

POWERING TOWARDS RADICAL TRANSFORMATION



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The rapid urbanisation and population growth in Malaysia has led to an increase in demand for efficient water distribution and services, especially in urban areas. Air Selangor has the mandate to continuously provide clean and safe water supply to approximately 2.4 million customer accounts in Selangor, Kuala Lumpur and Putrajaya.

Realising the mandate that we have, we at Air Selangor are adamant to provide the best services to our customers, as embodied in this year's theme for our performance report - Powering Towards Radical Transformation. It required us to up the ante in the way we approach our operations, culture at work and most importantly operational excellence. Throughout 2019, we have carried out multiple upgrading works and implemented various initiatives to ensure the best service delivery to our 8.4 million consumers. These 2019 key highlights are also backed by our 7 Strategic Plans & Initiatives (SPIs).



SPI 1: Water Forever
Towards a Sustainable
Water Future



**SPI 2: Improvement to Asset
Reliability and Resilience**
Towards Resilient Water Future



**SPI 3: Improving
Operational Efficiency**
Digital Utility of the Future



**SPI 4: Towards Best
Customer Service**
Drinkable Water from Tap By
2028 & Best Customer Service



SPI 5: NRW Reduction
NRW Reduction 25%
at 2023 | 20% at 2035 |
15% at 2048



**SPI 6: Creating Conducive
Working Environment**
World Class Water Service
Provider



**SPI 7: Environmental
Stewardship**
Waste Zero Environment

We will continue to deliver the best possible experience to our consumers as we strive to become the leading operator in the region.

2019 PERFORMANCE SNAPSHOT



99.87%
overall water
quality compliance



9.6
Pipe burst cases
per 100km PBI



29.6%
yearly average
non-revenue
water (NRW) rate



111.83km
of aged pipes
replaced under the pipe
replacement programme



RM162.2m
invested for old pipe
and frequently burst pipe
replacement works



316,584
Air Selangor mobile
app downloads

As at 13 September 2019, Air Selangor has officially become the single holistic licensee to extract, treat, and distribute water to all its 8.4 million consumers in Selangor, Kuala Lumpur and Putrajaya. This report outlines our achievements, key operations and initiatives implemented throughout the year.

One of our key focus area is to reduce our yearly average non-revenue water (NRW). By the end of last year, we have successfully marked it down to 29.6% from 31.6% in 2018. We have also invested RM162.2 million for pipe replacement works to improve our services and supply capacities. A total length of 111.83km of aged pipes were successfully replaced in 2019. As a result of this, only 9.6 pipe burst cases were recorded last year per 100 km compared to the international benchmark for Pipe Burst Index of 13 pipe burst cases per 100 km per year.

The enhancement of the Air Selangor application has also attracted a total of 316,584 downloads, enabling customers to view and pay their bills as well as receive other information and updates.

At the back of all these achievements, we are even more motivated to deliver even better for the years to come, as we continue to power on our radical transformation to serve you, our valued customers.

TABLE OF CONTENTS

1. About Air Selangor	
1.1 Acquisition of Water Operators	1
1.2 Organisational Structure	2
1.3 Service Area Map	3
2. Highlights of 2019	
2.1 Inauguration of Pengurusan Air Selangor	4
2.2 Awards and accolades: Laboratory Excellence Award	5
2.3 Handovers of New Assets	6
2.4 New Initiatives	7
3. Embracing IR 4.0: Digital Revolution	
3.1 Air Selangor Digital Drive	8
3.2 Establishment of Intelligent Command Centre (ICC)	8
3.3 Newly Formed Digital Analytics Centre (DAC)	9
4. Sustainability & Air Selangor	10
5. Asset Monitoring	11
6. Our Assets at a Glance	12
7. Operational Achievements	
7.1 Water Quality Achievements	14
7.2 Non-Revenue Water	15
7.3 Pipe Replacement Programme	17
7.4 Smart Meter	18
8. Customer Service Milestones	19
9. Overview of Air Selangor Workforce	20
10. Health, Safety & Environment (HSE) Implementation	21
11. Risk & Integrity	
11.1 Enterprise Risk Management (ERM)	22
11.2 Major Milestones	23
11.3 Key Risk Targets for Financial Year 2020	23
11.4 Integrity	23
12. Procurement	24
13. 2019 Expenditure	
13.1 Operating Expenditure	25
13.2 Capital Expenditure	25

ABOUT AIR SELANGOR

Air Selangor was established as the special purpose vehicle of the Selangor government to be the single holistic licensee to provide water services following the restructuring of the state water service industry.

ACQUISITION OF WATER OPERATORS

The restructuring began in 2008 when the Selangor government gave Kumpulan Darul Ehsan Bhd (KDEB), now renamed Air Selangor Holdings Berhad, the mandate to lead and consolidate the water industry which was owned and operated by five different concession companies.



Pengurusan Air Selangor Sdn Bhd was inaugurated on 13 September 2019 as the sole license holder of water supply services in Selangor, Kuala Lumpur and Putrajaya.

The consolidation exercise was to ensure that as the new official entity, Air Selangor achieves one of the key strategic objectives to integrate the water treatment and distribution operations more effectively and efficiently.



VISION

To be the leading water operator in the region

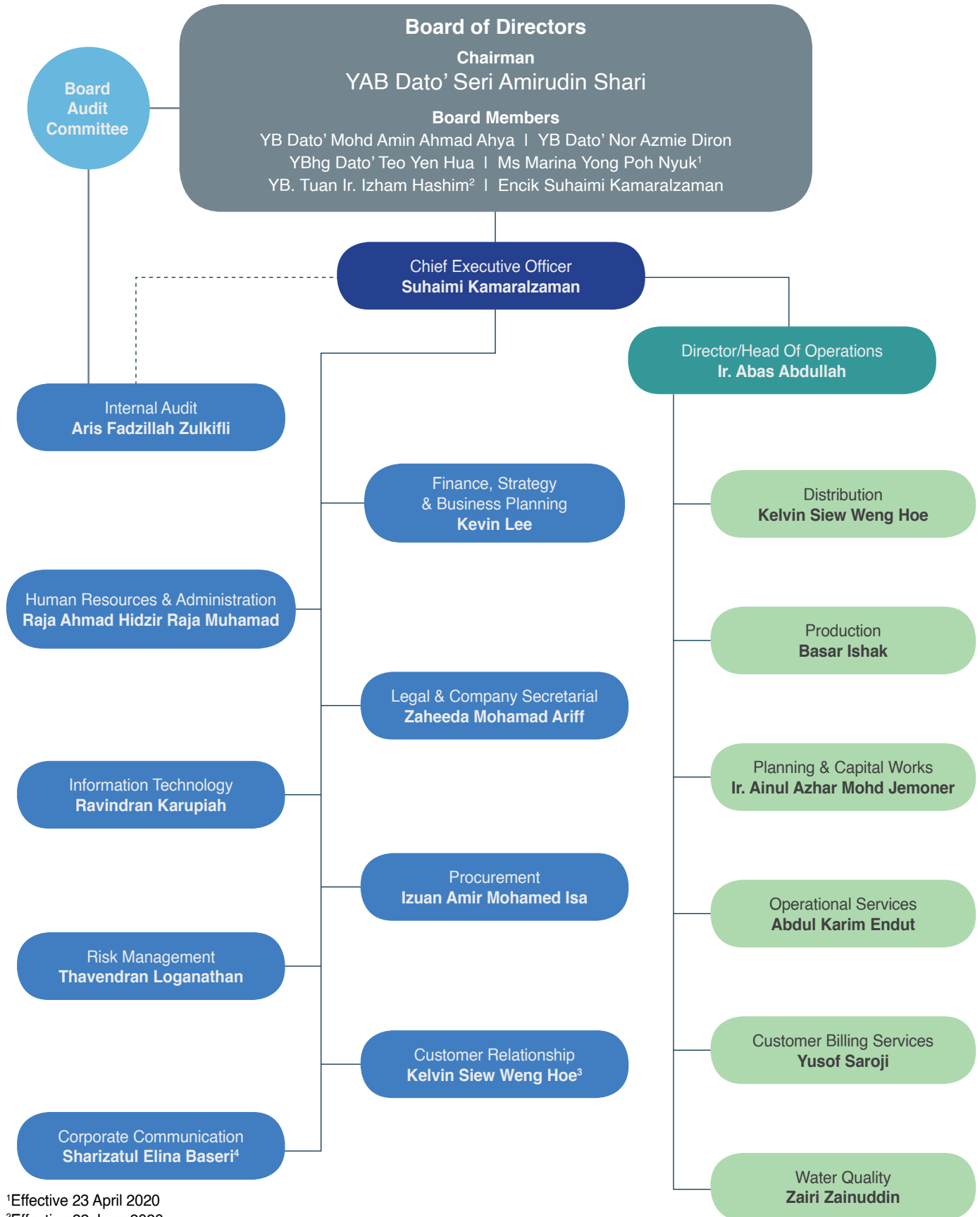


MISSION

To deliver the best possible service experience to our customers

ORGANISATIONAL STRUCTURE

As at 31 December 2019, Air Selangor has a strong and committed team of 4,800 employees, empowering the organisation to be the leading water operator in the region while striving towards providing the best customer experience to all.



