted with the aim of creating health awareness amongst the Kuching Water Board staffs on 20th - 21st January 2011, facilitated by recognized medical practitioner.

There were two programmes conducted in collaboration with Jabatan Bomba Dan Penyelamat. The *'Seminar Keselamatan Kebakaran'* held on 18th April 2011 and *'Asas Keselamatan Pencegahan Kebakaran'* was held on 20th - 21st September at Batu Kitang Plant. The briefing was mainly participated by staffs from Batu Kitang and Matang Plant Operation, Maintenance, Store, Security, Mechanical and Electrical section.

'Taklimat Mengenai Dasar ICT' conducted by Information and Communication Unit from Chief Minister Office attended by Scale A and Scale B officers was held on 16th June 2011.

A briefing on *Taklimat Pengurusan Kewangan* "POWER" was held for all level of staffs with the aim of providing information on financial counseling and debt management on 23rd June 2011 in collaboration with *Agensi Kaunseling Dan Pengurusan Kredit (AKPK)*.

On 23rd July 2011, *'Taklimat Pemandu Berhemah'* was held at Batu Kitang Lecture Hall with the collaboration with *Jabatan Pengangkutan Jalan*. The programme was attended by a total of forty (40) drivers.

Strategic Planning Workshop, conducted by MRS Management Sdn Bhd, specifically for the Scale A and Scale B officers was held at Batu Kitang Lecture Hall on 27th July 2011. The workshop is to chart the short term (5 years) future of KWB as well as identifying the human resource requirements.

A total of forty (40) officers from Scale A and Scale B attended the Kuching Water Board Strategic Planning Lab held on 9th - 11th November 2011 at The Regency, Rajah Court Kuching.

An Internal Induction Course for the newly recruited staff was carried out respectively on 3rd May 2011, 4th - 14th May 2011, 21st - 29th June 2011, 22nd - 30th June 2011, 28th September - 6th October 2011, 19th - 26th October 2011, 8th - 15th November 2011, 9th - 16th November 2011 and 29th November - 9th December. Throughout the year, a total of twenty (20) staff had attended the induction course organised by the Chief Minister Office

In year 2011, the Board provided industrial training for eight (8) students pursuing Degree courses, two (2) students in Chemical Engineering, four (4) students in Civil Engineering and two (2) students in Mechanical Engineering. Two (2) students pursuing Diploma courses in Office Management were attached to Mechanical and Admin HR department.

As for Certificate level, there was only one (1) student majoring in Water Supply Technology attached to Kuching Water Board. On the other hand, there were also industrial training provided for the Army. Two personnel from Pasukan Latihan Pegawai Simpanan (PALAPES), Unimas and Armed Forces had been attached to NRW Unit and Meter section respectively

The students and trainers had gained valuable exposure and hands-on experience during their training periods in Kuching Water Board.

ISO 9001:2008 CERTIFICATION

In the year 2010, the Board's ISO 9001 : 2000 Quality Management System (QMS) was upgraded to ISO 9001 : 2008. The Internal Quality Audit for 2011 was conducted from 21st - 22nd June 2011. External Re-Audit was conducted by M/s Moody International on 3rd - 4th November 2011. The ISO 9001 : 2008 Certification was granted on 16th December 2009 for a three (3) years period and will be expired on 15th December 2012.

VISITORS

A total of 711 visitors comprising of Waterworks Engineers, Consultants, Students and Teachers, Health Inspectors and Tutors, Overseas Specialists and VIPs visited the Batu Kitang and Matang Treatment Plants in 2011 against 828 in 2010.

CONCLUSION

The year under review saw steady growth of the Board. Average daily consumption rose by 1.91% over that of the previous year.

The capital works carried out during the year may be summarised as follows:-

(a) The laying of 36.30km of mains in-house, including through developers and the renewal of 2.09km of mains.

(b) The connection of 3,545 new services.

Notable progresses since the Board's inception in 1959 are as follows:-

(a) Area of supply was increased from 44.8km^2 (17.3 sq. miles) to 730km^2 (282 sq. miles).

(b) The capacity of the Batu Kitang Treatment Plant Complex was increased from 14MID (3MgD) to 564MID (124MgD).

(c) A Weir across Sungai Sarawak Kiri was constructed to increase source reliability at Batu Kitang.

(d) Storages with a total capacity of 164.5Ml (35MgD) were constructed.

(e) The number of services has risen from 4,472 to 147,147.

(f) The average daily consumption has risen from 9.9 megalitres to 427 megalitres.

(g) The annual water sales revenue had increased from RM0.782 million in 1959 to RM86.69 million in 2011.

(h) The cumulative capital development expenditure spent up to the end of 2011 was RM850,983,530.

ACTIVITIES DURING THE YEAR

MAJLIS RAMAH TAMAH

EDUCATIONAL VISITS

Visit from Syarikat Air Melaka Berhad (SAMB)

Visit from KETTHA

EDUCATIONAL VISITS

KWB team visits to Syarikat Air Melaka Berhad (SAMB)

MBJ visits to SAJ Holdings Sdn. Bhd

KWB Activities

90th TYT Birthday Celebration

KWB Strategic Planning

KFA for future KWB Water Demand

KWB Activities

ISO Audit Certification

Installation of Ultrasonic Flow Meter

Visit to Bengoh Dam

Mesyuarat JTJAD Ke 24

KWB ACTIVITIES

Sukan Bekalan Air Semalaysia

Sarawak Regatta

PENYATA PENGERUSI DAN SEORANG AHLI LEMBAGA PENGARAH

Kami, **DATO SRI AHMAD TARMIZI BIN HAJI SULAIMAN**, yang merupakan Pengerusi dan salah seorang Ahli Lembaga Pengarah **LEMBAGA AIR KUCHING**, dengan ini menyatakan bahawa, pada pendapat Lembaga Pengarah, lembaran imbangan, penyata pendapatan, penyata perubahan dalam ekuiti, dan penyata aliran wang tunai yang berikut ini berserta dengan nota-nota di dalamnya adalah disediakan untuk menunjukkan pandangan yang benar dan saksama berkenaan kedudukan **LEMBAGA AIR KUCHING** pada **31 Disember 2011** dan hasil kendaliannya dan aliran wang tunai bagi tahun yang berakhir pada tarikh tersebut.

Bagi pihak Lembaga,

.....

NAMA: **DATO SRI AHMAD TARMIZI B. HAJI SULAIMAN**

GELARAN: **Pengerusi**

Tarikh: 30 APR 2012

KUCHING

Bagi pihak Lembaga,

.....

NAMA: **ZURAIMI BIN HAJI SABKI**

GELARAN: **Ahli Lembaga**

Tarikh: 25 APR 2012

KUCHING

PENGAKUAN OLEH PEGAWAI UTAMA YANG BERTANGGUNGJAWAB KE ATAS PENGURUSAN KEWANGAN LEMBAGA AIR KUCHING

Saya, **MOHAMAD SABARI BIN SHAKERAN** pegawai utama yang bertanggungjawab ke atas pengurusan kewangan **LEMBAGA AIR KUCHING**, dengan ikhlasnya mengakui bahawa lembaran imbangan, penyata pendapatan, penyata perubahan dalam ekuiti dan penyata aliran wang tunai yang berikut ini berserta dengan nota-nota di dalamnya mengikut sebaik-baik pengetahuan dan kepercayaan saya, adalah betul dan saya membuat ikrar ini dengan sebenarnya mempercayai bahawa ianya itu adalah benar dan atas kehendak-kehendak Akta Akuan Berkanun, 1960.

Sebenarnya dan sesungguhnya)
diakui oleh penama di atas)
di KUCHING, SARAWAK)
pada 23 APR 2012 haribulan 2012)

.....

Di hadapan saya,

PESURUHJAYA SUMPAH MALAYSIA
NO.Q 081
MOUNSEY CHUNDI

.....
PESURUHJAYA SUMPAH

D S Law Centre
Lot 564, (1st FL) Lorong Rubber 6
Off Rubber Road,
93400 Kuching, Sarawak.

SIJIL KETUA AUDIT NEGARA
MENGENAI PENYATA KEWANGAN
LEMBAGA AIR KUCHING
BAGI TAHUN BERAKHIR 31 DISEMBER 2011

Penyata Kewangan Lembaga Air Kuching bagi tahun berakhir 31 Disember 2011 telah diaudit oleh wakil saya. Pihak pengurusan bertanggungjawab terhadap Penyata Kewangan ini. Tanggungjawab saya adalah mengaudit dan memberi pendapat terhadap Penyata Kewangan tersebut.

Pengauditan telah dilaksanakan mengikut Akta Audit 1957 dan berpandukan piawaian pengauditan yang diluluskan. Piawaian tersebut menghendaki pengauditan dirancang dan dilaksanakan untuk mendapat kepastian yang munasabah sama ada Penyata Kewangan adalah bebas daripada kesilapan atau ketinggalan yang ketara. Pengauditan ini termasuk memeriksa rekod secara semak uji, menyemak bukti yang menyokong angka dan memastikan pendedahan yang mencukupi dalam Penyata Kewangan. Penilaian juga dibuat terhadap prinsip perakaunan yang digunakan, unjuran signifikan oleh pengurusan dan persembahan Penyata Kewangan secara keseluruhan. Saya percaya pengauditan yang dilaksanakan memberi asas yang munasabah terhadap pendapat saya.

Pada pendapat saya, Penyata Kewangan ini memberi gambaran yang benar dan saksama terhadap kedudukan kewangan Lembaga Air Kuching pada 31 Disember 2011 serta hasil operasi dan aliran tunainya untuk tahun tersebut adalah selaras dengan piawaian perakaunan yang diluluskan.

(KHALID KHAN BIN ABDULLAH KHAN)
b.p. KETUA AUDIT NEGARA
MALAYSIA

KUCHING

TARIKH: 13 JULAI 2012

KUCHING WATER BOARD
BALANCE SHEET
as at 31st December 2011

	Note	2011 RM	2010 RM
NON-CURRENT ASSETS			
Property, plant and equipment	6	578,996,701	566,083,720
Other investment	7	952, 931	937,814
		579,949,632	567,021,534
CURRENT ASSETS			
Inventories	8	17,612,917	14,649,736
Trade receivables	9	15,267,591	15,781,581
Other receivables, deposits and prepayments	10	2,191,771	2,708,995
Fixed deposits	11	140, 148,928	111,176,385
Cash and bank balances		9,620,030	12,897,132
		184,841,237	157,213,829
CURRENT LIABILITIES			
Trade payables		2,603,438	8,860,420
Other payables and accruals	12	19,299,789	18,740,335
Provision for employee benefits	13	125,200	137,090
Taxation		123,464	69,002
Term loans	14	14,819,670	12,769,670
		36,971,561	40,576,517
NET CURRENT ASSETS		147,869,676	116,637,312
		727,819,308	683,658,846
Financed by :			
RESERVES	15	154,159,730	144,208,502
LONG TERM AND DEFERRED LIABILITIES			
Deferred income	16	334,320,304	329,692,204
Provision for employee benefits	13	982,800	950,910
Term loans	14	223,363,876	190,912,692
Deffered taxation	17	14,992,598	17,894,538
		727,819,308	683,658,846

KUCHING WATER BOARD
INCOME STATEMENT
for the year ended 31st December 2011

	Note	2011 RM	2010 RM
Revenue	**18**	**86,690,824**	87,157,791
Cost of production		**(38,804,759)**	(38,195,730)
Gross Profit		**47,886,065**	48,962,061
Other operating income	**19**	**16,050,549**	14,737,155
Distribution and selling cost		**(36,872,550)**	(35,991,569)
Administration cost	**20**	**(14,185,462)**	(13,369,117)
Other operating expenses		**(4,933,968)**	(3,369,980)
Profit From Operation	**21**	**7,944,634**	10,968,550
Finance cost		**(71,308)**	(82,011)
Profit before tax		**7,873,326**	10,886,539
Taxation	**22**	**2,077,902**	1,907,050
Net Profit For the Year After Taxation		**9,951,228**	12,793,589

KUCHING WATER BOARD
STATEMENT OF CHANGES IN EQUITY
for the year ended 31st December 2011

	Retained Profit RM
Balance as at 31st December 2009	131,414,913
Net profit for the year	12,793,589
Balance as at 31st December 2010	**144,208,502**
Net profit for the year	**9,951,228**
Balance as at 31st December 2011	**154,159,730**

The notes on pages 9 to 21 from an integral part of this financial statements.

