MANILA WATER
CARE IN EVERY DROP

RESILIENT IN THE PURSUIT OF SUSTAINABLE **WATER AND SANITATION**

MANILA WATER COMPANY, INC.

2018 INTEGRATED REPORT

ABOUT THIS INTEGRATED REPORT

Manila Water adheres to the integrated reporting standards as a means of aligning its strategies with the external environment in which the company creates value and communicating the outlook on future performance. This Integrated Report presents the company's performance across all operating business units for the year 2018, and a thorough account of its strategy and governance. This has been reviewed by Senior Management before publication.

NOTE ON FORWARD-LOOKING STATEMENTS

Certain statements and illustrations contained in this report may constitute "forward-looking statements" within the meaning of applicable securities laws and regulations. These statements (including plans, objectives, projections, and estimates) and illustrations include information that does not relate solely to historical or current facts, and can be identified by the use of words such as "may," "believe," "expect," "anticipate," "assume," "estimate," "plan" or "continue," and similar expressions or by future or conditional verbs such as "should," "would" and "could."

Such statements are based on current expectations of future events, estimates, and certain assumptions of our management. These are therefore subject to certain risk factors and uncertainties, some of which are beyond our control, and which could cause the actual results, financial situation, or performance to differ materially from the estimates or developments that are implied in these forward-looking statements. We do not assume any obligation to update these forward-looking statements to reflect actual results, changes in assumptions, or changes in other factors affecting such statements.

REPORTING STANDARDS

This report covers all financial information and environmental, social, and governance performance of all Manila Water's major operating segments and subsidiaries namely the Manila Concession representing the East Zone operations of Manila Water Company, Inc. (Manila Water), Manila Water Philippine Ventures, Inc. (MWPV), Manila Water Asia Pacific Pte. Ltd. (MWAP), and Manila Water Total Solutions Corp. (MWTS) – collectively referred to as the "Enterprise" in this Report. Environmental information does not include MWAP's Saigon Water, East Water and PT Sarana Tirta Ungaran (PT STU).

The information contained in this report covers the period from January 1 to December 31, 2018. The report is anchored on materiality and discloses performance data that have been validated across the Enterprise. Data have been presented over a three-year period for comparability where possible.

This report has been prepared in accordance with the GRI Standards: Core option. It is also aligned with the Integrated Reporting ‹IR› Framework of the International Integrated Reporting Council (IIRC), whose guiding principles for the preparation of an integrated report were observed. The report features the content elements of an integrated report, which are: organizational overview and external environment, governance, business model, risks and opportunities, strategy and resource allocation, performance, outlook, and basis of preparation and presentation.

FINANCIAL STATEMENTS

SyCip Gorres Velayo & Co. (SGV & Co.) is the external auditor of Manila Water's financial statements, with Michael C. Sabado as the lead engagement partner. More information about the audit process is found on page 128, while the financial statements can be found on pages 150 to 263.

SUSTAINABILITY PERFORMANCE

Manila Water appointed DNV GL, an independent organization and a global provider of certification, assurance assessment, and training services, to conduct independent assurance of this report. This is the third year that DNV GL has been appointed as an external verifier for the assurance of the company's Integrated Report. The scope of assurance by DNV GL has been limited to sustainability performance of the Enterprise and the adoption of ‹IR› Framework in this report.

The Independent Assurance Statement can be found on pages 136 to 139 of this report.

FEEDBACK

Manila Water welcomes inquiries and feedback on this report. Please e-mail invrel@manilawater.com and sustainability@manilawater.com.

The contents of this report are also available for online browsing at reports.manilawater.com/2018

OUR VISION

Our vision is to become a leader in the provision of water, used water and environmental services which will empower people, protect the environment, and enhance sustainable development.

OUR MISSION

Our mission is to create an exceptional customer experience in the provision of sustainable solutions vital to health and life.

OUR CORE VALUES

Integrity and Primacy of the Person
We are a company of professionals whose unique roles and individual contributions toward corporate goals provide us with concrete opportunities to develop character and purpose in our lives.

Dignity of Work
Our company rouses a sense of pride and satisfaction in the fruits of our talents and efforts, which we place at Manila Water's service, as part of a dynamic and well-knit team.

Pride in Excellence
We strive for excellence because turning out the highest quality products and services is the most fitting tribute to our customers and to our society, company, colleagues and ourselves.

Concern for Others
We believe that contributing to social development through the communities we serve and the natural environment that we help protect is the very essence of our corporate existence. Showing a genuine concern for the welfare of others is indispensable in the way we do our business.

Commitment to National Development
We strongly support all efforts towards the development of the economy and our nation in general, because we realize that the problems affecting our nation and society impact our company's own long-term viability.

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2018 **ESG HIGHLIGHTS**

Environmental and Social Responsibility. By achieving quality service and delivering clean and safe water to as many people as possible, protecting people and the environment becomes integral to the business. Scope and boundaries includes the Manila Concession, Manila Water Philippine Ventures, Manila Water Asia Pacific, and new businesses acquired in 2018.

ENVIRONMENTAL

0.3% Improvement

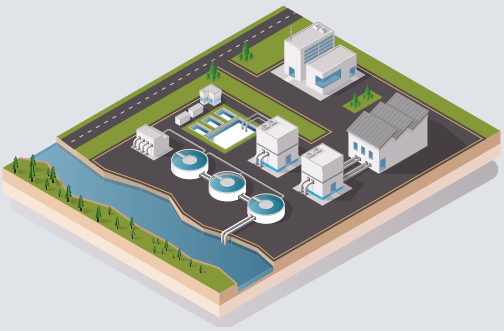
9.6%

Enterprise-wide non-revenue water (end-of-period)

11%

62.42 mcm

Used Water Treated Complies with the DENR Effluent Standard



9,102 Tons BOD*

Organic Pollution Load Removed

0.2%

57,345 Tons CO_2(eq)

Carbon Emissions Avoided due to used water treatment

0.2%

SOCIAL

43%

1,160.33 mcm

Total Distribution of Water

21%

1,326,284

Billed Connections

25.62 M

Population Served

6%

2,118

Workforce

5%

1,351

Male

767

Female

Employee Gender Diversity

13,649,080

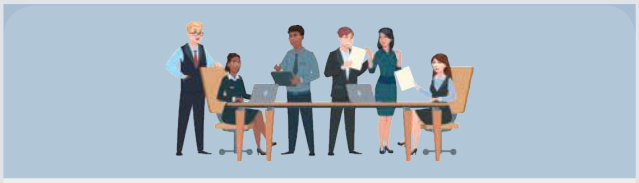
Manila Concession
Feb. 2014 to Dec. 2018

Safe man-hours

*Biochemical Oxygen Demand

Governance Structure Built on Expertise. The company's Board of Directors is composed of highly competent individuals with deep expertise on Manila Water's strategic priorities and sustainability issues. Altogether, they bring a strong and diverse set of skills that enable the company's history of value creation.

GOVERNANCE

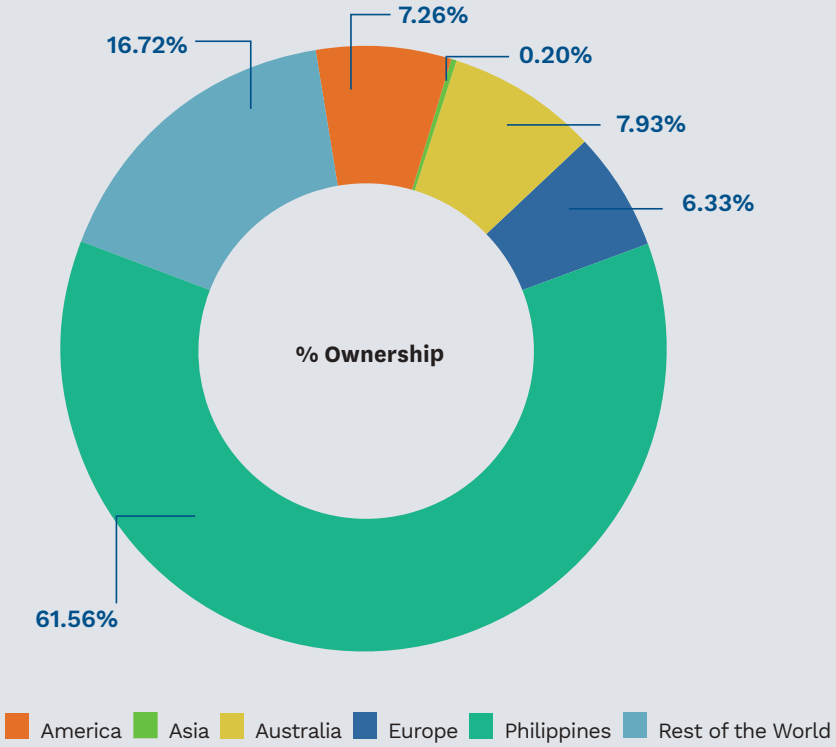


Board Committees

1. Executive Committee
2. Corporate Governance Committee
3. Audit Committee
4. Board Risk Oversight Committee
5. Related Party Transactions Committee
6. Nomination Committee
7. Remuneration Committee

Board Composition
(1 Executive and 10 Non-executive)

1. Fernando Zobel de Ayala (non-executive)
2. Jaime Augusto Zobel de Ayala (non-executive)
3. Ferdinand M. dela Cruz (executive)
4. Gerardo C. Ablaza Jr. (non-executive)
5. Antonino T. Aquino (non-executive)
6. Delfin L. Lazaro (non-executive)
7. John Eric T. Francia (non-executive)
8. Oscar S. Reyes (non-executive)
9. Sherisa P. Nuesa (non-executive)
10. Jaime C. Laya (non-executive)
11. Jose L. Cuisia Jr. (non-executive)



2018 CONSOLIDATED **FINANCIAL HIGHLIGHTS**

Financial Performance and Economic Impacts. Over the last three years, our strong performance has resulted in positive economic contributions to society and its various stakeholders.

FINANCIAL

7% **₱19.84 B**
Revenues

6% **₱6.52 B**
Net Income*

₱122.53 B 19%
Total Asset Base

₱9.98 B 23%
Capital Expenditures

GRI 201-1 (in million Php)		2018	2017	2016
Economic value generated 	Revenues**	₱20,266.82	₱18,877.51	₱17,971.21
Economic value distributed 	Operating Cost	₱5,211.61	₱4,481.38	₱4,039.41
	Employee wages and benefits	₱2,342.74	₱2,081.64	₱1,926.02
	Payments to providers of capital	₱3,792.87	₱3,679.95	₱3,202.44
	Payments to government***	₱3,237.64	₱3,082.86	₱3,128.61
	Community investment****	₱44.27	₱31.84	₱26.67
Economic value retained 		₱5,637.68	₱5,519.84	₱5,648.07

*Net Income attributable to Manila Water equity holders only
**Economic value generated is based on GRI standards
***Includes payment to governments of Vietnam and the Philippines
****Community investments are donations to Manila Water Foundation and Ayala Foundation

GEOGRAPHIC **PRESENCE**

SERVICES PROVIDED:

- Concession
- Bulk Water Supply
- NRW Reduction
- Operations and Maintenance
- Pipelaying
- Environmental Services
- Purified Drinking Water

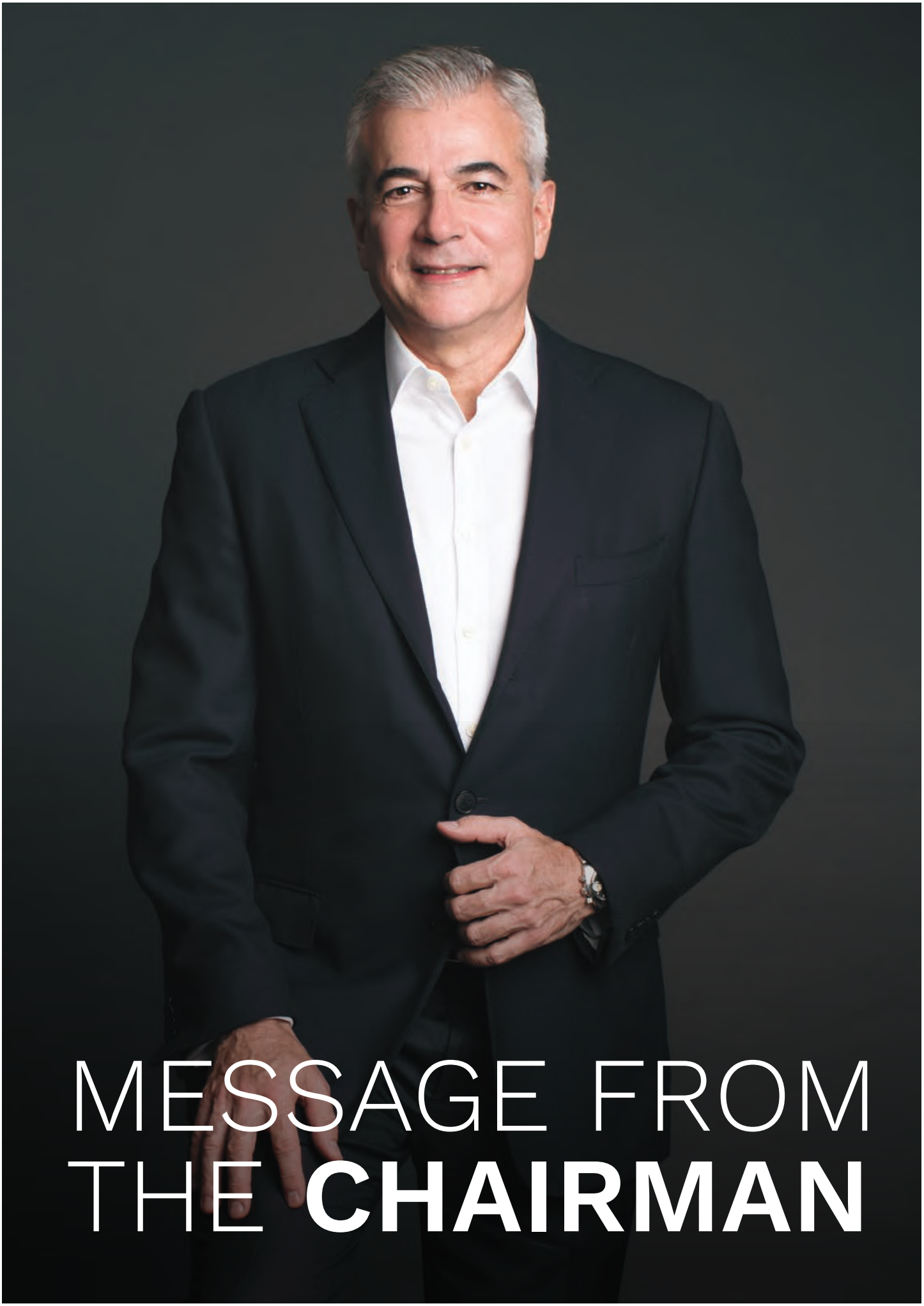
Thailand
through East Water

Vietnam
through Manila Water Asia Pacific

Indonesia
through PT Sarana Tirta Ungaran

OUR **LEADERSHIP**

Enterprise
Leadership Team | **Page 28**



MESSAGE FROM THE **CHAIRMAN**

COMMITTED TO THE MISSION

Aerial view of East La Mesa, Quezon City

Fellow Shareholders,

Although technically speaking the recent events in our Manila Concession did not take place in 2018, I nevertheless felt that it was important to address this issue before anything else. The water supply shortage which affected our customers in the past weeks has been a very challenging time for all of us. Several factors resulted in this lack of supply, greatly impairing the high standards of service which we have maintained for over 20 years. As emphasized in the statements that have already been made, we take responsibility for our own shortcomings. We recognize the difficulties which our customers have experienced because of this incident, and we are committed to making things better for them. Following the incident, we have been working tirelessly to bring water availability back to the affected areas. Through the efforts of our employees and cooperation with key stakeholders and government agencies, we have regained 99 percent on our water availability standard of 8-12 hours at ground floor water pressure. As our water supply augmentation operations continue to stabilize with the additional water supply from our Cardona Water Treatment Plant and the recommissioning of deep wells, we continue to explore all possible options to bring services back to the high levels that our customers have been accustomed to.

Amidst challenges of this kind, we take to heart the hard lessons which make us stronger. With this crisis, our efforts show us once again that significant gains can be made when we have a strong partnership with our stakeholders. Our collaboration with our principal, the Metropolitan Waterworks and Sewerage System (MWSS) as well as other government agencies is helping us chart a path towards long-term, sustainable water infrastructure development for the Metro Manila East Zone. We are now in detailed discussions with MWSS on the development and construction of the Wawa-Calawis Water Source Project. This project will address the medium-term water supply requirements of the Manila Concession. Beyond the East Zone, these current realities have placed much-needed urgency on the matter of water sector reform, not just for Metro Manila but for the country as a whole. We will continue to work with government as it lays the groundwork for the sustainable management of this very important resource for our country.

In the face of adversity, we must have the strength to learn and then move forward. I am encouraged to see that the growth strategy we set a few years ago, with a foundation firmly rooted on the Manila Concession, continues to thrive as we expand into new territories and serve more communities.

“Manila Water can emerge stronger in the face of seemingly insurmountable challenges. The company draws strength from its core, which is built upon resilience, and its commitment to its customers.

In the Manila Concession last year, we saw the successful resolution of our regulatory impasse with the approval of our Rate Rebasing business plan. This provides us with a clear mandate of maintaining and expanding water and used water coverage to even more communities in the East Zone. Equally important, this lays testament to the mutual acknowledgment by MWSS and Manila Water of the urgent need for increased water supply, as well as reliable water and used water infrastructure to meet the growing demands of customers.

For our domestic subsidiaries under Manila Water Philippine Ventures, the tougher competitive environment did not deter us from expansion. We secured 11 new business projects across the country, covering water concession, bulk water, and septage management contracts. This is in line with our aspiration to steadily increase our footprint in the country, where we work to establish efficient water and used water operations, expand coverage, and improve service levels in these communities.

Overseas, Manila Water Asia Pacific further expanded its geographic footprint. Early last year, we completed the acquisition of an 18.72 percent stake in East Water, a water supply and distribution company in Thailand. This acquisition has given us a new

Aerial view of Angat Watershed

platform to access a large customer base as well as potential business opportunities along Thailand's Eastern Economic Corridor. Equally important, as we build strong ties with our partners we will gain further insight on more value-creating opportunities.

Manila Water has always focused on long-term sustainable growth that contributes to social development. From the time that we started in 1997, we have always seen our responsibility to our customers as a mission to fulfill, more than a business to run. As we have weathered considerable challenges in the past, it inspires me to see that the strength and resilience which our company has built through the years, is very much alive in our people, our culture, and in our work.

Manila Water can emerge stronger in the face of seemingly insurmountable challenges. The company draws strength from its core, which is built upon resilience, and its commitment to its customers. With your trust and support, we will continue to champion our mission of providing access to water and sanitation services for the communities we serve.

I thank our Board of Directors for their continued guidance, our management team and all our employees, and finally, our customers, shareholders, partners, and all our stakeholders who inspire us to keep moving forward and remain steadfast in our commitment to helping uplift the lives of our countrymen through our products and services.

FERNANDO ZOBEL DE AYALA
Chairman

REPORT OF THE **PRESIDENT**

RESILIENT AMIDST ADVERSITY

Aerial view of Obando, Bulacan

Dear Shareholders,

Following the example of our Chairman, I would also like to first address the water supply situation which has affected our customers in the Manila Concession.

On March 6, 2019, the La Mesa Reserve breached the critical level of 69 meters which prevented us from getting 150 million liters per day (mld) from the La Mesa Reserve, as the level of water went below the lowest opening it could flow into to reach our water treatment plants in Balara. This additional 150 mld is important to augment the 1,600 mld contractual allocation we get from the Angat system. Without this additional 150 mld of raw water from the La Mesa Reserve, we cannot fully serve peak demand at sufficient pressure. To help visualize 150 mld, it is roughly equivalent to the entire daily consumption of a large city like Makati or Taguig.

When the initial service advisories were issued a few days from the time the critical level was breached, and with the high awareness on the declining La Mesa Reserve water level due to published warnings, demand in off-peak hours spiked much more than expected. This unpredictable demand profile upset the planned refilling schedules of our 28 network reservoirs and stressed our 20 pumping stations. This snowball made it difficult for us to be accurate in our subsequent service advisories. Because of the supply deficit and its consequent effect on the treatment and distribution system, your company was unable to provide its usual uninterrupted service to some of its customers. From 100 percent 24/7 service, our service degraded to almost 70 percent at its lowest point. With our various recovery efforts and while still in a supply deficit situation, our service level which we have defined in the meantime as at least 8-12 hours of water availability at the ground floor (or 7 psi), has reached 99 percent as of April 7.

Our inability to provide our usual 24/7 water supply to some of our consumers is because Manila Water's allocated water supply from Angat Dam is no longer sufficient for the total demand of the East Zone consumers. This raw water allocation has remained unchanged at 1,600 mld since the Concession started in 1997 when the East Zone had a population of only 3 million people. Today, Manila Water serves a population of almost 7 million people whose per capita consumption has significantly increased through over two decades of economic progress in Metro Manila. We cannot source any more from our system losses which has already been brought down to 12 percent from a high of 63 percent when we inherited the East Zone of Metro Manila in 1997.

For many years, Manila Water has strongly advocated for the development of new water sources beyond Angat Dam, both to ensure sufficiency of water supply as well as resiliency in case of any calamity around the Angat Dam system. However, the development of new water sources is, under the Concession Agreement, ultimately the responsibility of MWSS.

Through our continued partnership with MWSS and the key assistance of other government agencies and stakeholders, concrete actions are now underway towards the development of an implementable short, medium and long-term new water sources roadmap.

"The current situation in the Manila Concession highlights the criticality and impact of water security more vividly to all stakeholders and how everyone in the water value chain, both the public and private sector, are inextricably linked to each other.

We value the lessons and fresh insights from the supply deficit situation in the Manila Concession. Beyond focusing on recovering our service levels during this summer, we have buckled down to work to update our own plans to integrate new assumptions to prepare us better in the future. The current situation in the Manila Concession highlights the criticality and impact of water security more vividly to all stakeholders and how everyone in the water value chain, both the public and private sector, are inextricably linked to each other.

While your company has been hit hard by this situation in many respects, our tradition of overcoming crisis, innate resilience and genuine desire to be better will make your company stronger after this episode.

At this point, let me now account for the highlights of 2018.

In September last year, we secured approval for our Rate Rebasing business plan. This approved business plan allows us to implement key projects for the Manila Concession in both water and wastewater services to fulfill its service obligations.

Beyond the Manila Concession, Manila Water Philippine Ventures, leveraging the expertise we have nurtured in the core business over the past 21 years, continues to expand your company's presence in the Philippines. Our presence in diverse and dynamic markets aligns squarely with our objective to become a multi-location organization that addresses gaps in water infrastructure and sanitation services. This, in turn facilitates better service delivery to a broader public, particularly those communities most vulnerable to environmental impacts.

Through Manila Water Asia Pacific, we continue to expand our presence in the ASEAN region and beyond. Backed by the steady performance of our existing operations in Vietnam, we have realized more opportunities in Thailand and Indonesia. These milestones further equip us to become a global water and environmental services company; giving us the opportunity to provide access and improve service to more customers and communities.

To enable our mission and strategy, we have embarked on five key thrusts to sustain us for the coming years.

We will strengthen and update the BASICS which are core and unique capabilities to deliver

our services. As a multi-location business, we will accelerate our STANDARDIZATION efforts so our people speak one language and do work more seamlessly. We will augment our homegrown competitive advantage with DIGITAL and analytical capabilities to further sharpen our decision-making and field execution. Building from our strong heritage on sustainability and the triple bottom-line, we will learn more about ESG and progressively embrace and integrate its practices into our business. Lastly, but most importantly, we will evolve our TALENT and CULTURE, our bedrock as an enterprise, to deliver our mission and strategy.

Manila Water was born out of a water crisis. I believe this current crisis will be the catalyst for a new stage and more sustainable era of growth for the enterprise.

I thank the Shareholders, the Board, my Management team, and our tireless employees for their support in our continuing service recovery efforts and in the pursuit of our mission and strategy.