¹Effective 23 April 2020

²Effective 22 June 2020

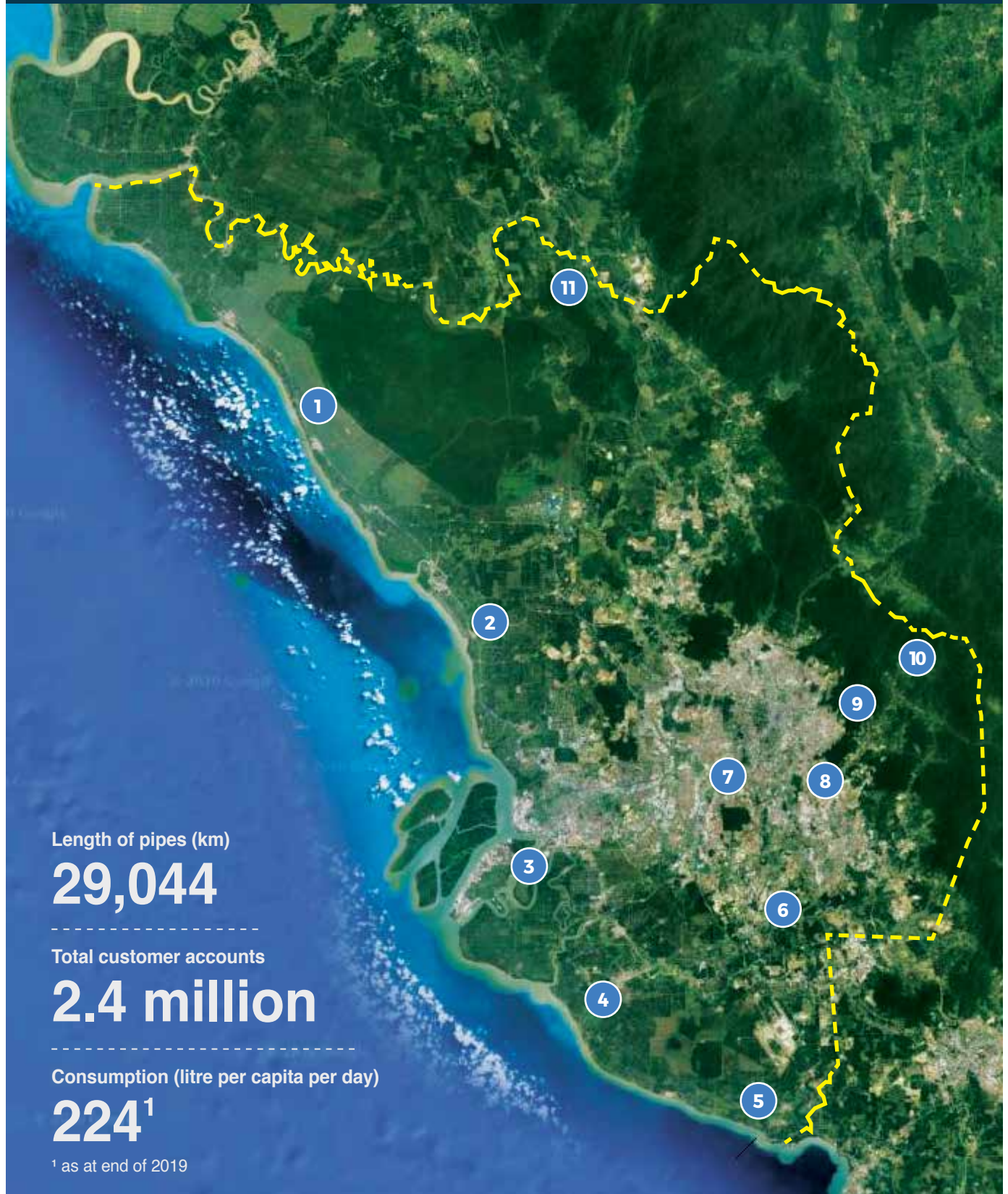
³Acting Head of Customer Relationship Department effective 12 June 2020

⁴Effective 1 May 2020

SERVICE AREA MAP

With 34 water treatment plants that currently serve over 8.4 million consumers in Selangor and Kuala Lumpur, the daily average water consumption per person in our service area is 224 litres.

1 - Sabak Bernam | 2 - Kuala Selangor | 3 - Klang/Shah Alam | 4 - Kuala Langat | 5 - Sepang | 6 - Putrajaya
| 7 - Petaling | 8 - Kuala Lumpur | 9 - Gombak | 10 - Hulu Langat | 11 - Hulu Selangor



HIGHLIGHTS OF 2019

THE INAUGURATION OF PENGURUSAN AIR SELANGOR

Air Selangor officially became the sole license holder to extract, treat and distribute water to the customers in Selangor, Kuala Lumpur and Putrajaya. It was officiated by the Selangor Menteri Besar, YAB Dato' Seri Haji Amirudin Shari on 13 September 2019.

This is a great testament in our effort to consolidate and streamline the water service industry for the betterment of the customers.



HIGHLIGHTS OF 2019

AWARDS & ACCOLADES



Laboratory Excellence Awards 2019

Air Selangor bagged the yearly *Industri Kimia Malaysia* (IKM) Laboratory Excellence Award in 2019 for its SSP2, Sg Labu and Sg Semenyih laboratories in recognition of having achieved competency in the practice of analytical work with safety and health features in the workplace. The IKM Laboratory Excellence Award was designed to ensure the laboratory's commitment to achieving excellence in providing quality and competent testing services pertaining to local legislation especially in the fields of health, safety, and the environment.

ISO Certification for Clean & Safe Water

We continuously improve our water treatment process and services to ensure clean and safe water supply. In 2019, Sg Sireh & Semenyih 2 Water Treatment Plants (WTP) received the Quality Management System ISO 9001 certification while our other four WTPs; North Hummock, Wangsa Maju, Sg Gombak & Salak Tinggi received the Business Continuity Management System ISO 22301 certification.



- 33 of our WTPs have received the Quality Management System ISO 9001 certification since 2000
- 12 of our WTPs have received the Business Continuity Management System ISO 22301 certification since 2014

HIGHLIGHTS OF 2019

HANDOVERS OF NEW ASSETS



The launch and hand-over of the Labohan Dagang Water Treatment Plant (WTP) by Selangor Menteri Besar, YAB Dato' Seri Haji Amirudin to Pengurusan Air Selangor Sdn Bhd took place on 25 June 2019. It harnesses the Off-River Storage (ORS) system to allow natural settling which connects the water flow from Langat River to the pre-treatment reservoir. This process will enable the plant to continue operating in the event of a pollution in the main river.



Selangor Menteri Besar, YAB Dato' Seri Haji Amirudin, launched and handed over the Hybrid Off River Augmentation Storage (HORAS) 600 to Pengurusan Air Selangor Sdn Bhd on 27 November 2019. The asset covers 211.39 hectares of land area alongside 147 hectares of pond with a depth of 23.5 meters and can contain 300 million litres per day (MLD) of raw water. The pond is able to supply raw water for 100 days during drought season or whenever the water sources in Sungai Selangor are threatened by pollution.



The official operations of Stream B Langat 2 Water Treatment Plant (WTP) started on 21 December 2019. This WTP is the largest in Southeast Asia and will be fully operational by 2023. This plant was officiated by the former Minister of Water, Land and Natural Resources, Datuk Dr. Xavier Jayakumar, with a planned visit by the YAB Selangor Menteri Besar, Dato' Seri Haji Amirudin Shari, in January 2020.