KUCHING WATER BOARD
CASH FLOW STATEMENT
for the year ended 31st December 2011

	2011 RM	2010 RM
Cash Flow From Operating Activities		
Net profit before taxation	7,873,326	10,886,539
Adjustment for :-		
Depreciation and amortisation	35,503,668	35, 755,191
Dividend received	(15,116)	(15,116)
Interest expense	71,308	82,011
Interest income	(3,297,657)	(2,794,874)
Gain on disposal of property, plant and equipment	(34,590)	(67,742)
Allowances for debts written back	(383)	-
Inventory witten off	24,647	-
Property, plant and equipment written off	5	60,750
Allowances for employee benefits	170,884	220,919
Allowances for debtors	227,122	499,890
Transfer from deferred income	(10,920,412)	(10,281,385)
Tax paid	(769,576)	(596,700)
Penalty for late tax filling	-	8,000
Tax refunded	-	87,379
	20,959,900	22,958,323
Operating Profit Before Working Capital Changes	28,833,226	33,844,862
(Increase) in inventories	(2,987,828)	(974,650)
Decrease/(Increase) in trade receivables	312,459	(5,755,553)
Decrease/(Increase) in other receivables, deposits and prepayments	704,639	(582,031)
(Decrease)/Increase in trade payables	(6,256,982)	2,351,202
(Decrease)/Increase in other payables and accruals	(762,080)	767,326
	(8,989,792)	(4,193,706)
Cash Generated From Operations	19,843,434	29,651,156
Interest paid	(71,308)	(82,011)
Net Cash From Operating Activities	19,772,126	29,569,145
Cash Flows From Investing Activities		
Capital expenditure	(39,000,108	(36,524,253)
Grants and capital contribution received	6,003,946	7,723,590
Interest received	3,085,033	2,863,660
Dividend received	-	15,116
Proceeds from disposal of property, plant and equipment	162,610	326,730
Net cash (Used In) Investing Activities	(29,748,519)	(25,595,157)
Cash Flows From Financing Activities		
Proceeds from term loans	47,199,547	19,439,059
Repayment of term loans	(11,527,713)	(14,340,544)
Net Cash Provided By Financing Activities	35,671,834	5,098,515
Net Increase In Cash and Cash Equivalents	25,695,441	9,072,503
Cash And Cash Equivalents At Beginning Of Year	124,073,517	115,001,014
Cash And Cash Equivalents At End Of Year	149,768,958	124,073,517
Cash And Cash Equivalents Comprise:-		
Cash and bank balances	9,620,030	12,897,132
Fixed deposits	140,148,928	111,176,385
	149,768,958	124,073,517

The notes on pages 9 to 21 from an integral part of this financial statements.

KUCHING WATER BOARD
NOTES TO THE FINANCIAL STATEMENTS
for the year ended 31st December 2011

1 Principal Activity

The principal activity of the Board is to produce and distribute potable water to consumers within its supply areas.

2 Basis Of Preparation

The financial statements of the Board have been prepared in accordance with the applicable approved accounting standards in Malaysia.

3 Date Of Authorization For Issue

The financial statements were authorized for issue by the Board on 04th May 2012.

4 Financial Risk Management Policies

The Board is exposed to credit risk, interest rate risk and liquidity risk in the normal course of the Board's business. The Management's agreed policies for managing each of these risks are summarized below:-

a. Interest Rate Risk

Surplus funds are placed with government approved financial institutions with competitive and favourable interest rates.

b. Liquidity Risk

The Board monitors and maintains a level of cash and cash equivalents deemed adequate by Management to finance the Board's operations and to mitigate the effects of fluctuations in cash flows.

c. Credit Risk

Management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. Customers are requested to place an initial deposit at the time of signing of the agreement for water supply. Their water supplies are disconnected if the customers default in payment within a stipulated time frame.

5 Significant Accounting Policies

a. Basis Of Accounting

The accounts of the Board are prepared under the historical cost convention and comply with approved accounting standards and Private Entity Reporting Standards in Malaysia.

b. Revenue Recognition

Revenue from sales of water is recognised based on metered usage upon delivery of the water.

Interest income from placement of fixed deposit with approved financial institutions is accrued on a time apportioned basis.

Dividend income is recognised in the income statement when the shareholder's right to receive payment is established.

c. Work-In-Progress

Work-in-progress is valued at cost and where appropriate includes supervision expenses.Work-in-progress shall be capitalised when the asset is substantially functionable and the date of capitalisation shall be based on the date handing over to Kuching Water Board.

d. Property, Plant And Equipment And Depreciation

Property, plant and equipment are depreciated on the straight line method to write off the cost of the assets over their estimated useful lives. Fully depreciated assets are retained in the accounts at nominal value of RM1.00 until they are no longer in use and no further charge for depreciation is made in respect of these assets.

The estimated useful lives have been taken as follow:

Treatment plant, mains and ancillary works	25 years
Meters and pipes	10 - 20 years
Machinery, vehicles and equipment	5 years
Buildings and furniture	10 - 25 years

Leasehold land is amortised over the period of the respective leases.

Property, plant and equipment are written down to recoverable amount if the recoverable amount is less than their carrying value. Recoverable amount is the higher of an asset's net selling price and its value-in-use.

e. Other Investment

Other investment is stated at cost. A provision is made when permanent diminution has, in the opinion of the Board, arisen on the value of the investment.

f. Inventories

Inventories for capital projects and maintenance accounts are valued at cost, using the weighted average method.

g. Allowance For Doubtful Debts

Known bad debts are written off and specific allowance is made for those considered to be doubtful.

h. Deferred Income

Certain consumers are required to contribute towards the cost of revenue-earning capital projects. These contributions together with government grants in respect of capital expenditures are credited to the deferred income account and released to the Income Statement on a straight line basis over the expected useful lives of the assets except for those relating to projects not yet completed. Contribution received up to year 1997 were not amortised. Whereas government grants are amortised over 25 years.

i. Non-Capitalization of Borrowing Costs

Interest included on loans taken by the Board is treated as current operating expenses.

j. Cash Equivalents

Cash equivalents are short-term, highly liquid investments that are readily convertible to cash with insignificant risk of changes in value.

k. Financial Instruments

Financial instruments carried on the balance sheet include cash and bank balances, investment, receivables, payables and borrowings. The particular recognition methods adopted are disclosed in the individual accounting's policy statement associated with each item.

l. Impairment Of Assets

The carrying values of assets, other than inventories, are reviewed at each balance sheet date to determine whether there is an indication of impairment. Impairment is measured by comparing the carrying values of the assets with their recoverable amounts.

l. Impairment Of Assets (Continued)

The recoverable amount is the higher of an asset's net selling price and value-in-use. The net selling price is the amount obtainable from the sale as an asset at arm's length transaction. Value-in-use is the present value of estimated future cash flow expected to arise from the continuing use of an asset and from its disposal at the end of its useful life.

Recoverable amount are estimated for individual assets or, if it is not possible, for the cash generating unit.

An impairment loss is recognised in the Income Statement for assets carried at cost, whenever the carrying amount of an asset exceeds its recoverable amount. When there is an indication that the impairment loss recognised in prior years for an asset no longer exists or has decrease, a reversal of this impairment loss will be recorded in the Income Statement.

m. Income Taxes

Income taxes on profit or loss for the year comprise current and deferred tax. Current tax is the expected amount of income taxes payable in respect of the taxable profit for the year and is measured using the tax rates that have been enacted at the balance sheet date.

Deferred taxation is calculated, using the liability method at the current tax rate in respect of all temporary differences between the carrying amount of an asset or liability in the balance sheet and its tax base including unused tax losses and capital allowances.

A deferred tax asset is recognised only to the extent that it is probable that taxable profit will be available against which the deductible temporary differences can be utilised. The carrying amount of a deferred tax assets is reviewed at each balance sheet date. If it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred tax asset to be utilised, the carrying amount of the deferred tax asset will be reduced accordingly. When it becomes probable that sufficient taxable profit will be available such reduction will be reversed to the extent of the taxable profit.

n. Employee Benefits

(i) Short-term and Long-term Benefits

Wages, salaries, bonuses and social security contributions are recognized as expenses in the year in which the associated services are rendered by employees of the Board. Short-term accumulating compensated absences such as paid annual leave are recognized when services rendered by employees that increase their entitlement to future compensated absences and short-term non-accumulating compensated absences such as sick leave are recognize when absences occur.

Provision made in respect of other employee benefits which are not expected to be settled within 12 months such as payment in lieu of untaken leave, are measured at the present value of the estimated future cash flows to be made by the Board in respect of services provided by employees up to the balance sheet date.

(ii) Defined Contribution Plan

As required by law, the Board makes contributions to the government pension scheme and the Employee Provident Fund. Such contributions are recognised as expenses in the income statement as incurred.

6 Property, Plant and Equipment

	Land RM	Treatment plant, mains & ancillary works RM	Meters and pipes RM	Machinery, vehicles and equipment RM	Buildings and furniture RM	Work in progress RM	Total RM
2011							
Cost							
Beginning of year	**8,215,609**	**867,410,735**	**47,899,180**	**21,068,872**	**17,161,145**	**52,994,739**	**1,014,750,280**
Additions	**-**	**9,544,566**	**-**	**-**	**-**	**42,878,418**	**52,422,984**
Disposals	**-**	**(18,400)**	**(722,255)**	**(19,735)**	**(3,387)**	**-**	**(763,777)**
Adjustment	**-**	**-**	**-**	**-**	**-**	**(3,878,310)**	**(3,878,310)**
Reclassification	**-**	**84,187,981**	**4,287,063**	**1,139,618**	**124,438**	**(89,739,100)**	**-**
End of Year	**8,215,609**	**961,124,882**	**51,463,988**	**22,188,755**	**17,282,196**	**2,255,747**	**1,062,531,177**
Accumulated Depreciation							
Beginning of year	**1,734,621**	**387,545,211**	**28,075,188**	**18,676,998**	**12,634,542**	**-**	**448,666,560**
Charge for the year	**166,149**	**31,614,122**	**2,332,269**	**831,998**	**559,130**	**-**	**35,503,668**
Disposals	**-**	**(12,512)**	**(601,063)**	**(19,201)**	**(2,976)**	**-**	**(635,752)**
End of year	**1,900,770**	**419,146,821**	**29,806,394**	**19,489,795**	**13,190,696**	**-**	**483,534,476**
Net book value							
- end of year	**6,314,839**	**541,978,061**	**21,657,594**	**2,698,960**	**4,091,500**	**2,255,747**	**578,996,701**
-beginning of year	**6,480,988**	**479,865,524**	**19,823,992**	**2,391,874**	**4,526,603**	**52,994,739**	**566,083,720**
2010							
Cost							
Beginning of year	4,209,638	850,799,039	47,146,815	20,057,783	17,137,690	34,706,417	974,057,382
Additions	-	6,501,245	-	-	-	38,702,252	45,203,497
Disposals	-	-	(2,059,823)	(122,636)	(89,391)	-	(2,271,850)
Adjustment	-	(60,750)	-	-	-	(2,177,999)	(2,238,749)
Reclassification	4,005,971	10,171,201	2,812,188	1,133,725	112,846	(18,235,931)	-
End of year	8,215,609	867,410,735	47,899,180	21,068,872	17,161,145	52,994,739	1,014,750,280
Accumulated Depreciation							
Beginning of year	1,434,799	355,973,500	27,436,712	17,921,827	12,157,393	-	414,924,231
Charge for the year	299,822	31,571,711	2,440,690	877,803	565,165	-	35,755,191
Reclassification	-	-	(1,802,214)	(122,632)	(88,016)	-	(2,012,862)
End of year	1,734,621	387,545,211	28,075,188	18,676,998	12,634,542	-	448,666,560
Net book value							
- end of year	6,480,988	479,865,524	19,823,992	2,391,874	4,526,603	52,994,739	566,083,720
-beginning of year	2,774,839	494,825,539	19,710,103	2,135,956	4,980,297	34,706,417	559,133,151

As at 31st December 2011 included in work-in-progress are leasehold land costing RM1,461,456 (RM1,461,456 in 2010). The titles to these leasehold land are in the process of being transferred to Kuching Water Board.

7 Other Investment

	2011 RM	2010 RM
Unit Trust at Cost -Quoted in Malaysia	**952,931**	937,814
Market value of Unit Trust	**1,022,870**	1,007,754

Other investment consists of investment in unit trust from Amanah Saham Sarawak. At year end the market value of the unit trust is RM1.00 per unit.