Construction works at Pasig North and South Sewerage System (Ilugin)

FERDINAND M. DELA CRUZ
President and
Chief Executive Officer

BOARD OF **DIRECTORS**

Fernando Zobel de Ayala

CHAIRMAN

Filipino, 58, Chairman of the Manila Water Board since May 1997. He is the Chairman of the Executive Committee, and a member of the Remuneration Committee of the Company. He also has membership in the Board of the following listed companies: Ayala Corporation, Ayala Land, Inc., Bank of the Philippine Islands, Globe Telecom, Inc., Integrated Micro-Electronics, Inc., and Pilipinas Shell Philippines Corporation. Similarly, he is also a Board Member of the following non-listed companies: AC Education, Inc., AC Energy Inc. – formerly AC Energy Holdings, Inc., AC Industrial Technology Holdings, Inc., AC Infrastructure Holdings Corporation, AC International Finance Ltd., AC Venture Holding Corp., Accendo Commercial Corporation, AG Holdings Ltd., Alabang Commercial Corporation, ALI ETON Property Development Corporation, Asiacom Philippines, Inc., Aurora Properties, Inc., Automobile Central Enterprises, Inc., Ayala Foundation Inc., Ayala Group Club, Inc., Ayala Healthcare Holdings, Inc., Ayala International Holdings Limited, Ayala International Pte. Ltd., Ayala Retirement Fund Holdings, Inc., Berkshires Holdings, Inc., Bonifacio Art Foundation, Inc., Bonifacio Land Corporation, BPI Foundation, Ceci Realty, Inc., Columbus Holdings, Inc., Emerging City Holdings, Inc., Fort Bonifacio Development Corporation, Georgetown University, Honda Cars Philippines, Liontide Holdings, Inc., INSEAD Business School, Isuzu Philippines, LiveIt Investments, Ltd., Mermac, Inc., Sonoma Services, Inc., Tikehau Capital and Vesta Property Holdings, Inc. Concurrently, he also holds the following positions and memberships: President and Chief Operating Officer of Ayala Corporation, Chairman of the Board of Ayala Land, Inc., AC International Finance Ltd., ALI Eton Property Development Corporation, Liontide Holdings, Inc., AC Energy, Inc., Ayala Healthcare Holdings, Inc., Automobile Central Enterprise, Inc., Alabang Commercial Corporation, Accendo Commercial Corp. and Hero Foundation, Inc., Co-chairman of the Board of Trustees of Ayala Foundation, Inc. and Ayala Group Club, Inc., Vice-Chairman of AC Industrial Technology Holdings, Inc., Aurora Properties Incorporated, Vesta Property Holdings, Inc., Ceci Realty Inc., Fort Bonifacio Development Corporation, Bonifacio Land Corporation, Emerging City Holdings, Inc., Columbus Holdings, Inc., Berkshires Holdings, Inc., AKL Properties Inc., AC Ventures Holding Corp. and Bonifacio Art Foundation, Inc., member of the Tikehau Capital International Advisory Board, Philippine-Singapore Business Council, World Presidents' and Chief Executives Organization, Chairman of Habitat for Humanity's Asia-Pacific Capital Campaign Steering Committee, member of the Board of Trustees, Caritas Manila, Pilipinas Shell Foundation and the National Museum; and member of the Tate Museum Asia-Pacific Acquisitions Committee, Asia Philanthropy Circle and The Metropolitan Museum International Council. Further, he holds a Liberal Arts degree from Harvard College, and a Certificate in International Management from INSEAD, France.

Jaime Augusto Zobel de Ayala

VICE CHAIRMAN

Filipino, 59, Vice Chairman of the Manila Water Board since May 1997. He also has membership in the Board of the following listed companies: Ayala Corporation, Globe Telecom, Inc., Bank of the Philippine Islands, Integrated Micro-Electronics, Inc., and Ayala Land, Inc. Likewise, he is also a Board Member of the following non-listed companies: AC Energy, Inc., Ayala Foundation, Inc., AC Education, Inc., Ayala Retirement Fund Holdings, Inc., Asiacom Philippines, Inc., Ayala Group Club, Inc., Alabang Commercial Corporation, Ayala International Pte. Ltd., AG Holdings Limited, Ayala Healthcare Holdings, Inc., AC Industrial Technology Holdings, Inc., AC Ventures Holdings Corp., AC Infrastructure Holdings Corporation, Light Rail Manila Holdings, Inc., Asia Business Council, Singapore Management University, and Eisenhower Fellowships. Concurrently, he also holds the following positions and memberships: Chairman of the Board and Chief Executive Officer of Ayala Corporation; Chairman of the Board of Globe Telecom, Inc., Bank of the Philippine Islands, Integrated Micro-Electronics, Inc., AC Education, Inc., Ayala Retirement Fund Holdings, Inc., Asiacom Philippines, AC Industrial Technology Holdings, Inc., AC Ventures Holdings Corp., AC Infrastructure Holdings Corporation, and Endeavor Philippines; Chairman Emeritus of the Asia Business Council; Co-Chairman of Ayala Foundation, Inc. and Ayala Group Club, Inc.; Vice Chairman of Ayala Land, Inc.; Co-Vice Chairman of Makati Business Club; and member of various advisory boards of Harvard University, including the Global Advisory Council, HBS Board of Dean's Advisors, and HBS Asia-Pacific Advisory Board, Mitsubishi Corporation International Advisory Council, JP Morgan International Council, JP Morgan Asia Pacific Council, Council on Foreign Relations, Singapore Management University, and University of Tokyo Global Advisory Board. He was awarded the Presidential Medal of Merit in 2009, the Philippine Legion of Honor with rank of Grand Commander in 2010, and the Order of Mabini with rank of Commander in 2015 by the President of the Philippines in recognition of his outstanding public service. In 2017, he was recognized as a United Nations Sustainable Development Goals Pioneer for his work in sustainable business strategy and operations. The first recipient of the award from the Philippines, he was one of 10 individuals recognized for championing sustainability and the pursuit of the 17 SDGs in business. He holds a Bachelor of Arts degree in Economics (Cum Laude) from Harvard College and an MBA from Harvard Graduate School of Business.

BOARD OF **DIRECTORS**

Ferdinand M. dela Cruz

DIRECTOR

Filipino, 52, Director, President, and Chief Executive Officer of Manila Water since April 2017. He is a member of the Manila Water Board and Executive Committee. He also has membership in the Board of the following non-listed companies: Manila Water Philippine Ventures, Inc., Manila Water International Solutions, Inc., Manila Water Total Solutions Corp., Clark Water Corporation, Boracay Island Water Company, Inc., Laguna AAAWater Corporation, Manila Water Foundation, Inc., Manila Water Asia Pacific Pte. Ltd., Manila Water South Asia Holdings Pte. Ltd., Thu Duc Water Holdings Pte. Ltd., Kenh Dong Water Holdings Pte. Ltd., Manila South East Asia Water Holdings Pte. Ltd., Manila Water Indonesia Holdings Pte. Ltd., and UP Engineering Research and Development Foundation, Inc. Concurrently, he also holds the following positions: Chairman of Manila Water Philippine Ventures, Inc., Manila Water International Solutions, Inc., Manila Water Total Solutions Corp., Clark Water Corporation, Boracay Island Water Company, Inc. and Manila Water Foundation, Inc.; Vice Chairman of Laguna AAAWater Corporation; Managing Director of Ayala Corporation; and member of the Board of Trustees of UP Engineering Research and Development Foundation, Inc. He graduated with a BS Mechanical Engineering (Cum Laude) degree at the University of the Philippines. He ranked 10th in the 1987 Mechanical Engineering Board Licensure Examinations. He also completed in 2015 the Harvard Business School Advanced Management Program Class 186.

Gerardo C. Ablaza Jr.

DIRECTOR

Filipino, 65, Director of Manila Water since November 2009. He is the Vice-Chairman of the Executive Committee and a member of the Board, Audit Committee, and Board Risk Oversight Committee. He also has membership in the Board of the following listed companies: Bank of the Philippine Islands, Bank of the Philippine Islands Savings Bank, and BPI Capital. Also, he is a Board Member of the following non-listed companies: AC Holdings, Inc. (formerly AC Energy Holdings, Inc.), Purefoods International Ltd., Asiacom Philippines, Inc., LiveIT Investment Limited, Ayala Foundation, Inc., Manila Water Thailand Holdings Pte. Ltd., A.C.S.T. Business Holdings, Inc., AC Infrastructure Holdings Corporation, Ayala Retirement Fund Holdings, Inc., and Ayala Healthcare Holdings, Inc. Concurrently, he also holds the following positions: President of Ayala Retirement Fund Holdings, Inc., Advanced Info Services, PLC (Thailand), and Member of the Board of Trustees of De La Salle University. In 2004, he was recognized by CNBC as the Asia Business Leader of the Year, making him the first Filipino CEO to win the award. In the same year, he was awarded by Telecom Asia as the Best Asian Telecom CEO. In 2013, he was recognized for his consistent leadership and innovation across the banking, investment, telecommunications and utility service industries through the Citi Distinguished Alumni Award for Leadership and Ingenuity. He was the first and only Filipino to be awarded with such an honor. He holds a Liberal Arts degree, Major in Mathematics (Honors Program, Summa Cum Laude) from De La Salle University. As one of the most accomplished graduates of his alma mater, he sits as a member of the Board of Trustees in various De La Salle Schools in the country.

Antonino T. Aquino
DIRECTOR

Filipino, 71, Director of Manila Water since April 1998. He is a Member of the Company's Board and Executive Committee. He also has membership in the Board of Ayala Land, Inc. Likewise, he is a Board Member of the following non-listed companies: The Philippine American Life and General Insurance Company, Nuevocentro, Inc., Anvaya Beach and Nature Club, and Mano Amiga Academy Inc. He is also a member of the Multi Sectoral Advisory Board of the Philippine Army and the Multi Sector Governance Council of the Armed Forces of the Philippines and the Department of National Defense. He was named "Co-Management Man of the Year 2009" by the Management Association of the Philippines for his leadership role in a very successful waterworks privatization and public-private sector partnership. He holds a Bachelor of Science degree in Management from the Ateneo de Manila University and post-graduate studies from the Ateneo Graduate School of Business.

Delfin L. Lazaro
DIRECTOR

Filipino, 72, Director of Manila Water since May 2002. He is a member of the Board of the Company. He also has membership in the Board of the following listed companies: Ayala Land, Inc., Integrated Micro-Electronics, Inc., Ayala Corporation, and Globe Telecom, Inc. Similarly, he is a Board Member of the following non-listed companies: Asiacom Philippines, Inc., Bell Bridge Resources Corporation, Beyond Borders Medical Solutions, DLLazaro, Inc., DLL Maunong Holdings Corporation, DLL Shaw Holdings Corporation, DLL Woodstown Holdings Corporation, Lazaro Agricultural Corporation, Quezon Avenue Holdings, Corporation, Atlas Fertilizer Corporation, AC International Finance, AYC Holdings, Inc., Purefoods International, Ltd., ACST Business Holdings, Inc., AC Industrial Technology Holdings, Inc., and Lazaro, Bernardo, Tiu. Concurrently, he also holds the following positions: Chairman and President of Bell Bridge Resources Corporation, Beyond Borders Medical Solutions, DLLazaro, Inc., DLL Maunong Holdings Corporation, DLL Shaw Holdings Corporation, DLL Woodstown Holdings Corporation, and Lazaro Agricultural Corporation; Chairman of Atlas Fertilizer Corporation; and Vice Chairman and President of Asiacom Philippines, Inc. He was named Management Man of the Year 1999 by the Management Association of the Philippines for his contribution to the conceptualization and implementation of the Philippine Energy Development Plan and to the passage of the law creating the Department of Energy. He was also cited for stabilizing the power situation that helped the country achieve successive high growth levels up to the Asian crisis in 1997. He holds a Bachelor of Arts degree in Metallurgical Engineering from the University of the Philippines and an MBA (with Distinction) from Harvard Graduate School of Business.

BOARD OF **DIRECTORS**

John Eric T. Francia

DIRECTOR

Filipino, 47, Director of Manila Water since April 2010. He is a Member of the Board and Executive Committee. He also has membership in the Board of Ho Chi Minh City Infrastructure Investment Joint Stock Company. Likewise, he is a Board Member of Ayala Hotels, Inc., Light Rail Manila Holdings, Inc., LiveIt Investments, AC Energy Development Inc., Northwind Power Development Corporation, North Luzon Renewables Energy Corporation, South Luzon Thermal Energy Corporation, Kauswagan Power GP Corporation, AC Energy GP Corporation,Dinginin Power GP Corporation, Arlington Mariveles GP Corporation, ACE Mariveles GP Corporation, AA Thermal, Inc., Monte Solar Energy, Inc., MCX Tollway, Inc., LINC Institute, Inc., and Zapfam, Inc. Concurrently, he also holds the following positions: President and Chief Executive Officer of AC Energy, Inc.; Managing Director of Ayala Corporation; Member of the Management Committee of Ayala Corporation; and Member of the Board of Trustees of University of Asia and the Pacific Foundation, Inc. He holds a degree in Humanities and Political Economy (Magna Cum Laude) from the University of Asia and the Pacific and a Master's Degree in Management Studies (with First Class Honors) from the University of Cambridge, United Kingdom.

Oscar S. Reyes

LEAD INDEPENDENT DIRECTOR

Filipino, 72, Lead Independent Director of Manila Water. He is a Director of the Company since February 2005. He is the Chairman of the Company's Audit Committee. He is also a Member of the following Manila Water Committees: Remuneration Committee, Nomination Committee, and Board Risk Oversight Committee. He also has membership in the Board of the following listed companies: Basic Energy Corporation, Cosco Capital Inc., Manila Electric Company (President and Chief Executive Officer), and Pepsi Cola Products Phils. Inc. Similarly, he is a Board Member of the following non-listed companies: PLDT Communications and Energy Ventures Inc. and Sun Life Financial Phils, Inc. Concurrently, he also holds the following positions: Chairman of Meralco Industrial Engineering Services Corporation, CIS Bayad Center, Meralco Energy, Inc., Redondo Peninsula Energy, Inc., PacificLight Pte. Ltd., MRail, Inc., Spectrum Inc., and Atimonan One Energy Inc.; Co-chairman of Meralco PowerGen Corporation; Member of the Board of Trustees of Pilipinas Shell Foundation Inc., One Meralco Foundation, Inc., SGV Foundation, Inc., and El Nido Foundation, Inc.; Member of the Advisory Board of the Philippine Long Distance Telephone Company (PLDT), and Council of Advisors of the Bank of the Philippine Islands. He holds a Bachelor of Arts degree in Economics (Cum Laude) from the Ateneo de Manila University and has post-graduate studies from the Ateneo Graduate School of Business. He took Program for Management Development from Harvard Business School. He also got a Commercial Management Study Program of Shell International Petroleum Co., U.K. in Lensbury Centre. He also took International Management Development leading to a Diploma in Business Administration and a Certificate in Export Promotion from the Waterloo Lutheran University in Canada. He also joined the Business Management Consultants and Trainers' Program of the Japan Productivity Center/Asian Productivity Organization in Japan and Hong Kong.

Sherisa P. Nuesa
INDEPENDENT DIRECTOR

Filipino, 63, Independent Director of Manila Water since April 2013. She is the Chairman of the Corporate Governance Committee and Related Party Transactions Committee. She is also a Member of the Company's Remuneration Committee. She also has membership in the Board of the following listed companies: Far Eastern University and Integrated Micro Electronics Inc. Likewise, she is a Board Member of the following non-listed companies: Generika Group (Actimed, Erikagen, Pharmagen, Novelis), ALFM Mutual Funds Group, East Asia Computer Center Inc., Judicial Reform Initiative (JRI), Financial Executives Institute of the Philippines, Institute of Corporate Directors, and FERN Realty Corp. Concurrently, she also holds the following positions: President of ALFM Mutual Funds Group; Senior Board Adviser of Metro Retail Stores Group (MRSG); Board Adviser/Consultant of VICSAL Development Corporation; and Chairman of the Judicial Reform Initiative. She was awarded the ING-FINEX Chief Finance Officer of the year for 2008. She holds a degree in Commerce (Summa Cum Laude) from the Far Eastern University and an MBA from Ateneo-Regis Graduate School of Business. She also completed an Advanced Management Program and Audit Committee Seminar for Directors from Harvard Business School. She also took a Financial Management Program from Stanford University. She is a Certified Public Accountant.

Jaime C. Laya
INDEPENDENT DIRECTOR

Filipino, 79, Independent Director of Manila Water since April 2014. He is the Chairman of the Company's Board Risk Oversight Committee. He is also a Member of the following Manila Water Committees: Audit Committee, Related Party Transactions Committee, and Nomination Committee. He also has membership in the Board of the following listed companies: Ayala Land, Inc., Philippine Trust Company, GMA Network, Inc., and GMA Holdings, Inc. Also, he is a Board Member of the following non-listed companies: Philippine AXA Life Insurance Co., Inc., Cultural Center of the Philippines, St. Paul's University – Quezon City, Ayala Foundation, Inc., Yuchengco Museum, Escuela Taller de Filipinas Foundation, Inc., Don Norberto Ty Foundation, Inc., Charter Ping An Insurance Corporation, and Metropolitan Museum of Manila. Concurrently, he also holds the following positions: Chairman and President of Philippine Trust Company (Philtrust Bank); Chairman of Escuela Taller de Filipinas Foundation, Inc., Don Norberto Ty Foundation, Inc.; Independent Director of Philippine AXA Life Insurance Co., Inc., GMA Network, Inc., GMA Holdings, Inc., Ayala Land, Inc., Charter Ping An Insurance Corporation; Trustee of Cultural Center of the Philippines, St. Paul University-Quezon City, Metropolitan Museum of Manila, Yuchengco Museum, Ayala Foundation, Inc., and others; and Director of various family corporations. He holds a Bachelor of Arts degree in Accounting (Magna Cum Laude) from the University of the Philippines. He took his Master's Degree in Industrial Management from Georgia Institute of Technology, and Ph.D. in Financial Management from Stanford University. He is a Certified Public Accountant.

BOARD OF **DIRECTORS**

Jose L. Cuisia Jr.

INDEPENDENT DIRECTOR

Filipino, 74, Independent Director of Manila Water since April 2010. He is the Chairman of the Company's Nomination Committee and Remuneration Committee. He is also a Member of the Company's Committees: Audit Committee, Corporate Governance Committee, Related Party Transactions Committee, and Board Risk Oversight Committee. He also has membership in the Board of the following listed companies: SM Prime Holdings, PHINMA Corporation, and Century Properties Group, Inc. Also, he is a Board Member of the following non-listed companies: Chairman of the Board of Starr International Companies – Philippine Branch, FWD Insurance, and Ramon Magsaysay Awards Foundation; Advisory Board of the Rizalino Navarro Center for Competitiveness at AIM; Board of Five J's Diversified, Adlemi Properties, JVC Holdings Corp., and The Covenant Car Company; Co-Chair of the Advisory Board of the Ramon V. Del Rosario Center for Corporate Responsibility at AIM; Vice Chairman and Lead Independent Director of SM Prime Holdings; Vice Chairman of the Board of Trustees of the University of Asia and the Pacific and CRC Foundation; and Board of PHINMA, Inc., and Asian Breast Center, Inc. Previously, he was Philippine Ambassador Extraordinary and Plenipotentiary to the United States of America and non-resident Ambassador to Trinidad & Tobago, the US Virgin Islands, Grenada, Puerto Rico, the Commonwealth of Jamaica and the Republic of Haiti, Antigua & Barbuda, Barbados, the Commonwealth of Dominica, The Federation of St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines from 2010-2016. He holds an AB-BSC degree (Magna Cum Laude) from De La Salle University and an MBA (University Scholar) from The Wharton School Graduate School of Business at the University of Pennsylvania.

Solomon M. Hermosura

CORPORATE SECRETARY

Filipino, 56, Corporate Secretary of Manila Water since April 2006. He served as a Managing Director of Ayala Corporation since 1999. He is also a member of the Management Committee of Ayala (Holding Company) since 2009 and the Management Committee of Ayala (Group) since 2010. Concurrently, he also holds the following positions: Chief Legal Officer, Compliance Officer, Data Protection Officer, Group Head of Corporate Governance and the Corporate Secretary of Ayala Corporation; Chief Executive Officer of Ayala Group Legal; Group General Counsel and Corporate Secretary of Ayala Land, Inc.; Corporate Secretary of Globe Telecom, Inc., Integrated Micro-Electronics, Inc., and Ayala Foundation, Inc.; and Member of the Board of Directors of a number of companies in the Ayala Group. He is currently a member of the faculty of the College of Law of San Beda University. He holds a Bachelor of Laws degree (Valedictorian) from San Beda College of Law and placed third in the 1986 Bar Examinations.

"Manila Water has always focused on long-term sustainable growth that contributes to social development."

FERNANDO ZOBEL DE AYALA
CHAIRMAN


MANILA WATER
CARE IN EVERY DROP
MANILA WATER
CARE IN EVERY DROP

ENTERPRISE **LEADERSHIP TEAM**

As of April 1, 2019

Ferdinand M. dela Cruz
President, Chief Executive Officer, and Chief Sustainability Officer

Ma. Cecilia T. Cruzabra
Chief Finance Officer, Treasurer, Group Director for Corporate Finance and Strategy, and Compliance Officer

Geodino V. Carpio
Chief Operating Officer, Manila Water Operations

Virgilio C. Rivera Jr.
Chief Operating Officer, New Business Operations

Abelardo P. Basilio
Group Director, Subsidiary Operations and Group Director, Strategic Asset Management

Janine T. Carreon
Group Director, Corporate Human Resources

Thomas T. Mattison
Group Director, Corporate Operations

Esmeralda R. Quines
Group Director East Zone Business Operations

Maidy Lynne B. Quinto
Group Director, Corporate Project Management

Liwayway T. Sevalla
Chief Information Officer and Group Director, Corporate Information Technology and Business and Technology Services

Ma. Victoria P. Sugapong
Chief Finance Officer, Manila Water Asia Pacific

Rodell A. Garcia
Consultant and Senior Adviser, Senior Leadership Team

MANAGEMENT **TEAM**

As of April 1, 2019

OFFICE OF THE PRESIDENT

Gerardo M. Lobo II
Chief Legal Officer
Legal Department

Xerxes Noel O. Ordanez
Department Head
Internal Audit

Ia Laurienne R. Castro
Senior Legal Counsel
Legal Department

BUSINESS AND TECHNOLOGY SERVICES GROUP

Daisy Marie D. Balagtas
Domain Head
Finance

Jose Ronaldo P. Cruz
Department Head
Systems and Solutions

Bernadette D. Masangkay
Domain Head
Supply Chain

Elmer D. Pevidal
Department Head
BTS Governance

Josephine M. Silva
Domain Head
HR Operations

Gabriel V. Tuason
Department Head
Information Security and
Department Head
Infrastructure Planning and Delivery

Jocelyn D. Santiago
Business Relationship Manager

Alexander S. Guray
Domain Head[1]
Service Management

CORPORATE FINANCE AND STRATEGY GROUP

Mark S. Orbos
Department Head
Corporate Strategy
and Investor Relations

Karoline C. Sangalang
Chief Finance Officer
Manila Water Philippine Ventures
and Manila Water Total Solutions

Jocelyn Frances P. Sison
Division Head
Treasury and Enterprise
Risk Management

Nathan Gideon H. Correa
Department Head
Concession Investment Accounting

Ma. Lourdes M. Dalusung
Finance Head
Boracay Island Water Company

Ronnel Vergel E. De Leon
Department Head
Treasury

Lizelle Z. Dimacuha
Department Head
Tax Management

Ma. Irel M. Espuerta
Finance Head
Visayas-Mindanao Cluster

Anna Marie Joy S. Fernandez
Controllership and Analysis Head
for MWPV

Ma. Lourdes P. Miranda
Department Head
Controllership and Analysis

Anne Lizbeth J. Olmo
Department Head
Financial Accounting

Marsha Emelinda Q. Santos
Department Head
Financial Planning

Rolando D. Sumallo Jr.
Finance Head
South Luzon Cluster and
Laguna AAAWater Corporation

Lawrence G. Velasco
Finance Head
Asia Pacific Market

Alvin S. Evangelista
Finance Head[1]
Vietnam

Jeza P. Salcedo
Finance Head[1]
Estate Water

Jerome V. Caylao
Corporate Planning Manager

Meridien C. Manansala
Corporate Planning Manager

CORPORATE HUMAN RESOURCES GROUP

Andrian B. Villanueva
Human Resources Head[1]
Subsidiaries

Chester Lawrence D. Caras
Department Head
HR Project and Change Management

Camela A. Chiu
Department Head
Employee Engagement

Maria Criselda G. Serias
Department Head
Talent Management and
Leadership Development

Yvette B. Sonza
Department Head
Manpower Planning and
Organization Development

Aileen V. Yoro
Department Head
Total Rewards Management

[1] As of April 1, 2019, incumbent is Officer-in-Charge.

CORPORATE OPERATIONS GROUP

Joemar B. Emboltorio
Division Head
Water Supply Operations

Arnold Jether A. Mortera
Division Head
Used Water Operations

Mark Tom Q. Mulingbayan
Division Head
Technical Services

Estelita C. Orodio
Division Head
Operations Services

Ronan Joy S. Abear
Department Head
Meter Management

William C. Alcantara
Department Head
Energy and Innovation

Almeus E. Almazan
Department Head
Telemetry and Process Automation

Jeanifer L. Aurelio
Department Head
Water Supply Operations Planning

Sarah Monica E. Bergado
Department Head
Concession Management System

Sharon Parker B. Cerbito
Grid Facilities Head
Used Water Operations

Jay Mariel A. De Vera
Department Head
Maintenance Services

Joannatess B. De Vera
Department Head
Laboratory Services

Rommel F. Faustino
Grid Facilities Head
Used Water Operations

Donna Eloisa C. Perez
Department Head
Used Water Operations
Performance and Planning

Roel Stephen M. Picart
Department Head
Fleet Management

Dexter M. Quibuyen
Department Head
System Analytics

Maritess M. Regala
Department Head
Inventory Management

Orlando A. Villareal
Department Head
Network Operations

Alessandro Jose T. Zamora
Department Head
Corporate Business Resiliency

Lyn Joceffin D. Zamora
Department Head
Water Supply Treatment Operations

Florante A. Panganiban
Department Head[1]
Operations Management
and Sustainability

Bernardo C. Mañosca
Project Head
Digitization

CORPORATE PROJECT MANAGEMENT GROUP

Edgar B. Bausa
Department Head
Engineering

Anthony D. Castillo
Department Head
Construction Management

Bernadette E. del Rosario
Department Head
Project Stakeholder Engagement

Rolly D. Falculan
Department Head
Project Management Office

Arlene Kris Go-Sy
Department Head
Quality Assurance

Maria Elizabeth D. Tayamora
Head
Minor Capital Projects

Jommel Omar A. Gomez
Department Head[1]
Safety Solutions

Renato C. Belmonte Jr.
Senior Project Manager

Jocelyn M. General
Senior Project Manager

Byder M. Nangit
Senior Project Manager

Allan B. Patdu
Senior Project Manager

Princess Jennifer P. Patricio
Senior Project Manager

Eden J. Polloso
Senior Project Manager

Julius Edgar B. San Juan
Senior Project Manager

Rene N. Santos
Framework Manager

Jackie Lou O. Siat
Senior Project Manager

CORPORATE REGULATORY AFFAIRS GROUP

Nestor Jeric T. Sevilla Jr.
Group Head[1]
Corporate Regulatory Affairs

Elmer M. Largo
Department Head
Technical Regulation

Marvin V. Lascano
Department Head
Financial Regulation

[1] As of April 1, 2019, incumbent is Officer-in-Charge.