With water supply coming from our 34 Water Treatment Plants and additional new raw water sources, we have subsequently increased the reserve margin to 10.97% in December 2019. Evidently, this signifies the strategic efforts by the Selangor State Government to ensure continuous water supply for consumers in Selangor, Kuala Lumpur and Putrajaya.

HIGHLIGHTS OF 2019

NEW INITIATIVES

The Air Selangor Digital Drive Forum 2019 was aimed at driving the organisation's digital transformation initiatives towards becoming the 'Digital Water Utility of The Future'.

Skim Air Darul Ehsan (SADE) is a free water reapportion programme for households with a monthly income of RM4,000 and below, to be allocated 20 cubic meters of free water. As at 31 December 2019, only 184,020 individual meter account holders were successful and eligible for this scheme.

Air Selangor launched a Water Conservation Campaign themed, "Be A Water Conservation Warrior" on 15 October 2019 with Selangor Menteri Besar, YAB Dato' Seri Haji Amirudin. This campaign was organised as part of our efforts to achieve SPAN's water consumption target rate of 180 LCD by 2020 as well as to increase the water supply margin reserves.



EMBRACING IR 4.0: DIGITAL REVOLUTION

AIR SELANGOR DIGITAL DRIVE



Digital Strategies

Air Selangor has launched the Digital Drive on 9 April 2019 to kickstart its digital shift in becoming the Digital Water Utility of the future.



Action Plans

- Establishment of Data Analytics Centre
- Building Digital-ready Workforce
- Embarking into Smart Water Region – Pilot Sepang

ESTABLISHMENT OF INTELLIGENT COMMAND CENTRE (ICC)

Air Selangor started modernising our operation command centre in early 2018. In the mid of 2019, the Intelligent Command Centre (ICC) was partially commissioned and expected to be fully commissioned in early 2021. The ICC is set to link and integrate our key strategic assets parameters such as flows, pressure, reservoir level, pump status and SCADA capabilities. A new feature of ICC is the integration with Online Hydraulic Model¹ which is an end-to-end integration system for monitoring, analysing and modelling distribution systems in real-time. This online system is based on the integration of real time hydraulic data with hydraulic computer simulation models and statistical prediction tools. The current ICC's ecosystem will be further enhanced towards the virtual replica also known as Digital Twin².

¹ Hydraulic Model is a mathematical model of a fluid flow system used to analyse hydraulic behaviour and assisted in understanding, predicting and managing water distribution

² A digital twin is a digital representation of physical assets or system for real-time monitoring and prediction



EMBRACING IR 4.0: DIGITAL REVOLUTION

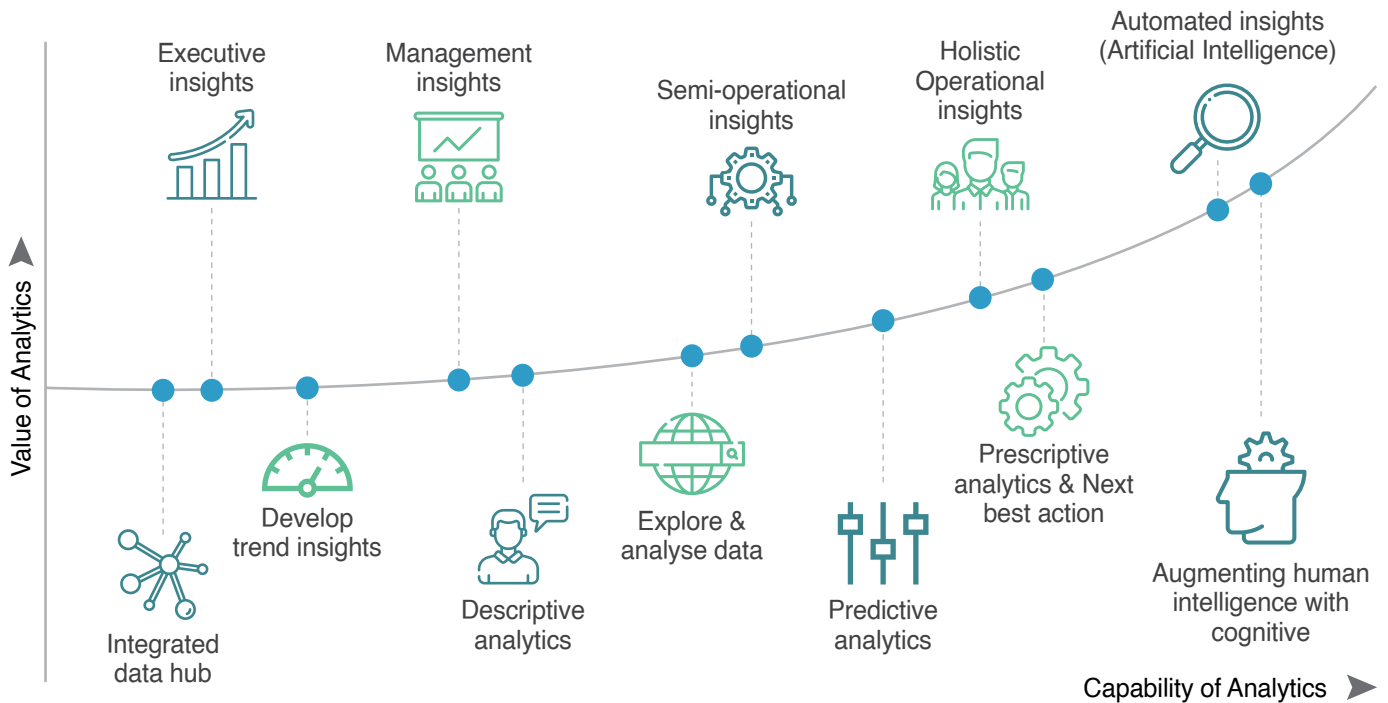
NEWLY FORMED DATA ANALYTICS CENTRE (DAC)

The water utility industry is adapting fast to the new ways of data consumption as data analytics are gaining traction in driving discussion and insights. These data points are used in decision making, drafting policies, increasing efficiency and cost optimisations exercise.

In line with the growing significance of data, Air Selangor has formed a new setup - Data Analytics Centre (DAC) to build enterprise-wide capabilities of Big Data Analytics. The function of DAC is to build, maximise and upscale the capabilities of end-to-end big data analytics that includes artificial intelligence, machine learning and digitalisation of intelligence. The DAC will also be Air Selangor's core excellence centre for all data analytics initiatives.

Ultimately, data analytics aims to provide Air Selangor with concrete information and insights that turns into intelligence which will support and enable future actions. In a way, it will also enable decision makers to develop opportunities for cost control, risk management, improving levels of services, managing revenue and many more.

We aim to leverage and maximise the different capabilities of data analytics set for different efficiencies like cost reduction, cost savings and revenue increase. The capabilities will be employed throughout the journey of embracing and implementing data analytics as described in the list below.



SUSTAINABILITY & AIR SELANGOR



The Journey

The growing interest in sustainability across all industries and business segments has led to more innovations and fast adoptions in sustainable offerings and strategies. At Air Selangor, we have established the Sustainable Development (SD) Section under the Risk Management Department with the objective of integrating the principles of sustainability.

We have focus to align our business direction in supporting Malaysia towards achieving the UN's Sustainable Development Goals (SDGs).

Why is sustainability important?

The threat of climate change is inevitable. This is evident especially in Selangor, Perlis, Kedah, Pulau Pinang and Melaka. The water operators in these states continue to face challenges with regards to sustainable water supply.

We were aware of the challenges that the rapid development and increasing urbanisation in Klang Valley brought upon. With that in mind, we have further strengthened our strategies to ensure sustainable water supply of the highest quality over the long term, so we could

continue providing safe and clean drinking water to all our consumers.

Materiality Assessment

We conducted the materiality assessment to identify and prioritise sustainability matters crucial to the economic, environmental and social aspects which could have impacted our business.

We adopted a structured approach in regards to the materiality assessment which includes peer benchmarking with water operators in other developed and developing countries, internal and external document review, SDG identification and internal and external stakeholder engagement.

Sustainability Governance

As part of our efforts to integrate sustainability throughout the organisation, the Sustainability Working Committee (SWC) was set up. Its primary task is to assist the SD Section in ensuring effective implementation of sustainability practices, apart from evaluating and making key strategic and operational decisions.

Moving Forward with our SDGs

Our initiatives will continue to ensure

that our performance is aligned to specific SDGs that are immediately relevant to our business.