8 Inventories

Pipes and fittings, meter, spare parts and chemical carried at cost	**17,612,917**	14,649,736
	17,612,917	14,649,736

9 Trade Receivables

Trade receivables	**17,600,208**	17,912,284
Less: Allowance for doubtful debts	**(2,332,617)**	(2,130,703)
	15,267,591	15,781,581

10 Other Receivables, Deposits and Prepayments

Other receivables, deposits and prepayments	**2,663,858**	3,181,082
Less: Allowance for doubtful debts	**(472,087)**	(472,087)
	2,191,771	2,708,995

11 Fixed Deposits

All the Board's fixed deposits are placed with licensed banks approved by the Ministry of Finance Malaysia.

12 Other Payables and Accruals

Other payable	**3,239,330**	4,056,301
Collateral and temporarily deposit	**13,771,623**	13,182,145
Accruals	**2,288,836**	1,501,889
	19,299,789	18,740,335

13 Provision for Employee Benefits

	2011 RM	2010 RM
Balance as at 1st January	**1,088,000**	921,000
Provision during the year	**170,884**	220,918
Utilisation to provision during the year	**(150,884)**	(53,918)
Balance at 31st December	**1,108,000**	1,088,000
At 31st December		
Current	**125,200**	137,090
Non-current		
Later than 1 year but not later than 2 years	**74,400**	110,181
Later than 2 years but not later than 5 years	**317,400**	245,345
Later than 5 years	**591,000**	595,384
	982,800	950,910
	1,188,000	1,088,000

14 Term Loans

(a)	**State Government Loan (Unsecured)** This RM5.3 million loan bears an interest rate at 3% per annum and is repayable in 17 annuities commencing on 22nd February 2000.	**2,009,469**	2,376,939
(b)	**Federal Government Loan (Unsecured)** This RM4.5 million loan is interest-free and is repayable in 20 annuities commencing on 26th November 1999.	**1,575,000**	1,800,000
(c)	**State Government Loan (Unsecured)** This RM10 million loan is interest-free and is repayable in 17 annuities commencing on 11th June 2000.	**2,941,180**	3,529,415
(d)	**Federal Government Loan (Unsecured)** This RM4.53 million loan is interest-free and is repayable in 20 annuities commencing on 25th January 2004.	**1,861,280**	2,087,780
(e)	**State Government Loan (Unsecured)** This RM3 million loan is interest-free and is repayable in 17 annuities commencing on 26th February 2002.	**1,235,300**	1,411,770
(f)	**State Government Loan (Unsecured)** This RM5 million loan is interest-free and is repayable in 17 annuities commencing on 26th February 2002.	**2,058,820**	2,352,938

14 Term Loans (Continued)

		2011 RM	2010 RM
(g)	**State Government Loan (Unsecured)** This RM30 million loan is interest-free and is repayable in 17 annuities commencing on 22th January 2003.	**14,117,655**	15,882,360
(h)	**State Government Loan (Unsecured)** This RM2.7 million loan is interest-free and is repayable in 17 annuities commencing on 16th November 2003.	**1,270,588**	1,429,412
(i)	**State Government Loan (Unsecured)** This RM3.868 million loan is interest-free and is repayable in 17 annuities commencing on 16th February 2002.	**1,820,235**	2,047,765
(j)	**State Government Loan (Unsecured)** This RM35 million loan is interest-free and is repayable in 20 annuities commencing on 16th August 2003.	**19,250,000**	21,000,000
(k)	**State Government Loan (Unsecured)** This RM4.6 million loan is interest-free and is repayable in 17 annuities commencing on 15th December 2003.	**2,164,706**	2,435,294
(l)	**Federal Government Loan (Unsecured)** This RM4 million loan is interest-free and is repayable in 20 annuities commencing on 3rd February 2005.	**2,600,000**	2,800,000
(m)	**Federal Government Loan (Unsecured)** This RM43.8 million loan is interest-free and is repayable in annuities commencing on 26th January 2007.	**32,850,000**	35,040,000
(n)	**State Government Loan (Unsecured)** This RM11.1 million loan is interest-free and is repayable in 20 annuities commencing on 26th January 2008.	**8,880,000**	9,435,000
(o)	**Federal Government Loan (Unsecured)** This RM8 million loan is interest-free and is repayable in 20 annuities commencing on 26th January 2008.	**6,400,000**	6,800,000

14 Term Loans (Continued)

		2011 RM	2010 RM
(p)	**State Government Loan (Unsecured)** This RM8 million loan is interest-free and is repayable in 20 annuities commencing on 1st March 2008.	**6,400,000**	6,800,000
(q)	**State Government Loan (Unsecured)** This RM6.4 million loan is interest-free and is repayable in 20 annuities commencing on 21st April 2008.	**4,915,060**	5,204,181
(r)	**State Government Loan (Unsecured)** This RM9.3 million loan is interest-free and is repayable in 20 annuities commencing on 22nd October 2008.	**6,447,600**	6,850,575
(s)	**State Government Loan (Unsecured)** This RM34.7 million loan is interest-free and is repayable in 20 annuities commencing on 3rd November 2008.	**18,730,400**	19,901,050
(t)	**State Government Loan (Unsecured)** This RM4 million loan is interest-free and is repayable in 20 annuities commencing on 9th April 2009.	**3,400,000**	3,600,000
(u)	**State Government Loan (Unsecured)** This RM7.5 million loan is interest-free and is repayable in 17 annuities commencing on 10th February 2010.	**6,617,647**	7,058,824
(v)	**Federal Government Loan (Unsecured)** This RM8 million loan is interest-free and is repayable in 20 annuities commencing on 10th February 2009.	**6,800,000**	7,200,000
(w)	**Federal Government Loan (Unsecured)** This RM14 million loan is interest-free and is repayable in 20 annuities commencing on 29th April 2013.	**14,000,000**	14,000,000
(x)	**Federal Government Loan (Unsecured)** This RM27 million loan is interest-free and is repayable in 20 annuities commencing on 29th April 2013.	**27,000,000**	22,639,059

14 Term Loans (Continued)

		2011 RM	2010 RM
(y)	**Federal Government Loan (Unsecured)** This RM6.7 million loan is interest-free and is repayable in 20 annuities commencing on 13th January 2014.	**6,700,000**	-
(z)	**Federal Government Loan (Unsecured)** This RM49 million loan is interest-free and is repayable in 20 anuities commencing on 13th January 2016.	**36,138,606**	-
		238,183,546	203,682,362
	Less: Repayment due within 12 months	**(14,819,670)**	(12,769,670)
	Repayment due after 12 months	**223,363,876**	190,912,692

15 Reserves

Being a Statutory Body, the Board does not have shareholder's fund and the reserve is represented by the Boards' retained earning.

16 Deferred Income

Deferred income represents government grants and capital contributions by consumers towards the cost of capital projects as follow:

(a) Federal Government Grant

Balance at 1st January	**18,040,629**	19,027,749
Released to the Income Statement	**(987,120)**	(987,119)
Balance at 31st December	**17,053,509**	18,040,629

(b) Capital Contributions

Balance at 1st January	**311,651,575**	306,721,006
Received during the year	**15,548,512**	14,224,835
Released to the Income Statement	**(9,933,292)**	(9,294,266)
Balance at 31st December	**317,266,795**	311,651,575
Total Deferred Income	**334,320,304**	329,692,204

		2011 RM	2010 RM
17	**Deferred Taxation**		
	Balance at 1st January	**17,894,538**	20,500,997
	Transfer to Income Statement/(Reserve)	**(2,901,940)**	(2,606,459)
	Balance at 31st December	**14,992,598**	17,894,538
	The deferred taxation arises as a result of :		
	Deferred tax liability		
	Property, Plant and Equipment capital allowance in excess of depreciation	**113,539,584**	105,135,118
	Deferred tax assets		
	Unabsorbed capital allowance	**(98,546,986)**	(87,240,580)
		14,992,598	17,894,538
18	**Revenue**		
	Water Sales	**86,690,824**	87,157,791
19	**Other Operating Income**		
	Income from related water services	**1,782,390**	1,577,838
	Income from other sources	**3,347,747**	2,877,932
	Deferred income on capital contribution	**10,920,412**	10,281,385
		16,050,549	14,737,155
20	**Administration Cost**		
	Finance department expenses	**3,530,713**	3,345,799
	Administrative department expenses	**9,804,093**	9,144,694
	Depreciation	**850,656**	878,624
		14,185,462	13,369,117

		2011 RM	2010 RM
21	**Profit From Operation**		
	The following items have been charged/(credited) in arriving at the profit from operation :		
	Depreciation on property, plant and equipment	**35,505,772**	35,755,191
	Dividend from other investment	**(15,116)**	(15,116)
	Transfer from deferred income	**(10,920,412)**	(10,281,385)
	Interest income	**(3,297,657)**	(2,794,874)
	Board members' remuneration	**44,920**	47,028
	Gain on disposal of property, plant & equipment	**(34,590)**	(67,742)
	Auditor's remuneration	**23,752**	21,593
	Property, plant & equipment written-off	**5**	60,750
	Research studies	**3,878,310**	2,178,000
	Allowances for doubtful-debts	**227,122**	446,878
	Inventory written-off	**24,647**	-
	Rental	**53,680**	52,800
	Allowances for doubtful-debts written back	**(383)**	-
22	Taxation		
	Current year taxation in respect of :		
	- Investment and interest income	**824,414**	699,409
	- Tax overprovided in 2010	**(375)**	-
	- Decrease in Provision for Deferred Taxation	**(2,901,940)**	(2,606,459)
		(2,077,901)	(1,907,050)

The numerical reconciliation between the average effective tax rate and the applicable tax rate are as follow:-

	%	%
Applicable tax rate	**25.00**	25.00
Tax effect in respect of:-		
Expenses not deductible for tax purposes	**3.50**	3.40
Tax Exempt Income	**(56.17)**	(45.32)
Average Effective Tax Rate	**(27.67)**	(16.92)

The YB Minister of Finance had under Section 127(3)(b) of the Income Tax Act 1967 granted the Board exemption, since the year of assessment 2001, in respect of the followings:

(a) allocations given by State or Federal Government in the form of grants for operating expenses;
(b) allocations given by State or Federal Government in the form of grants or loan for development expenditure; and
(c) any other donations or contributions received by the Board.

22 Taxation (Continued)

A further exemption, Income Tax (Exemption No. 22) Order 2006, effective from year of assessment 2006 was also granted to the Board by the YB Minister of Finance under the same Section in respect of the followings:

(a) income relating to the allocations given by the Federal and State Government in the form of grants or subsidies, and
(b) the income received in respect of an amount chargeable and collectible from any person in accordance with the provision of the Act regulating the Board; or
(c) any donation or contribution received.

23 Financial Instruments

a. Interest Risk

The interest rate risk that financial instruments' value will fluctuate as a result of changes in the market interest rates and the effective weighted interest rate on classes of financial assets and financial liabilities are as follows:

	Less than 1 year RM	1 to 5 years RM	More than 5 years RM	Total RM	Effective interest rate during the year
Financial Assets					
Fixed deposit	140,148,928	-	-	140,148,928	3.0% - 3.45%
Financial Liability					
Loan	14,819,670	82,413,235	140,950,641	238,183,546	3%

b. Credit Risk

The carrying amount of cash and cash equivalents, trade receivables and other receivables represent the Board's maximum exposure to credit risk. At the balance sheet date, there were no significant concentrations of credit risk.

c. Fair Values

The fair values of the financial assets and liabilities approximate their carrying values except:-

	Carrying Amount RM	Fair Value RM
Asset		
Other Investment	952,931	1,022,870

The following methods and assumptions are used to estimate the fair value of each class of financial instruments.

i. Deposit, Cash And Bank Balances

The carrying amount of cash and bank balances approximates fair value due to the relatively short term maturity of these instruments.

23 Financial Instruments (Continued)

ii. Trade And Other Receivables And Payables

The historical cost carrying amount of receivable and payables subject to normal trade credit terms approximates fair value. The carrying amounts of other receivables and payables are reasonable estimates of fair value because of their short maturity.

iii. Other Investment

The fair value of publicly traded instrument is based on the quoted market prices prevailing on that day.

iv. Borrowings

The carrying amount of both short and long term borrowings approximate the fair value because the loans are interest free and for those loans that bear interest the interest rates are fixed and the interest amount had been accrued and capitalised to the loan.

v. Long Term Employee Benefits

The carrying value of the long term employee benefits approximate the fair value determined using discounted cash flow analysis based on fixed deposit interest rate.