CORPORATE STRATEGIC AFFAIRS GROUP

Nestor Jeric T. Sevilla Jr.
Group Head
Corporate Strategic Affairs and
Department Head
Corporate Communications

Fernando L. Busuego III
Department Head
Advocacy and Research

EAST ZONE BUSINESS OPERATIONS GROUP

Marvin J. Panday
Division Head
East Zone Business Area Operations

Raquel R. Catacutan
Department Head
Customer Service and
Stakeholder Management

Marie Joy S. Flores
Area Business Manager
Rizal

Ernesto P. Francisco
Area Business Manager
Marikina

Katherine May T. Franco
Department Head
Billing and Collection

Marriane Zharcie P. Garcia
Department Head
Demand Forecasting
and TMS Management

Diana Lou B. Gomez
Area Business Manager
Taguig

Romely T. Paraiso
Area Business Manager
Pasig

Janice E. Ruiz
Area Business Manager
Quezon City

Kristoffer D. Sabater
Area Business Manager
Mandaluyong-Makati

Emmanuel S. Ferrer III
Department Head[1]
Program and Policy Development

STRATEGIC ASSET MANAGEMENT GROUP

Christine Aubrey N. Emboltorio
Department Head
Strategic Asset Planning

Noelito S. Abesamis
Department Head[1]
Value Assurance and
Department Head
Water Resources and
Environmental Planning

Gillian Mari B. Berba
Department Head
Portfolio Management

Carlos Noel P. Carlos Jr.
Department Head
Asset Investment and
Management Support

Frederick S. Sangalang
Department Head
Asset Management

Froilan Antonio C. Bacuňgan
Asset Performance Evaluation
and Optimization Manager

Catherine R. Co
Portfolio Manager

Elwin A. Merquita
Water Systems Analysis
and Modelling Manager

MANILA WATER FOUNDATION

Reginald M. Andal
Executive Director
Manila Water Foundation

MANILA WATER TOTAL SOLUTIONS

Evangeline M. Clemente
Head
Product Innovation and
Development

Vincent Raymond C. Siat
General Manager[1]
Healthy Family

Rodney D. Cruz
Sales Head
Healthy Family

Nelson C. Cuaresma
Product Innovation and
Development Manager

Roberto V. Vasquez Jr.
Product Innovation and
Development Manager

Marius Joseph V. Villaronte
Operations Head[1]
Healthy Family

MANILA WATER PHILIPPINE VENTURES

Robert Michael N. Baffrey
Head
North Luzon Regional Business
Development and
General Manager
Clark Water Corporation

Shoebe Hazel B. Caong
General Manager
Laguna AAAWater Corporation

Barny F. Kim
General Manager
Estate Water

Constantine O. Uy
Head
VisMin Regional Business
Development

Maria Mabelle G. Amatorio
General Manager[1]
Boracay Island Water Company

Ramoncito L. Gomez
General Manager[1]
Manila Water Technical Ventures

Real C. Magtangob
Head[1]
South Luzon Regional
Business Development

[1] As of April 1, 2019, incumbent is Officer-in-Charge.

Rodrigo A. Abinsay
Operations Manager
Zamboanga Water Company

Ma. Christina S. Cruz
Operations Manager
Obando Water Company

Bryan M. Magallanes
Operations Manager
Calasiao Water Company

Dante P. Agcaoili
Project Manager
Tagum Water Company

Roy Neil T. Gonzaga
Operations Manager[1]
Bulacan MWPV
Development Corporation

Joseph Michael A. Santos
Lead for Stakeholder Engagement
and Corporate Relations

Jose Paulo V. Serias
Technical Operations Head
Estate Water

Valentino S. Alano
Technical Operations Head
Laguna AAAWater Corporation

Melissa A. Alcasid
Technical Operations Head
Clark Water Corporation

Blanca Eunicia S. Aldaba
Business Operations Head
Boracay Island Water Company

Teresita S. Arendela
Finance Head
North East Luzon Cluster

Christian Henritz R. Batallones
New Business Head
Estate Water

Donna May D. Buaquen
Human Resources Business Partner
MWPV – North Luzon

Jeson Jason J. Campos
Technical Sales Head
Manila Water Technical Ventures

Jennifer Mitchell V. Chan
Technical Operations Head
Boracay Island Water Company

Rubenson M. Cruz
Technical Services Head
Estate Water

Rodel V. Del Rosario
Technical Services Head
Laguna AAAWater Corporation

Rey Ann C. Dela Cruz
Technical Operations Support Head

Sol Teresita N. Dimayuga
Regulatory and
External Affairs Head
Laguna AAAWater Corporation

Felipe A. Fradejas
Project Management Head
Laguna AAAWater Corporation

Kristine Jessah R. Guevarra
Business Operations Support Head

Daisy L. Gomez
Finance Head
North West Luzon Cluster

Noel O. Julao
Regulatory and External Affairs Head
Clark Water Corporation

Liezel T. Lee
Policy and Program Development
Manager

Edward R. Limosnero
Business Operations Head
Estate Water

Christian Mhel C. Marcos
New Business Head
North West Luzon Regional
Business Development

Mayee Henessy R. Miranda
Human Resources Business Partner
New Business Development/MWAP

Camille B. Orbeso
Business Operations Head
Laguna AAAWater Corporation

Paulo C. Palencia
New Business Head
North East Luzon Regional
Business Development

Jonathan Z. Urbano
New Business Head
VisMin Regional Business
Development

Joe-Jit P. Velasquez
Business Operations Head
Clark Water Corporation

Raymond H. Camara
Project Management
and Technical Services Head[1]
Boracay Island Water Company

Francisco A. Loresco
New Business Head[1]
Laguna AAAWater Corporation

John Michael M. Rico
New Business Head[1]
VisMin Regional Business
Development

MANILA WATER ASIA PACIFIC

Antonio B. Capati
Managing Executive
MWAP Indonesia

Pieter L. Tobing
Country Manager
Indonesia Representative Office

John Walter E. Tendencia
Country Manager
Vietnam Representative Office

Rowena E. Dalosa
Operations Manager
Asia Water Network Solutions

Bernaliza B. Espina
New Business Head
Indonesia Representative Office

Allan Roy B. Ortiz
Operations Manager
Kenh Dong Water

Raymund V. Vagilidad
Operations Manager
Thu Duc Water

[1] As of April 1, 2019, incumbent is Officer-in-Charge.

OUR BUSINESS MODEL AND **STRATEGY**

Creating Shared Value | **Page 36**

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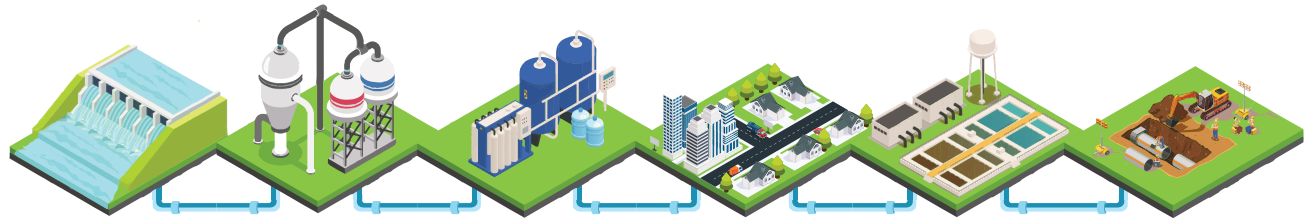
CREATING **SHARED VALUE**

OUTLOOK

Manila Water will continue to expand and diversify its portfolio of products and services. To achieve these goals, the Manila Concession business shall sustain its robust performance, while the company's new businesses will pursue aggressive growth. This is in line with the business' aspiration to become a more diverse and multi-service company.

KEY BUSINESS OPERATIONS AND ACTIVITIES



Water Source Development and Management → **Raw Water Transmission** → **Water Treatment** → **Water Distribution** → **Used Water Treatment** → **Other Services**

Concession
Boracay Water • Calasiao Water • Clark Water • East Water
Laguna Water • Manila Concession • Obando Water • Saigon Water

Pipelaying
Manila Water Total Solutions

Bulk Water Supply
Cebu Water • Kenh Dong Water • Tagum Water • Thu Duc Water • PT STU

NRW Reduction
Zamboanga Water

Integrated Used Water Solutions
Manila Water Total Solutions

Purified Water
Manila Water Total Solutions–Healthy Family

Operations and Maintenance of Water Supply and Used Water Facilities
Aqua Centro • BMDC • EcoWater • Estate Water

Engineering, Procurement, Construction Management, and Technical Consulting
Manila Water International Solutions, Inc.

KEY FACTORS AFFECTING PERFORMANCES

- Political and regulatory/compliance risk
- Rate rebasing
- Water supply adequacy, security, quality, and reliability
- Business continuity
- CAPEX execution
- New business operations and development
- Planning and execution
- Portfolio management of resources
- Talent management

OUR CAPITALS

Financial
Manila Water has a strong financial position with the ability to mobilize capital through financing to support the expanding business, with total consolidated assets amounting to ₱122.53 billion, and cash and cash equivalents of ₱9.39 billion.

Manufactured
Manila Water has well-managed dams and impounding reservoirs, deep wells, water treatment facilities, pumping stations and reservoirs, water distribution and sewer networks, and used water treatment facilities.

Human
Manila Water delivers its products and services through the 2,118 competent employees.
The company partners with 401 material suppliers, 113 contractors, 77 consulting firms, and 58 service providers.

Intellectual
Manila Water specializes in water treatment, non-revenue water reduction, used water treatment, and environmental services.

Natural
Manila Water responsibly abstracted 864.77* mcm raw water from rivers, dams and aquifers this year. The company efficiently used 1,376 thousand liters of fuel, 229.7 million kWh of electricity, and 26,173 tons chemicals to optimize the use of these resources.

Social and relationship
Manila Water nurtures good relationships while creating shared value for stakeholders.

HOW WE CREATE VALUE

Water Utility Operations
Manila Water provides safe and affordable water to 25.62 million customers in the Philippines, Vietnam, Indonesia, and Thailand. The company treats used water and septage to meet the effluent standard before discharging back to water bodies.

Bulk Water Supply
Manila Water delivers bulk water to Metropolitan Cebu Water District in the Philippines and Saigon Water Corporation in Vietnam. The company has an on-going bulk water project in Tagum City, Philippines.

Total Solutions
Manila Water Total Solutions develops innovative products and services to address the needs of customers. These include pipelaying, Integrated used water solutions and Healthy Family Purified Water.

Engineering, Procurement, Construction Management, and Technical Consulting
Manila Water International Solutions, Inc. was recongnized in 2018 to provide engineering, procurement, construction management, and technical consultancy in the water and used sectors.

VALUE CREATED

Financial
- Consolidated total revenue of ₱19.84 billion
- Consolidated net income of ₱6.52 billion**
- Consolidated CAPEX disbursed of ₱9.98 billion

Manufactured
- 1,160.33 mcm of water supplied to customers
- 7,657.45 km water pipes laid
- 1,327.79 km sewer pipes laid
- 5,445,227 five-gallon bottles of purified water sold
- 2,494,379 500-ml bottles of purified water sold

Human
- Average of 21.2 training hours per employee
- Continuing employee engagement programs

Intellectual
- Closed 11 deals in various water districts and municipalities in the Philippines, and two deals in Southeast Asia to provide water and used water services

Natural
- Protection of 9,259 ha of watersheds
- 41,500 native tree seedlings planted in La Mesa and Nabaoy Watersheds and in the municipalities of Kalayaan and Liliw, Laguna
- Treated 62.42 mcm used water
- Diverted 9,102 tons of BOD organic pollution load from water bodies
- 57,345 tons of carbon dioxide avoided due to used water treatment

Social and relationship
Meeting its service level standards for customer requests and complaints consistently

VALUE SHARED

Investors and Shareholders
Profitability and growth through water and environmental investments

17 PARTNERSHIPS FOR THE GOALS

Regulators and Partners
Strong partnerships to improve the provision of water and used water services

6 CLEAN WATER AND SANITATION

Customers, Communities, and Businesses
Access to clean and affordable water and sanitation services

3 GOOD HEALTH
8 DECENT WORK AND ECONOMIC GROWTH

Safeguarding community health and enabling productivity and growth for individuals and enterprises

8 DECENT WORK AND ECONOMIC GROWTH

Employees
Opportunities for career growth and development

13 CLIMATE ACTION

14 LIFE BELOW WATER
15 LIFE ON LAND

Environment
Protection of watersheds and water sources

Restoration of quality of water bodies

*Water abstraction data excludes data of Saigon Water, East Water and PT STU of MWAP.
**Net Income attributable to Manila Water equity holders only

DELIVERING **OUR STRATEGY**

EXTERNAL ENVIRONMENT

Water is critical to sustainable development—and it is one of the basic resources which needs to be protected in this age of climate change. Communities today continue to increase in population and density, with more regions transforming into highly urbanized areas. Add on the pressures of market uncertainties, growing competition for existing water sources and tougher regulation—and the importance of inclusive access to clean water and adequate sanitation services becomes more evident. These growing concerns, specifically on maintaining this delicate balance between water security and environmental sustainability, will have long-term effects on the quality of life of millions of people.

Manila Water recognizes that these realities pose significant risks to the company's sustainability thrusts and has taken steps to proactively address these issues. The company creates shared value through efficiencies and innovation in its operations. These initiatives embody Manila Water's commitment to the United Nations Sustainable Development Goals (SDGs) on Clean Water and Sanitation.

In line with this commitment, Manila Water acknowledges the need to improve access to water and sanitation services beyond Metro Manila. In the Philippines, only 85.8 percent of the rural population uses at least basic drinking water services as compared to 96.4 percent in the urban areas. This is also evident in access to basic sanitation services, with only 71.9 percent of the rural population having access compared to 78.9 percent in urban areas. The same disparity is also evident in most of the ASEAN nations; even more acute in the cases of Indonesia, Vietnam, Cambodia, and Myanmar.

In the Philippines, Manila Water partners with the national and local government in advancing much-needed societal and policy changes to address the issues of water scarcity and poor sanitation services and used water management. One of the pioneer Public-Private Partnerships (PPP) in the Philippines, the company's track record and expertise in inclusive access allows it to position itself as a trusted advisor and thought leader in water sector policy reform.

Furthermore, Manila Water actively participated in various committee hearings in the 17th Congress. Apart from submitting the company's formal position on issues of interest, Manila Water was also called to be resource panelists in the House of Representatives to tackle issues such as water sector reform, disaster preparedness, and improvements to Metro Manila installations. Meanwhile in the Senate, Manila Water also engaged with legislators to push for amendments to the antiquated Public Service Act. The company also presented its compliance with the Supreme Court Continuing Mandamus in Manila Bay.

Ipo Dam in Norzagaray, Bulacan

OUTLOOK AND OPPORTUNITIES

Against this backdrop of social, physical, and institutional challenges, Manila Water remains focused in pursuing its corporate objectives and the growth opportunities in the water and environmental space.

Manila Water's mandate to its customers has been reaffirmed with the conclusion of the Rate Rebasing exercise in the Manila Concession, its core business. With the approved business plan, the company can now implement continuous improvements and innovations in customer service and business processes, taking advantage of the available technologies in the market. It allows the company to expand its water distribution and sanitation services in the concession area, providing more communities with the critical water and environmental services for inclusive growth.

Business development outside the Manila Concession remains a similar priority both domestically and internationally. Manila Water closed a landmark 13 new business projects locally and regionally, including the largest investment since the Manila Concession: the acquisition of 18.72 percent share in East Water in Thailand. This shows that the non-Manila Concession business is gaining momentum in achieving significant contributions to further bolster Manila Water's growth.

RISK MANAGEMENT AND GOVERNANCE

Operating in both highly regulated and dynamic business environments, risk management and governance remain as important pillars of the Enterprise to effectively face these external pressures, while taking advantage of the growth prospects.

Guided by the company's risk strategy, Manila Water implements an Enterprise Risk Management (ERM) Program, based on the global standard ISO 31000:2009, and uses it consistently as a tool for effective decision-making, planning, and daily operations. To aid in the quantification of risks and determine the effectiveness of risk management plans, Manila Water utilizes Key Risk Indicators (KRIs) with regular monitoring and reporting to management. The use of the KRIs enhances the analysis of risk levels and risk mitigation strategies. The status of the KRIs is discussed at the Board level.

The ERM Program has been cascaded to all Manila Water departments. The same has been rolled out to respective subsidiaries in Boracay, Cebu, Clark, and Laguna and our affiliates abroad, while considering the unique business and risk environments wherein these subsidiaries/affiliates operate.

Additionally, with the ERM mindset continuously being assimilated into the company's culture and practices, ERM has been embedded in key decision-making processes such as insurance management. Manila Water has a risk-based insurance program wherein coverage considers relevant risks and existing controls in place. The integration of ERM with insurance management ensures that insurance provisions in contracts are custom-fit to respond to specific project risks.

To protect the system's adequacy, suitability, and effectiveness, the ERM Program is reviewed and assessed annually by the Internal Audit Department using a risk maturity assessment framework aligned with global best practices. Manila Water also subjects the ERM system to external assessments as needed.

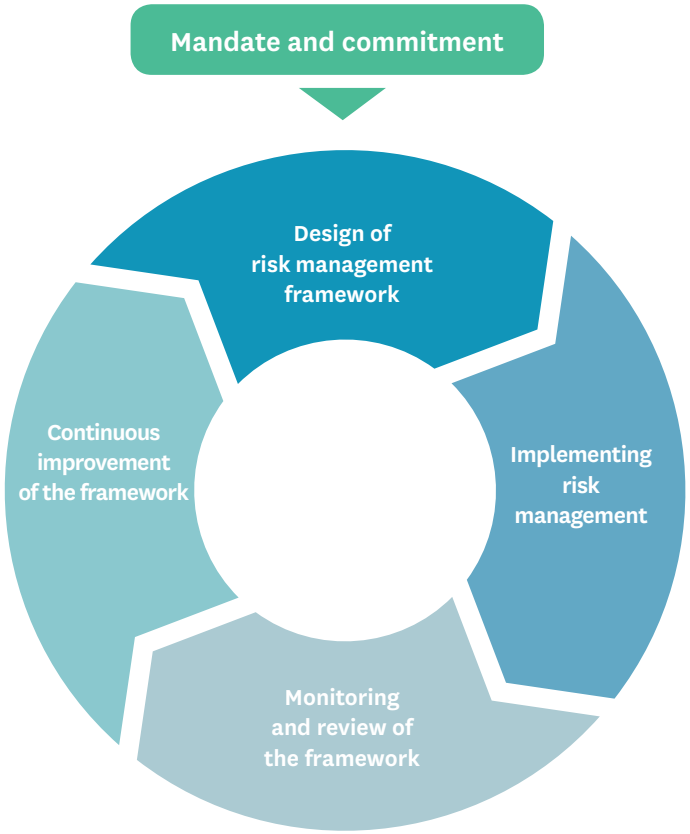
Throughout the Manila Water Enterprise, business and governance standards are embedded, which resulted in a resilient and agile organization amidst difficulties in the regulatory and physical environments. The company believes that the alignment between its growth aspirations, risk management and governance structures, and the UN SDGs enables the value creation for stakeholders. In doing so, Manila Water continues to evolve into a multinational company with a strong portfolio mindset that is rightly equipped to address the future needs and challenges of the stakeholders.

MANILA WATER'S ERM STRUCTURE

Manila Water's ERM Program operationalizes the company's Manual of Corporate Governance which mandates the Board of Directors (BOD) to ensure the presence of organizational and procedural controls, supported by an effective management information and risk management reporting systems. In addition, the company's Board Risk Oversight Committee (BROC) provides oversight to management functions relating to strategic, financial, operational, compliance, legal, environmental, social, and other risks of the company which involves periodic disclosure of significant risk exposures and related risk management activities.

The President is the comprehensive Risk Executive and is ultimately responsible for ERM priorities, strategies, tolerances, and policies. He chairs the Risk Management Executive Committee (RMEC) which is composed of top management and the Chief Risk Officer (CRO). The RMEC provides oversight and input to the President and to the BOD to enable them to formulate informed decisions on matters relating to risks. The RMEC provides direction on the design and implementation of appropriate systems, tools and methodologies to support the ERM process and other risk management activities and designates owners of specific risks and enablers of the ERM process (ERM Champions/ Partners/Risk Officers).

ERM FRAMEWORK AND PROCESS



The CRO is the ultimate champion of ERM at Manila Water and is supported by the ERM Department. The department is responsible for developing risk management tools, methodologies, and processes and leads the implementation and dissemination of ERM programs across the Manila Water Enterprise in coordination with the risk owners, the CRO, and ERM Champions/Partners/ Risk Officers of the business units.

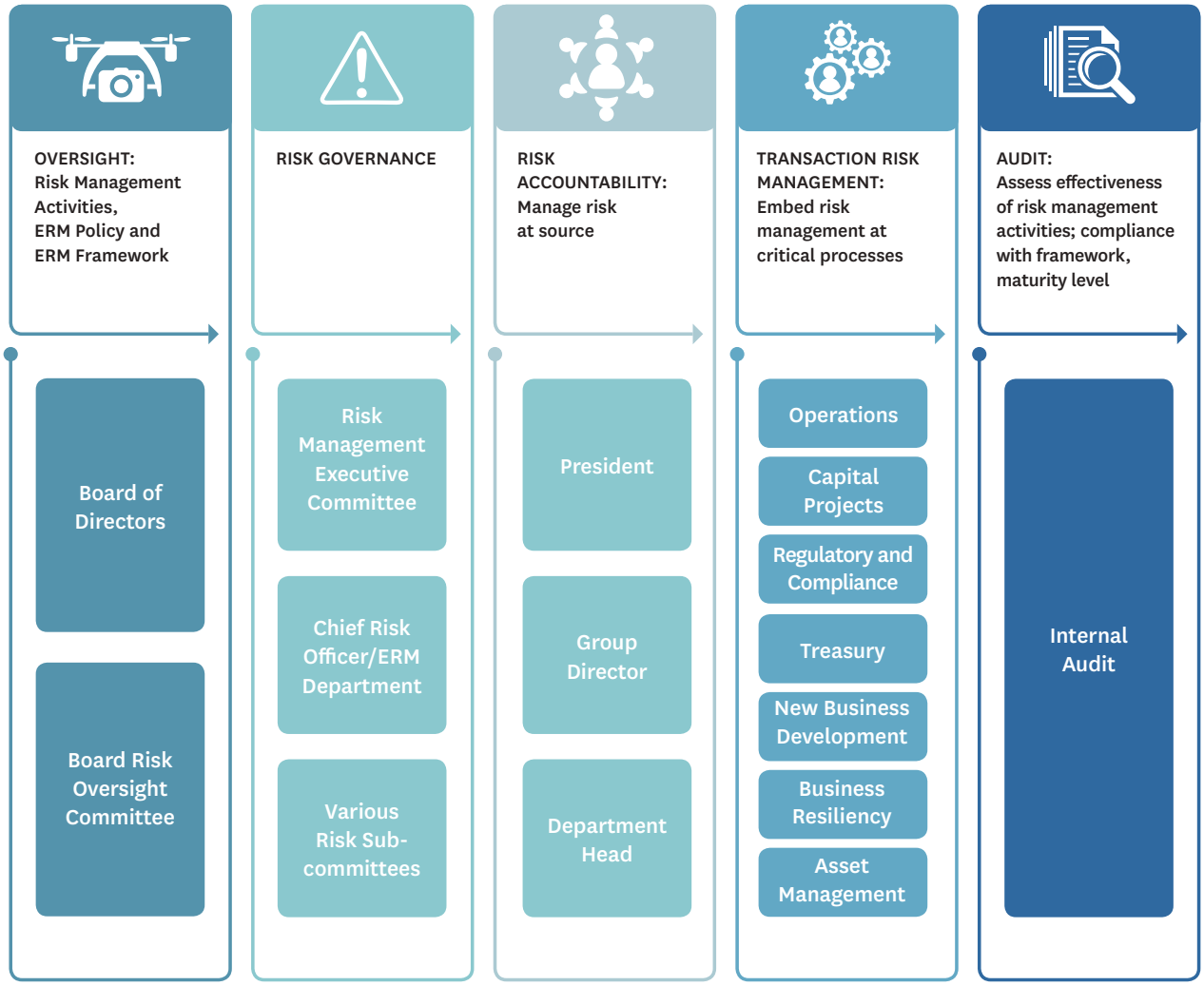
MITIGATING RISKS, MEETING CHALLENGES HEAD-ON

Risk management plays a critical role in Manila Water's growth and improvement as a leader in the provision of water, used water, and environmental services.

Last year, the company's efforts were affirmed when Manila Water bagged the Enterprise Risk Management Programme of the Year Award at the StrategicRISK's Asia-Pacific Risk Management Awards 2018 held in Grand Hyatt Hotel, Singapore. The company's ERM program was named the best in the region in recognition of the company's successful enhancement and implementation of the enterprise risk management program, especially its ability to allow the business to remain agile and responsive and its effective integration throughout the Enterprise.

Manila Water does not rest on its laurels, as risks evolve. It continues to face pressures both opportune and potentially detrimental to the company, which test its mettle. Keeping in mind its accountability to shareholders, regulators, employees, and customers, the company managed the following top enterprise risks in 2018, proactively where possible, and came up with actions and solutions.