Our sustainability strategy for 2019 – 2022 is themed “Connecting the Drops.”

The sustainability strategy is aligned to the organisation’s Vision and Mission, the SDGs and the 7 Strategic Plans & Initiatives and 8 Key Results Areas identified as part of our 30-year Capital Investment Plan which form the basis of each 3-year rolling Operating Period.

- Strategy 1: Enhancing Governance & Integrity
- Strategy 2: Standardising Data & Processes
- Strategy 3: Transparent Communications
- Strategy 4: Reducing Environmental Impact
- Strategy 5: Be Socially Responsible

Plans for 2020

In 2020, our sustainability initiatives will be focused on:

- Sustainability campaigns
- Collaborations with third parties
- Publication of Air Selangor Sustainability Report

ASSET MONITORING

TOTAL ASSET MANAGEMENT SYSTEM (TAMS) PROGRAM

Air Selangor has implemented a strategic approach on managing assets and equipment through the **Total Asset Management System (TAMS)**, which consists of two modules: the **Enterprise Resource Planning (ERP)** module and **Work and Asset Management Systems (WAMS)** module. This approach is to improve on monitoring assets lifecycle from acquisition, registration, maintenance, monitoring and asset retirement.

Asset Maintenance

Asset maintenance activities are crucial to ensure the continuous supply of water to our customers. Thus, all our assets went through Preventive Maintenance (PM) and Corrective Maintenance (CM). With the implementation of WAMS, maintenance works can be done and recorded digitally, while also having the added advantage of being performed and monitored systematically by respective asset owner.

Preventive Maintenance

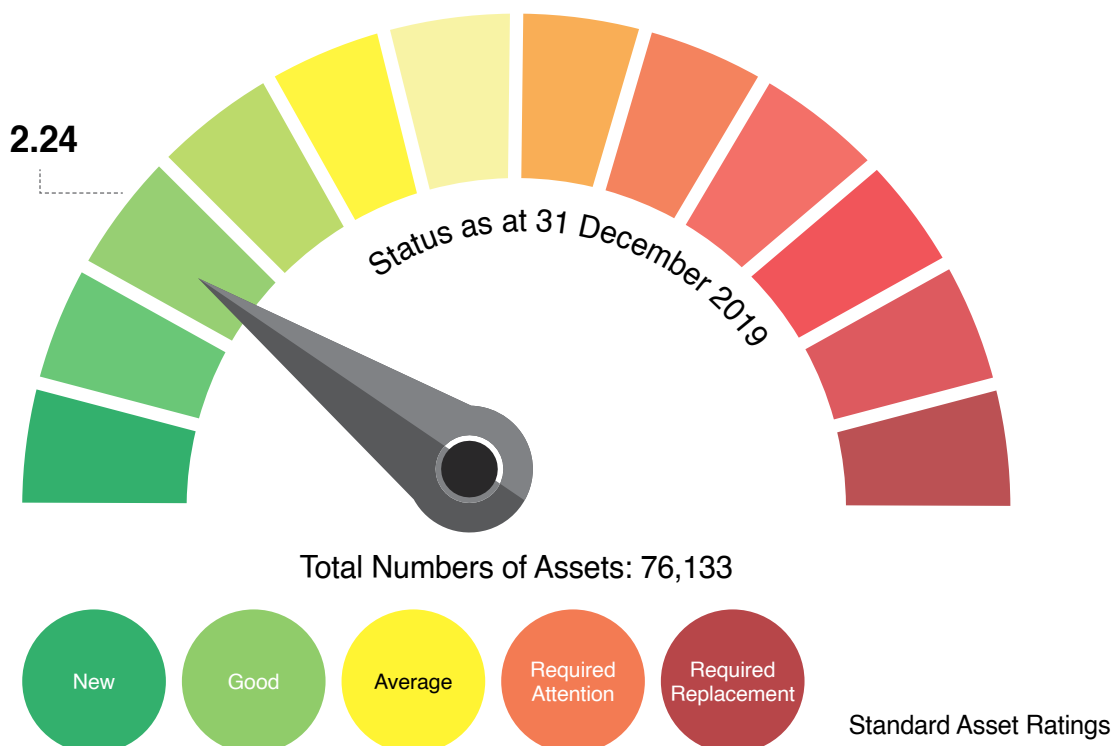
Preventive Maintenance is categorised as planned asset maintenance, which has a regular calendar-based inspection schedule.

Corrective Maintenance

Corrective Maintenance is categorised as unplanned maintenance of faulty asset. The advantage of performing this maintenance through WAMS are:

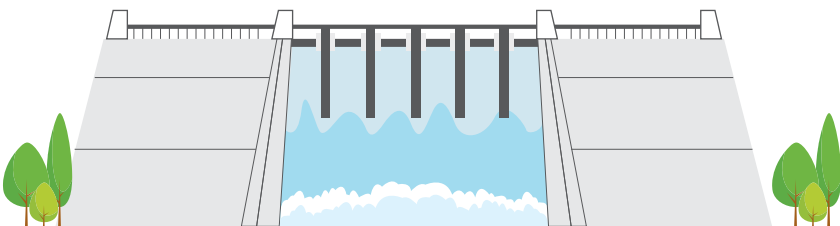
1. Identify the frequency of asset failure.
2. We can analyse type of failure that frequently occur.
3. Improve CAPEX and OPEX planning projection for asset.

OVERALL ASSET CONDITION SCORE



As an outcome, the overall Air Selangor assets are rated at 2.24 as at 31 December 2019

OUR ASSETS AT A GLANCE



6¹

Dams

4²

Off – River Storage Units

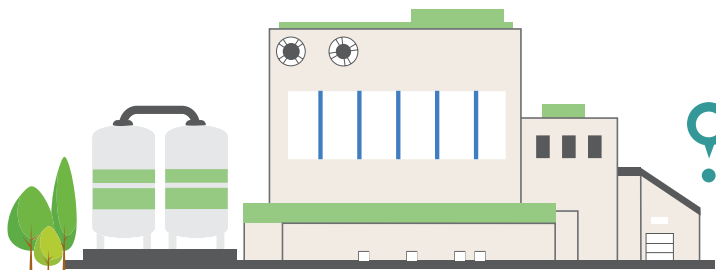
11



OACIS (Off-Plant Autonomous Chlorine Injection System)

34

Water Treatment Plants

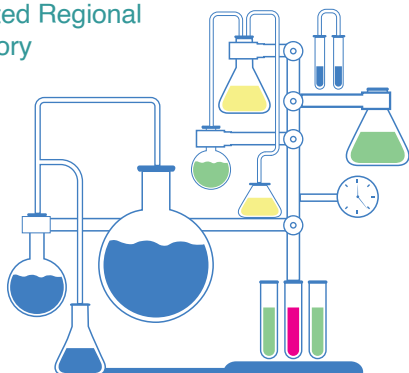


4,800
Workforce

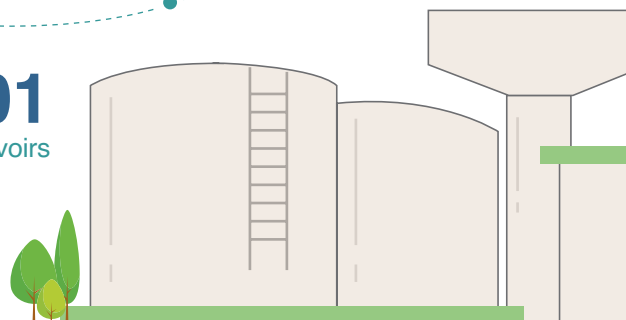


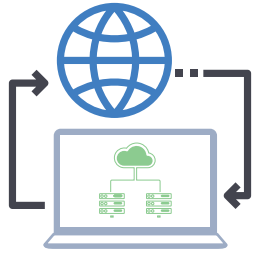
4

Accredited Regional Laboratory



1,601
Service Reservoirs



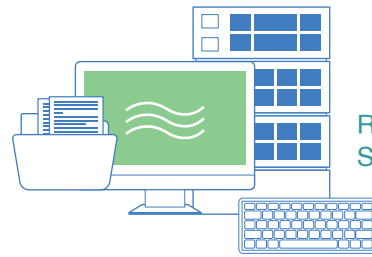
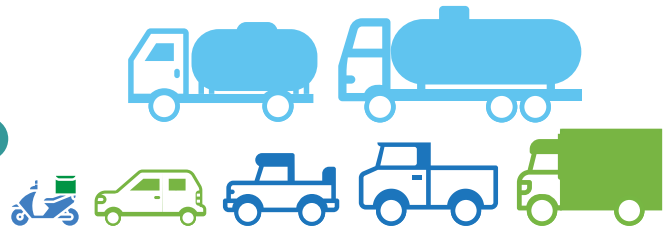