24 Capital Commitments

Contracts for developments and indents for purchases entered into by the Board but not provided for in the accounts as at 31st December 2011 amounted to approximately RM26,679,912 (2010: RM57,383,634).

25 Staff Information

	2011	2010
Number of staff	**572**	574
	RM	RM
Staff cost comprises:		
- Staff salaries, bonus and allowances	**20,117,118**	18,875,147
- Provision for employee benefits - Golden Hand Shake	**170,884**	220,919
- Others	**1,034,754**	899,190
Contribution under defined contribution plan		
- Employee Provident Fund	**313,603**	247,591
- Government pension scheme	**1,606,047**	1,612,842

27 Comparative Figure

Certain comparative figure have been adjusted to conform to current year presentation.

Performance Indicator 2011

I	Physical Performance Indicator	Average 2010	Average 2011
1	Annual Treatment Plant Reserve Margin (%) $\frac{\text{Total Plant Capacity-Actual Production} \times 100}{\text{Total Pant Capacity}}$	12.59	25.17
2	Network Density = $\frac{\text{Total km of Pipeline}}{\text{Total Sq.km Area}}$	3.00	3.09
3	Population/km of pipeline = $\frac{\text{Total Population}}{\text{Total km of Pipeline}}$	335.08	349.75

II	Service Performance Indicator	2010	2011
1	No. of connections per employee	243.95	252.70
2	No. of connections per meter reader	3,254.27	3,454.27
3	Length of pipeline (km) per employee	3.86	3.98
4	Total output of treated water (Ml) per employee	22.21	22.52
5	No. of pipeline breakages per km	0.017	0.02
6	No. of complaints recieved per 1000 connections	30.03	25.85
7	Actual No. of meters replaced/ Expected No. of meters to be replaced	1.22	1.76
8	% of Non-Revenue Water	33.00	34
9	Actual Consumption (cu.m) per capita -overall	11.81	10.78
10	% of no. treated water NTU > 5.0 violation	0.40%	0.90%
11	% of no. treated water bacteria/E-coli violation	2.06%	6.46%
12	% of no. treated water color > 5.0 violation	0.24%	1.13%

III	Financial Performance Indicator	2010	2011
1	Average O & M cost increase, % Average increase in water production cost, %	6.48 0.90	
2	Unit production cost (sen) $\frac{\text{Total O \& M cost}}{\text{Total cu.m. water produced}}$	0.59	0.37
3	Average cost of water sold (sen) $\frac{\text{Total O \& M cost}}{\text{Total cu.m. water sold}}$	0.88	0.91
4	Average tariff (sen) (RM) = $\frac{\text{Total Revenue}}{\text{Total cu.m water sold}}$	0.85	0.87
5	Operating ratio = $\frac{\text{Total O \& M cost}}{\text{Total Revenue (exclude interst)}}$	1.04	4.30
6	Ratio of $\frac{\text{Total Domestic Consumption}}{\text{Total Industrial Consumption}}$	1.08	1.00
7	Ratio of $\frac{\text{Total Revenue of Domestic Consumption}}{\text{Total Revenue of Industrial Consumption}}$	0.69	1.00
8	Collection Efficiency (%) = $\frac{\text{Total Annual Collection}}{\text{Total Annual Billings}}$	0.93	0.89
9	Average Collection Period of debts (days) = $\frac{\text{Total debt} \times 365 \text{ days}}{\text{Total Billed}}$	60	69

Notes:
Average O & M Cost = Average annual Expenditure
Total O & M Cost = Total Expenditure
Total Revenue = Total Water Sales only
Domestic = Domestic + standpipe only
Industrial = Domestic/Commercial, Special Commercial, & Ship Supply

Financial Performance
Five Years Trend

Particular	2007	2008	2009	2010	2011
	(RM'000)	(RM'000)	(RM'000)	(RM'000)	(RM'000)
Basic Statistic					
Water Sales	76,706	79,664	81,206	87,158	86,690
Total Revenue	89,511	93,466	96,318	101,895	104,819
Total Expenditure	77,285	86,346	85,470	91,010	94,868
Net Profit	12,226	7,120	10,848	10,885	9,951
Total Net Assets	421,602	438,676	457,866	473,901	488,482
Long Term Loan	209,824	210,228	199,754	190,913	223,364
Performance Ratio					
Net Profit Ratio	13.7%			10.7%	9.5%
Current Ratio	3.7	3.2	3.6	3.9	5.0
Return on Total Net Asset	2.9%	1.6%	2.4%	2.3%	2.0%
Equity to Long Term Debt	0.5	0.5	0.4	0.4	0.6

Appendices

Appendix	Description
1	Kuching Water Board Organization Chart
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17	KWB New Water Connections 2002 - 2011
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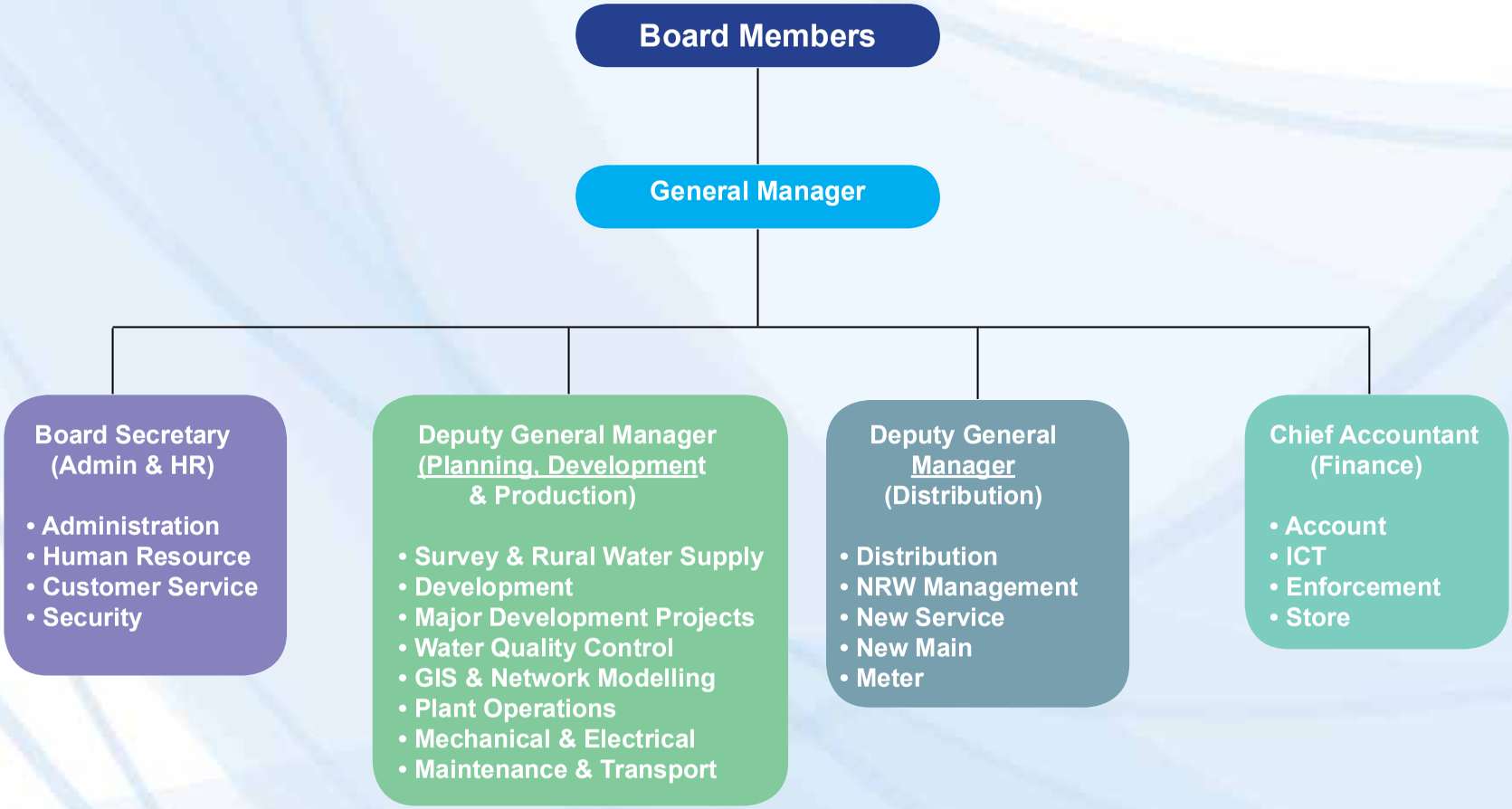
19	KWB Mains Renewed 2002 - 2011
20	Scale of Water Charges
21	Statutory Boundary of Kuching Water Board

APPENDIX 1

KWB ORGANIZATION CHART



APPENDIX 2

SENIOR OFFICERS STAFF LIST FOR 2011

General Manager	- MOHAMMAD SABARI BIN SHAKERAN, PPB B.sc (Civil Eng.), Msc. In Environmental Science (w.e.f 05.08.2011)
	- Ir. PAUL CHAN PHOO THIEN, PPB B.Sc. (Hons.)(Civil Eng.), P.Eng., M.I.E.M., MBA (Acting GM w.e.f 01.09.2010 and retired on 11.11.2011)
Deputy General Manager Planning, Development & Production (PDP) cum Senior Chemist	- WONG SOON SING, PPB B.Sc. (Hons.)(Chemistry), A.M.I.C., MBA (w.e.f 01.08.2011)
Deputy General Manager Distribution (D)	- MOSES A. JOSEPH, ABK B.Sc. (Civil Eng.) P.Eng., M.I.E.M.
Board Secretary	- DAYANG AMELIA BT. ABG. HAJI MORSHIDI LLB (Hons)
Chief Accountant	- CHEBBY BIN LOREN, Dip. Banking Studies, B. Accountancy, MBA (w.e.f 19.9.2011)
Executive Engineer	- TEO SEO LIN, PPB B.Eng. (Hons) (MONASH), P.Eng.M.I.E.M., M.I.E.AUST. MBA
	- IGNATIUS CHANG YI LEE B.Eng. (Hons) (MONASH), B.Sc. (Maths/Stats), P.Eng. M.I.E.M. MBA
	- ROZITA BT. MOHD. IBRAHIM B.Eng. (Hons.), Dip. Civil, Eng., UTM
	- ISMAIL BIN ALI, B.Eng. (Civil) UTM
	- SAMHARIS BIN AHMAD OSMAN, B.Eng. (Civil) UTM
	- WAHAB HJ. LIAS, B. Eng (Civil) UTM, Dip. Eng. (Civil)
	- FRIDDY BIN SONONG, B. Eng. (Civil) UTM, Dip. Eng. (Civil)
	- YII MING ANG, B.Eng. (Electrical)
Accountant	- ANNA RICHARD, B. Accountancy, C.A. (M)
Assistant Secretary	- AGATHA AHAM SUNI, MBA, BPA (Hons), DPA
Administrative Officer (Contract)	- FATMAH'TUL HIDAYAH BT AHMAD ZAINI, B.Sc. (Gen. Mgt), MBA (Public Sector Mgt) Diploma Mgt, NZ
Chemist	- RAHAYU BT AHMAD BOHARI, B. Sc. (Resource Chemistry)
Assistant Secretary (Contract)	- RATNA DEWI BT. MOHAMAD, B. Sc. (HRD)

Assistant Secretary (Contract)	- MOHTAR BIN ALEK, B. Sc (HRD)
Corporate Relations Executive (Contract)	- ROSLELAWATI BTE MOHAMAD AMIN B. HSc. (Corporate Communication)
System Analyst (Contract)	- CHAW TZE WEE, B. Comp. Science
Senior Technical Assistant (Assistant Engineer)	- ROGER AK HOWELL, B.Eng (Civil) UTM, Dip.Eng. (Civil) - HO TUNG HIN, PPT - PATRICK KUEH TECK HENG PPT Dip. Mech. & Marine Eng - MARIA BT CAREONO, Dip. Electrical Eng. - HOSSEN BIN SONDONG, PPT (w.e.f. 01.05.2011) - GEPAIRI BIN JOL, Dip. Land Surveying - THEN YEN LING, Dip. Civil Eng. - YEO SIE JUAY, Dip. Mechanical Eng.
Senior Programmer	- LAI CHOON NGA, B. Business
Senior Asst. Auditor	- ZURAYA BTE. BOJENG, Dip. Business Admin (w.e.f. 05.09.2011)
Senior Asst. Accountant	- HAJJAH SAPTUYAH ZAMAHARI, PPT Dip. Accountancy
Senior Executive Officer	- JOSEPHINE NAGAI, B.Sc (HRD), Dip. in Stenography
Programmer	- HAYATI BINTI MORSHIDI, BBA (Finance) Dip. Comp. Science - CHUNG NGEE KWONG, PPT - GOH KHENG GUAN (w.e.f. 1.8.2011)
Technical Assistant (New Mains)	- ADENI HJ. MORSHIDI, PPT
Technical Assistant (Mechanical)	- YUSUF BIN HAMDAN, Dip. Mechanical Eng.
Technical Assistant	- MUHAMMAD SAIFFULLAH BIN SULAIMAN (w.e.f. 5.9.2011)
Senior Admin. Asst. (Store)	- NANCY HJ. HOSSEN, PPT, BBA (Marketing), Dip.B.Studies,
Admin. Assistant (Store)	- MOHAMAD RAHIM BIN SUHAILI, Dip. P.A.
Assistant Admin Officer	- RAYMOND CHONG
Assistant Chemist	- MAIMUNAH BT AHMAD (w.e.f 02.2011)
Assistant Accountant	- RONNIE AK DICKIE, Dip. Accountancy
Senior Enforcement Off.	- PAUL TAMPUNG AK MUMIN MBA, B.A. Business Admin. (Hons), Dip. P.A.
Enforcement Officer	- EDMUND ANAK AMBAU, B.B.A. Dip. P.A.