THE RISK MANAGEMENT STRUCTURE



2018 TOP ENTERPRISE RISKS

2018 TOP ENTERPRISE RISKS	MITIGATION STRATEGIES
POLITICAL AND REGULATORY/COMPLIANCE Failure to manage regulatory and socio-political uncertainties that may adversely affect the organization; Failure to meet regulatory requirements obligations resulting to penalties, fines etc.	Programs have been implemented to ensure control of regulatory, socio-political and compliance risks at both operational and strategic levels. Enhanced stakeholder relationship management has been given key priority, with regular coordination and strategic direction setting undertaken with groups involved in stakeholder engagement at the corporate and enterprise levels. There were organizational and process changes to improve the regulatory compliance of the organization. The document management system has been enhanced to improve readiness in regulatory review and audit.
RATE REBASING Failure to manage the rate rebasing process leading to unfavorable ruling by regulators, negative investor perception, loss in value and unrealistic rate rebasing commitments.	The Business Plan was approved on September 27, 2018 with a partial award of tariff to be implemented in the years of 2018, 2019, 2020, 2021 and 2022. Regular coordination meetings with the MWSS Regulatory and Corporate Offices were conducted involving discussions on medium-term water sources, corporate income taxes and other issues relative to the concession. Key concession guidelines have been developed to ensure that rate rebasing audits in the future will be facilitated in accordance with the concession agreement.
WATER SUPPLY Failure to ensure adequacy, security, quality and reliability of water supply.	Activities are being done to further increase adequacy, security, quality, reliability and efficiency of the current water supply system such as the development of medium-term water sources, rehabilitation of deep wells, weekly monitoring and investigation of NRW contributors, weekly monitoring of dam water levels, preventive and corrective maintenance of dam facilities, aqueducts and water treatment facilities.
BUSINESS CONTINUITY Failure to ensure recovery and continuity of business operations through a comprehensive business continuity management plan.	A project team has been established and a consultant has been engaged to enhance the organization's business continuity management system. There were organizational changes to improve the resiliency of the organization. Drills are regularly conducted following contingency standards, procedures and processes which increased readiness and awareness of employees on emergency protocols. Emergency response plans are continuously reviewed and enhanced resulting in continuous operations of facilities even during natural calamities such as floods and incidents such as power interruptions.
CAPEX EXECUTION Failure to meet CAPEX targets on time, within the approved cost, and according to quality.	Monitoring of project milestones is being done to ensure timely completion of projects. An Enterprise Portfolio and Project Management System (EPPM) is implemented to improve project visibility. Manila Water conducts a rigorous review and approval process for project approval, variation orders and time extensions. Project management is risk-based such that review and reporting frequency, and escalation levels depend on the project's risk level. In addition, process improvements were implemented to eliminate repetitive tendering and approval activities.
NEW BUSINESS OPERATIONS Failure to operate new businesses properly as a result of poor integration, planning, and execution.	The Enterprise Functional Council (EFC) was created to enable the Enterprise Group Directors, with no line relationship to the subsidiaries, to enforce functional standards across the business units. The EFC provides a venue for subject matter experts to share best practices. A Subsidiary Operations Group Director (SOGD) was appointed to oversee all operating subsidiaries.
NEW BUSINESS DEVELOPMENT Failure to launch significant new businesses to meet current and future business objectives.	A Regional Business Development structure is in place to provide more focus to business expansion opportunities. A comprehensive project development process and framework has been instituted, determining specific parameters, opportunities, and initiatives required that not only increase return on effort, but also improve the overall hit rate of project closure. The specific intent is to deliberately establish a pipeline of projects with significant size, economies of scale, and clear synergy with existing and established business units. Project viability is evaluated through a multi-stage approval process, assessing resource allocation and risk, which is subsequently considered in the determination of the cost of capital and appropriate development costs.

PLANNING AND EXECUTION Failure to plan and execute major initiatives in a systematic and well-coordinated manner leading to non-achievement of business and financial objectives.	An Enterprise Portfolio Management Office (EPMO) is in place to provide the necessary governance structure and support to facilitate timely and effective execution of enterprise plans. The EPMO facilitates the alignment of objectives, resources, structures and systems across the various project portfolios/change initiatives.
PORTFOLIO MANAGEMENT Failure to manage the risks associated with managing a portfolio.	A Portfolio Review Committee was established to objectively assess the financial and operating performance of current business units. Policies regarding investment and divestment of resources are in place, ensuring proper resource allocation across the enterprise.
TALENT MANAGEMENT Failure to address the talent requirements of the organization to achieve current and future business objectives.	A robust succession plan is in place to ensure a strong pipeline for critical roles. A Human Capital Management System (HCMS), a unified platform for all HR services, was implemented. In addition, on-time enhancements were made to rewards programs to maintain market competitiveness while being mindful of regulatory thresholds of the business.

In 2018, the following activities were carried out to further improve the ERM program in the Manila Water Enterprise.

Risk Governance Structure Standardization. The company standardized the risk governance structure across the Manila Water Enterprise. Risk Management Executive Committees (RMECs) were established at Manila Water Operations (MWO), Manila Water Philippine Ventures, Inc. (MWPV), Manila Water Asia Pacific (MWAP), and Manila Water Total Solutions (MWTS). In addition, ERM Policies were developed for MWO, MWPV, and MWAP.

Insurance Program Review. Manila Water had another breakthrough with Vietnam affiliates as the company conducted an insurance program review. The exercise identified gaps in the affiliates' insurance program, and discussed action items to address such gaps with the respective leadership teams. In addition, the company conducted an insurance management learning session was conducted.

Insurance Program Optimization. ERM Department, in coordination with Laguna Water, optimized Laguna Water's insurance program. The optimization of insurance resulted in costs savings of ₱2.22 million for 2018 and will be recurring every time the Industrial All Risk policy is renewed. In addition, the project resulted in an enhancement of coverage, which protects Laguna Water's balance sheet in the event of catastrophic disasters resulting in business interruption.

Maintenance of Quality Management System for Insurance Management. As an affirmation of adherence to global best practices, the ERM Department's Insurance Management Section successfully passed its ISO 9001:2015 surveillance audit with neither major nor minor non-conformities.

As the company sets its sights on further expanding its reach and footprint, Manila Water continues to engage its talents in finding more cost-effective and innovative ways to manage the risks the company faces. One such activity is the Gawad Iwas-Lunas: Risk Management Excellence Awards, an internal awards program to recognize individuals, teams, and departments that have significantly embedded risk management and exhibited risk culture in the company. It is the first of its kind within the Ayala Group of companies and with a panel of judges composed of industry professionals and experts.

With sustained active involvement and appreciation of risk management at all levels within the organization, the company is geared up to manage uncertainties in the regulatory, business, and physical environment. The company remains equipped to achieve and seize new business goals as it pursues the crucial role in protecting the environment and enhancing sustainable development, both locally and internationally.

REPORT OF THE BOARD RISK OVERSIGHT COMMITTEE TO THE **BOARD OF DIRECTORS**

FOR THE YEAR ENDED DECEMBER 31, 2018

The Board Risk Oversight Committee ("BROC") was established by the Board of Directors at its August 11, 2015 meeting to provide assistance in fulfilling the Board's oversight responsibilities in relation to risk governance in Manila Water. The Risk Committee's roles, responsibilities, and authorities are defined in the Risk Committee Charter approved by the Board of Directors during its November 26, 2015 meeting.

In compliance with the Risk Committee Charter, the Committee confirms that:

- An independent director chairs the Risk Committee. The Committee has three out of four members who are independent directors.
- The Committee had two meetings during the year with the following attendance rate:

Directors	No. of Meetings Attended/Held	Percent Present
Jaime C. Laya	2/2	100%
Jose L. Cuisia Jr.	2/2	100%
Oscar S. Reyes	2/2	100%
Gerardo C. Ablaza Jr.	2/2	100%

- The Committee discussed with Management the adequacy and effectiveness of the Enterprise Risk Management process, including significant risk exposures, the related risk-mitigation efforts and initiatives, and the status of the mitigation plans.
- Management presented projections of Angat Dam water supply. Discussion focused on: (a) the potential impact of a movement of the West Valley Fault; (b) company response to water supply reductions caused by El Niño and generally of climate change; and (c) the need for government action on water supply projects.
- The review was undertaken in the context that Management is primarily responsible for the risk management process.
- The Committee has reviewed the Enterprise Risk Management Process in Manila Water Company, Inc. and is satisfied that sufficient risk management systems are in place.
- The Committee conducted a self-assessment of its performance to confirm that the Committee meets the expectations of the Board, Management and shareholders.

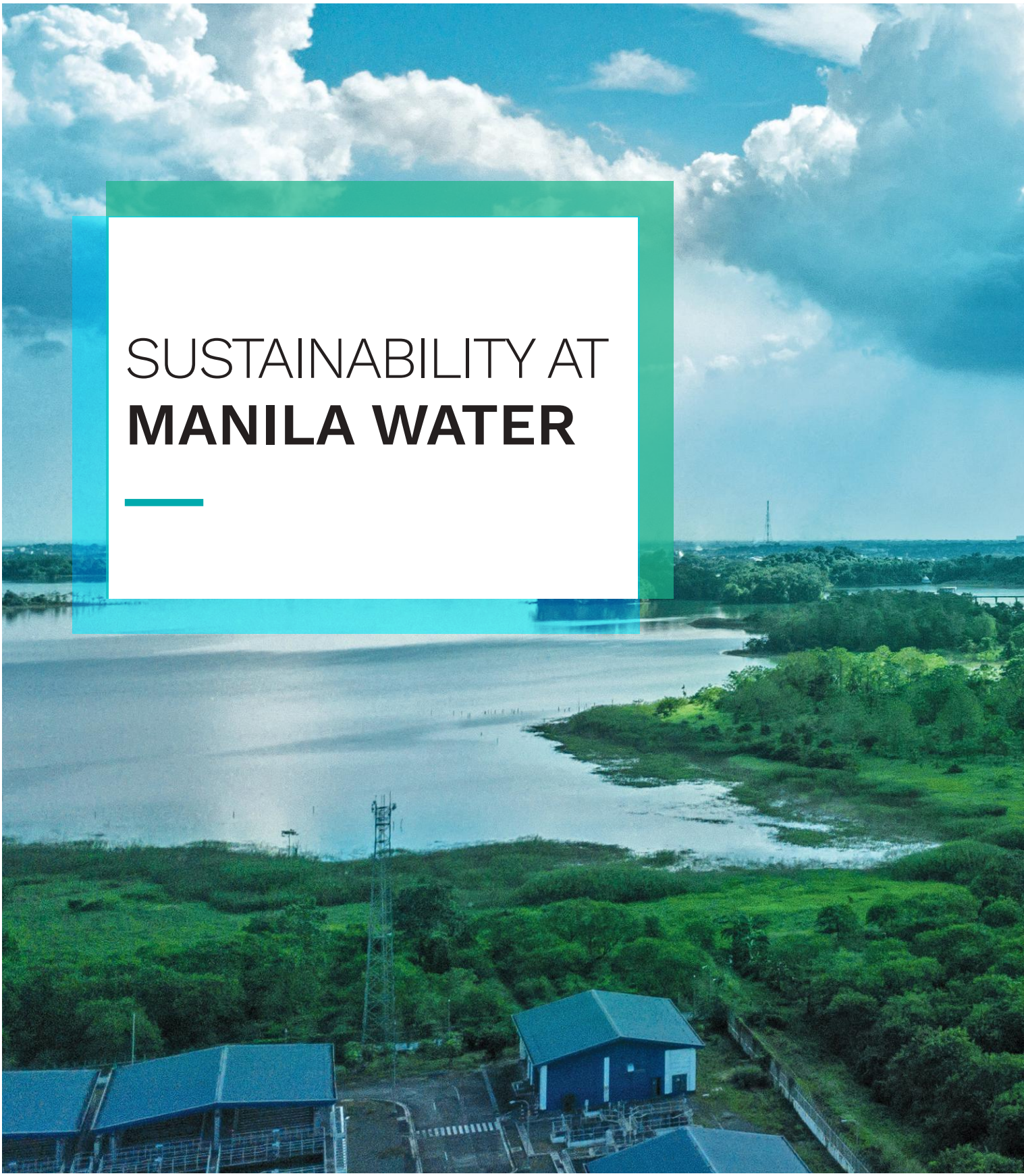
March 26, 2019

JAIME C. LAYA
Chairman

GERARDO C. ABLAZA JR.
Member

JOSE L. CUISIA JR.
Member

OSCAR S. REYES
Member



SUSTAINABILITY AT **MANILA WATER**

Helping Build Communities, Safeguarding Health and Safety | **Page 60**

Protecting the Environment | **Page 65**

Manila Water Foundation | **Page 74**

OUR CONTRIBUTION
TO THE UNITED NATIONS
SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY

Supporting and enabling marginalized communities through the provision of clean, potable water through our community development programs such as Tubig Para sa Barangay or water for low-income communities, and the provision of handwashing and drinking water facilities in the through the Lingap ("care") Program

214,164
Tubig Para sa Barangay connections

429
Lingap connections

3 GOOD HEALTH

Ensuring consistent compliance with water quality standards set in the Philippines National Standards for Drinking Water by the Department of Health

Healthy Family Purified Water, a brand under Manila Water Total Solutions, responds to a market demand for niched packaged purified water product. Healthy Family utilizes a fully-automated "closed-loop" production system eliminating human intervention to prevent contamination.

5 GENDER EQUALITY

1.76:1
Ratio of male and female employees

1:1
Ratio of male and female members of the Enterprise Leadership Team

6 CLEAN WATER AND SANITATION

Ensuring the provision of clean, potable water and sanitation services for all, marked by reliability and exceptional customer service

1,126,254
billed connections

25.62 M
population served across the Enterprise

Strengthening our commitment to the environment by giving equal priority in the provision of used water services

142,037
sewer connections

116,507
desludged septic tanks

62.42 mcm
of used water treated

7 AFFORDABLE AND CLEAN ENERGY

Implementing energy efficiency initiatives and exploring the use of renewable energy gained

₱37.4 M
in savings for 2018

5,110,891 kWh saved from energy efficiency programs and tapping into renewable energy. This is equivalent to an emission reduction of **3,587 tons** of CO_2

8 DECENT WORK AND ECONOMIC GROWTH

98%
local spending

2%
foreign spending

₱9.98 B
enterprise-wide capital expenditure

19 Suki Vendors
Infusing capital and driving employment as we boldly expand beyond the Manila Concession, and encouraging inclusion by building stronger ties with business partners through the Suki Vendor Program

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Boosting the economy through infrastructure marked with sustainability and innovation in the delivery of water and used water services

2018 Major ongoing projects:

1. Rizal Province Water Supply Improvement Project (RPWSIP/Cardona Project)
2. Pasig North & South Sewerage System
3. Tagum Bulk Water

10 REDUCED INEQUALITIES

Ensuring equal opportunity for applicants, employees, business partners, setting aside biases against race, gender, age, cultural, religious beliefs and any other form of preferences

Committing to deliver water and used water services for all. Providing customers with the same high-quality service

11 SUSTAINABLE CITIES AND COMMUNITIES

Blending green spaces and landscapes within our facilities and opening these for public use

Community park at Olandes and Taguig North Sewage Treatment Plant

Community recreational space and evacuation area in case of emergencies, at the Pineda-Kapitolyo Sewage Treatment Plants

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Strengthening our environmental commitment by supporting programs which promote recycling and proper waste management

Donated
1,750 liters
of used oil for recycling through Bantay Langis, a program of Bantay Kalikasan of the ABS-CBN Foundation

Sparking innovations projects which brought
₱352 M
in savings

13 CLIMATE ACTION

Committing to Climate Action through the signing of the revised Climate Change Policy and strengthening the Climate Change Council which will guide the Enterprise to be more proactive in adapting to and mitigating the effects of climate change

The Manila Water Board of Directors nominated the President and CEO as the Chief Sustainability Officer, who signed the latest version of the Climate Change Policy, ensuring climate change resilience, mitigation, and adaptation across the Enterprise.

14 LIFE BELOW WATER

Supporting the conservation and protection of our marine resources and ensuring the sustainable management of treated used water

9,102 tons
of organic pollution (as Biochemical Oxygen Demand) removed from key waterways

102,753
Lakbayan participants/ Water and Used Water Trail Program participants since 2006

34
Toka Toka partners

Involving stakeholders, deepening awareness and understanding of issues related to the water and used water trail through environmental advocacies

15 LIFE ON LAND

Protecting vast watersheds and ensuring water supply sustainability

41,500
trees planted

9,259 ha
of watershed being protected across the Philippines

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Adhering strongly with the highest standards of ethics, good governance, competence, and integrity in all dealings

17 PARTNERSHIPS FOR THE GOALS

Harnessing the synergies of public-private partnerships with foreign and local governments, public water utilities, and economic zone development authorities

Committing to our mission of delivering clean, potable drinking water, collecting customers' used water and ensuring that used water goes through sustainable treatment and management

POSITIONING SUSTAINABILITY AT **THE FOREFRONT OF THE BUSINESS**

GRI 102 -47

Sustainability is of utmost priority to Manila Water. Over two decades' worth of expertise and experience demonstrate how the company provide access to safe, clean water in a way that manages key impacts and ensures responsible practices at every stage of its operations.

Manila Water has always championed sustainability through its contributions and pioneering initiatives. The company was the first in the Philippine private sector to produce a sustainability report in 2005 when environmental, social, and governance (ESG) issues were not yet at the top of the corporate agenda. As with this year's report, the company discloses our economic, environmental, and social performance in accordance with the Global Reporting Initiative (GRI) Standards. Manila Water also adheres to the principles of the Integrated Reporting <IR> framework to align our strategies with our outlook on future performance.

SUSTAINABILITY FRAMEWORK

Manila Water recognizes that its ability to create and share value depends on the communities it serves and the environment that provides resources. The company integrates sustainability principles and practices into management systems to boost its long-term financial viability and address the growing demand of the customers.

This has enabled the company to reach over 25 million people throughout the Philippines and Southeast Asia.

The sustainability framework of Manila Water presents a holistic picture of how the company contributes to sustainable development and views its role in society at large.

Beginning from inside-out, Manila Water develops and cares for its employees at the forefront of the company's work, upholding the core value on primacy and integrity of the employees. The company provides access to clean water with the operational excellence required to deliver exceptional, high-quality services.

As Manila Water further grows, the company contributes to the local and national economies wherever it operates. It continues to pursue this growth in both domestic and international markets, whether through horizontal or vertical expansion. Throughout the value chain, the company protects the environment and looks after its resources, knowing how vital water is to social and economic development. This approach to sustainability is also reflected in the company-wide Sustainability Policy.

MATERIAL TOPICS

Covered in this report is Manila Water's 2018 performance related to environment, workforce, communities, and economy. The material topics align with the sustainability framework and policy, key performance indicators, business efficiency measures, and identified key Enterprise risks. The management team has validated all material topics.

Material issues are validated through stakeholder engagement activities year-round. The company regularly engages the stakeholders who influence the success of Manila Water, and whose views and expectations affects the topics covered in this report.

MATERIALITY TABLE

Protecting the Environment	Developing Our Employees	Helping Build Communities	Safeguarding Health and Safety	Contributing to Local and National Economies
• Water abstraction • Non-revenue water • Used water treated • Chemicals • Energy • GHG emissions • Environmental advocacy • Biodiversity • Waste	• Employment • Employee Training and Development • Employee Engagement	• Customer health and safety • Customer service • Community programs • Service coverage and population • Climate change adaptation • Business continuity • Marketing and labeling • Data Privacy • Indigenous peoples rights	• Water potability • Occupational health and safety	• Economic performance • Indirect economic impacts • Procurement practices • Supplier assessment • Compliance • Governance structure • Delegating authority • Risk management • Communicating critical concerns • Integrity and anti-corruption

PAVING THE COURSE **FOR COLLABORATION AND PARTNERSHIP**

GRI 102 -40, 102-42, 102-43, 102-44

Customers at the reception of the Laguna Water office in Nuvali, Laguna.

The success of Manila Water is built on the trust and support of its stakeholders. The company actively engages with various stakeholder groups to understand their concerns and expectations on its business. Manila Water sees to it that all channels of engagement are open, transparent, and tailored to their needs, ensuring that all concerns are communicated and addressed.

STAKEHOLDER ENGAGEMENT

Stakeholder Group and Channels of Engagement	Concerns Raised	Our Responses
(1) Employees a) Regular internal meetings on different levels b) Employee engagement survey c) Yearly performance reviews d) Roadshows (rolling-out new policies, etc.) e) Email blasts/bulletins/online publications	• Compensation and benefits • Alignment of personal values with the company's mission-vision • Employee engagement • Succession plans • Availability of external training, seminars etc.	• Annual performance-based salary adjustments • Employee engagement programs • Manila Water University
(2) Community/Customers a) Monthly Abot Kamay ng Barangay b) As needed public consultations c) Semi-annual Kasangga Days d) Website and social media e) Use of flyers and bill inserts f) Toka Toka Advocacy and Lakbayan g) Customer service hotline	• Customer Satisfaction and after sales ○ Water and used water services concerns ○ Projects	• Resolve complaints within internal service level targets • Traffic management plans • Regular project updates
(3) Regulators a) Regular correspondence and submission of reports b) Meetings with regulatory offices/ 'Kumustahan' c) Public consultations, seminars, conferences and fora d) Rate Determination done every 5 years	• Service obligations	• Ongoing finalization of guidelines for the following: accounting and auditing, technical audit, key performance indicators – business efficiency measures, and appropriate discount rate • Attendance and participation in meetings and provide support, assistance when required
(4) National Government Agencies (NGAs) Regulators (DENR, NWRB, LGUs, DOH, LLDA, DOLE, DPWH, MMDA) a) Regular correspondence, submission of reports, permits and clearances b) Regular briefings and public consultations	• Policy/governance matters • Operational matters • Position papers • Penalty settlement	• Compliance with regulators requirements • Policy advocacy • Relationship Management

Stakeholder Group and Channels of Engagement	Concerns Raised	Our Responses
(5) Local Government Unit (LGU) a) Project profiling through public consultations b) Toka Toka Advocacy and Lakbayan c) Regular correspondence d) Participation in LGU events e) Agos magazine	• Water and used water projects ○ Right of way issues ○ Alignment of work programs • Requests for assistance	• Compliance with requirements and continuous coordination and negotiation with LGUs • Coordination meetings for project update • Delivery of requested drinking fountains and volunteering in activities
(6) NGAs a) Toka Toka Advocacy and Lakbayan b) Regular briefings and updates c) Participation in NGAs' events	• Alignment of programs with KPIs and Supreme Court Continuing Mandamus • Water resource management • Public Undertaking and Water Sector Policy • Rate rebasing • Right of way Issues • Relocation of pipes affecting proposed projects • Alignment of infrastructure master plans	• Alignment of IECs, desludging caravan, and other environmental projects • Position papers and similar documents • Regular and close coordination on project planning and implementation • Delivery of requested support and event participation • Partnership in Toka Toka advocacy program
(7) Supply Chain a) Annual forums and trainings and focus group discussions b) Vendor 360 Degree Feedback c) Performance Issue Letters and Counselling sessions d) Company presentations e) E-mail blasts/bulletins/ online publications	• Minimum accreditation requirements and schedule • Project pipeline • Use of tools such as SAP Ariba and Enterprise Portfolio and Project Management • No feedback mechanism for vendors • Performance issues – rating criteria and evaluation results • No contact information of buyers and/or end-users to whom vendors can present to	• Standardized accreditation process across the enterprise with the use of Ariba (Vendor Database for buyers and Virtual Data Room for vendors), partnership with D&B (Financial and Environment and Health Assessment) and internal Technical Evaluators (Technical Capability assessment for suppliers (chemicals, technical materials), contractors, and service providers (maintenance). Program on Mainstreaming Supply Chain Sustainability (in partnership with PBE) for critical vendors is in the works. • Vendor forums • Training • One-on-one sessions/counselling sessions • Vendor 360 - degree feedback • Product presentations

Stakeholder Group and Channels of Engagement	Concerns Raised	Our Responses
(8) Civil Society a) As needed courtesy visits b) Face-to-face meetings	• Improvement in the socio-economic conditions of the community • Project partnership • Biodiversity and watershed management • Water availability	• Kabuhayan Para sa Barangay Program of Manila Water Foundation • Partnership with World Wildlife Fund for nature on Ipo watershed management • Groundwater and surface water studies, water safety plan • Rehabilitation of water networks and services
(9) Finance Community a) Annual Report b) Annual Stockholders' Meeting c) Quarterly Analysts' Briefing d) Lenders' Briefing e) Website and press releases f) Roadshows and one-on-one meetings	• Changing regulatory environments • Growth-enabling environments and expansion initiatives beyond the Manila Concession • Company top risks • Environmental and social safeguards • Financial and operating performance	• Publication of Intergrated Report • Timely disclosures to the regulatory agencies and investing community
(10) Media a) Regular media coordination b) Bi-annual press briefings and conferences c) Media coverage for special events (Signing, Sealing, Inauguration among others) d) Regular dispatch of press releases and announcements e) Website and social media posts on important issues f) Sponsorships of media events and advocacies g) Media engagements and interviews	• CAPEX programs and projects • CSR programs and advocacies • Service improvement plans and programs • Customer service policies • Water tariff and adjustments • New business operations, developments, expansion, acquisitions and disclosures • Business continuity • Engagement with stakeholders • Rate rebasing	• Press briefing and media engagements • Media visits of major projects and facilities • Public information on issues and concerns • Regular seeding of relevant press releases • Regular interface with local and national media • Advisories and notices to customers • Media fora, interviews and press conferences • Relevant information posted on digital and social media platforms

EMBEDDING **SUSTAINABILITY MANAGEMENT**

GRI 405-1, 406-1

Manila Water sees its workforce as the most important resource of the company. Manila Water considers its employees as builders of a bright and hopeful future for the communities it serves. The company's holistic approach to talent management—from the point of recruitment to development, ensures that it brings in, develops, and engages talents with the required competencies to fulfill its mission to build a sustainable future. Fundamental to this belief is the assurance that the company does not discriminate on the basis of race, gender, age, cultural differences or any other form of bias.