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Online Analyser (Hydra – Hybrid Distribution Water Quality Real-time Analyser)

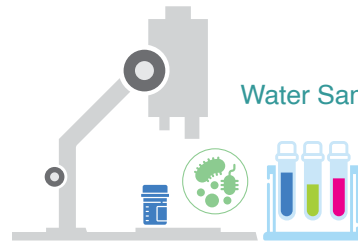
1,236

Operational Vehicles



4

River Monitoring Stations (RMS)



1,275

Water Sampling Stations

29,044km

Pipeline



Selangor



731

Pump Houses

¹ The dams under supervision of Air Selangor are (1) Sg Selangor Dam, (2) Sg Tinggi Dam, (3) Tasik Subang Dam, (4) Klang Gate Dam, (5) Semenyih Dam and (6) Sg Langat Dam

² The Off-River Storage (ORS) under supervision of Air Selangor is (1) ORS Labu, (2) ORS Semenyih 2, (3) ORS Labohan Dagang and (4) HORAS 600.

WATER QUALITY ACHIEVEMENTS

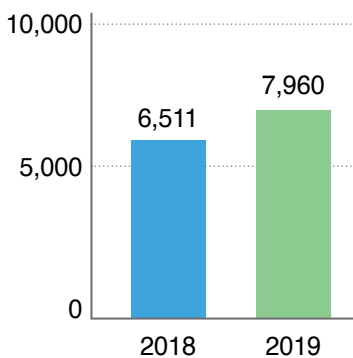


To ensure that treated water is safe for consumption and complies with the National Drinking Water Quality Standards by the Ministry of Health (MOH) Malaysia, we undertake comprehensive water monitoring through regular sampling and testing.

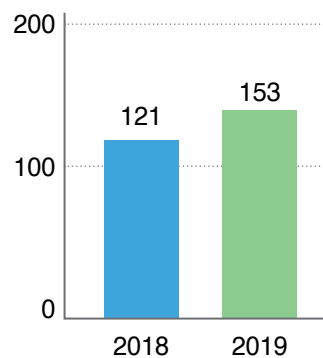
In 2019, 166,421 tests were carried out and from that, 166,210 tests complied to the quality compliance standard, giving us a quality compliance of 99.87%. Our quality compliance has always been above 99% and we are continuously showing improvement.

We have also increased the number of reservoir cleaning works from 121 scheduled cleanings in 2018 to 153 scheduled cleanings last year. There was an increase in pipe cleaning works with 7,960 schedule cleanings in 2019 as compared to 6,511 scheduled cleanings in 2018. The cumulative number of Water Quality Sampling Stations (SPA) increased in 2019, from 1,258 SPAs in 2018 to 1,375 SPAs.

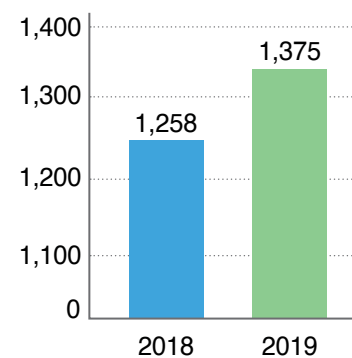
Pipe Cleaning Works



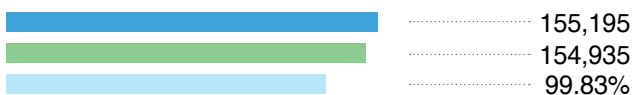
Reservoir Cleaning Works



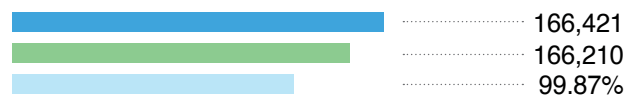
Water Quality Sampling Stations



2018



2019



Legend

- Total Water Compliance Test
- Total Water Compliance
- Total Water Compliance Percentage

NON-REVENUE WATER

ACHIEVEMENTS

Air Selangor continued a positive trajectory of reducing the non-revenue water (NRW) average to 29.6% in 2019. A record low in the history of water supply and distribution industry in Selangor, Kuala Lumpur and Putrajaya. This was a decrease of 2.0% compared with 2018. The achievement is significantly better than the target for 2019 which was 30.6%. This was achieved through intensive planning and continuous implementation of several internal initiatives since 2017.

The internal initiatives include our efforts to reduce pipe burst cases, installation of sensors on the main pipes, replacement of old and damaged meters, as well as the replacement work for the old and frequently burst pipes.

CALCULATION METHODOLOGY

Air Selangor has adopted the rationalised System Input Volume (SIV) and Billed Consumption methods to calculate the NRW in our previous Performance Reports (2016-2018). The SIV and Billed Consumption methods are both rationalised to the m³/day unit. This method is known as the “MLD Method”.

On 31 March 2020, SPAN published a new Guideline for NRW Reporting to be adopted by the water operators nationwide. This method does not involve rationalisation and will assume the total yearly volume for SIV and Billed Consumption to calculate NRW. This method however is known as the “Total M3 Method”.

The average NRW for 2019 is 29.6% as compared to the target of 30.6%. This encouraging achievement is better than the target by 1%. This also means Air Selangor has reduced our NRW by 2% from the 2018 NRW level of 31.6%.

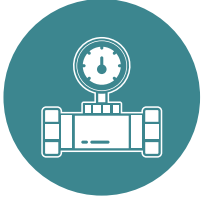
Based on this record, Air Selangor is confident that the ongoing initiatives and programmes to reduce NRW rates will continue to succeed every year, with a target of 1% reduction in the NRW rates annually.



NON-REVENUE WATER

INITIATIVES

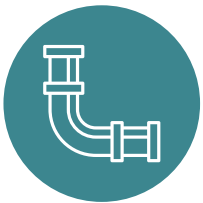
We have a dedicated internal team for all our NRW initiatives. The team comprises of Leak Inspectors (LI) and Leak Specialist (LS), District Metering Zone (DMZ) Teams, Trunk Main Leak Inspection Team, as well as NRW engineers and managers.



Advanced Pressure Management System is implemented to further optimise the supply pressures to ensure optimum supply to customers and minimise pipe leakage and pipe burst due to excessive pressures. A total of 50 District Metering Zone (DMZ), 20 Pressure Management Zone (PMZ) and 5 Water Balance Area Pressure Management Zone were established in the year 2019 giving a total saving of 22.5 MLD.



Replaced 164,283 units of aged meters and 154,556 units of faulty meters under our yearly meter replacement programme. Resized 100 mechanical meters and replaced 40 large customer meters with Electromagnetic (EM) meters to improve accurate billing of consumption. The total saving was at 50 MLD.



Active Leakage Control (ALC) in our distribution and trunk main system is a major initiative that has contributed to a saving of 104 MLD in the year 2019. The total number of leaks found by our team of LI and LS are 87,649 nos, utilising the latest technology in leak detection equipment and acoustic sensors.



Installed 577 pressure transient sensors to help detect burst incidents early, as well as detecting hidden leaks. This helps avoid major water supply disruption, with 112 burst pipes/leaks detected in 2019 through these sensors.



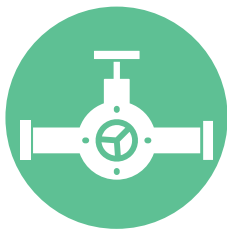
PIPE REPLACEMENT PROGRAMME 2019

A total of RM162.2 million was invested in the pipe replacement works for a 152.53km of old and frequently burst pipes in 2019.