APPENDIX 3
WATER PRODUCTION & GROSS CONSUMPTION 2011

YEAR 2011	WATER PRODUCTION (ML)						GROSS CONSUMPTION (MLD)		
	Batu Kitang Plant				Matang Plant	Total Production (ML)	Average Daily	Minimum Daily	Maximum Daily
	Plant 1 Modules 1 & 2	Plant 2 Modules 3 & 4	Plant 3 Modules 5 & 6	Plant 4 Modules 7 & 8					
Jan	1,394.437	2,348.000	5,611.698	3,511.268	145.340	13,010.743	419.960	399.944	437.228
Feb	1,262.785	2,032.000	5,101.119	3,095.324	135.737	11,626.965	415.108	389.489	427.448
March	1,381.663	2,217.000	5,654.981	3,668.101	152.654	13,074.399	422.873	403.486	461.061
April	1,331.806	2,589.000	5,435.394	3,211.539	142.902	12,710.641	423.593	398.651	445.666
May	1,358.420	3,118.000	5,502.516	3,272.232	147.684	13,398.852	432.133	419.463	441.945
June	1,350.452	2,994.000	5,319.571	2,921.136	142.920	12,728.079	424.148	402.124	452.445
July	1,375.507	3,229.000	5,227.235	3,450.143	118.309	13,400.194	431.989	408.781	447.145
Aug	1,361.044	3,143.000	4,974.571	3,950.584	76.716	13,505.915	435.755	409.391	* 479.737
Sept	1,327.975	2,859.000	3,882.113	4,666.628	79.598	12,815.314	427.314	+ 316.884	456.806
Oct	1,348.570	3,127.000	3,696.805	5,122.772	88.704	13,383.861	431.756	402.53	457.873
Nov	1,410.469	2,693.000	3,574.911	5,032.722	97.237	12,808.339	427.042	414.972	448.099
Dec	1,465.238	2,416.000	4,075.461	5,148.896	123.965	13,229.560	427.076	404.858	440.077
Total (ML)	16,368.366	32,765.000	58,056.375	47,051.345	1,451.766	155,692.852	-	-	-
Average Daily (mld)	44.845	89.767	159.059	128.908	3.977	426.556	-	-	-

Total Metered Consumption : 100,916,208 megaliters
Non-Revenue Water : 34%
* Max - Daily Consumption : 479.737 megaliters
+Min - Daily Consumption : 316.884 megaliters
Note - ML : Million Litre
MLD : Million Litre Per Day

APPENDIX 4
WATER CONSUMPTION ANALYSIS 2011 (IN M^3)

Month	Domestc			Domestic / Commercial			Commercial			Standpipes			Processed			Total	
	Vol	%	Num	Vol	%	Num	Vol	%	Num	Vol	%	Num	Vol	%	Num	Vol	Num
Jan	4,409,442	55.95	115,816	942,668	11.96	1,939	2,470,532	31.35	14,357	29,457	0.37	88	28,324	0.36	12	7,880,423	132,212
Feb	5,009,284	50.15	133,530	2,349,227	23.52	2,246	2,559,026	25.62	17,678	36,093	0.36	117	35,348	0.35	17	9,988,978	153,588
Mar	3,688,833	50.00	126,216	1,548,039	20.98	2,086	2,086,280	28.28	15,988	27,838	0.38	103	26,620	0.36	14	7,377,610	144,407
Apr	4,475,298	51.57	127,809	1,482,180	17.08	2,087	2,646,338	30.50	16,061	44,685	0.51	96	29,328	0.34	15	8,677,829	146,068
May	4,354,624	51.84	126,183	1,349,501	16.07	2,083	2,646,272	31.50	16,071	27,306	0.33	94	21,957	0.26	14	8,399,660	144,445
Jun	4,588,914	51.35	126,603	1,689,771	18.91	2,089	2,592,835	29.01	16,213	34,278	0.38	101	31,312	0.35	15	8,937,110	145,021
Jul	4,084,847	51.35	126,744	1,358,673	17.08	2,079	2,452,709	30.83	16,202	29,147	0.37	95	30,284	0.38	15	7,955,660	145,135
Aug	4,157,973	50.59	126,725	1,515,089	18.43	2,080	2,483,871	30.22	16,256	27,226	0.33	99	35,339	0.43	14	8,219,498	145,174
Sep	4,767,890	54.91	127,240	1,148,981	13.23	2,075	2,703,268	31.13	16,301	28,719	0.33	95	33,724	0.39	15	8,682,582	145,726
Oct	4,078,030	50.68	127,477	1,415,496	17.59	2,080	2,501,991	31.09	16,354	24,421	0.30	96	27,002	0.34	14	8,046,940	146,021
Nov	4,157,830	47.06	127,838	2,032,849	23.01	2,080	2,590,586	29.32	16,389	26,360	0.30	96	27,574	0.31	14	8,835,199	146,417
Dec	3,910,195	49.40	128,117	1,409,071	17.80	2,077	2,540,883	32.10	16,395	27,708	0.35	99	26,862	0.34	15	7,914,719	146,703
Grand Total	51,683,160	51.21		18,241,545	18.08		30,274,591	30.00		363,238	0.36		353,674	0.35		100,916,208	

APPENDIX 5
CONSUMER'S NORMAL CONSUMPTION - 2011

Monthly Consumption (M^3)	Domestic		Domestic / Commercial		Commercial		Standpipes		Processed	
	No. of Consumer	%	No. of Consumer	%	No. of Consumer	%	No. of Consumer	%	No. of Consumer	%
0.000 - 0.000	12,412	9.90	133	6.42	2,253	14.10	5	5.57	2	13.33
0.001 - 5.000	9,442	7.53	229	11.05	3,500	21.90	2	1.63	0	0.00
5.001 - 10.000	9,066	7.23	235	11.34	1,921	12.02	2	2.49	0	0.00
10.001 - 15.000	11,242	8.97	181	8.73	1,161	7.27	1	1.29	0	0.00
15.001 - 20.000	12,514	9.98	144	6.95	820	5.13	1	0.94	0	0.00
20.001 - 25.000	12.437	9.92	139	6.71	653	4.09	2	1.71	0	0.00
25.001 - 30.000	11,252	8.98	122	5.89	543	3.40	2	1.54	0	0.00
30.001 - 35.000	9,466	7.55	111	5.35	445	2.78	2	1.97	1	6.67
35.001 - 40.000	7,729	6.17	96	4.63	388	2.43	1	1.46	0	0.00
40.001 - 45.000	6,092	4.86	73	3.52	332	2.08	2	1.71	0	0.00
45.001 - 50.000	4,775	3.81	70	3.38	277	1.73	2	1.63	0	0.00
50.001 - 100.00	15,560	12.41	327	15.77	1,574	9.85	12	12.34	1	6.67
100.001 - 150.000	2,038	1.63	109	5.26	656	4.10	9	9.60	1	6.67
150.001 - 200.000	553	0.44	47	2.27	348	2.18	7	7.28	0	0.00
200.001 - 250.000	241	0.19	20	0.96	217	1.36	6	6.26	0	0.00
250.001 - 300.000	130	0.10	9	0.43	150	0.94	6	6.08	0	0.00
300.001 - 350.000	82	0.07	7	0.34	93	0.58	5	4.88	0	0.00
350.001 - 400.000	50	0.04	4	0.19	65	0.41	6	6.51	0	0.00
400.001 - 450.000	39	0.03	3	0.14	58	0.36	5	4.80	0	0.00
450.001 - 500.000	27	0.02	2	0.10	48	0.30	3	3.34	0	0.00
OVER 500.000	206	0.16	15	0.72	480	3.00	17	16.97	10	66.11
Total	125,353		2,073		15,981		97		15	

APPENDIX 6

KUCHING WATER BOARD RAW WATER QUALITY

Extracted from the Report of Chemistry Department for the Year 2011

Parameter / Location	Recommended Criteria	Raw Water			
		Batu Kitang Intakes	Sungai Cina	Matang Dam	Sebubut Basin
No. of Samples Analysed		**12**	**11**	**12**	**12**
Group I Parameter					
pH (H^+)	5.5 - 9.0	6.9	6.7	6.0	6.1
Color (Hazen)	300	44	<10	<10	25
Turbidity (NTU)	1000	60	0.6	1.5	3.2
Group II Parameter (unit in ppm)					
TDS at 105°- 110°C	1500	28	<10	<10	<10
Chemical Oxygen Demand COD	10	<6	<6	<6	<6
Biochem. Oxygen Demand BOD	6	<2	<2	<2	<2
Ammonia (N)	1.5	<0.1	<0.1	<0.1	<0.1
Nitrate (N)	10	<0.5	<0.5	<0.5	<0.5
Detergent (MBAS)	1.0	<0.5	<0.5	<0.5	<0.5
Total Hardness ($CaCO_3$)	500	25	6	3	7
Fluoride (F)	1.5	<0.1	<0.1	<0.1	<0.1
Chloride (Cl)	250	<1	1	1	1
Iron (Fe)	1.0	0.70	0.09	0.13	0.34
Manganese (Mn)	0.2	0.08	<0.01	<0.01	0.02
Group III Parameter (unit in ppm)					
Arsenic (As)	0.05	<0.001	<0.001	<0.001	<0.001
Mercury (Hg)	0.001	<0.001	<0.001	<0.001	<0.001
Cadnium (Cd)	0.005	<0.0002	<0.0002	<0.0002	<0.0002
Lead (Pb)	0.1	<0.001	<0.001	<0.001	<0.001
Chromium (Cr)	0.05	<0.001	<0.001	<0.001	<0.001
Silver (Ag)	0.05	<0.002	<0.002	<0.002	<0.002
Copper (Cu)	1.0	0.001	0.002	0.005	0.002
Zinc (Zn)	1.5	0.004	0.002	0.003	0.008
Magnesium (Mg)	150	0.90	0.53	0.43	0.60
Sodium (Na)	200	2	2	<1	1
Selenium (Se)	0.01	<0.001	<0.001	<0.001	<0.001
Sulphate (SO_4)	400	<5	<5	<5	<5
Group IV Parameter (unit in ppb)					
Alpha-BHC		<0.020	<0.020	<0.020	<0.020
Beta-BHC		<0.020	<0.020	<0.020	<0.020
Lindane / Gamma-BHC	2	<0.020	<0.020	<0.020	<0.020
Delta-BHC		<0.020	<0.020	<0.020	<0.020
Heptachlor	0.03	<0.005	<0.005	<0.005	<0.005
Heptachlor-Epoxide	0.03	<0.005	<0.005	<0.005	<0.005
Alpha-Endosulfan		<0.020	<0.020	<0.020	<0.020
Beta-Endosulfan		<0.020	<0.020	<0.020	<0.020
Endosulfan-Sulfate		<0.020	<0.020	<0.020	<0.020
4,4-DDE		<0.020	<0.020	<0.020	<0.020
4,4-DDD		<0.020	<0.020	<0.020	<0.020
4,4-DDT	2	<0.020	<0.020	<0.020	<0.020
Aldrin	0.03	<0.005	<0.005	<0.005	<0.005
Dieldrin	0.03	<0.005	<0.005	<0.005	<0.005
Endrin		<0.020	<0.020	<0.020	<0.020
Metaoxychlor	20	<0.020	<0.020	<0.020	<0.020
Endrin-Aldehyde		<0.020	<0.020	<0.020	<0.020
Alpha-Chlordane	0.2	<0.020	<0.020	<0.020	<0.020
Gamma-Chlordane	0.2	<0.020	<0.020	<0.020	<0.020