Manila Water considers each employee as a corporate resource, and it believes that effective leadership is critical for people to excellently perform their roles in the company with the highest degree of integrity and competence. With the continued growth and transformation of the business, cultivating leaders who are future-ready is a must.

Employees at Manila Water's Head Office in Balara, Quezon City.

2,118 WORKFORCE

GRI 405 -1

Total headcount of senior management by gender

	2016	2017	2018
Male	77	78	80
Female	46	56	63

Total headcount of middle management by gender

	2016	2017	2018
Male	842	877	876
Female	533	566	586

Total headcount of rank and file by gender

	2016	2017	2018
Male	201	338	395
Female	54	106	118

Total headcount of by age group per category

Below 30 years old	646
30-50 years old	968
Over 50 years old	504

1,351 Male **767** Female

NEW HIRES

GRI 401 -1

By gender	
Male	236
Female	152
By age	
>30 years	222
30-50 years	139
<50 years	27
By region	
NCR	297
Luzon	72
Visayas	14
Mindanao	5

TURNOVER RATE

GRI 401 -1

By gender	
Male	214
Female	127
By age	
>30 years	110
30-50 years	145
<50 years	86
By region	
NCR	288
Luzon	40
Visayas	11
Mindanao	2

AVERAGE TRAINING HOURS

GRI 404 -1

Male 21.1 **Female 26.1**

	2016	2017	2018
Senior	16.8	29.0	42.1
Middle	22.6	31.0	24.5
Rank and File	14.4	16.0	6.1

TRAINING AND EDUCATION

In 2018, Manila Water Talent Management facilitated 162 external and internal training programs, consisting of group-initiated programs, talent management programs, and those under the Manila Water University to a total of 1,137 trained employees.

The Manila Water University (MWU) is the corporate learning institution of Manila Water. It houses a wide array of training and development programs, which can be instructor-led and/or online. The programs under MWU are all competency-based, targeted to develop Manila Water talents by enhancing their leadership, technical, and functional skills. In turn, MWU supports career development, and its various programs complement the company's efforts to prepare its leaders to assume critical roles in the organization.

In 1999–just two years after the company entered into the East Zone Concession agreement, the Manila Water Cadetship Training Program was instituted, making it the longest running development program of the company. Now on its 24th batch, the Cadetship Training Program is a six-month program that provides qualified fresh graduates the opportunities for specialized training and work experience, honing them towards excellence in business and technical skills.

PROMOTING WORK-LIFE BALANCE

To ensure a positive working environment, Manila Water makes sure that work-life balance is fostered for its employees. In today's fast-paced society, Manila Water sees to it that the workplace acknowledges and considers the realities of people not only as employees, but as homemakers, parents, and members of their respective communities.
In 2016, the company launched a telecommuting initiative, providing the employees more flexible time and work arrangements to encourage productivity and efficiency. Six work hubs were constructed across the East Zone in the company's various facilities, concurrently serving as contingency sites to ensure fast business recovery in case of natural disasters and calamities.

Various employee programs are in place to foster unity and camaraderie. These programs include employee volunteerism, sports and wellness, and other various employee engagement programs. The company also conducts numerous corporate recognition programs to recognize outstanding employee performance and work ethic. These recognition programs are the Huwarang Manggagawa Awards for rank and file employees, the President's Pride due to Performance Awards for middle managers, and the Chairman's Circle Awards for senior managers. To acknowledge employees' continued service to the company, retirement readiness programs are offered to facilitate the easy transition of retiring employees to their next phase in life.

COLLECTIVE BARGAINING

GRI 407-1

Manila Water values the rights of its employees to participate in the formulation and review of policies concerning the rights and welfare of the workforce. The company supports the employees' freedom of association and complies with the existing laws in this regard. In 2018, 177 employees were covered by the collective bargaining agreement, comprising 13.6 percent of the total employees of the Manila Concession.

HELPING BUILD COMMUNITIES, **SAFEGUARDING HEALTH AND SAFETY**

For over two decades, Manila Water has provided access to safe, potable water and sanitation services. This is the core of the Enterprise that serves over 25 million people in the Philippines and key Asian markets, enhancing their sustainable development. The company has long been a champion of the UN Sustainable Development Goal (SDG) 6: Clean Water and Sanitation for All.

Manila Water is in a business that is fundamentally inclusive: providing water, a critical resource for social and economic development, for all communities wherever it operates. Manila Water believes that water is a basic human right, it delivers clean water and sanitation services that respond to the needs of customers from all walks of life.

The company recognizes that low-income customers face the brunt of limited access to water, constrained by social and economic realities. Driven by its core values, the company helps build communities through the Tubig Para sa Barangay program (Water for Communities, TPSB). This Manila Water social flagship program began in the Manila Concession and now reaches communities across the country who need clean water the most.

TPSB is a socialized water tariff program for families who once depended on expensive vended water from unreliable sources. Since it began in 1998, Manila Water has provided a total of 214,164 water service connections to low-income customers. Through the program, the company enables communities in improving their quality of life with the availability of clean water. TPSB also supports communities to be more resilient through improved water infrastructure that mitigates risks in cases of extreme weather and flooding. Manila Water brings this flagship program where the company further expands and grows.

The Manila Concession is compliant with the Philippine National Standards for Drinking Water (PNSDW) with 3,897 water sample points for water treatment works, distribution network, and service reservoirs. Beyond the base business of the Manila Concession, the company provides reliable water supply in the industrial zone of Clark, the province of Pampanga, the island of Boracay, and the province of Laguna. The company also expanded its domestic reach to new areas north of Metro Manila, establishing operations in Bulacan and Calasiao.

The Manila Water technical excellence in water supply operations goes beyond the Manila Concession. The company now serves more people domestically and internationally through bulk water supply projects in Cebu City, Philippines and Vietnam. Manila Water, through Manila Water Asia Pacific, also established presence in key districts in Vietnam, Indonesia, and Thailand this year, leveraging the company's track record and technical excellence.

Through the provision of used water services, Manila Water demonstrates its commitment to environmental sustainability. Part of the company's service obligation is to treat water used by its customers, and to discharge it back to the environment in a responsible manner. For customers not connected to sewer lines, Manila Water also offers sanitation services by way of regular septic tank desludging every five to seven years.

The company continues its focus on holistic water quality management. The respective water safety plans of the Manila Concession, Boracay Water, Clark Water, and Laguna Water are in effect, which also engage business partners in expanding safe and clean water access.

SAFEGUARDING OCCUPATIONAL HEALTH AND SAFETY

Manila Water is committed to strengthening the culture of safety among its employees, business

SAFE MAN-HOURS

MANILA WATER	13,649,080 Feb. 2014 to Dec. 2018
BORACAY WATER	649,544 Feb. 2014 to Dec. 2018
LAGUNA WATER	1,445,615 Jan. 2012 to Dec. 2018
CLARK WATER	491,323 Jun. 2016 to Dec. 2018
CLARK WATER	12,264 May 2018 to Dec. 2018

*MWC man-hours are computed at the average of eight hours per day

Total number of non-disabling injuries	2
Total number of disabling injuries (excluding fatalities)	1
Total number of fatalities	0

Face-to-face customer interaction at Marikina Business Area.

partners, and the public. In 2018, the company was recognized for achieving 12.7 million safe man-hours without lost-time accident, as cited by the Safety Organization of the Philippines. This is a testament to the brand of Manila Water: "Safety Means I Care." Operating with high standards and systems of workplace safety, Manila Water is certified according to OHSAS 18001 Occupational Safety and Health Management Systems, which is integrated to other management systems.

A Safety Committee comprised of key employees meet quarterly, and safety meetings with contractors are convened, by way of a monthly meeting of the Safety Officers Network among contractors. The company holds incident investigations for relevant occurrences among employees and contractors involved. Manila Water also conducts regular safety audits as part of the oversight procedures on projects and facilities, along with the implementation of a safety program specific to each project.

In the Manila Concession, the Health and Safety Committee is composed of one chairman, one secretary, four representatives from different corporate groups, one company physician, and two worker representatives. These key personnel comprise 22 percent of the committee.

REACHING MORE CUSTOMERS

As Manila Water reaches more customers and communities, both here and abroad, it brings the high-quality service that defines the company's excellence in business and technical operations in the industry. Managers are well-equipped to receive and urgently respond to customer needs, and they conduct regular community visits called "walk-the-line."

A designated hotline is available 24/7 for all Manila Water customers in the domestic market. This year, leveraging and upgrading technology, the company launched an online customer service platform, with designated social media managers responding to customer complaints and requests in real-time. Information about ongoing projects, and water service interruptions due to repairs, improvement, or upgrades, are announced through popular social media platforms such as Facebook and Twitter.

Manila Water also supports the line of communication among its customers. For all Business Areas, the company works neigborhood leaders or kasanggas to assist in the wider dissemination of project updates and urgent announcements such as water interruption or desludging service schedules.

Healthy Family purified drinking water is compliant with international standards and is guaranteed safe to drink by both the Department of Health and the Food and Drug Administration.

STRENGTHENING BUSINESS CONTINUITY

Manila Water recognizes that its ability to provide reliable water services requires the company's readiness in case of disasters and other extreme events. In the face of climate change (such as the phenomenon of longer rainy and dry seasons), the company implements mitigation strategies to minimize the potential impacts of adverse events on the business and its customers.

Manila Water has a comprehensive Business Continuity Plan that involves all employees, supply chain partners, critical utility allies, and local and national government agencies. Emergency preparedness procedures are set out to address critical incidents such as pipe breakages, massive power outages, typhoons bringing strong winds and floods, and earthquakes.

Manila Water also maintains a culture of disaster preparedness and response in the company's head office and key facilities. In 2018, 1,600 emergency bags were distributed to employees in the Manila Concession business. Each "Go Bag" contains basic survival items in case of an earthquake or other natural calamity which would necessitate transfer to an evacuation center for a prolonged period.

The company conducts regular emergency drills in case of adverse events and natural calamities throughout the year. These operations institute a call-tree telephone procedure in the event of a major disaster, in order to gather information about each employee's whereabouts, safety, and well-being. When necessary, rescue or assistance is immediately provided.

ENSURING PRODUCT SAFETY

As Manila Water responds to the needs of more customers, the company opens up to new market segments that create value and respond to growing demand for drinking water that suits their preference or lifestyle. In 2015, Manila Water Total Solutions (MWTS) launched the Healthy Family brand that complements the company's business commitment to provide clean water for all customers.

Healthy Family provides potable water for customers who have water reticulation concerns in their households or require purified drinking water on-the-go. The product is packaged in five-gallon and 500-ml bottles. The 500-ml bottle is sufficiently labeled with information about its source, content, and reminders for proper disposal. In providing this high-quality purified water, the company uses a fully-automated "closed-loop" production system with technology that requires less human intervention to prevent contamination. Full-time microbiologists analyze samples daily at an in-house laboratory compliant with international standards.

Through this platform, Manila Water uses advanced production and bottling technology in addressing this specific market demand for clean drinking water. Healthy Family is compliant with the regulatory requirements of the Department of Health and the Food and Drug Administration.

PROTECTING
THE ENVIRONMENT

Manila Water's business rests on water, and the company remains at the vanguard of protecting the environment that sustains this resource. Throughout the water cycle–from sourcing to used water treatment–Manila Water consciously operates on the impact of climate change and implements various initiatives that improve its long-term sustainability. In partnership with stakeholders, the company advocates for environmental protection and stewardship, with the will to act and do its part.

MITIGATING CLIMATE-RELATED RISKS

As the availability and quality of raw water continue to be affected by climate change, deforestation, and increasing water demand, Manila Water recognizes that it must mitigate climate-related risks on its business, and maximize opportunities that improve environmental sustainability.

For the Manila Concession, 99.7 percent of raw water comes from surface water which includes the Umiray-Angat-Ipo-La Mesa resource water system. The domestic water utility operations also source from Nabaoy River in Aklan, and Luyang River in Cebu. The regional water utility operations source from Dau Tieng Lake and Dong Nai River in Vietnam.

To ensure reliable water supply, the Manila Concession and its subsidiaries have masterplans for short-, medium-, and long-term water source development projects. As an example, Laguna Water, Cebu Water, and Clark Water have conducted groundwater and surface water studies to determine the viability and sustainability of their sources.

The company also continues to implement watershed management initiatives to improve raw water quality drawn from water bodies, the results of which have amounted to over 9,000 hectares of watersheds being protected in the Philippines. (We also discuss water supply risk on page 43 and the water security programs of Manila Concession on pages 80 to 81 of this report.)

In 2007, Manila Water was the first Philippine company to issue a Board-ratified Climate Change Policy, predating the formal legislation national climate change plans by several years. This policy promotes the implementation of climate change mitigation and adaptation initiatives throughout the entire business–a consciousness that persists and strengthens in the company culture to this day.

Reinforcing this commitment, Manila Water updated the policy in 2014 and 2018, and strengthened the Climate Change Council through the creation of subcommittees to spearhead the enhancement of climate resilience and climate change mitigation measures in its assets and operations. It also serves to promote the sharing of best practices across the Enterprise, as key managers head the committees on resiliency of assets, disaster risk reduction and management, water source development and management, and climate change mitigation. The Board of Directors furthermore nominated the President and CEO as the champion of the company's sustainability agenda.

MANAGING WATER RESOURCES

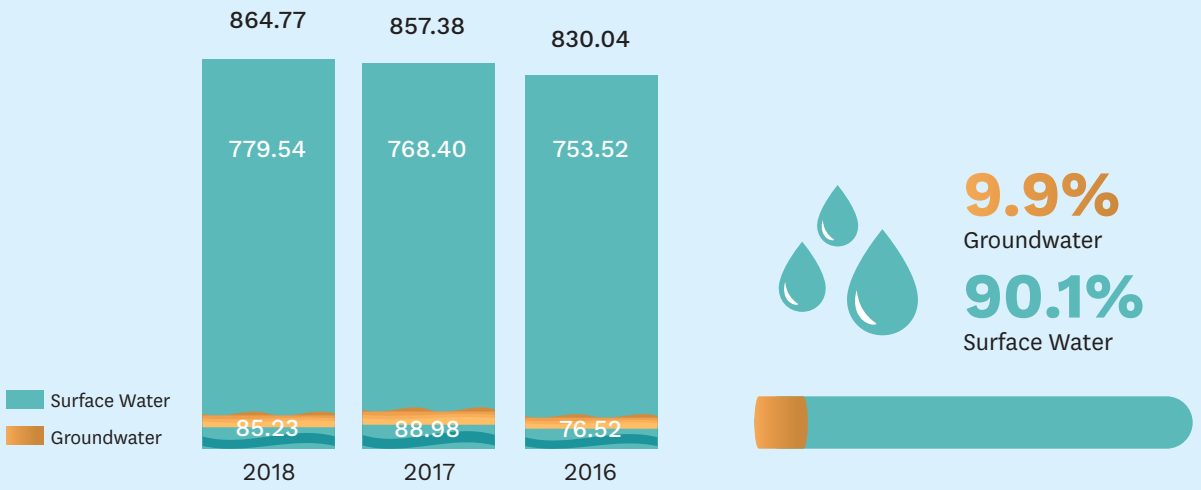
GRI 303-1, 303-2, 303-4, 304-3

Manila Water makes sure that its water withdrawals from groundwater and surface water sources as well as its discharges are within regulatory limits, and done in a manner that protects the resource and receiving bodies of water.

In 2018, Manila Water withdrew a total of 864.77 million cubic meters (mcm) of surface and groundwater across all its operating subsidiaries in the Philippines and its Manila Water Asia Pacific operations in Thu Duc Water and Kenh Dong Water.

The company properly treated used water in its 60 used water treatment facilities for its domestic ventures, with a total capacity

WATER WITHDRAWAL BY SOURCE (IN MCM)



Restated 2016 and 2017 data due to inclusion of MWAP's Kenh Dong Water and Thu Duc Water in the scope.
Data excludes Saigon Water, East Water, and PT STU of MWAP.

of 415,241 cubic meters per day. There are three ways by which used water is conveyed to treatment facilities. It can be through sewer lines, combined sewer-drainage system, or by septic tank desludging. The company met the effluent water quality standards set by regulatory authorities, treating used water in a series of processes (such as pre-treatment, activated sludge or aerobic digestion, sedimentation, clarification, and disinfection).

Manila Water submitted compliance action plans to the Department of Environment and Natural Resources (DENR) and Laguna Lake Development Authority (LLDA) given the Revised General Effluent Standards of 2016 (DAO 2016-08). The revised regulatory standards require the removal of nutrients such as nitrogen, phosphorus, and ammonia to reduce algal growth in water bodies. For the Manila Concession, facilities will be upgraded to further remove these identified nutrients in used water.

ENHANCING OPERATIONAL EFFICIENCY

Manila Water enhances its operational efficiency through continuous improvement and optimization of key processes for greater efficiency in the use of resources and reduce wastes and emissions. These efforts further improve the company's environmental performance.

USED WATER

BORACAY WATER
2 used water treatment plants
11,500 capacity, m3/day

CLARK WATER
1 used water treatment plant
30,000 capacity, m3/day

ESTATE WATER
15 used water treatment plants
46,653 capacity, m3/day

LAGUNA WATER
2 used water treatment plants
11,070 capacity, m3/day

MANILA CONCESSION
40 used water treatment plants
316,018 capacity, m3/day

TOTAL
60 used water treatment plants **415,241** capacity m3/day

	2016	2017	2018
Used Water Treated, mcm	51.52	56.42	62.42
BOD removed, tons	9,003	9,087	9,102
Carbon dioxide avoided due to used water treatment, tons CO_2	56,722	57,249	57,345

Computation of carbon dioxide avoided was based on the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories that for every kg of BOD diverted from waterways through full used water treatment instead of septic tanks, an equivalent 6.3 kg of CO_2 is prevented from entering the atmosphere.

Non-revenue Water

Manila Water has a comprehensive non-revenue water (NRW) program to reduce water losses in distribution lines. The successful execution of the NRW reduction activities involves leak detection, pipe replacement, meter inspection and calibration, as well as the quick resolution of incidents and responsive coordination with stakeholders (such as third-party contractors, national government agencies, local government units, and other entities).

The company continuously implements best practices on NRW reduction that translates to operational and cost efficiency gains in the distribution of potable water. Through the program, the Manila Concession recovered an average of 780 million liters per day (mld) or 285 mcm of water per year since 1997–the amount of recovered volume is equivalent to a medium-sized dam. This contributed to network efficiency which provided additional water supply to more customers and also avoids unnecessary CAPEX cost.

The NRW program is being successfully replicated across the operating subsidiaries, with a consolidated water recovery of 50 mld or 25 mcm per year. Clark Water's Just-In-Time production system and the Manila Concession's Project Lights Out, which automates pumping stations, are among the initiatives that contribute to the prevention of leaks and pipe breakage. The NRW reduction project in Zamboanga City, which operates under a joint venture between Manila Water and the local water district utility, recovered 12 mld or 6.16 mcm of water losses per year, established 36 district metering areas, and executed 9,435 leak repairs in just two years.

NON-REVENUE WATER (END-OF-PERIOD)

	% NRW at the start of operation	2016	2017	2018
Manila Concession	63.0% (1997)	10.8%	11.6%	11.4%
Clark Water	15.0% (2011)	4.6%	5.5%	6.7%
BMDC	50.0% (2017)	-	50.0%	34.3%
Obando Water	52.9% (2018)	-	-	47.7%
Calasiao Water	12.1% (2018)	-	-	5.5%
Laguna Water	48.0% (2009)	21.4%	19.5%	16.7%
Boracay Water	29.0% (2010)	12.6%	22.5%	13.8%
Cebu Water	5.0% (2015)	5.0%	3.0%	2.0%
Estate Water	47.0% (2016)	47.0%	34.0%	38.0%
Thu Duc Water	-	8.6%	1.8%	0.5%
Kenh Dong Water	-	3.0%	3.0%	3.0%

Chemicals

GRI 301-1

To make water potable, water treatment uses non-renewable chemicals such as alum, blended phosphate, chlorine, lime, polyaluminum chloride (PAC), polymer, and sodium hydroxide. Aside from biological process, used water treatment utilizes non-renewable chemicals such as chlorine, PAC, and polymer.

Chemical consumption is dependent on the quality of raw water and incoming used water. In 2018, the company saw a significant increase in the chemical concentration of its water supply, due to high turbidity at the La Mesa Watershed and Luyang River brought about by strong typhoons and rains. Innovations and various operational improvements are implemented to mitigate the effects of these adverse occurrences. Watershed protection and rehabilitation is further strengthened to prevent soil erosion which affects the turbidity of raw water.

Automation is being undertaken whenever, feasible and applicable. Initiatives such as Just-In-Time, Project Lights Out, NRW reduction, optimization and shifting to ultraviolet used water disinfection contribute in the improvement of chemical efficiency.

CHEMICAL CONSUMPTION, TONS

	2016	2017	2018
Water Supply	11,388	11,899	23,656
Used Water	2,594	1,506	2,517

Restated 2016 and 2017 water supply data due to inclusion of MWAP's Kenh Dong Water and Thu Duc Water in the scope. Data excludes Saigon Water, East Water, and PT STU of MWAP.

CHEMICAL CONSUMPTION INTENSITY

	2016	2017	2018
Water Supply, tons/mcm raw water abstracted	13.72	14.34	28.50
Used Water, tons/mcm treated	50.35	26.70	40.38

Restated 2016 and 2017 water supply data due to inclusion of MWAP's Kenh Dong Water and Thu Duc Water in the scope.

Energy and Emissions

GRI 302-1, 302-3, 302-4, 305-1, 305-2, 305-3

Energy is one of the highest operating expenses of Manila Water given the energy-intensive nature of its operations. Guided by its Climate Change Policy, the company optimizes its operational efficiency by utilizing energy-efficient technologies that further aid in climate change mitigation. The company also implements its integrated management systems on Quality, Environment, Energy, Health and Safety in its key operations.

Since 2014, the Manila Concession has been certified according to ISO 50001:2011 Energy Management System for its 10 largest energy-consuming facilities. It also implemented VFD installation, LED and AC inverter upgrade, and pump efficiency tests.

For other subsidiaries, various activities such as pipe re-sizing, upgrade of equipment, automation, and optimization of processes and other operational improvements contribute to energy efficiency. As mentioned, the company implemented the Project Lights Out initiative this year, which also addresses energy efficiency through automation.

The Manila Concession uses renewable energy in the operations of three facilities. It has installed solar panels at FTI Septage Treatment Plant, Makati North Sewage Treatment Plant, and Delos Santos Pumping Station. These facilities have generated a total of 177,222 kWh solar power in 2018.

Clark Water and Boracay Island Water have installed solar lamps, while Laguna Water installed solar panels in its Booster 3 facility that generates an average of 265 kWh/day.

A 1.2-megawatt (MW) mini-hydro power plant will be incorporated in the Novaliches-Balara Aqueduct 4 project—a new aqueduct to serve as a conveyance reliability line from La Mesa Dam to Balara Treatment Plants—and it will provide 50 percent of the electricity needs for Manila Water's Balara treatment facilities that will be operational by 2021. Manila Water also has a pilot waste-to-energy project that uses sludge as input to generate electricity at the FTI Septage Treatment Plant.

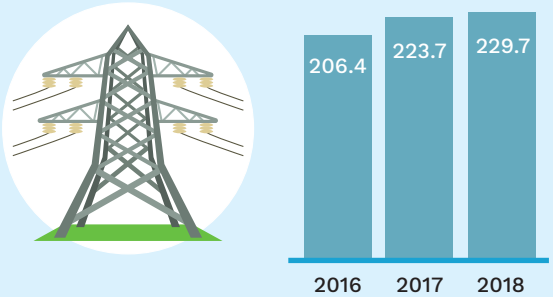
Because of the energy efficiency and renewable energy initiatives across the Enterprise, Manila Water enjoyed a total savings of 5.11 million kWh electricity in 2018, equivalent to ₱37.4 million.