Achievements



Pipe Replacement Programme – 25 hotspots locations completed and commissioned in 2019, with a total length of 111.83km



Communication Pipe Programme – Achieved 108.7% - completion of 5,978 connections instead of targeted 5,500

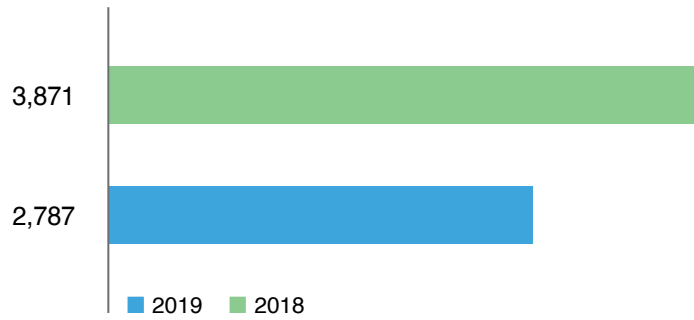


Rehabilitation of Unused Reservoir & Pumphouses – Completed rehabilitation & refurbishment of 23 unused assets



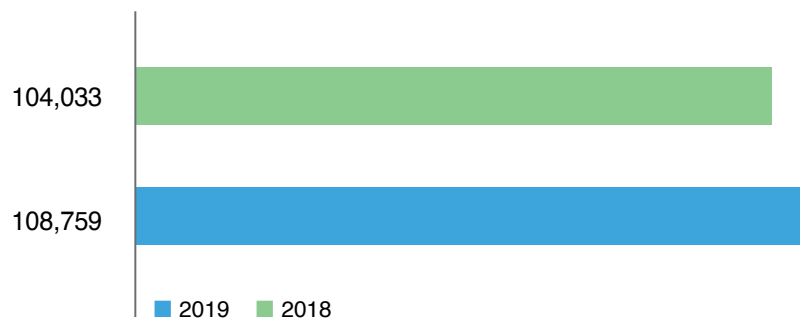
Digital Revolution - The introduction of Terrestrial Laser Scanner (TLS) and drone operation to capture digital images of assets

Pipe Burst



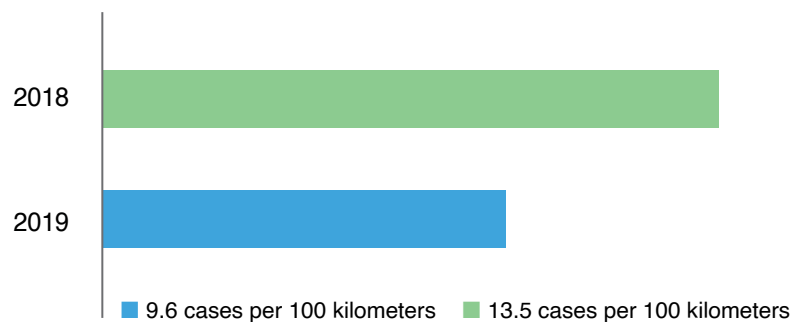
A decrease of 28% cases from 2018

Pipe Leaks



The increase was a positive result of the leak detection programme carried out internally by the company

Pipe Burst Index (PBI)



Only 9.6 cases were recorded per 100 km compared to the International benchmark for Pipe Burst Index of 13 pipe burst cases per 100 km per year

SMART METER

ADVANCED METERING INFRASTRUCTURE (AMI) SMART WATER METER PROGRAMME

AMI smart water metering is a component of the smart grid that allows Air Selangor to obtain meter readings on demand, based on various frequencies without the need of manual meter readers to transmit information. It benefits both Air Selangor and the customers as it assists in lowering the cost of meter reading by eliminating manual meter reading and enhancing employee safety by reducing the number of personnel on the road.

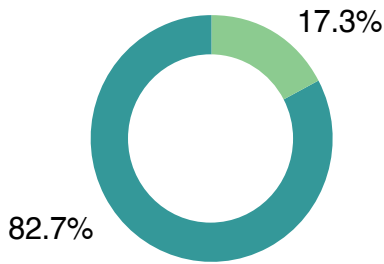
Air Selangor has rolled out the first phase of AMI Smart Water Meter Programme (AMI) pilot project in Malaysia via cellular Narrowband – Internet of Things (NB-IoT). A total of 7,923 AMI meters have been installed in the Sepang region.

The second phase of the AMI Smart Water Meter pilot project will be rolled out in 2020 to ensure that the best AMI smart water meter solutions for Air Selangor are met. We embarked on a major replacement programme of non-AMI water meters to AMI smart meter in Cyberjaya and Dengkil.



CUSTOMER SERVICE MILESTONES

E-BILL



Successful conversion of 417,457 (17.3%) from 2,412,735 customer accounts in Selangor, Kuala Lumpur and Putrajaya.

■ Electronic Bill User ■ Non Electronic Bill User

ENHANCEMENT OF THE AIR SELANGOR APP



The introduction of the FPX payment feature offers an additional channel for customers to make faster and easier online payment. The Air Selangor application has also recorded 316,584 downloads in 2019.

OMNICHANNEL

We have also enhanced the customer contact centre by offering our customers an integrated support delivery system using cloud technology which is referred to as Omnichannel Customer Interaction System (“Omnichannel”) in December last year. Omnichannel is a single platform that connects all our internal communication channels and can be accessible from any location for customer interaction. The system also allows us to handle multiple customer interactions through both voice and non-voice interactions on a single platform. This initiative shall improve customers’ experience and drive effective relationships across every points of contact.

SUMMARY OF CUSTOMER INTERACTION

Air Selangor offers various channels for our customers to interact with us. The percentages shown below are the breakdown of total customer interactions in 2019.



No. of SMS Received
2018 - 40,351
2019 - 55,793
 % - 1.93



No. of Fax Received
2018 - 1,616
2019 - 2,299
 % - 0.08



No. of e-mail Received
2018 - 137,661
2019 - 140,991
 % - 4.88



No. of Calls
2018 - 1,553,584
2019 - 1,693,689
 % - 58.61



Counter Interactions
2018 - 509,718
2019 - 486,584
 % - 16.84



No. of Facebook Followers
2018 - 78,987
2019 - 168,502
 % - 5.83



No. of Twitter Followers
2018 - 7,631
2019 - 17,880
 % - 0.62



No. of Instagram Followers
2018 - 2,026
2019 - 7,138
 % - 0.25



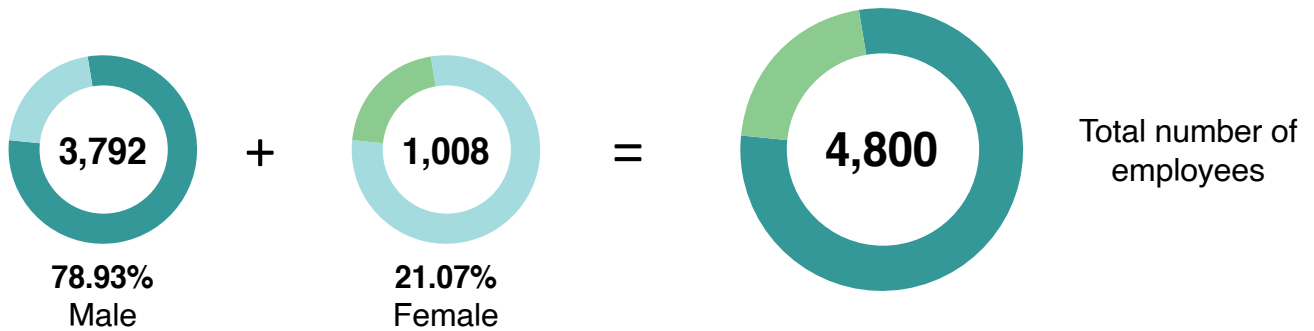
No. of Whatsapp Group
2018 - 501
2019 - 501
 % - 0.02



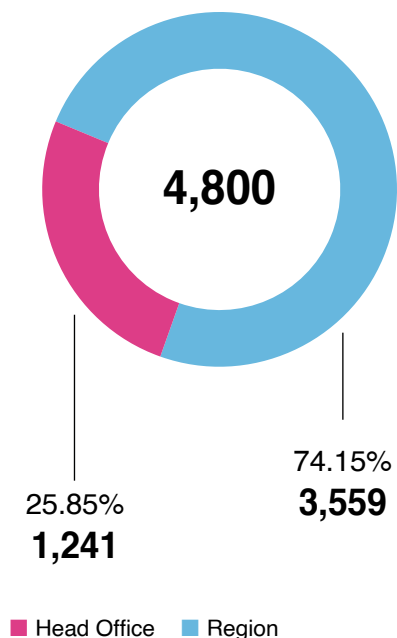
No. of Downloads
2018 - 120,488
2019 - 316,584
 % - 10.95