APPENDIX 7

KUCHING WATER BOARD TREATED WATER QUALITY

Extracted from the Report of Chemistry Department for the Year 2011

Parameter / Location	National Guidelines for Drinking Water Quality	Treated Water							
		Batu Kitang							Matang Plant
		Plant 1	Plant 2		Plant 3		Plant 4		
		M 1 & 2	M 3	M 4	M5	M6	M7	M8	
Coliform Organism MPN / Membrance Filteration Method : - Must not be detected in any 100 ml sample Membrance Filteration Method :		* 9	* 7	* 5	* 7	* 4	* 3	* 0	* 3
E. Coli - Absent in 100 ml sample Membrance Filteration Method :		* 0	* 2	* 0	* 1	* 1	* 1	* 0	* 0
Taste and Odour	-	-	-	-	-	-	-	-	-
Group I Parameter									
Re. Chlorine (Total)	Not less than 1.00	2.0	2.1	1.9	1.9	1.7	1.8	1.7	1.9
pH (H^+)	6.5 - 9.0	7.8	8.0	7.9	8.0	8.0	7.8	8.3	8.3
Color (Hazen)	15	<10	<10	<10	<10	<10	<10	<10	<10
Turbidity (NTU)	5	1.8	2.9	3	2	2.2	1.5	3.3	0.4
Group II Parameter (unit in ppm)									
TDS at 105°- 110°C	1000	49	49	49	49	49	49	49	49
Ammonia (N)	1.5	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.5
Nitrate (N)	10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Hardness ($CaCO_3$)	500	41	45	46	46	39	37	36	17
Fluoride (F)	0.4 - 0.6	<0.1	0.17	0.15	0.30	<0.1	0.07	<0.1	0.47
Chloride (Cl)	250	5	4	5	2	3	3	3	3
Iron (Fe)	0.3	0.11	0.14	0.13	0.09	0.08	0.08	0.10	0.05
Manganese (Mn)	0.1	<0.01	0.03	0.03	0.03	0.03	0.01	0.04	0.01
Aluminium (Al)	0.2	0.26	0.26	0.23	0.20	0.13	0.09	0.16	0.09
Group III Parameter (unit in ppm)									
Arsenic (As)	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Mercury (Hg)	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cadmium (Cd)	0.003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Lead (Pb)	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chromium (Cr)	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Silver (Ag)	0.05	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Copper (Cu)	1.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc (Zn)	3	0.003	0.002	<0.002	0.003	<0.002	<0.002	0.004	0.002
Magnesium (Mg)	150	1.18	1.27	1.14	1.08	0.53	0.46	2.10	0.53
Sodium (Na)	200	2	2	2	2	1	<1	3	2
Selenium (Se)	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Sulphate (SO_4)	250	18	16	18	24	27	19	24	<5
Choloform ($CHCl_3$)	0.2	0.030	0.009	0.004	0.002	0.005	0.009	0.021	<0.001
Bromoform ($CHBr_3$)	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ($CHClBr_2$)	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromodichloromethane ($CHCl_2Br$)	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

Note : * number of violation

APPENDIX 8

TREATMENT PLANTS AND PUMPING STATIONS 2011

Item	Particulars	Batu Kitang Plant				Matang Plant	Remarks
		Plant 1 Modules 1 & 2	Plant 2 Modules 3 & 4	Plant 3 Modules 5 & 6	Plant 4 Modules 7 & 8		
1	**Total Production, ML**	16,368.366	32,765.000	58,056.375	47,051.345	1,451.766	155,692.852
2	**Production cost per 1,000 Litres (In Cents)**	19.644	15.947	20.733	14.796	57.515	18.16
3	**Plant Operation** : Average	23:58	23:58	23:58	23:58	23:56	
	Daily Hours : Minimum	23:26	23:25	23:26	23:23	22:07	
	: Maximum	24:00	24:00	24:00	24:00	24:00	
4	**Chemical Consumption (Kgs)**						
	Aluminium Sulphate	619,299.65	1,022,776.31	2,950,246.98	1,846,428.39	27,298.80	6,466,050.13
	Hydrated Lime	199,293.21	495,070.42	1,270,741.16	740,269.30	35,022.32	2,740,396.41
	Liquid Chlorine [Post]	40,547.81	82,172.70	110,753.73	95,684.50	5,437.29	334,596.03
	Liquid Chlorine [Intm]	21,313.36	49,962.10	63,347.24	36,056.30	3,238.31	173,917.31
	Anydrous Ammonia	12,450.84	23,975.86	43,286.22	32,283.17	3,663.17	115,659.26
	Sodium Silicofluoride	527.50	3,745.50	24,225.00	14,075.10	2,571.50	45,144.60
	Sodium Silicate	-	-	-	-	5,418.35	5,418.35
	Sodium Bicarbonate	-	-	-	-	1,355.88	1,355.88
	Polymer Coagulant	237.50	25,012.76	625.00	444.00	-	26,319.26
	Polymer Flocculant	741.18	1,464.76	1,085.81	1,717.63	-	5,009.38
5	**Electricity Consumption (KWH)**	5,120,678	7,855,437	26,584,188	12,703,173	432,620	52,696,096
6	**Pumping Hours**	Hours Mins	Hours Mins	Hours Mins	Hours Mins		
	(a) Treated Water Pumps						
	No.1	3,061 2	7,571 10	6,416 8	5,949 25		
	No.2	3,040 35	4,478 25	4,275 5	3,370 23		
	No.3	1,531 30	8,000 35	6,393 35	5,272 15		
	No.4	5,596 53	3,841 35	6,305 59	4,755 20		
	No.5	1,218 45	- -	7,192 38	7,236 38		
	No.6	- -	- -	1,104 50	640 5		
	No.7	- -	- -	7,191 18	556 30		
	No.8	- -	- -	6,592 18	895 10		
	No.9	- -	- -	- -	295 5		
	(b) Raw Water Pumps						
	No.1	- -	7,775 50	7,973 35	220 0		
	No.2	- -	1,040 40	4,000 17	787 30		
	No.3	2,507 50	5,917 51	6,161 58	492 30		
	No.4	5,274 55	1,104 55	24 0	- -		
	No.5	- -	7,727 13	6,920 31	- -		
	No.6	- -	- -	5,054 36	- -		
	No.7	- -	- -	5,446 40	- -		
	No.8	- -	- -	6,885 43	- -		
	(c) Lowlift Pumps (Raw Water)						
	No.1	0 40	- -	- -	- -		
	No.2	- -	- -	- -	- -		
7	**Plant Operating Hours**	7,644 12	8,716 50	8,381 23	8,287 15	8,760 0	
8	**Water Filter Backwashing**	0.000	154.329	0.000	356.792	77.580	588.701
9	**Maximum Daily Output**	54.633	121.000	198.201	193.415	7.028	
	Megalitres	10.12.11	14.07.11	06.03.11	28.08.11	29.01.11	
	Minimum Daily Output	33.419	61.000	98.201	81.721	1.268	
	Megalitres	15.07.11	21.04.11	26.12.11	05.01.11	09.09.11	
10	**Nos.of Pipe Burst**	-	-	-	-	-	
	400mm dia DI (R/WSg.Cina)						
	375mm dia CI Matang Main						
11	**Sesco Power Failure**	8	8	8	8	11	
	Trip	5	4	5	5		
12	**No. of Visitors**	711					
13	**Total Rainfall (mm)**	4,391				4,189.0	Matang Dam

Note : Modules 8, Plant 4 was commissioned in September 2011

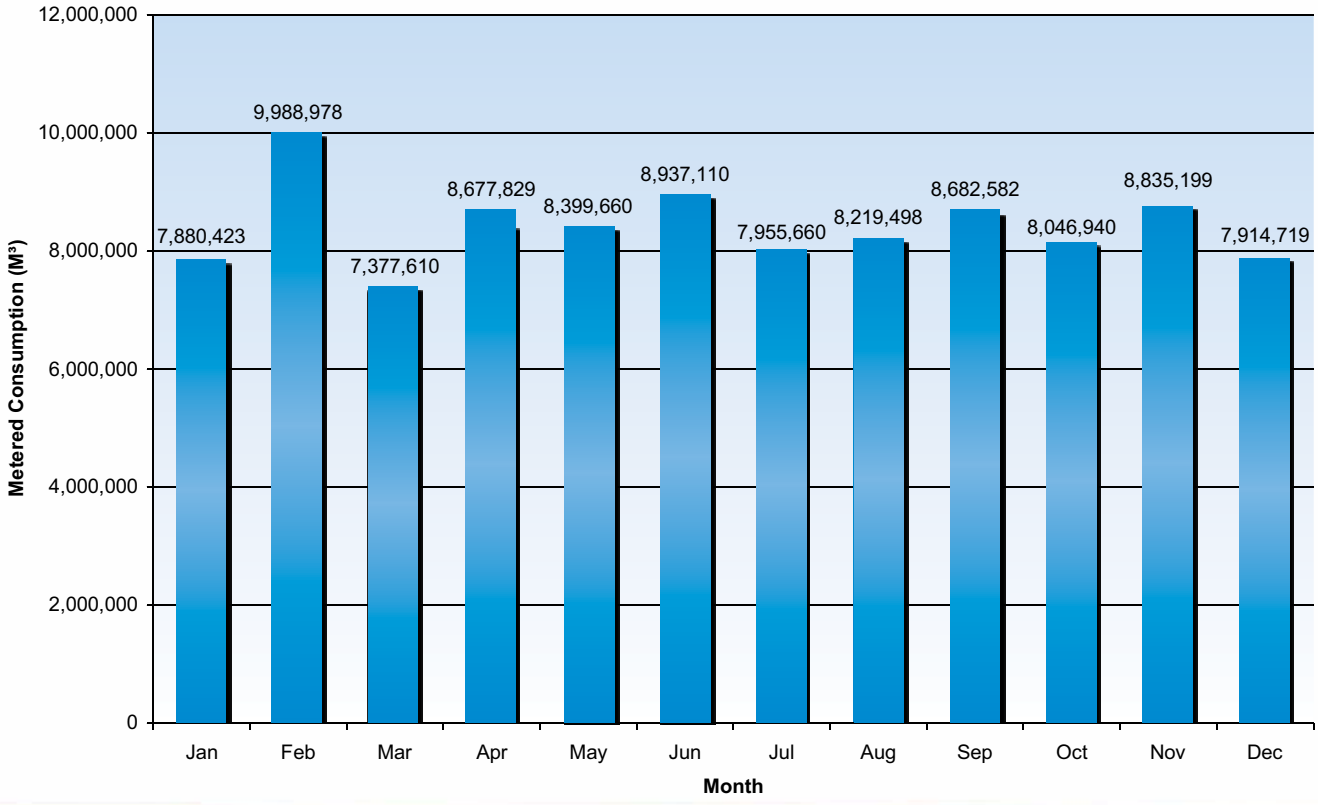
APPENDIX 9

COMPARISON OF PIPE LENGTHS LAID (Km) AGAINST PIPE TYPE AND SIZE (mm) FOR 2011

Types of Pipes	100mm-150mm (in km)	200mm-400mm (in km)	450mm-600 (in km)	700mm-1000mm (in km)	>1000mm (in km)
Mains Laid by KWB					
A.C	-	-	-	-	-
D.I	18.834	13.826			
HDPE	3.068	0.568			
Steel	-	-			
Subtotal	21.902	14.394	-	-	-
Mains Laid through Consultants					
D.I	-	-	-	-	-
HDPE	-	-	-	-	-
Steel	-	-	-	-	
Subtotal	-	-	-	-	-
Total	21.902	14.394			