POWER INTENSITY

	2016	2017	2018
Water Supply, kWh/m3 billed volume	0.252	0.268	0.269
Used Water, kWh/m3 treated	0.281	0.277	0.266

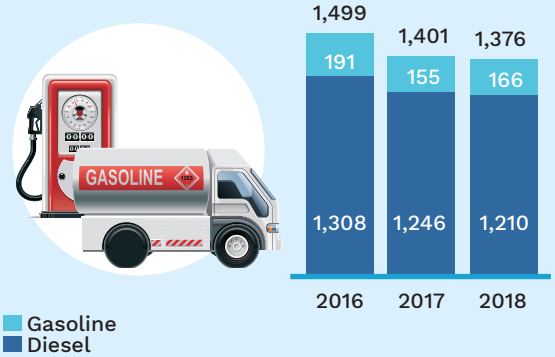
Restated 2016 and 2017 water supply power intensity due to inclusion of MWAP's Kenh Dong Water and Thu Duc Water in the scope
Restated 2016 used water power intensity from 0.265 to 0.281 kWh/m3 due to correction of electricity consumption of Boracay Water and Laguna Water
Restated 2017 used water power intensity from 0.275 to 0.277 kWh/m3 due to correction of electricity consumption of Boracay Water

ELECTRICITY CONSUMPTION, MILLION KWH



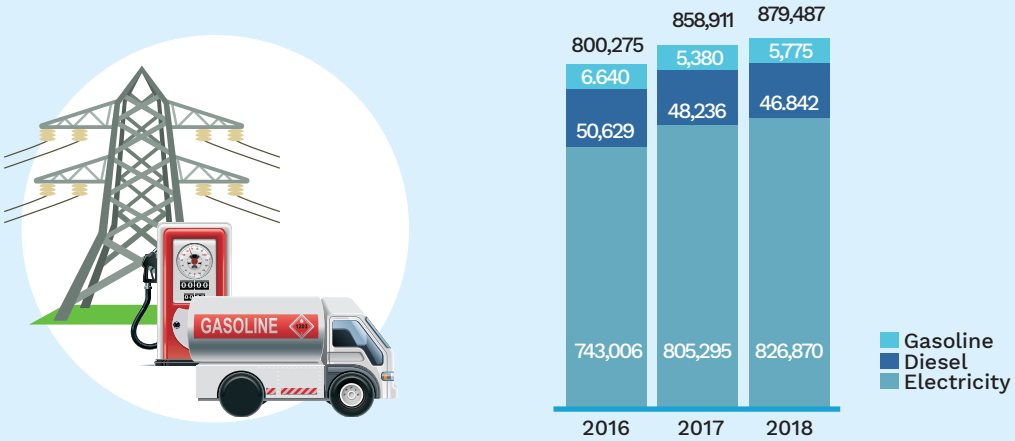
Restated 2016 and 2017 data due to inclusion of MWAP's Kenh Dong Water and Thu Duc Water in the scope

FUEL CONSUMPTION, THOUSAND LITERS



Restatement of 2017 gasoline consumption of Cebu Water from 30,512 liters to 1,992 due to correction of data

ENERGY CONSUMPTION, GIGAJOULES (GJ)



GJ conversion from http://onlineconversion.com/energy.htm

ENERGY INTENSITY

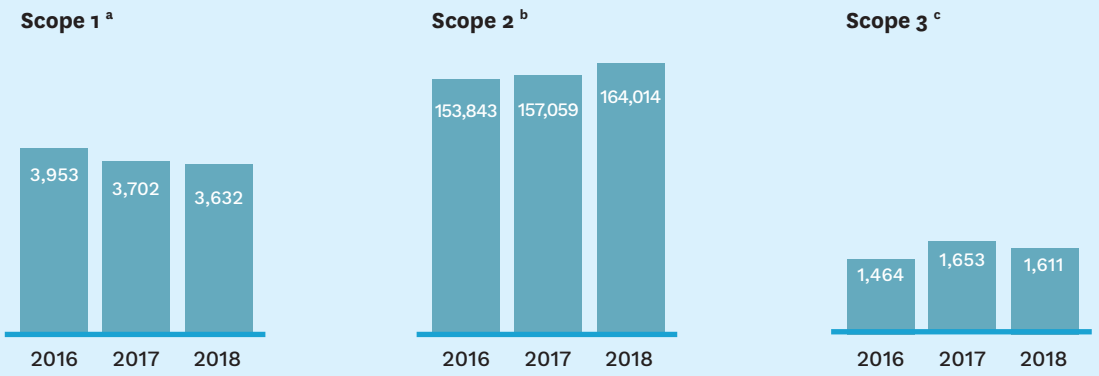
	2016	2017	2018
Water Supply, GJ/mcm billed volume	972	1,009	1,002
Used Water, GJ/mcm treated	1,080	1,087	1,067

Energy consumption includes the consumption of electricity, diesel and gasoline.
Restatement of 2016 and 2017 Water Supply Energy Intensity due to inclusion of MWAP in the scope
Restatement of 2016 and 2017 Used Water Energy Intensity due to updating of data

Even as Manila Water continued to grow, the company's Greenhouse Gas (GHG) intensity has remained at a constant level over the past three years, due to the energy efficiency initiatives that are in place. The company's Climate Change Council (particularly the Climate Change Mitigation Committee) and the Enterprise Functional Council also ensure collaboration among the subsidiaries of Manila Water by promoting the sharing of best practices and technologies on energy efficiency and use of renewable energy.

Manila Water also contributes to the capture of carbon from the atmosphere with 955,086 trees planted in watersheds and surrounding areas of operations since 2006.

GREENHOUSE GAS (GHG) EMISSIONS, TONS CO2 (EQ)



[a] Scope 1 emissions are direct CO2 emissions from the use of fuel for vehicles, generator sets and other equipment. Updated gasoline emission factor from 2.34 kg CO_2e/L to 2.27 kg CO_2e/L, the latest emission factor of GHG Protocol.
[b] Scope 2 emissions are indirect CO2 emissions from the use of electricity of the company. Manila Concession obtains 63 percent of its electricity consumption from open access and the rest from MERALCO. Restatement of 2016 and 2017 Scope 2 emissions due to inclusion of MWAP in the scope.
[c] Scope 3 emissions are CO2 emissions from the desludging operations by contractors.

GHG INTENSITY

Average GHG (Scope 1 and Scope 2) Intensity	2016	2017	2018
Water Supply operations, tons CO2 (eq)/mcm billed volume	192	189	195
Used Water operations, tons CO2 (eq)/mcm used water treated	193	191	191

Restatement of 2016 and 2017 data due to inclusion of MWAP's Kenh Dong Water and Thu Duc Water, and updating of emission factor of grids

EMISSION FACTORS

Electricity	2016	2017	2018	
Metro Manila	0.71	0.70	0.71	Based on monthly generation of power plants
Luzon Grid	0.62	0.62	0.67	Based on monthly generation of power plants
Visayas Grid	0.62	0.62	0.67	Based on monthly generation of power plants
Mindanao Grid	-	-	0.78	DOE 2015-2017 National Grid Emission Factor - Mindanao Grid
Open Access - Manila Concession	0.87	0.73	0.68	Based on monthly generation of power plants
Open Access - Cebu Water	-	-	0.94	Based on monthly generation of power plants
Vietnam Grid	0.82	0.82	0.82	Vietnam 2015 National Grid Emission Factor Combined Margin
Manila Concession - Mix of Grid and Open Access	0.77	0.68	0.65	Based on monthly generation of power plants

Gasoline	2.27 kg CO_2 (eq)/L	WRI's GHG Accounting Protocol
Diesel	2.68 kg CO_2 (eq)/L	WRI's GHG Accounting Protocol

Non-hazardous and Hazardous Wastes

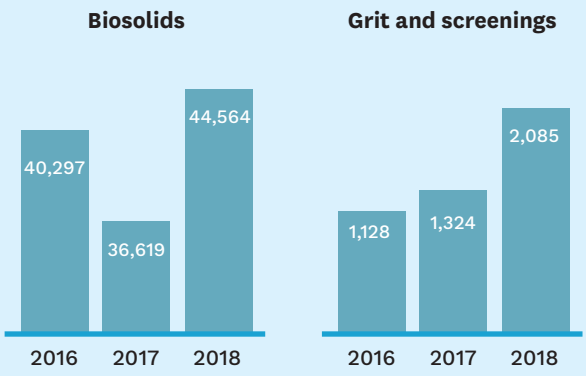
GRI 306-2

The primary solid wastes generated by the company are by-products of used water treatment, which are biosolids, grit, and screenings. Grit and screenings are intercepted during the preliminary treatment of used water, while biosolids are generated during the aerobic biological treatment.

Grit and screenings are properly disposed of in a sanitary landfill, while biosolids are composted by a third-party service provider which are then used as soil conditioners in lahar (volcanic ash) covered areas, particularly in Tarlac. Other non-hazardous solid wastes generated in offices and facilities are segregated and disposed of properly. Recyclable materials are sold to junkshops while old meters are sold to recyclers.

Manila Water fully complies with the regulatory requirements set by DENR on hazardous waste management. Manila Concession donates its used oil and used-lead acid batteries to ABS-CBN Foundation's Bantay Langis and Bantay Baterya, respectively. In 2018, a total of 57.25 tons of hazardous wastes were properly transported, treated, and safely disposed through DENR-accredited service providers.

NON-HAZARDOUS WASTES GENERATED, TONS



HAZARDOUS WASTES GENERATED, TONS

	2016	2017	2018
Busted fluorescent lamps	2.67	16.56	7.45
Contaminated materials	0.46	1.03	0.23
Asbestos cement pipes	416.38	21.82	0.00
Other hazardous wastes	0.00	30.20	45.00
Spent chemicals	7.52	0.67	0.10
Used lead-acid batteries	3.18	7.53	2.05
Waste oil	14.70	64.13	6.56
Grease traps	11.34	1.18	6.38
Waste electrical and electronic equipment	21.59	1.14	0.03
Total	477.83	144.30	67.79

ADVOCATING ENVIRONMENTAL PROTECTION

Manila Water harnesses and strengthens its intrinsic focus on the environment through advocacy programs with key stakeholders. The company works together with various communities through initiatives that engage at both educational and behavioral levels, and it forms meaningful partnerships with community-based organizations that help advance the company's environmental advocacy. These are on top of the regular engagement activities that the company conducts year-round through channels including seminars, trainings, forums, bulletins, and social media.

Among its key programs is the Toka Toka campaign that aims to revive Metro Manila's polluted rivers. The company builds support for the rehabilitation of these water bodies and good water management projects, as it enjoins national government agencies (NGAs), local government units (LGUs), private institutions, and individuals to take part. By end of 2018, the Manila Concession has partnered with a total of 34 LGUs and NGAs for the campaign.

TOKA TOKA
PARA SA MALINIS NA ILOG
NAGAMIT NA TUBIG, GAWING TUBIG NA OKS!

T alakayan at edukasyon sa used water
(Communicate the need for wastewater services in your community)
O rganisadong basurahan
(Dispose of solid wastes properly)
K oneksyon sa sewer lines
(Connect your house to a sewer line when available)
A ktibong pagpapasipsip ng poso negro kada ika-5 taon
(Have your septic tank desludged regularly)

Manila Water also organizes Lakbayan tours, a water trail education program, to help raise awareness on the value of water and thus the need for wise and mindful consumption of water. Being a mission-driven organization, the company also supports its communities through Bawat Patak, Tumatatak as the company's flagship employee volunteerism program.

Lakbayan Water Trail

102,753
participants since 2006

Bawat Patak, Tumatatak... Goes to School

3,132
elementary students

506
employee volunteers since 2015

MANILA WATER **FOUNDATION**

CHAMPIONING SDG 6: WASH FOR ALL COMMUNITIES

Clean water and sanitation, as recognized by the United Nations, are vital to sustainable development and a dignified way of life. Access to clean, safe, and potable water still remains a privilege to billions of people around the globe. Responding to this developmental need at the core of the Manila Water business, it strives to uplift the lives of marginalized communities who lack access to these fundamental needs.

Manila Water Foundation (MWF) was established in 2005 as the company's social development arm that promotes sustainable water access and safely-managed sanitation facilities for all. It promotes water access, sanitation, and hygiene (WASH) education in the Philippines and other countries where it operates through community-based programs. Since its inception, the Foundation has reached out to 2,699,596 beneficiaries nationwide, with the combined contributions of all its programs.

The programs of the MWF supports and contributes to various UN Sustainable Development Goals (SDG). Aside from Goal 6: Clean Water and Sanitation, Manila Water Foundation also supports Goal 1: No Poverty, Goal 3: Good Health and Well-being, Goal 14: Life Below Water and SDG 17: Partnership for the Goals.

INTEGRATED WASH PROGRAM

Crucial to realizing this goal and advancing its vision, MWF implements a holistic intervention of services according to WASH: Water Access, Sanitation, and Hygiene Education. First, MWF provides access to clean and potable water in selected communities. Second, MWF designs and builds toilets for communities to eliminate open defecation. Aligning with the first two phases, finally, MWF educates communities on the importance of proper hygiene practices as key to good health.

For the two pilot communities that MWF supports, namely, Sitio Monicayo and Barangay Sapang Uwak, both in the province of Pampanga, MWF has introduced its Integrated WASH Program as a community-based agenda. In these two indigenous people communities, MWF upholds a participatory and inclusive approach to community engagement, where people are at the core of the development process who drive their own participation, thus ensuring success in WASH interventions.

Experts serve as resource persons or consultants for WASH projects and programs. They are Filipino engineers who have been recognized by MWF's Prize of Engineering Excellence awards, which honors the men and women who have contributed to communities and society at large through innovations in the areas of water, sanitation, environment, and sustainability.

All Manila Water employees and stakeholders are invited to take part in WASH activities through concerted volunteerism programs.

Integrated WASH Program
A holistic intervention of services for water access, sanitation and hygiene education (WASH) in marginalized communities. classified as waterless and toilet-less
1,098 residents in Barangay Sapang Uwak in Porac, Pampanga
1,032 residents in Sitio Monicayo, Barangay Calumpang in Mabalacat City, Pampanga

2018 ACHIEVEMENTS OF MWF FLAGSHIP AND SPECIAL PROGRAMS

Lingap Program	Ahon Program	Health in Our Hands Program	Agapay Program
Provision of clean and potable water to public institutions through the construction of handwashing and drinking facilities	Infrastructure development program of stand-alone water supply or sanitation system in low-income communities	Education of institutions and communities on the importance of proper hygiene practices as key to healthy living	Provision of water and sanitation services to disaster-affected communities
13,439 individuals served	**25,005** individuals served	**4.7 M** people reached through events, traditional, and digital media platforms	**66,362** individuals served

BUSINESS **REVIEW**

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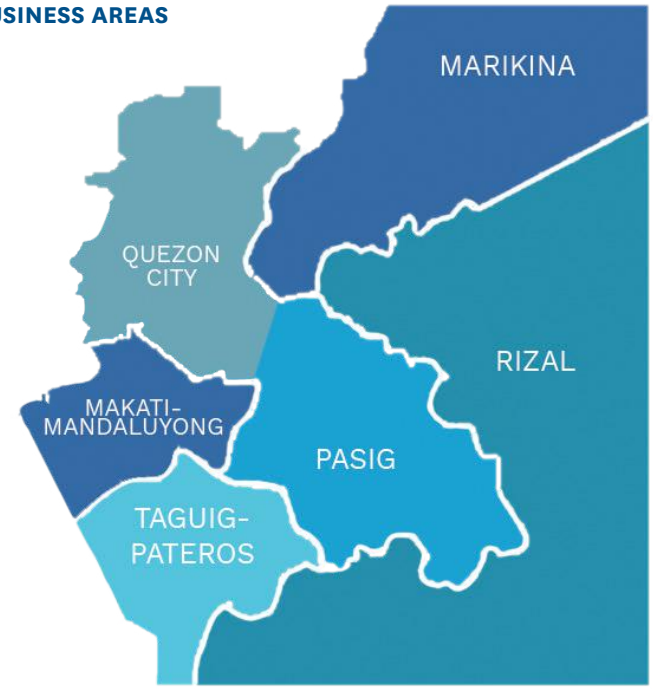
MANILA **CONCESSION**

EAST ZONE BUSINESS AREAS



The Manila Concession serves as the flagship concession area of the company. It encompasses 23 cities and municipalities traversing a 1,400-square kilometer area that is divided into the following business areas: Makati-Mandaluyong, Marikina, Quezon City, Taguig-Pateros, Pasig, and Rizal. The company's customer base is composed of a broad range of residential, commercial, and industrial consumers serving a population of close to 7.3 million. Providing reliable access to safe water and proper sanitation services to this vital area of the mega-metropolis, Manila Water promotes liveability and enables progress.

It was a positive year for the Manila Concession as performance continued to be robust in 2018. Revenues grew by eight percent to ₱16,234 million, driven by three percent growth in billed volume to 503.3 million cubic meters (mcm). This was brought by the three percent increase in billed connections to 986,756, and an improvement in the average effective tariff primarily due to the implementation of the 2.80 percent consumer price index (CPI) adjustment effective January 1, 2018.

Aerial view of the Ilugin Sewage Treatment Plant

986,756

BILLED CONNECTIONS

11.4%

NON-REVENUE WATER (END-OF-PERIOD)

₱8,045 M

CAPITAL EXPENDITURES

44.70 mcm

USED WATER TREATED

5,754 tons

BIOCHEMICAL OXYGEN DEMAND REMOVED

The year also marked the successful completion of the fourth Rate Rebasing exercise between the company and the Metropolitan Waterworks and Sewerage System (MWSS) last September 2018. The approval of the five-year business plan will result in the development and execution of several interim water source projects identified by the MWSS to meet the company's medium-term requirements, subject to the validation of the MWSS Regulatory Office as to feasibility and cost.

Together with the business plan, a new set of tariffs was also approved and became effective on mid-October 2018. To mitigate the impact of the tariff increase, the Manila Concession staggered its implementation over a five-year period from 2018 to 2022. Depending on the final approval of the mid-term water source, the total increase across the approved period is between ₱6.22 to ₱6.50 per cubic meter.

SUSTAINABLE BUSINESS PLAN

The approved business plan highlighted four sustainability pillars necessary to ensure the viability of the environment which sustains the water cycle, and on which the company establishes its long-term viability. These pillars are:

- Water Security – to ensure adequacy of water resources for current and future customers;
- Service Accessibility – to expand service coverage to more communities in the East Zone;
- Service Continuity – to ensure that customers continue to receive high-quality service even in the event of natural calamities; and
- Environmental Sustainability – to safeguard the sustainability of the environment that supports the East Zone.

SECURING WATER SOURCES

In the Manila Concession, the primary water source is the Umiray-Angat-Ipo-La Mesa water resource system, and it will have additional water supply by abstracting 100 million liters per day (mld) of raw water from Laguna Lake through the Rizal Province Water Supply Improvement Project (RPWSIP/Cardona Project). Ninety-five percent of the first phase of RPWSIP was completed in 2018. The project started its water delivery in the first quarter of 2019, benefitting a population of approximately 800,000 in three key municipalities in the province of Rizal, namely Taytay, Angono, and Binangonan. As part of the business contingency plan during periods of low water supply, the company will re-activate decommissioned deep wells that can provide additional water supply.

Given the critical need for additional water sources to help achieve water security, Manila Water has conducted feasibility studies for the development of medium-term water sources to support the water security masterplan of the Manila Concession. MWSS will also construct additional dams for its concessionaires within the next years to meet the water requirements of an increasing number of customers.

The rehabilitation and protection of the critical watersheds of Ipo, La Mesa and Umiray are valuable to the Manila Concession because it is essential to

Aerial view of the Marikina North Sewage Treatment Plant

mitigate the risks associated with the quality and quantity of raw water that is being supplied to Metro Manila and parts of Rizal. The National Power Corporation manages the Angat Watershed Reservation where the Manila Concession abstracts most of its raw water.

Manila Water continues to implement watershed management initiatives to improve raw water quality drawn from its water sources. The Manila Concession provides funding support for the protection of the 6,600-hectare Ipo Watershed and the rehabilitation of the 2,659-hectare La Mesa Watershed Reservation. Under the joint administration and supervision of MWSS and the Department of Environment and Natural Resources (DENR), Ipo Watershed is patrolled by around 170 Bantay Gubat volunteers comprised mostly of Dumagats, the indigenous people living in the watershed. On the other hand, the La Mesa Watershed Reservation Multi-Sectoral Management Council and its Technical Working Group (composed of MWSS, DENR, the Quezon City local government, Manila Water, Maynilad, and ABS-CBN Lingkod Kapamilya Foundation's Bantay Kalikasan) oversee the management of the La Mesa Watershed Reservation.

Manila Water helps protect the forest areas of the watershed reservations. The company continued the enrichment of open canopy forests in La Mesa by planting an additional 40,000 broad-leaf forest tree seedlings across 100 hectares and the continuous maintenance of 341 hectares of enriched areas that were planted in 2016 and 2017. Through the joint validation activities conducted by DENR and MWSS in October 2018, which included site inspection, actual counting of trees, and the use of Orux Map application, it showed that there was a 91 percent survival rate in the 100 hectare newly enriched area. Manila Water also annually supports the One Million Tree Challenges of MWSS which started in 2017.

For the Umiray Watershed Reservation, Manila Water also participates in the watershed management initiatives in partnership with the local government of General Nakar, Quezon. Under this project, around 30 Bantay Gubat patrols were deputized to carry out forest protection. Similarly, community development initiatives such as Information, Education and Communication (IEC) campaigns, community livelihood programs and other initiatives were undertaken to reduce man-made pressures on this water source augmenting the raw water of Angat Dam.

Manila Water has also partnered with the University of the Philippines–Los Baños Foundation for the preparation of a Climate Responsive Integrated Master Plan for the critical watersheds (Kaliwa, Kanan, Agos) in General Nakar, Infanta, and Real, in Quezon Province.

STRENGTHENING SERVICE ACCESSIBILITY AND CONTINUITY

Over the past year, the Manila Concession made improvements in the delivery of water and used water services and continuously reached out to a greater number of people, including those most vulnerable to water stresses. This allows the

Control Room at Cardona Plant in Rizal

company to make major contributions to meeting the water and sanitation targets of UN SDG 6.

With the solutions provided, water supply coverage currently spans at 93.02 percent of the concession area from 92.93 percent in 2017. In 2018, water availability was also enjoyed consistently by 100 percent of customers connected to the Central Distribution System.

With the exception of emergency leak repairs and pipeline rehabilitation, customers in the Manila Concession had stable 24-hour access to clean and potable water supply in 2018. The level of system losses as measured through non-revenue water (NRW) was reduced from 11.6 percent in 2017 to 11.4 percent in 2018, maintaining its NRW (end-of-period) below 12 percent for about 10 years now. This operational excellence highlights the value of an effective primary line and distribution network management with support from partner contractors and local community partners called kasanggas.

The company also continued to invest in resiliency programs to protect its critical services especially in times of disaster and to meet its customers' needs should those times strike. Specifically, to ensure Manila Concession's customers of continuous service in the event of a 7.2-magnitude earthquake that could be brought about by a movement in the West Valley fault line, the 59-year-old Balara Treatment Plant 2 is being upgraded to improve the stability of the structure and strengthen the facility. As of end-2018, the project is 66 percent completed.

Water quality testing at the ISO Certified Manila Water Laboratory Services in Balara, Quezon City

A more in-depth discussion of how the company manages its risks is found in the Enterprise Risk Management section of this report.

SAFEGUARDING THE ENVIRONMENT

Improper used water management and sewage infrastructure can lead to alarming consequences, not least of which are epidemic outbreaks, and could compromise a country's sustainable development.

A large part of Manila Concession's capital expenditure in 2018 focused on the completion of its used water projects. An additional 100 mld capacity will be realized with the completion of the Pasig North and South Sewerage System, also known as Ilugin Sewerage Treatment Plant (STP), which was 82 percent completed in 2018. These improvements along with the Three River Masterplan would contribute to the Manila Concession's target of 100 percent sewer coverage by 2037.

The Manila Concession values partnerships with the public and private sector in its advocacy to raise awareness on the importance of water, used water, and the environment. The company's Lakbayan or the Water Trail Program provides participants with a tour of water supply and used water treatment facilities for a better understanding of the water cycle and how various stakeholders have an important role to play in water security.

In 2018, 109 barangays and 22,238 participants from national government agencies, local government units, academe, media, and corporations participated in the Lakbayan Program. Focusing on the youth and raising awareness on used water treatment and solid waste management, the Manila Concession has an employee volunteerism and sustainability program called Bawat Patak Tumatatak Goes to School. In 2018, the program was able to reach 689 elementary students both from public and private schools.

To advance the company's environmental advocacy and strengthen partnerships for the rehabilitation of water bodies, Manila Water has a program called Toka Toka, which aims to revive Metro Manila's polluted rivers. As of 2018, the Manila Concession partnered with 34 local government units and non-government agencies. The campaign encourages customers and partner organizations to practice proper waste disposal, ensure proper sewer line connections, have their septic tanks desludged every five years, and support other community-based water management projects.

The company also supports the Supreme Court continuing mandamus for the clean-up and rehabilitation of the Manila Bay.

MANILA WATER **PHILIPPINE VENTURES**

As more parts of the Philippines transform into bustling urban centers, essential services like water and sanitation develop local economies and improve quality of living. More than a vehicle for business expansion in the Philippines, Manila Water Philippine Ventures, Inc. (MWPV) is the company's platform for water sector development and social transformation on a broader scale. MWPV formed Regional Business Developments (RBD) to ensure business development focus, resource deployment efficiency, and consolidated growth in these areas. It leverages its track record for managing public services in its new acquisitions and partnerships across the country, allowing these geographies to flourish into sustainable, dynamic regions.

NORTH LUZON: SCALING UP SUSTAINABILITY

CLARK WATER

The Clark Freeport Zone continues to transform into an industrial urban center targeting high-end IT-enabled industries, aviation and logistics–related enterprises, tourism, and other sectors. To support business growth in the area, MWPV through Clark Water ensures that its residents and tourists are provided with clean and potable drinking water, and the industries it cater to have adequate water supply for their operations and expansion.

Considered one of the most efficient water operators in the Philippines, Clark Water holds a 40-year concession with Clark Development Corporation (CDC) as the exclusive water and used water service provider within the 4,400-hectare main zone of Clark Freeport Zone in the province of Pampanga. This includes a subzone covering a larger land area of 27,600 hectares with industrial, high-end IT corporations, and real estate locators. Clark Water also provides water supply to over 3,000 residents to a community adjacent to the industrial zone.

Clark Water has been a champion of operational excellence as shown in its water supply and used water facilities and metrics. It has a total of 2,061 billed connections comprised mainly of industrial and commercial locators. It has

Aerial view of Obando, Bulacan

139,496

BILLED CONNECTIONS

14.9%

NON-REVENUE WATER (END-OF-PERIOD)

₱1,887 M

CAPITAL EXPENDITURES

17.72 mcm

USED WATER TREATED

3,348 tons

BIOCHEMICAL OXYGEN DEMAND REMOVED

reached a 100 percent water service coverage and its used water service coverage rose to 99.7 percent, with non-revenue water (NRW) (end-of-period) hitting 6.7 percent in 2018 owing to its consistent leak detection, repair, and meter maintenance programs. This operational efficiency greatly benefits customers who are able to minimize expenses due to loss of water and supports their drive towards water security. Clark Water also treated 7.0 mcm of customers' used water and diverted 779 tons of organic pollution load. This avoided the production of 4,910 tons CO_2 (eq).