OVERVIEW OF AIR SELANGOR WORKFORCE

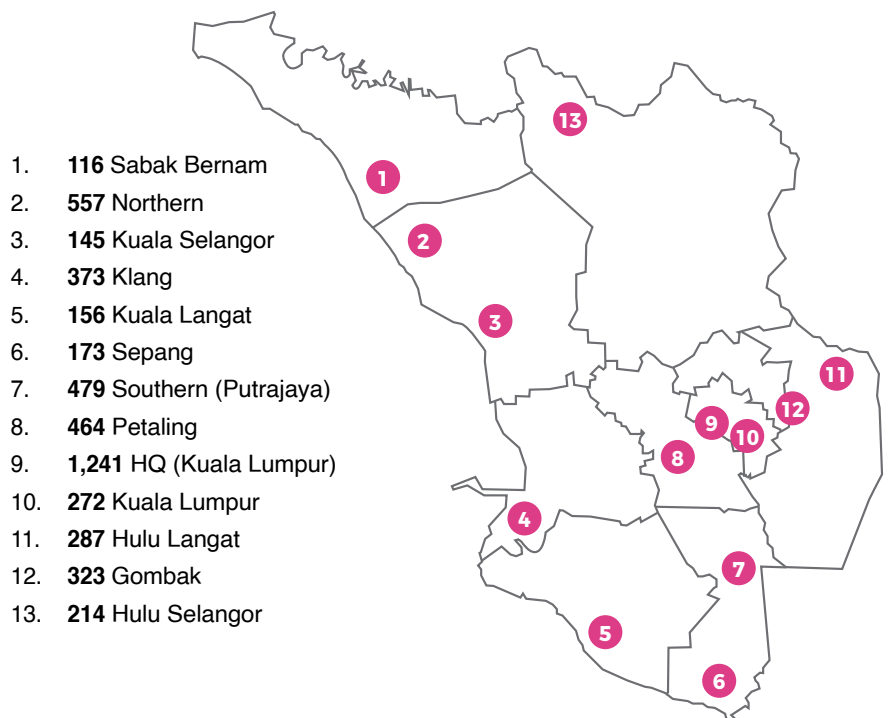
EMPLOYEES BY GENDER



TOTAL EMPLOYEE STRENGTH



TOTAL EMPLOYEE BY LOCATION



IMPLEMENTATION OF THE MALAYSIAN SKILLS CERTIFICATION PROGRAMME (SKM) BY AIR SELANGOR

Since 2017, Air Selangor has enrolled qualified and experienced technical employees in water treatment operation services and distribution to obtain the Malaysian Skills Certification (“SKM”) from the Department of Skills Development (“JPK”) through;

- Accreditation of Prior Achievement (PPT)**
- Industry-oriented training (National Dual Training System – SLDN)**
This training consists of 70% industrial training, with 30% theoretical training and is based on the National Occupational Skills Standard (NOSS)

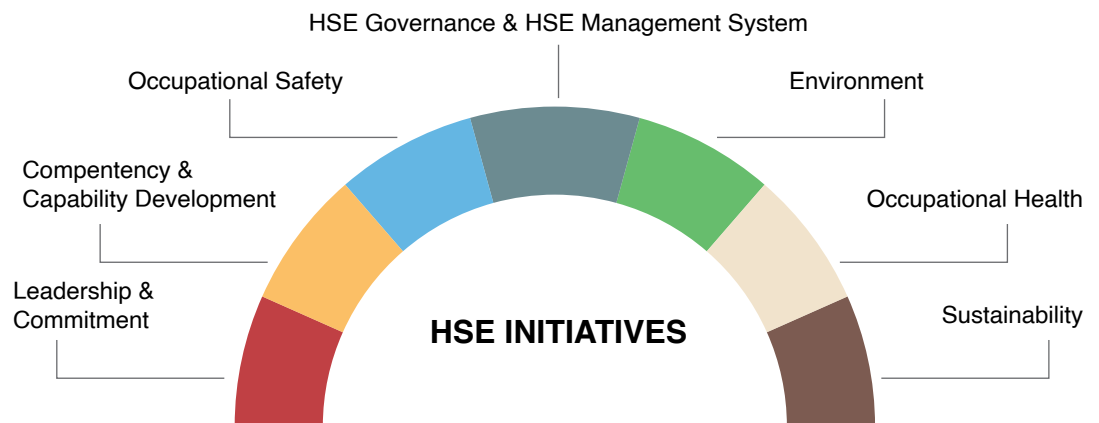
In October 2018, the Sungai Semenyih Water Treatment Plant received recognition as the National Dual Training System (“SLDN”) Accredited Centre from the Ministry of Human Resources. As of December 2019, a total of 712 Air Selangor’s technical workforce had completed the SKM accredited programme.

We are always committed to meeting the competency requirements in the water services industry in line with SPAN’s guidelines. Air Selangor has produced a total of 31% skilled workers, only 4% behind the 35% target set by the Government by 2020. Air Selangor is confident that this target will be met in 2020.

HEALTH, SAFETY & ENVIRONMENT (HSE) IMPLEMENTATION

Our vision is to be the safest water utility company with zero injuries. We are ready to implement higher standards in HSE as part of our efforts to be responsible global citizens. As of February 2019, Air Selangor has officially reformed the HSE Section under the Human Resources & Administration Department (HRAD).

Setting up of the **HSE 3-year Master Plan** with an objective to instil HSE elements company-wide.



Air Selangor's **Life Saving Rules (LSR)** has the objective to strengthen workplace safety. Adoption of the 12 fundamental safety principles amongst the employees and contractors.



HSE Management Walkabout (MWA) was conducted at selected Air Selangor premises and worksites. The engagement helped to promote leadership visibility in driving HSE at the workplace in preventing fatalities and accidents at Air Selangor's premises and worksites.



RISK & INTEGRITY

ENTERPRISE RISK MANAGEMENT (ERM)

Risk Management Department (RMD) was established in Air Selangor to ensure an effective risk culture is applied throughout the value chain to identify, evaluate and manage risks that directly impacts our strategic objectives, business plans and regulatory obligations. We also acknowledge that such business risk can be turned into opportunities via sound risk management practices. The essence of our governance model supports continuous risk mitigation & fundamentals of our risk approach are as follows:

PRINCIPLES

- Creates value
- Controlled risk taking
- Addresses uncertainty
- Part of decision-making
- Based on best available information
- Independent risk controlling
- Transparency
- Tailored
- Systemic & structured
- Facilitates continual improvement and enhancement
- Considers human and cultural aspects

FRAMEWORK



PROCESS



As at 31 December 2019, the following key business dynamics were subjected to our risk continuous monitoring:

- | | |
|----------------------------|---------------------------------|
| 1. Non-Revenue Water | 5. Health, Safety & Environment |
| 2. Pollution | 6. Asset Management |
| 3. Capacity Reserve Margin | 7. Raw Water Availability |
| 4. Network Management | 8. Regulatory Compliance |

RISK & INTEGRITY

MAJOR MILESTONES

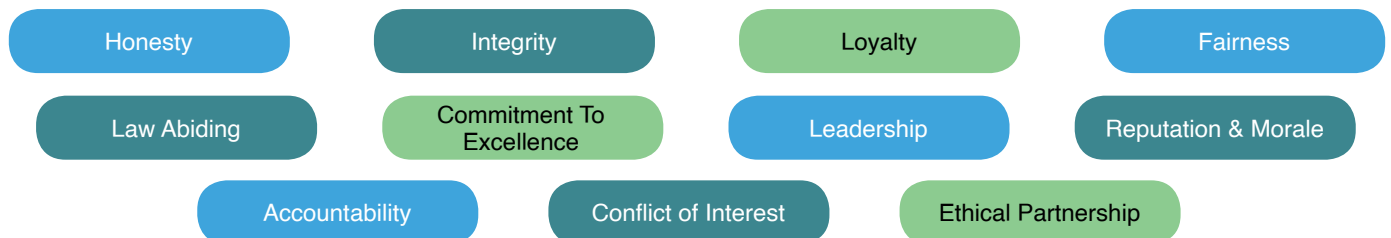
1. Monthly monitoring and reporting of key risk concerns and trends.
2. Risk reviews on selected Operational and Regulatory processes.
3. Rolled-out Regulatory Monitoring Plans for operational regulatory obligations.
4. Established the Integrity Unit and Anti-Bribery & Anti-Corruption (ABAC) Framework.
5. Developed Air Selangor's 3-year plan for Sustainable Development Goals (SDG)

KEY RISK TARGETS FOR FINANCIAL YEAR 2020

1. To be fully compliant with MACC's Sec 17A requirements related to Corporate Liability.
2. Establish ISO Governance (ISOG) team to oversee quality and control standards.
3. Strengthen our Business Continuity Management (BCM) on "non-water" related risks.
4. Implementation of ERM Enterprise Solution via digital technology to automate risk reporting.