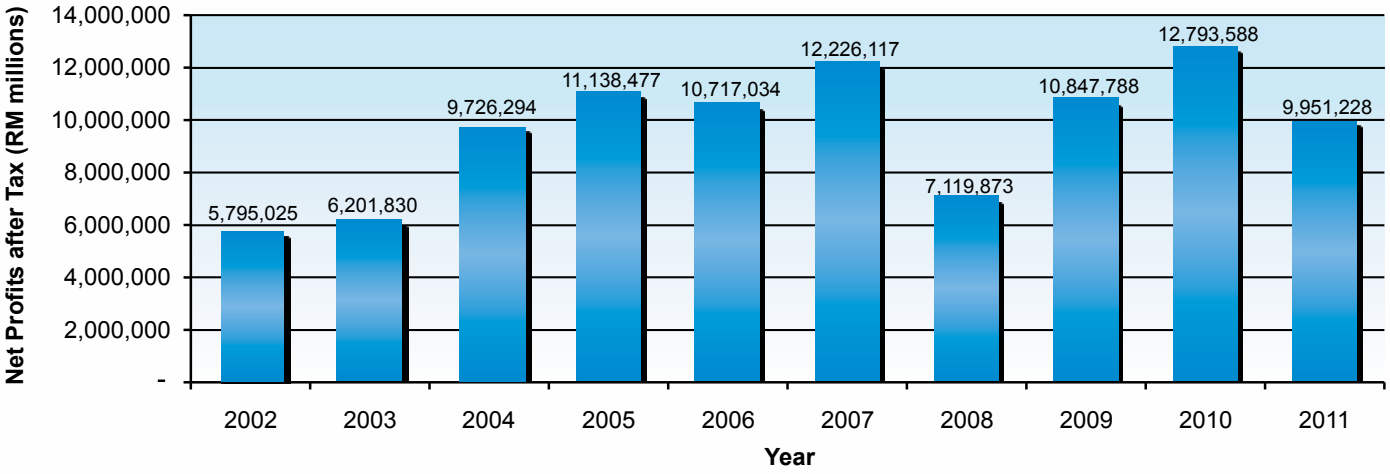
APPENDIX 10

METERED WATER CONSUMPTION 2011



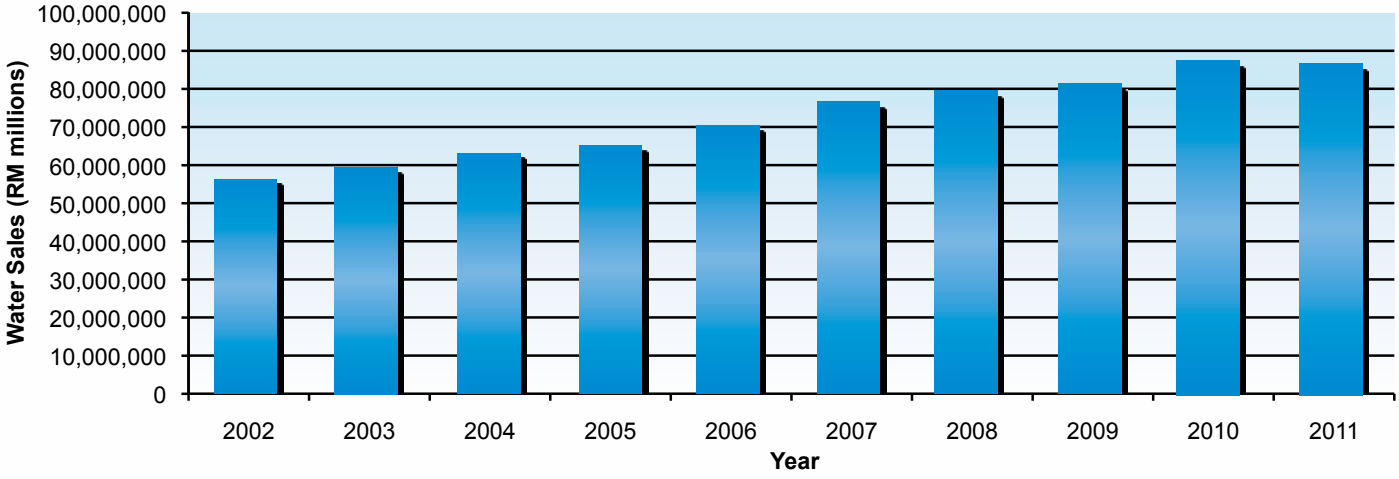
APPENDIX 11

PROFITABILITY TREND 2002-2011



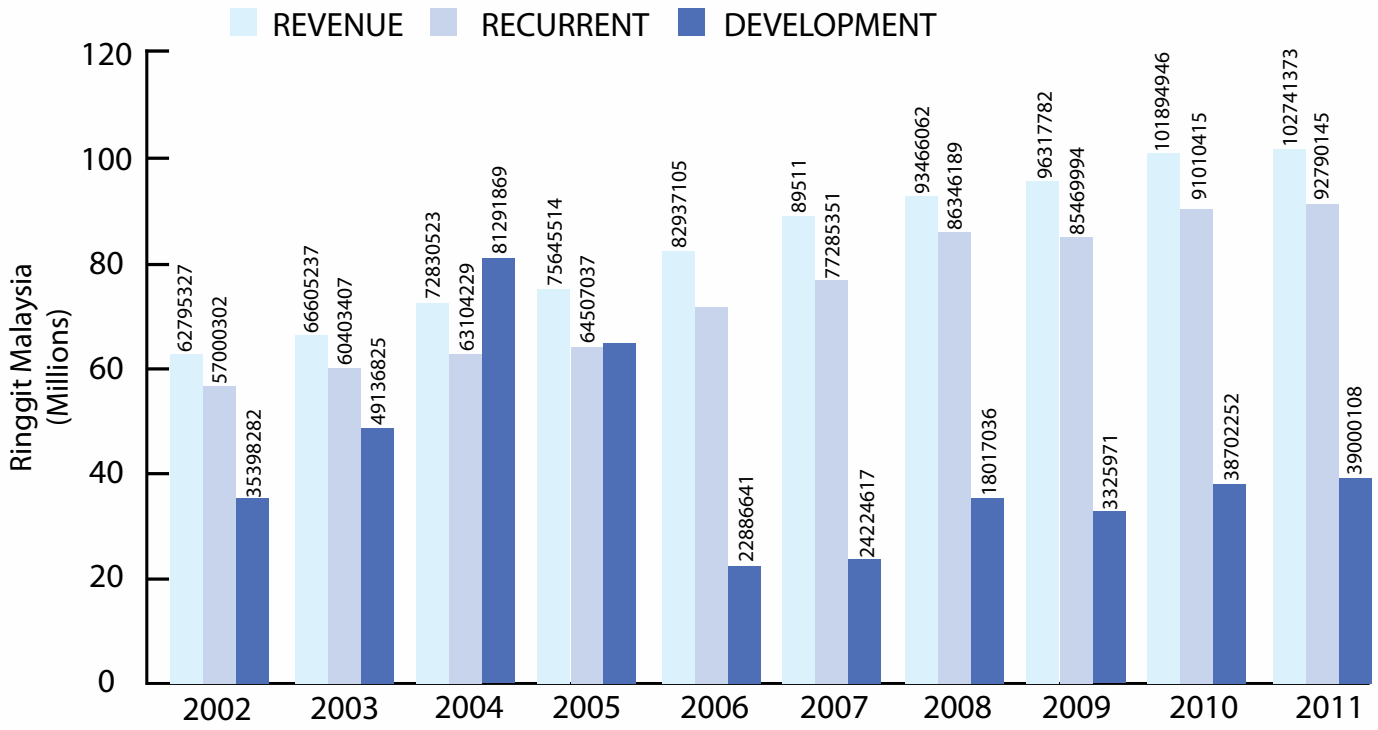
APPENDIX 12

ANNUAL WATER SALES 2002-2011



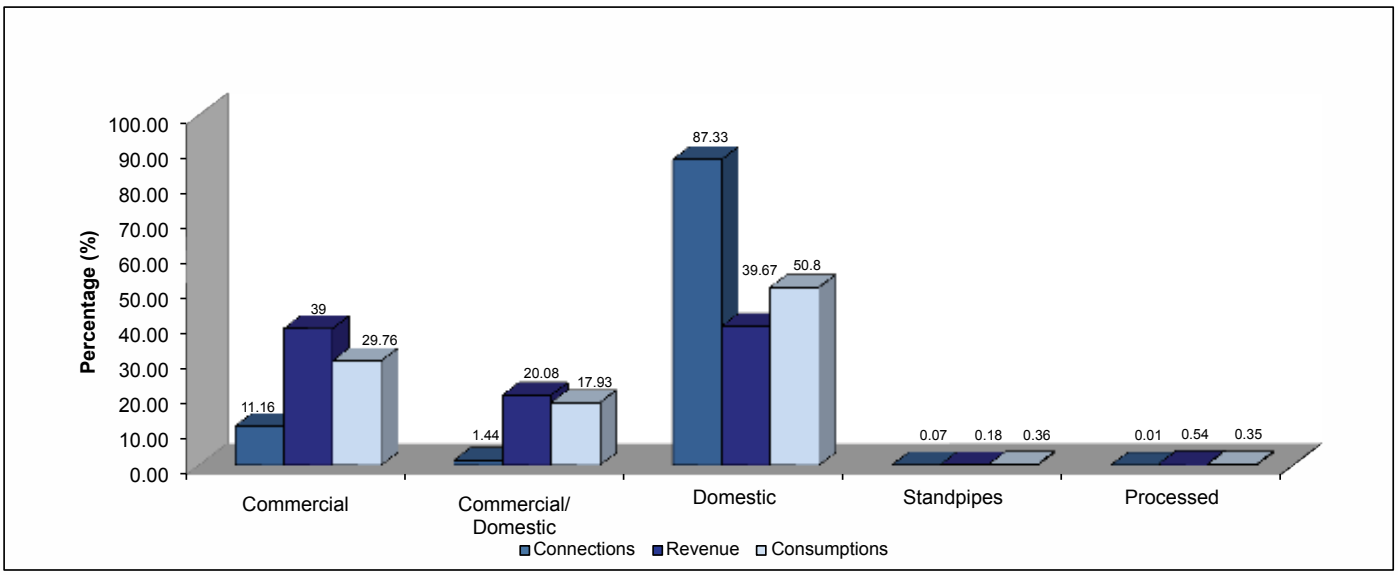
APPENDIX 13

REVENUE AND EXPENDITURE 2002 - 2011



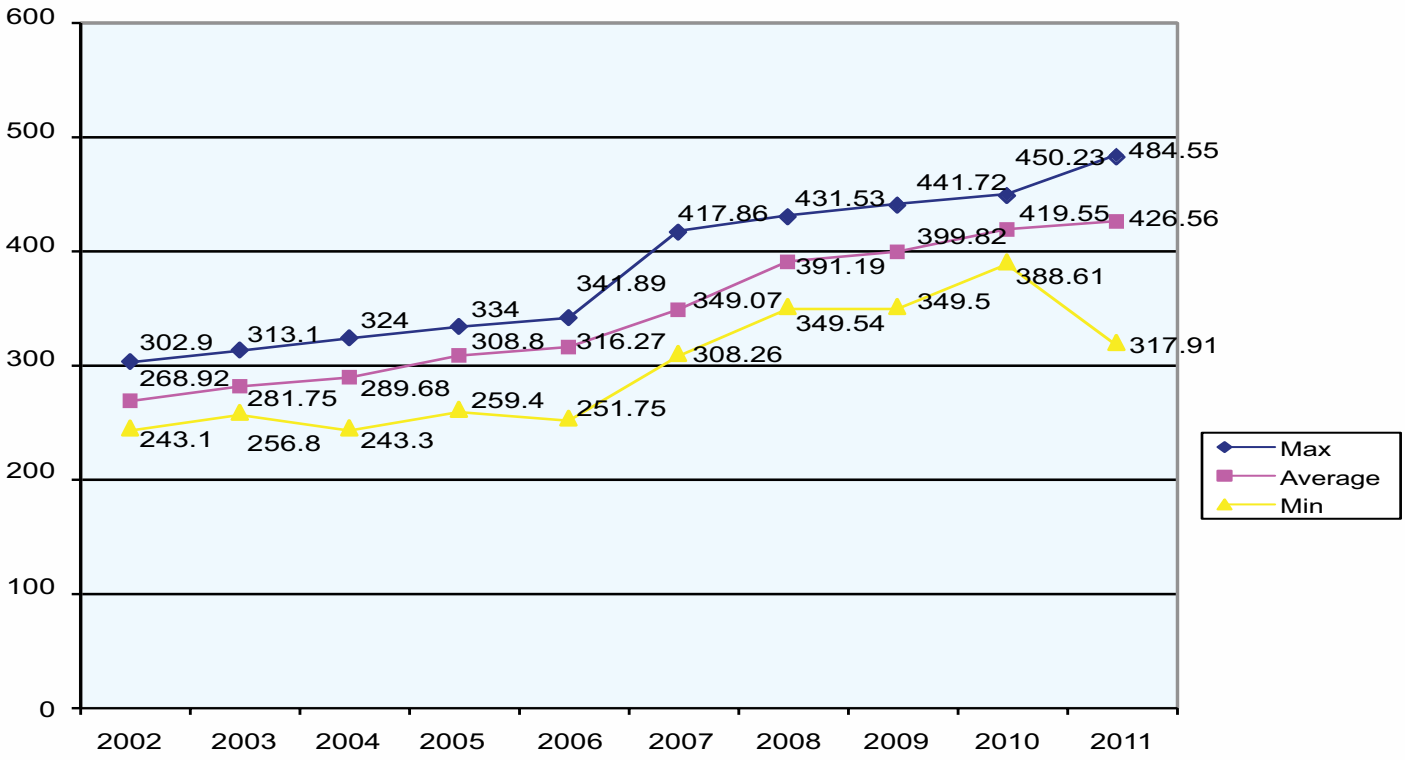
APPENDIX 14

ANALYSIS OF CONSUMERS CONNECTIONS, REVENUE AND CONSUMPTIONS IN 2011



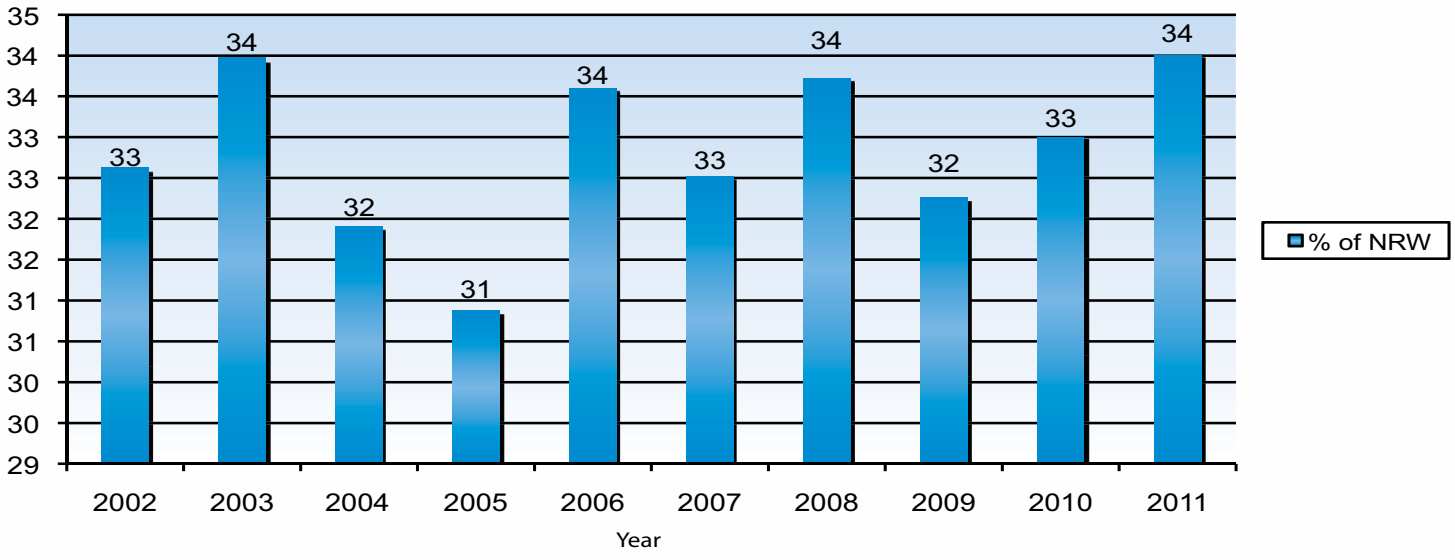
APPENDIX 15

DAILY WATER PRODUCTION 2002-2011



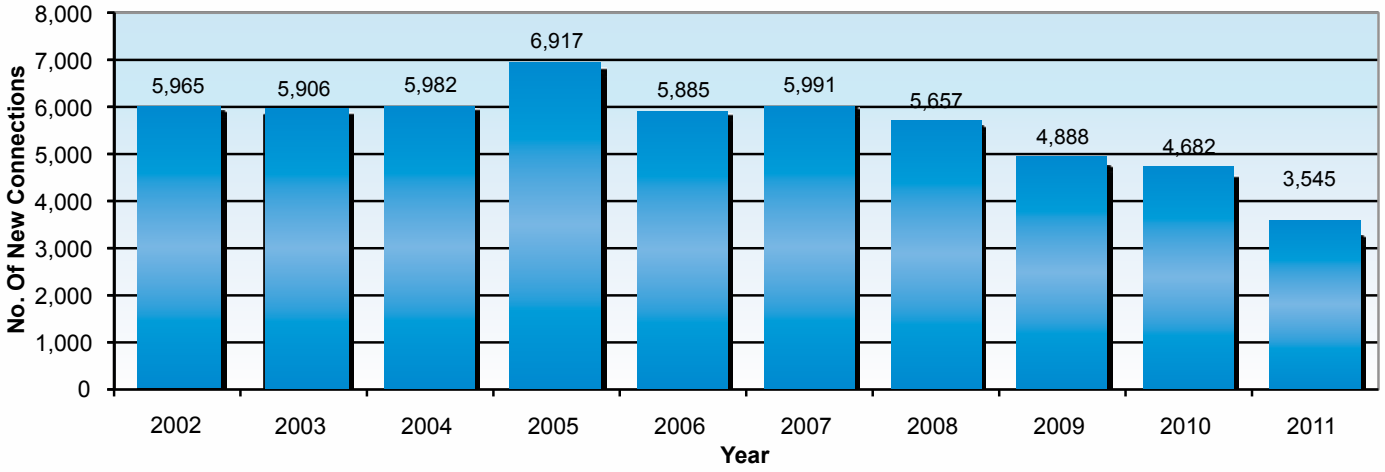
APPENDIX 16

% NRW 2002 - 2011



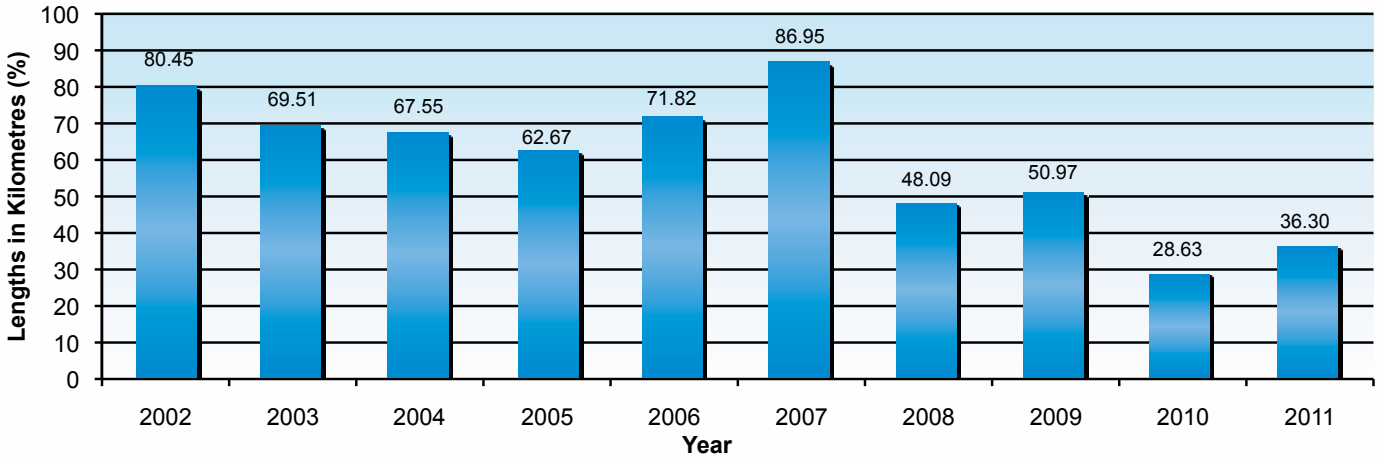
APPENDIX 17

KWB NEW WATER CONNECTIONS 2002-2011



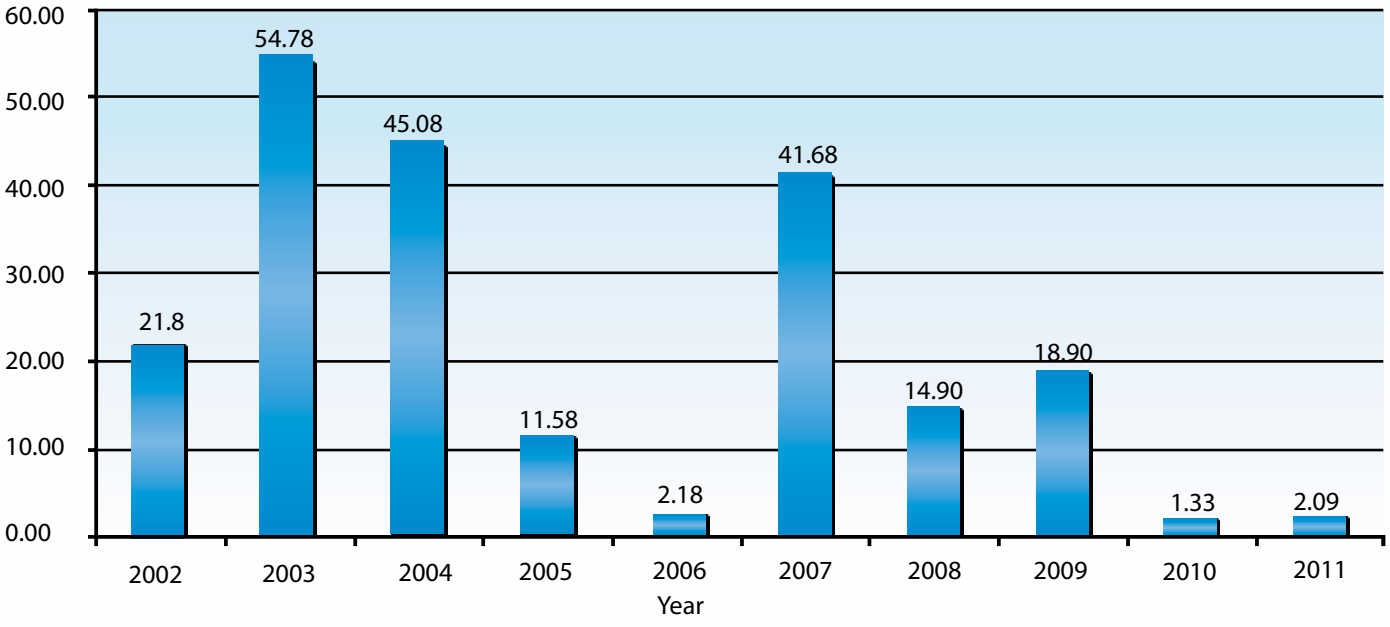
APPENDIX 18

KWB MAINS LAID 2002-2011



APPENDIX 19

KWB MAINS RENEWED 2002 - 2011



APPENDIX 20

SCALE OF WATER CHARGES

Effective From 1st January 1992

Domestic Rate	**Per 1,000 litre**
Minimum Charge in any one month	RM4.40
1,000 to 15,000 litres in any one month	RM0.48
In excess of 15,000 litres but not exceeding	
50,000 litres in any one month	RM0.72
The excess over 50,000 litres in any one month	RM0.76
Domestic/Commercial Rate	
Minimum Charge in any one month	RM18.70
1,000 to 25,000 litres in any one month	RM0.83
The excess over 25,000 litres in any one month	RM0.95
Commercial Rate	
Minimum Charge in any one month	RM22.00
1,000 to 25,000 litres in any one month	RM0.97
The excess over 25,000 litres in any one month	RM1.06
Special Commercial Rate for Water Processed for Sale	
Minimum Charge in any one month	RM27.50
1,000 to 25,000 litres in any one month	RM1.21
The excess over 25,000 litres in any one month	RM1.33
Public Standpipes	RM0.43
Water Collected at Depot (Customer's Transport)	RM0.43
Water to Ships	RM1.70
Meter Rents	**Per Month or Part of a Month**
15mm	RM0.55
20mm	RM1.65
25mm	RM2.20

STATUTORY BOUNDARY OF KUCHING WATER BOARD