Clark Water reported three percent lower billed volume of 14.1 mcm, which led to a one percent decrease in revenues to ₱455 million in 2018. This is mainly due to the decrease in consumption of its commercial accounts due to cost-cutting programs.

To support the company's commitment to CDC and the customers it serves, Clark Water has submitted its business plan for the rate rebasing review. Its capital expenditure is down to ₱53 million, as its business plan is still being finalized in line with the rate rebasing exercise.

Clark Water also embarked on a water source feasibility study to strengthen water security, while a natural calamity study was undertaken to secure the resilience of its assets. It signed a Memorandum of Agreement with the Department of Environment and Natural Resources' (DENR) Provincial Environment and Natural Resources Office for the Adopt-a-Watershed program, where it will plant 400 bamboo shoots across two hectares to reduce erosion along the riverbeds. To continuously engage its stakeholders, Clark Water accommodated 406 participants for its Lakbayan or water trail advocacy program in 2018.

OBANDO WATER AND BMDC

Comprised of three cities and 21 municipalities with an estimated total population of 3.3 million, the province of Bulacan is steadily becoming industrialized largely due to its proximity to Metro Manila. Water supply in the province is a fragmented market, hence, MWPV carefully undertakes water distribution contracts across its numerous cities and municipalities.

To remain on track with its goals, a 25-year concession agreement between Obando Water and Obando Water District (OWD) was signed and executed in 2017 to rehabilitate and manage the water supply system, and to provide water and sanitation services in the municipality of Obando. Obando Water is a joint venture between Obando Water Consortium Holdings Corporation (now Filipinas Water Holdings Corp. [FWHC]) and OWD. Meanwhile, FWHC is a consortium of Manila Water and MWPV.

The average daily demand in OWD's service area is eight mld, serving a population of around 60,000 and covers nine barangays out of a total 11 in the municipality.

Obando Water commits to provide improved water services in Obando, Bulacan.

In 2018, Obando Water's billed volume stood at 1.55 mcm, provided to 9,013 new water service connections. This is expected to grow to 14 mld in the latter years of the contract until 2041. Estimated capital expenditures for the project is ₱443 million, of which ₱24 million was already disbursed in 2018. This is to be used for network rehabilitation and expansion, improving the current 79 percent water supply coverage, 19-hour availability, and average pressure of five pounds per square inch (psi).

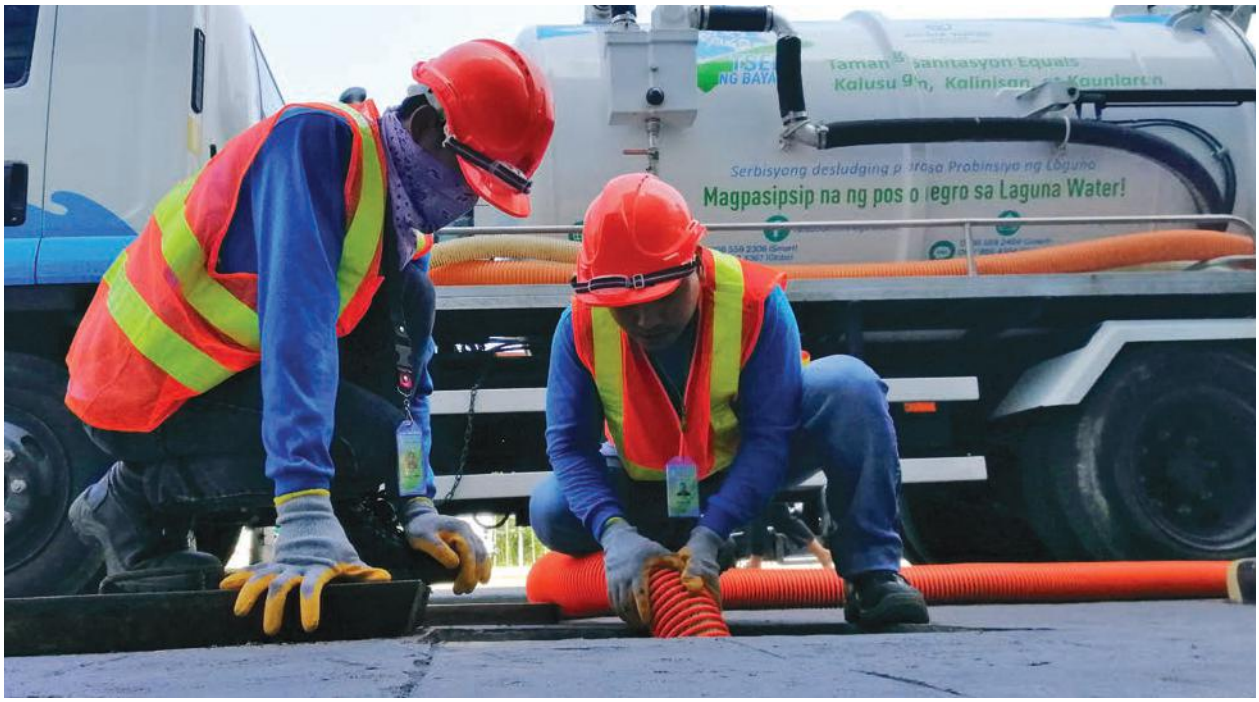
With its goal to improve the provision of water and used water services in Bulacan's residential subdivisions amidst a rising suburban location attracting middle-income customers, Bulacan MWPV Development Corporation (BMDC) signed an Asset Purchase Agreement in 2017 with three property developers: Asian Land Strategies Corporation, Solar Resources, Inc., and Borland Development Corporation. This development supports BMDC as it starts to position itself to become a strong player in the province and the larger mandate of the Enterprise to provide inclusive access to water and used water services. In 2018, BMDC reported 1.41 mcm billed volume for 7,726 new water service connections. It spent ₱40 million capital expenditures mostly for pipelaying and improvement of deepwell and water treatment facilities.

CALASIAO WATER

Further expanding its coverage in the northern part of Luzon, MWPV is present in the first-class municipality of Calasiao. Located in Pangasinan, Calasiao covers 24 barangays with a total population of about 95,000.

MWPV established a 25-year concession agreement with the Calasiao Water District (CWD) in 2017 to develop and operate the water supply system in the said municipality. The first phase of the concession agreement, which started in 2018, aims to serve 20 percent of the municipality's total population by the end of 2019.

Replicating Manila Water's success in providing water service access, Calasiao Water already distributed about 0.85 mld as of end-2018 and is expected to deliver 2.5 mld by 2019, further expandable up to 21 mld at the end of its contract by 2042. Calasiao Water also spent ₱23 million in 2018 out of the project's total estimated capital expenditures of ₱456 million for installation of pipelines and network rehabilitation and expansion.



Laguna Water supports the reduction of organic pollution load through the introduction of their sanitation services in 2018.

SOUTH LUZON: SUPPORTING A DYNAMIC REGION

LAGUNA WATER

Directly southeast of Manila, the province of Laguna encompasses six cities and 24 municipalities with a total population of three million. With its proximity to Metro Manila, some cities and towns have become industrialized while the rest of the province is still agricultural.

With the acquisition of Laguna AAAWater Corporation in 2010, Laguna Water is Manila Water's second public-private partnership outside the East Zone after Boracay Water. Together with the Provincial Government of Laguna (PGL), the company endeavors to transform the lives of the communities it serves by bringing improvements in their water service and building the necessary enabling infrastructure.

The original concession was for the provision of water services in the cities of Biñan, Cabuyao, and Sta. Rosa for a period of 25 years until 2035. The strong working relationship maintained by Laguna Water with its partners paved the way for the amendment of the concession agreement, expanding the territorial scope of its water supply services from the original three cities to all cities and municipalities of the province. The amendment, likewise, included the provision of used water services and the establishment of an integrated sewage and septage system in the province.

As of 2018, the company has finalized the takeover of the water distribution systems in the municipalities of Calauan, Victoria, and Pagsanjan. The municipality of Calauan has a population of over 80,500, which translates to an estimated 5,700 water service connections. The municipality of Victoria has a population of about 40,000, which translates to an estimated 2,200 water service connections. Lastly, the municipality of Pagsanjan has a population of over 42,000, which translates to an estimated 6,200 water service connections.

Laguna Water's revenues grew by 10 percent in 2018 to ₱1,340 million as a result of a 13-percent improvement in its average effective tariff to ₱27.81 per cubic meter. Through programs in operational excellence, systems losses continued to decrease from 19.5 percent in 2017 to 16.7 percent in 2018. This was driven by the total pipe replacement activities and improved water service and water potability. As Laguna Water continues the expansion of water and used water networks within its concession area, it spent a total of ₱561 million in capital expenditures during the year.

Tubig Para sa Barangay (TPSB), the Manila Concession's flagship program which provides water supply to low-income communities, was also implemented by Laguna Water. From 152 water service connections since 2017, the company has provided an additional 132 connections in 2018. The TPSB communities used to rely on vended drinking water, often of unreliable quality. With TPSB, low-income communities now have safe, potable drinking water directly from the tap in their homes. Laguna Water aligns the goals and targets of TPSB with UN SDG 6.

In terms of its used water facilities, Laguna Water diverted 229 tons of organic pollution in 2018, up from 194 tons in 2017. This was due to Laguna Technopark Sewage Treatment Plant's increased capacity from seven to 11 mld. To aid unsewered areas, Laguna Water constructed a Septage Treatment Plant with a capacity of 70 cubic meters per day as part of the Laguna Water desludging program.

Further, in support of its efforts to raise public awareness on the link between used water sanitation and family and community health, the company launched the Tamang Sanitasyon Equals Kalusugan, Kalinisan, at Kaunlaran ng Bayan (TSEK) program. It worked with the provincial government of Laguna and held numerous information and education sessions in local government units of Laguna in 2018.

Laguna Water is a member of the Sta. Rosa Sub-Watershed Management Council formed by Laguna Lake Development Authority in 2017 for the protection and rehabilitation of the watershed. This council is acknowledged internationally for its contribution to the environmental sustainability of the province.

VISAYAS-MINDANAO: OPENING UP SUSTAINABLE SOLUTIONS

BORACAY WATER

Often described in superlatives for its white, talcum-fine beach, and crystalline waters, the island of Boracay is hailed as one of the finest beaches in the world. Set within a thousand-hectare land area, Boracay is made up of three small communities: Yapak in the north, Balabag in the middle, and Manocmanoc in the south. The local population is relatively small at 35,000 local residents, but the main driver of billed volume growth is tourist arrivals. However, Boracay Water was affected by the six-month temporary shutdown of tourism-related activities in the island, which began in April 2018.

Laguna Water commits to transform the lives of the communities it serves.

Boracay Water supports the protection and restoration of the island's biodiversity through the treatment of its customers' used water.

The island's closure was part of the government's efforts for the island's environmental rehabilitation. The six-month closure affected the operations and financial position of Boracay Water, a joint venture between Manila Water and the national government's Tourism Infrastructure and Enterprise Zone Authority (TIEZA), which holds a 25-year concession to provide potable water and operate the sewerage system of the island.

Expectedly, Boracay Water's billed volume dropped by 29 percent to 3.9 mcm primarily due to the 53 percent drop of tourist arrivals from 2,001,974 million in 2017 to 941,868 at the end of 2018. However, it posted revenues amounting to ₱454 million due to the increase in its average tariff to ₱119.91 per cubic meter.

Boracay Water considers itself a stakeholder and partner in ensuring that tourism's environmental impact is managed and in safeguarding the health and safety of the locals and tourists. In terms of its operations' impacts, the company continues to embark on various meter replacement and leak detection activities, which improved its NRW (end-of-period) to 13.8 percent. The company made investments in sewage and sanitation, with capital expenditures reaching a total of ₱444 million.

Due to the company's environmentally responsible operations, Boracay Water avoided 2,802 tons of carbon dioxide emissions, based on the volume of used water it treated and the organic pollution diverted via the combined capacity of Manocmanoc and Balabag Sewage Treatment Plants.

To engage external stakeholders in the protection of Boracay and its sustainable development, the company launched an environmental program called Highland to Ocean (H2O). Expanding on Amot Amot sa Malimpyong Boracay, the first and only environmental movement on used water in the island, H2O takes a holistic environmental management approach to ensure the island's sustainability: from the watershed, down to the ocean. In 2018, 76 community volunteers were involved in river cleanup activities, collecting 54 kg of trash and debris from the waterway.

Meanwhile, 186 community volunteers were involved in community cleanup activities, collecting 105 kg of litter. Spanning the white beach, 210 community volunteers

View of the Queen City of the South Cebu City, one of the more progressive cities in Visayas.

were involved, collecting a total of 202 kg of trash along the coast. To supplement the cleanup, Information, Education and Communication (IEC) sessions were attended by 984 students.

Ensuring that the marine environment is protected, the Boracay Water REEFhabilitation program conducted a coral reef assessment in 2018, and 38 corals fragments were planted 50 square meters from the used water outfall. A biologically diverse and healthy coral reef may indicate good effluent quality, as it will show that it can support a thriving marine environment. Eighteen volunteers collected 23 kg of trash as part of the program.

At present, Boracay Water is processing a Memorandum of Agreement with DENR Region VI for the protection and rehabilitation of 20 hectares of Nabaoy Watershed.

CEBU WATER

Following the partnerships accomplished by other subsidiaries' operations, Cebu Water provides water to the highly urbanized areas and key cities in the second most populous region in the country.

In partnership with the Provincial Government of Cebu, a 30-year bulk water supply contract was signed by Cebu Water to serve a population of about 2.8 million, supplying 35 mld of potable water. The Metropolitan Cebu Water District then distributes the water to large cities such as Metro Cebu, Lapu-Lapu, Mandaue, and Talisay. Cebu Water's contract includes the construction of a water diversion structure, a water treatment plant, and the laying of a 32-kilometer pipeline from the plant in the town of Carmen to the water district's intake. This is the first water treatment facility to draw from surface water in an island that heavily relies on deep wells.

In 2018, Cebu Water reported lower revenues at ₱141 million backed by a slower billed volume to 12.8 mcm from 13.0 mcm in 2017. The slight drop in billed volume was due to turbidity issues related to the monsoon months of June to October. Operating adjustments are now being finalized to ensure that optimal yield is being attained from the facility. The company also invested ₱11 million in capital expenditures for the construction of deep wells to augment its current surface water source. Cebu Manila Water Foundation will administer Luyang watershed protection covering the entire watershed with an area of 5,539 hectares.

As the local government opens itself up to more public-private partnerships, Cebu Water remains steadfast in improving its operations to be able to provide safe and potable drinking water to Metro Cebu and its neighboring areas.

Construction of Tagum Water's Water Treatment Plant with capacity of 38 mld

ZAMBOANGA WATER

MWPV continues to explore opportunities beyond Luzon and Visayas—Zamboanga, for one, is the site of a lot of firsts for the company.

As the first investment in Mindanao, the southernmost group of islands in the Philippines, the project is a 10-year NRW-reduction project in Zamboanga City. It is also the first venture of Manila Water with a water district and more importantly, the first performance-based NRW-reduction project to be implemented in the Philippines.

With construction start in January 2015, the project aims to reduce water losses by 10 mcm throughout the life of the project. It will be done in phases, with the early stages necessitating the replacement of pipes and meters, and extensive leakage detection and repair throughout the distribution network.

As of end-2018, the project has already recovered a total volume of 4.54 mcm from 36 commissioned District Metering Areas (DMA) since the start of its operations in June 2015.

TAGUM WATER

The Tagum Water Treatment Plant involves the construction of a water treatment facility with a capacity of 38 mld. Once completed, it will supply the Tagum City Water District with 26 mld of treated water during its first to third year of operations, 32 mld during its fourth to sixth year of operations, and 38 mld for the remaining years of the 15-year delivery period, which runs from 2019 to 2034.

Eighty-seven percent of this bulk water supply project was completed in 2018.

ESTATE WATER, ECOWATER, AND AQUA CENTRO: CO-CREATING LIVABLE COMMUNITIES

Enhancing MWPV's portfolio, Estate Water is a business model that harnesses the company's expertise in the operation and management of water systems to address the needs of property developers for sustainable communities.

The growth and expansion of Estate Water, which started in 2015, is anchored on property developers' demand for appropriate master-planned water extraction and used water treatment facilities, efficient and effective management of facilities and pipelines, regulatory and environmentally compliant operations, and high-quality customer service.

View of Vertis North, a business, leisure, and lifestyle community in the heart of Quezon City.

Estate Water registered steady revenues of ₱638 million in 2018 with billed volume increasing by 25 percent to 5.7 mcm. To effectively manage the brownfield and greenfield developments of its partner developers, the company disbursed a total of ₱490 million in capital expenditures.

MWPV also signed a 25-year lease agreement with Philippine Economic Zone Authority (PEZA) to lease, operate, and manage its water and used water facilities in the Cavite Special Economic Zone. EcoWater MWPV Corp. was then incorporated to handle said agreement, leading the provision of water and used water services in the 275-hectare industrial estate, with 297 locators consuming approximately 0.35 mcm per month.

PARTNERSHIP WITH AYALA LAND

In 2016, Estate Water signed an agreement with Ayala Land and its subsidiaries for the exclusive provision of water and used water services to all its horizontal greenfield and brownfield developments nationwide.

To date, Estate Water already operates and manages 16 greenfield and 60 brownfield Ayala Land projects across the country with 10,464 billed connections. This partnership will parlay Manila Water's technical expertise and operational excellence to the communities Ayala Land serves.

PARTNERSHIP WITH SM GROUP

In 2016, Estate Water signed an agreement with the SM Group—comprising of SM Prime Holdings, SM Development Corporation, and SM Residences giving rise to the establishment of Aqua Centro MWPV Corporation, which would manage the provision of water and used water services and facilities in selected SM developments.

The initial agreement covers four horizontal projects across Luzon, specifically in the provinces of Laguna, Cavite, Batangas, and Cebu. The contract also identified specific horizontal developments comprised of mid-rise residential buildings, low-cost condominiums, and house and lot projects that are expected to be operational by 2020. Estate Water continues to venture into other partnerships, in line with its objective to transform real estate developments to livable communities.

MANILA WATER **ASIA PACIFIC**

As part of Manila Water's internationalization strategy, Manila Water Asia Pacific (MWAP) establishes itself as a formidable regional player gearing up to take advantage of new acquisitions and partnerships in the ASEAN region, particularly in countries that encourage foreign investments in the water sector. Given that the region is also among the most vulnerable to climate change with particular impacts on water security, MWAP's foray into these countries provide the company with opportunities to share best practices and make a difference in the water sector.

MWAP leveraged Manila Water's skill sets and expanded to countries with similar characteristics such as Vietnam, Indonesia, and Thailand. Trailblazing in these new markets is one of the company's step towards diversification of the business outside Philippine boundaries, while bringing its expertise in environmental responsibility to its partners and affiliates.

MWAP's growing presence in the water sector throughout Southeast Asia aims to gain foothold and establish its reputation as leader and expert in the space. Leveraging this, MWAP remains focused on its business development efforts, poised to take advantage of investment opportunities beyond the region moving forward.

STRENGTHENING VIETNAM'S WATER SECTOR

The Manila Water internationalization story started out with a five-year World Bank–funded non-revenue water (NRW) reduction pilot project between Manila Water and state-owned Saigon Water Corporation (SAWACO), in Zone 1 of Ho Chi Minh City in 2008. It has turned into a valuable business relationship, testifying to the value that Manila Water has created for Vietnam.

While the goal was to recover 38 million liters per day (mld), the actual volume recovered at the end of the project contract in 2014 was threefold at 130 mld. The success of the project benefited the previously unserved service areas of SAWACO, and more importantly resulted in earning the trust of the Vietnamese authorities and its local partners. This paved the way for the expansion of MWAP in Vietnam with the acquisition of two more bulk water companies under a take-or-pay arrangement. Both Thu Duc Water and Kenh Dong Water supply treated water to SAWACO, effectively covering one-third of the demand of Ho Chi Minh City's 8,445,000 population.

Notre Dame Cathedral in Ho Chi Minh City, Vietnam

574.9 mcm

BILLED VOLUME

₱699 M

EQUITY SHARE IN
NET INCOME OF ASSOCIATES

12.6 M

POPULATION SERVED

MWAP owns 49 percent stake in Thu Duc Water, which has a bulk water supply contract for 300 mld supplying two urban (Districts 2 and 7) and three suburban (District 9, Nha Be, and Thu Duc) districts. Thu Duc Water's revenues grew by two percent to VND335 billion in 2018 on the back of a two percent higher effective tariff per cubic meter of VND3,036. Thu Duc Water is currently seeking necessary approvals to expand its capacity to 600 mld to be able to serve more communities in Ho Chi Minh City.

MWAP also owns 47.35 percent stake in Kenh Dong Water, which has a bulk water supply contract for 150 mld, expandable to 200 mld, to supply three suburban districts of Binh Tan, Tan Phu, and District 12 in the southern part of Ho Chi Minh City. Kenh Dong Water posted a 0.4 percent revenue growth amounting to VND221 billion in 2018 as a result of a higher effective tariff per cubic meter of VND3,869.

MWAP likewise owns a 37.99 percent stake in Saigon Water Infrastructure Corporation (Saigon Water), a holding company in Vietnam that is listed in the Ho Chi Minh Stock Exchange. Saigon Water is MWAP's vehicle to secure water supply, water distribution, and used water treatment contracts across the country.

Cu Chi Water, its first concession under a Build-Own-Operate (BOO) contract, is a water-supply system project in the Cu Chi District with a population of about 418,655. Furthermore, Saigon Water has a 43 percent stake in Tan Hiep Water, a 300-mld plant that supplies water to SAWACO in the area of Hoc Mon in Ho Chi Minh City, with a population of around 446,056.

It also owns a 51 percent stake in Gia Lai Water, a 20-mld full water distribution operation, servicing the Central highlands of Gia Lai Province with a population of roughly 1,437,400.

Saigon Water revenues were up by seven percent to VND249 billion in 2018, resulting from lower service income from its subsidiaries. The income from Saigon Water was reduced however by higher operating expenses, as well as the recognition of impairment as a result of the difference between its market price and carrying value.

At present, MWAP is the largest direct foreign investor in Vietnam's water sector supplying approximately 36 percent of the bulk water requirements of Ho Chi Minh City.

EXPANDING WATER ACCESS IN INDONESIA

As MWAP intensifies its expansion efforts within the ASEAN Region, Manila Water signed a Memorandum of Understanding in 2015 with PDAM Tirtawening Kota Bandung (PDAM Bandung), a water utility company owned and controlled by the city government of Bandung to reduce its NRW.

Bandung, the capital of Indonesia's West Java province, is the country's fourth largest city by land area and third largest city by population, with over 2.4 million people. Similar to Vietnam, MWAP demonstrated its capabilities with the completion of the NRW reduction project which reduced water losses from 59 percent to 23 percent. The project recovered 134,400 liters per day, enough to serve 379 new households or 1,590 people.

Expanding our reach in the ASEAN Region through our latest foray in Thailand

This success led to new opportunities to expand its presence in Indonesia's water space. In 2018, Manila Water acquired a 20 percent stake of PT Sarana Tirta Ungaran (PT STU), a bulk water supply company with a capacity of 21.5 mld. PT STU services PDAM Kabupaten Semarang, a regency in Central Java, and industrial customers in its Bawen District, which includes PT APAC Inti Corpora, a 100-hectare textile and garment manufacturing company. The earnings contribution from this newly acquired associate in Indonesia amounted ₱1.4 million as of end-2018 on the back of 5.2 mcm of billed volume.

MWAP will continue to expand its presence in the country through the acquisition of existing water assets as well as pursuit of greenfield opportunities in strategic locations.

ADVANCING SUSTAINABLE WATER MANAGEMENT IN THAILAND

The year 2018 also marked MWAP's first strategic entry into Thailand, bolstering its target expansion in Southeast Asia.

MWAP acquired 18.72 percent stake in Eastern Water Resources Development and Management Public Company Limited (East Water), a publicly-listed water supply and distribution company in Thailand, known for its steady operations and sustainability agenda.

East Water provides raw and tap water supply in the country's eastern region, which covers the main industrial area of the country with a total area of 13,285 square kilometers or nearly as large as the CALABARZON region in the Philippines. The business draws its water from a combination of river diversion and groundwater.

The earnings contribution from this newly acquired associate in Thailand is ₱263 million as of end-2018 on the back of 316.5 mcm of billed volume.

MWAP will continue to build new partnerships in the region to take advantage of viable opportunities in the water sector, further underpinning the company's internationalization efforts.

Signing of Share Purchase Agreement of MWAP with Electricity Generating Public Company Limited (EGCO)

MANILA WATER **TOTAL SOLUTIONS**

Evolving customer needs, increasing demand, and a competitive market environment require an innovative mindset and entrepreneurial approach. Since its inception, Manila Water Total Solutions (MWTS) has served as an incubator of new business opportunities throughout the water cycle, marked by smarter design and technological innovation. As business lines mature and evolve, these are eventually spun-off to support and add value to existing businesses in the Enterprise.

Focused on developing innovative water supply, used water, and environmental services, MWTS is driven by its core strategy to provide broad expertise on after-the-meter services, in line with its being a driver of Manila Water's vertical business growth. The company develops both end-consumer and system solutions in the water and used water value chain, which are then delivered at scale and with a commitment to protecting the environment. Specifically, these include provision of network and technical services under its Corporate Accounts Management (CAM) business, and the sale of packaged purified water through the Healthy Family brand.