INTEGRITY

In Air Selangor, integrity is indispensable to our strategic objectives and service delivery. We want all employees and business associate relationships to be based upon good integrity, transparency, equality and ethics. We practice the highest standards of moral and principles throughout our value chain. Our employees and business associates must adhere to our "zero-tolerance" towards bribery & corruption, and to always comply the various integrity policies & procedures established in Air Selangor. We are committed to maintain the highest ethical standards to ensure our customers are able to experience the best service quality and standards. We aspire to achieve these targets by practising the following ethical standards:



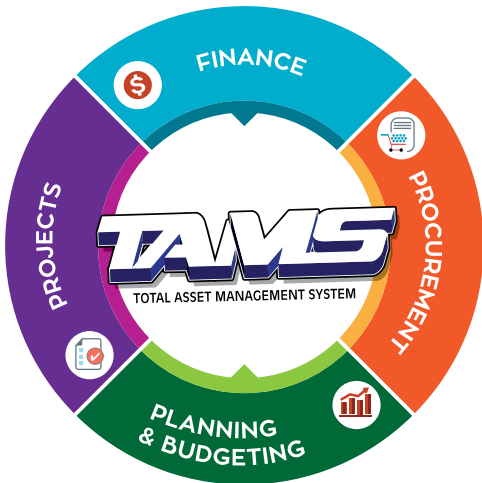
PROCUREMENT

We aim for our procurement decisions and actions to be impactful through the optimisation of the supply chain, and to shift from unit cost reduction to strategic sourcing that focuses on 'total cost of ownership'.

ACHIEVEMENT AND MILESTONES



In 2019, apart from tendering and overseeing a record high CAPEX award of RM786.15 million, the Procurement Department (PD) continued to improve the operational efficiency and effectiveness through the implementation of the annual procurement planning, framework agreements and panel agreements.



Leveraged on Oracle's ERP system (TAMS) to roll out e-procurement to minimise paperwork involved in tendering process and lead time. At the same time, we customised the system to better handle vendors registration and performance management.



We also kicked off our transformation into a strategic department by introducing Category Management. It focuses on in-depth category understanding and know-how, as well as close collaboration between PD and other technical departments to manage category spending.

INVENTORY

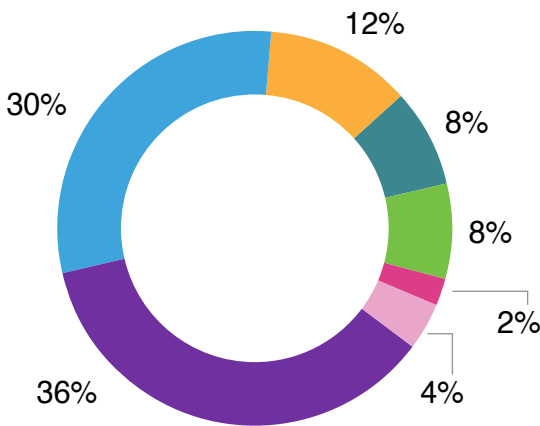
In the area of inventory management, an investment of RM3.7 million was spent on the renovation of 6 stores in Shah Alam, Kuala Selangor, Sabak Bernam, Hulu Selangor, SSP2 & Rantau Panjang.

2019 EXPENDITURE

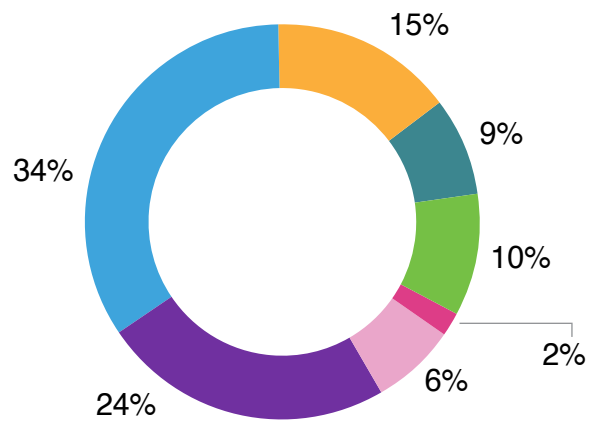
KEY TAKEAWAYS:

- Total Operating Expenditure (OPEX) spending by value has decreased in 2019 by 4.9% from the preceding year.
- With the acquisition of water operators effective 13 September 2019, the water purchase cost recorded a reduction of 12% to 24%, from 36% in 2018.
- To fund the new Capital Expenditure (CAPEX) and pipe replacements projects in 2019 for NRW reduction and WTPs upgrading, Finance and Lease cost has increased to 34% compared to 30% in 2018.
- Repair and maintenance, and staff cost increased in 2019 arising from initiatives to focus on improvement in customer service, production and distribution efficiencies.

Operating Expenditure 2018

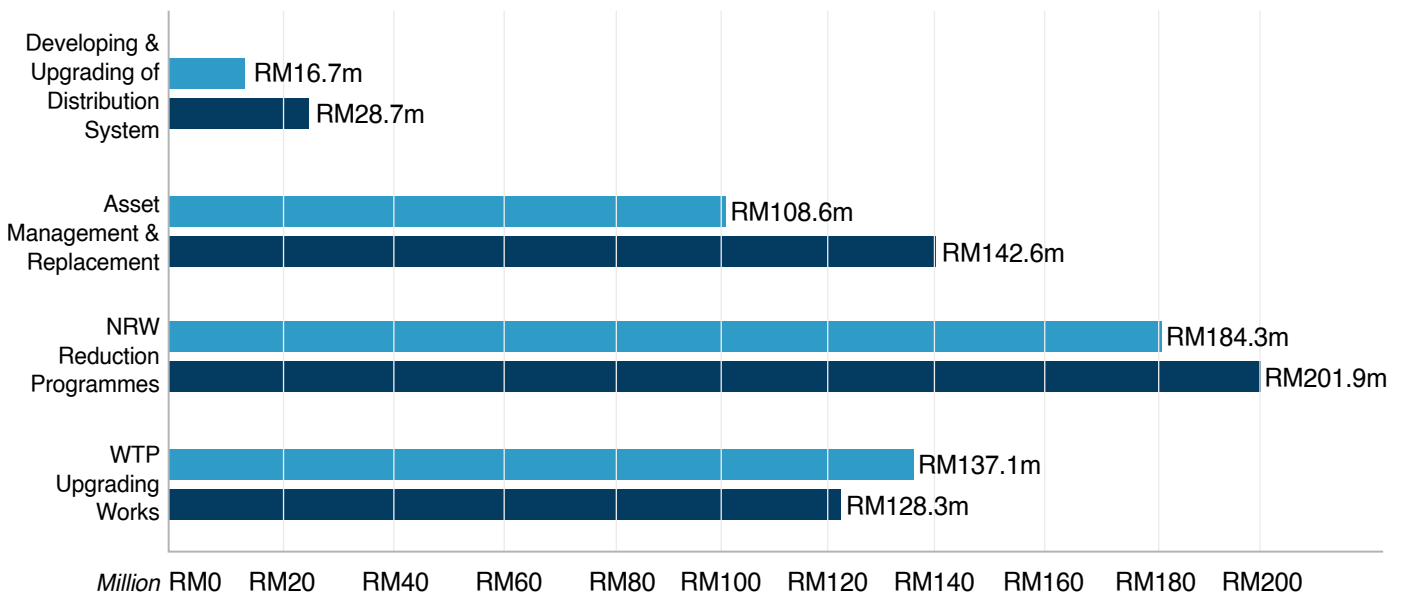


Operating Expenditure 2019



■ Staff
 ■ Repair & Maintenance
 ■ Electricity
 ■ Chemical
 ■ Others
 ■ Purchase of Water
 ■ Finance & Lease Cost

CAPITAL EXPENDITURE YEAR-ON-YEAR



■ 2018
 ■ 2019



AIRism
comfort conditioning technology

As we usher the year 2020, we are ready and ever committed to adapt to the new normal. We remain steadfast and focused in providing the highest service standards and quality of water, for the best customer experience.





03-2088 5400



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