Network reliability works in Quezon City

Pipelaying works to serve more communities in Metro Manila

CORPORATE ACCOUNTS MANAGEMENT: DEVELOPING INNOVATIVE MODELS

Today, modern and dynamic communities—whether in townships or high rises—look for ways to better manage resources like water and energy without sacrificing efficiency and quality.

In line with this, CAM offers solutions for the water and used water network needs of its clients, mainly property developers. These services include master planning and design, water and sewer pipelaying, integrated used water solutions, and construction management.

The primary service of CAM is pipelaying for horizontal developments and townships, providing sustainable solutions to its customers through the design and construction of water, used water, and gray water networks. In 2018, pipelaying ended with revenues of ₱211 million, down by 57 percent from ₱492 million* in 2017 due to delayed project execution. The business will continue to work on streamlining its methods as it anticipates sustained growth aided by a resurgent property development business climate in the coming years.

Another service of CAM is Integrated Used Water Solutions (IUS), which addresses the unserved market of used water management services. Its primary clients are major land developers, commercial and industrial customers, as well as utilities companies since being launched and commercialized in 2015.

IUS provides holistic customer-specific solutions that have been developed through value-engineering and integration of different technologies. This further supports customers from the commercial and industrial sectors that continue to struggle with finding sustainable but cost-effective means to comply with environmental regulations. This is important especially in the absence of available sewer networks from public water utilities across the country.

At the end of 2018, IUS posted revenues of ₱117 million from ₱16 million the previous year, as it continues to explore more opportunities in the field of design and build technical services and environmental technologies integration for its key clients.

As a whole, the CAM business had total contracted projects amounting to ₱1.58 billion, comprising of pipelaying works at 74 percent translating to ₱1.16 billion and IUS at 26 percent equivalent to ₱408 million.

In fulfillment of its commitment in environmental sustainability and harnessing renewable energy, MWTS is also venturing in waste-to-value programs through the Product and Innovations Department (PID), in partnership with local government units and communities. Looking ahead, PID looks to partner with other industrial and agricultural waste management companies to strengthen the goal of applying technological innovations towards realizing vertical growth.

*Pipelaying's 2017 revenues restated from ₱365 million to ₱492 million

Providing high-quality drinking water through Healthy Family

5,445,227

TOTAL BOTTLES SOLD (5-GALLON) IN 2018

2,494,379

TOTAL BOTTLES SOLD (HF MINI) IN 2018

HEALTHY FAMILY PACKAGED PURIFIED WATER: CREATING RESPONSIVE PRODUCTS

For years, Manila Water has remained steadfast in its advocacy to clean, safe, and potable water up to the meter. However, there is still a growing demand from customers who do not trust their household reticulation system, after-the-meter or internal plumbing systems, or deteriorated pipes for potable water. There are also those with personal preferences for bottled purified water due to their aversion to the mandatory residual chlorine in tap water.

Leveraging on the expertise and operational efficiency of Manila Water, MWTS established its Healthy Family (HF) business, which aims to address the drinking water needs of this segment. HF is engaged in the sale of purified water that comes in five-gallon containers, guaranteeing a shelf life of six months.

Further establishing its presence in the purified water market, MWTS now has three variants. The 500-ml bottle (500-ml HF Mini) was launched in 2017, which are retailed in packs or cases of 24 bottles. Two new variants were commissioned and commercialized in 2018: the 350-ml bottle (350-ml HF Mini), which was launched in July 2018, and the one-liter bottle, which was launched in December 2018.

All HF variants leverage the same distribution network that provides livelihood and employment opportunities to 371 partner distributors. HF currently has two plants with a total production capacity of 14,400 containers per day. Its customer base currently covers Metro Manila, and its growing key accounts include government institutions, hotels, schools, hospitals, BPO offices, fitness centers, and sari-sari stores.

CORPORATE **GOVERNANCE**

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Chairman Fernando Zobel de Ayala during the 2018 Annual Stockholders' Meeting

BOARD OF DIRECTORS

Manila Water prides itself in its Board of Directors (the "Board"), composed of highly competent individuals who are well recognized in their respective fields and in the business community. The Board provides a clear vision towards the formulation of sound corporate strategies, and oversees the systemization, improvement and upholding of transparency in governance. The Board provides guidance in achieving fairness and accountability in all major dealings of the Company, with the objective of protecting the interests of its stakeholders.

In this connection, the Board fulfills certain key functions, including: reviewing and guiding corporate strategy, major plans of action, risk policy, annual budgets and business plans; setting performance objectives; monitoring implementation and corporate performance; and overseeing/approving major capital expenditures, acquisitions and divestitures; monitoring the effectiveness of our governance practices and making changes as needed; selecting, compensating, monitoring and, when necessary, replacing key executives and overseeing succession planning; aligning key executive and board remuneration with the longer term interests of the Company and its stakeholders; ensuring a formal and transparent board nomination and election process; and monitoring and managing potential conflicts of interest of management, board members, shareholders and stakeholders, including misuse of corporate assets and abuse in related party transactions.

BOARD COMPOSITION

The Board has eleven (11) members who are elected by the stockholders during the annual stockholders' meeting (ASM). All nominations to the Board are undertaken in accordance with the Manual of Corporate Governance (the "Manual"), amended By-laws, the Charter of the Board, and the existing rules and regulations. Upon receipt of all nominations, the Nomination Committee convenes to evaluate the qualifications of nominees for election to the Board. In evaluating the nominations, the Nomination Committee adheres to the criteria for selection and the qualifications and disqualifications of directors set forth in the Manual, the Charter of the Board, the Charter of the Board Committees, the Securities Regulations Code (SRC), and those under existing laws, rules, and regulations. After deliberation, the Nomination Committee and the Board issue a resolution endorsing the election of the qualified nominees at the ASM. The members of the Board so elected at the ASM hold office for one year, and until their successors have been elected and qualified in accordance with the amended By-laws. The elected members of the Board are mandated to oversee the management of the Company, and, in the performance of their duties, must exercise their best and unbiased judgment to protect and promote the interest of the Company and its stakeholders.

PRINCIPLES AND PROCEDURES FOR NOMINATION AND ENDORSEMENT FOR ELECTION OF CANDIDATES TO THE BOARD OF DIRECTORS

Manila Water encourages the selection of a mix of competent directors, each of whom can add value and contribute independent judgment to the formulation of sound corporate strategies and policies.

Manila Water values the inputs and opinions of each Director, ensuring that a Director shall not be discriminated upon by reason of gender, age, ethnicity, political, religious or cultural beliefs. Towards this end, the Board has adopted a policy of diversity in gender, age and ethnicity, as well as religious, political or cultural background. Through this policy, the Board encourages our shareholders to nominate and select individuals who will promote diversity in the membership of the Board.

Moreover, the Board ensures a formal and transparent board nomination and election process. Towards this end, the following procedure and principles are observed in the nomination of candidates for election to the Board:

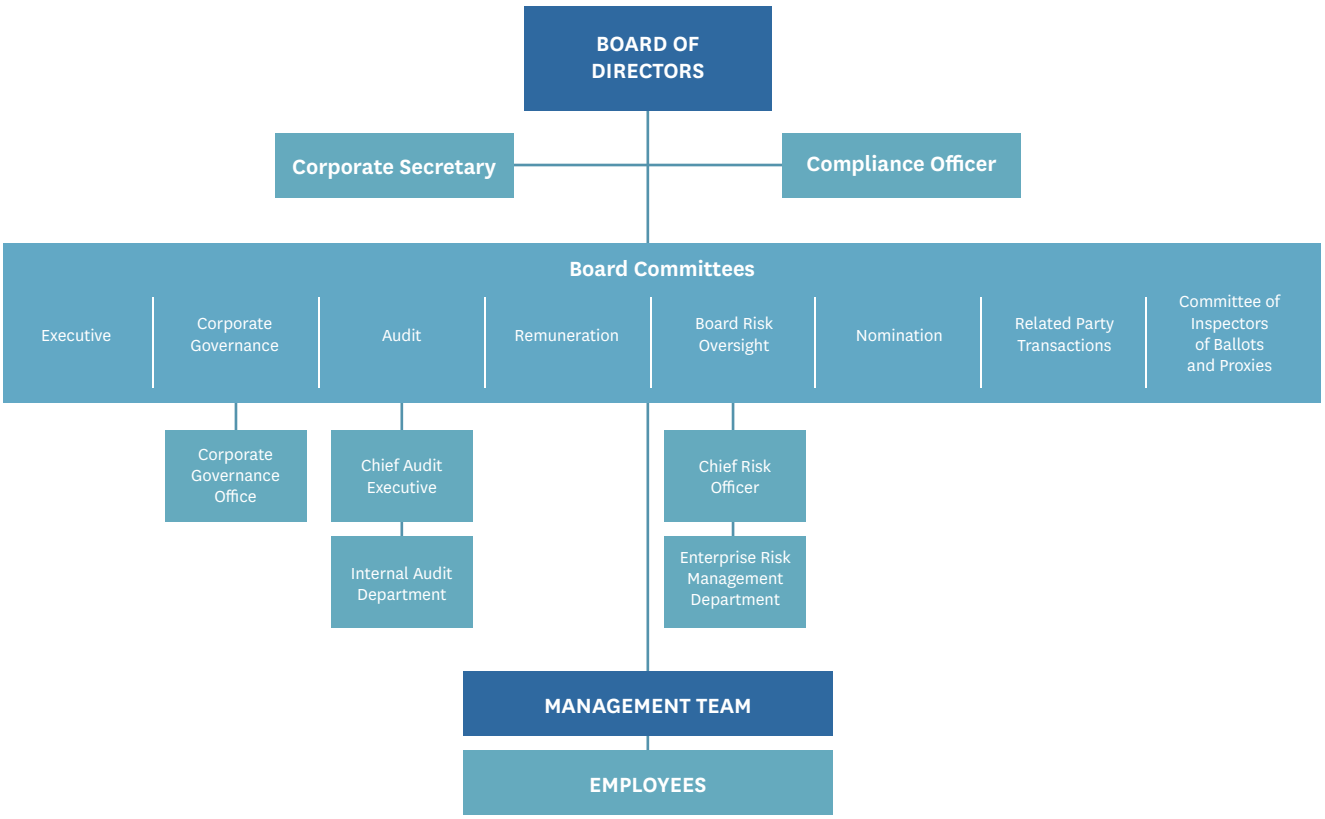
a. Every stockholder, including the minority and non-controlling, has a right to submit nominations for election to the Board.

   All nominations to the Board, whether for first time nominees or repeat nominees, or for independent directors, shall be submitted to the Nomination Committee, through the Office of the Corporate Secretary, at least thirty (30) working days before the date of the ASM. The stockholders, in making their nominations, or the Company, may make use of professional search firms or external sources of candidates when searching for candidates to the Board.

b. Process of Endorsing Nominations

   (i) The Nomination Committee shall hold a meeting for the specific purpose of determining whether the nominees to the Board have all the qualifications and none of the disqualifications specified in the Corporation Code of the Philippines[1], the Manual, the Charter of the Board, the SRC Rules, and the applicable laws, rules and regulations.

CORPORATE GOVERNANCE STRUCTURE



[1] This includes the provisions under the Revised Corporation Code.

(ii) The Nomination Committee shall evaluate each and every nomination and for this purpose, may even make an inquiry with their professional networks and outside references.

The Nomination Committee undertakes the process of identifying the quality of directors aligned with our strategic directions. Towards this end, the Nomination Committee shall confirm that all nominees for election have all the qualifications and none of the disqualifications to become directors, and that they have the competence and professional background that will enable them to perform their duties as directors of a highly regulated business as that of Manila Water.

If the ground for disqualification of a nominated director becomes known prior to the scheduled ASM, the nominated director shall not be endorsed for election at the stockholders' meeting except when such disqualification is temporary and the same is cured or remedied prior to the scheduled stockholders' meeting.

A director with temporary disqualification may still be endorsed by the Nomination Committee for election at the ASM subject to the sixty (60) day curing period, if the ground for temporary disqualification is capable of being cured. However, if the disqualification becomes permanent after endorsement by the Nomination Committee and before the ASM, the nominee shall be given the discretion to refuse his nomination. If the nominee is thereafter elected, or the disqualification becomes permanent during his term of office, the aforesaid director may be removed subject to the provisions of and procedures under Section 2.4.2 of the Charter of the Board.

(iii) After evaluation of the qualifications/ disqualifications of the nominees, the Nomination Committee shall issue a resolution whether endorsing or not the nominees for election to the Board.

(iv) If a nominee is not endorsed for election by reason of a disqualification, the resolution of the Nomination Committee should clearly specify the grounds relied upon for disqualification.

(v) The Chairman of the Board shall provide input to the Nomination Committee on its recommendation for approval of candidates for nomination or appointment to the Board as well as for the members and chairs of Board Committees.

c. Election of Directors

At each election for directors, every stockholder shall have the right to vote, in person or by proxy, the number of shares owned by him for as many persons as there are directors to be elected, or to cumulate his votes by giving one candidate as many votes as the number of such directors multiplied by the number of his shares shall equal, or by distributing such votes on the same principle among any number of candidates.

QUALIFICATIONS AND DISQUALIFICATIONS OF DIRECTORS

General Qualifications of Directors

A nominee to the Board must have the following General Qualifications:

a. Ownership of at least one (1) share of the capital stock of the Company;
b. At least twenty-one (21) years of age;
c. A college degree or its equivalent or adequate competence and understanding of the fundamentals of doing business or sufficient experience and competence in managing a business to substitute for such formal education;
d. Possesses integrity, probity and shall be diligent and assiduous in the performance of his functions;
e. Other relevant qualifications, such as membership in good standing in business, professional organizations or relevant industry; and
f. Non-executive directors should possess such qualifications and stature that would enable them to effectively participate in the deliberations of the Board.

Specific Qualifications of Directors

In addition to the General Qualifications, the following specific qualifications shall be required, if applicable:

a. At least one (1) of the independent directors must have accounting expertise (accounting qualification or experience);
b. At least one (1) non-executive director must have prior working experience in the sector that Manila Water is operating in;
c. Independent directors must have all requisite qualifications for independence under Securities and Exchange Commission (SEC) Memorandum Circular No. 16, Series of 2002;
d. Officers, executives and employees of the Company may be elected as directors but cannot and shall not be characterized as independent directors;
e. If a director elected or appointed as an independent director becomes an officer, employee or consultant of the Company, the Company shall forthwith cease to consider him as an independent director; and
f. If the beneficial ownership of an independent director in the Company or its related corporations shall exceed two percent (2%) of the subscribed capital stock of such corporation, the Company shall forthwith cease to consider him as an independent director, except when the independent director takes the appropriate action to remedy or correct the disqualification within sixty (60) days from the occurrence of the ground, in which case, he may still be considered an independent director.

Permanent Disqualifications

A nominee to the Board with the following disqualifications shall never be nominated, or if nominated and elected, shall be removed from office:

a. Any person who has been finally convicted by a competent judicial or administrative body of the following: (i) any crime involving the purchase or sale of securities as defined in the SRC, e.g. proprietary or non-proprietary membership certificate, commodity futures contract, or interest in a common trust fund, pre-need plan, pension plan or life plan; (ii) any crime arising out of the person's conduct as an underwriter, broker, dealer, investment corporation, investment adviser, principal distributor, mutual fund dealer, futures commission merchant, commodity trading advisor, or floor broker; or (iii) any crime arising out of his fiduciary relationship with a bank, quasi-bank, trust company, investment house or as an affiliated person of any of them;

b. Any person who, by reason of any misconduct, after hearing or trial, is permanently or temporarily enjoined by order, judgment or decree of the SEC or any court or other administrative body of competent jurisdiction from: (i) acting as an underwriter, broker, dealer, investment adviser, principal distributor, mutual fund dealer, futures commission merchant, commodity trading advisor, or a floor broker; (ii) acting as a director or officer of a bank, quasi-bank, trust company, investment house, investment company or an affiliated person of any of them; (iii) engaging in or continuing any conduct or practice in connection with any such activity or willfully violating laws governing securities, and banking activities. Such disqualification shall also apply when such person is currently subject to an effective order of the SEC or any court or other administrative body refusing, revoking or suspending any registration, license or permit issued under the Corporation Code of the Philippines, SRC, or any other law administered by the SEC or Bangko Sentral ng Pilipinas (BSP), or under any rule or regulation promulgated by the SEC or BSP, or otherwise restrained to engage in any activity involving securities and banking. Such person is also disqualified when he is currently subject to an effective order of a self-regulatory organization suspending or expelling him from membership or participation or from association with a member or participant of the organization;

c. Any person finally convicted judicially or administratively of an offense involving moral turpitude or fraudulent acts or transgressions such as, but not limited to, embezzlement, theft, estafa, counterfeiting, misappropriation, forgery, bribery, false affirmation or perjury;

d. Any person finally found by the SEC or a court or other administrative body to have willfully violated, or willfully aided, abetted, counseled, induced or procured the violation of any provision of the SRC, the Corporation Code of the Philippines, or any other law administered by the SEC, or any rule, regulation or order of the SEC or the BSP;

e. Any person judicially declared to be insolvent;

f. Any person finally found guilty by a foreign court or equivalent financial regulatory authority of acts, violations or misconduct listed in the foregoing paragraphs;

g. Any person convicted by final and executory judgment of an offense punishable by imprisonment for a period exceeding six (6) years, or a violation of the Corporation Code of the Philippines, committed within five (5) years prior to the date of his election or appointment; and

h. No person shall qualify or be eligible for nomination or election to the Board if he is engaged in any business which competes with or is antagonistic to that of the Company. Without limiting the generality of the foregoing, a person shall be deemed to be so engaged – (i) If he is an officer, manager or controlling person of, or the owner (either of record or beneficially) of ten percent (10%) or more of any outstanding class of shares of, any corporation (other than one in which the Company owns at least thirty percent [30%] of the capital stock) engaged in a business which the Board, by at least three-fourths (3/4) vote, determines to be competitive or antagonistic to that of the Company, or (ii) If he is an officer, manager or controlling person, or the owner (either of record or beneficially) of ten percent (10%) or more of any outstanding class of shares of any other corporation or entity engaged in any line of business of the Company, or when in the judgment of the Board, by at least three-fourths (3/4) vote, deems that the laws against combinations in restraint of trade shall be violated by such person's membership in the Board; or (iii) If the Board, in the exercise of its judgment in good faith, determines by at least three-fourths (3/4) vote that he is the nominee of any person set forth in (h.i.) or (h.ii.). In determining whether or not a person is a controlling person, beneficial owner, or the nominee of another, the Board may take into account such factors as business and family relations.

Temporary Disqualifications

The following shall constitute grounds for temporary disqualifications of directors:

a. Refusal to fully disclose the extent of his business interest as well as refusal to comply with all other disclosure requirements under the SRC and its Implementing Rules and Regulations. This disqualification shall be in effect as long as his refusal persists;
b. Absence or non-participation in more than fifty percent (50%) of all meetings, both regular and special, of the Board during his incumbency, or any twelve (12) month period during said incumbency unless such absence was due to illness, death in the immediate family or serious accident. This disqualification applies for purposes of the succeeding election;
c. Dismissal/termination from directorship in another listed Company for cause. This disqualification shall be in effect until he has cleared himself of any involvement in the alleged irregularity;
d. Being under preventive suspension by the Company for any reason; and
e. Conviction that has not yet become final referred to in the grounds for disqualification of directors.

ROLES AND RESPONSIBILITIES OF THE BOARD

In order to strengthen the participation of the Board and its Committees in the enhancement of corporate governance practices of the Company, the Board is guided by its own charter. Specifically, the Charter of the Board, among others:

- sets out the specific functions of the Chairman of the Board and the President, emphasizing their separate roles and responsibilities;
- imposes limitations on directorships in publicly listed companies and institutionalizes the performance evaluation of the Board, its Committees, and the President;
- institutionalizes the annual performance evaluation of the Board, and the President and CEO;
- provides for a quorum of two-thirds (2/3) of the number of directors fixed in the Articles of Incorporation; and
- requires the Board to conduct an annual review of the mission and vision of the Company.

INDEPENDENT DIRECTORS

In compliance with the requirements of the law, the Company's Manual, and the rules and regulations of the SEC, the Company has four (4) independent directors as members of the Board. Under the Charter of the Board, Independence is defined as, with respect to any person, the absence of any restrictions or limitations or freedom from any interests or relationships that would interfere with the exercise of impartial and objective judgment in carrying out the responsibilities of that person. Under the Manual, a director is considered independent if he holds no interests or relationships with the Company that may hinder his independence from the Company or its management which would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. More importantly, the Company also subscribes to the requirements of independence under existing laws, rules and regulations, in particular, the SEC Memorandum Circular No. 16, Series of 2002. Hence, the Company ensures that its independent directors have all the qualifications and none of the disqualifications specified in the said SEC Memorandum Circular.

BOARD COMMITTEES

The Board is supported by several committees, namely: Executive Committee, Audit Committee, Related Party Transactions Committee, Nomination Committee, Remuneration Committee, Board Risk Oversight Committee, Corporate Governance Committee, and the Committee of Inspectors of Ballots and Proxies. These Board Committees are required to report to the Board a summary of the actions taken on matters submitted to them for consideration at the next meeting of the Board. Each of the Board Committees has its own charter that provides guidance on the manner by which its members and the committees should exercise their functions and mandates.

The Executive Committee

- Composed of five (5) directors as members
- Acts by majority vote of all its members and is authorized to act and shall act on matters within the competence of the Board, except those with respect to:
  1. Approval of any action for which shareholders' approval is also required;
  2. Filling of vacancies in the Board;
  3. Amendment or repeal of the By-laws or the adoption of new By-laws; and
  4. Amendment or repeal of any resolution of the Board, which by its express terms is not so amendable or repealable.
- Meets as needed and performs such other functions as may be properly delegated to it by the Board
- Held eight (8) meetings in 2018

The Corporate Governance Committee

- Composed of three (3) independent directors including the Chairman
- Tasked with ensuring compliance with and proper observance of corporate governance principles and practices
- Has the following duties and functions, among other functions as may be delegated by the Board from time to time:
  1. Oversees the implementation of the corporate governance framework and periodically reviews the said framework to ensure that it remains appropriate in light of material changes to the Company's size, complexity and business strategy, as well as its business and regulatory environments;
  2. Oversees the periodic performance evaluation of the Board and its committees as well as executive management, and conducts an annual self-evaluation of its performance;
  3. Ensures that the results of the Board evaluation are shared, discussed, and that concrete action plans are developed and implemented to address the identified areas for improvement;
  4. Recommends continuing education/training programs for directors, and assignment of tasks/projects to Board committees;
  5. Adopts corporate governance policies and ensures that these are reviewed and updated regularly, and consistently implemented in form and substance; and
  6. Proposes and plans relevant trainings for the members of the Board.
- Additional duties and responsibilities of the Committee shall be set forth in its charter
- The Compliance Officer, in coordination with the Corporate Secretary, shall support the Committee in the performance of its functions
- Held four (4) meetings in 2018

The Audit Committee

- Composed of four (4) directors (three of whom are independent) and is required to be chaired by an independent director
- Provides the check and balance mechanism and is expected to bring positive results in supervising and supporting the management of the Company
- Responsible for ensuring the development of, compliance with, and periodic review of corporate governance and financial reporting policies and practices of the Company
- Recommends and/or concurs to the appointment, replacement, re-assignment and removal or dismissal of the Company's external auditors and the Chief Audit Executive to ensure that the external and internal auditors will function and operate independently of the management as required of their function
- Meets at least every quarter and before the quarterly Board meetings and when needed
- Held six (6) meetings in 2018

All members of the Audit Committee are required to possess adequate understanding of accounting and auditing principles in general and of the Company's financial management systems and environment, in particular.

Mr. Jaime C. Laya, an independent director and a member of the Audit Committee, is a Certified Public Accountant.

The Related Party Transactions Committee

- Considered by the Board as a subset of the Audit Committee, and is composed of all the three (3) independent directors, and chaired by an independent director
- Primarily tasked with the duty of enforcing and implementing the Related Party Transactions (RPT) Policy of the Company, with respect to material RPT
- Ensures that: material RPT shall have terms and conditions that are fair and equitable to the Company; the approval, award, processing and payment of RPT shall follow the same

procedures as the other transactions and contracts of the Company, and therefore, no unusual privilege or special treatment shall be afforded a Related Party; and in case of doubt on the nature of a transaction subject of investigation or review pursuant to the RPT Policy, the Office of the Compliance Officer, in consultation with the RPT Committee, shall determine whether the transaction or relationship constitutes a RPT, and whether the same shall be pursued taking into consideration the cost and benefit to the Company
- Held two (2) meetings in 2018

The Nomination Committee

- Composed of three (3) independent directors, and under its Charter is required to be chaired by an independent director
- Tasked to install and maintain an evaluation process to ensure that all directors to be nominated to the Board during the Annual Stockholders' Meeting have all the qualifications and none of the disqualifications stated in the Manual, the Charter of the Board and the Committees, and under existing laws and regulations
- Undertakes the process of identifying the quality of directors consistent with the Company's strategic directions, and to ensure that the directors have the competence and professional background that will enable them to perform their duties as directors of Manila Water, and for this reason, the Committee shall not endorse a nominee for appointment by the Board unless it has determined that all nominees have all the qualifications and none of the disqualifications for the position
- Tasked to evaluate the qualifications of all officers nominated to positions in the Company which are appointed by, or required to be appointed by the Board and provides guidance and advice as necessary for the appointment of persons nominated to other positions
- Review and revise if necessary, the succession plans for members of the Board and officers with ranks from Group Directors to the President/CEO
- Provide assessment on the Board's effectiveness in directing the process of renewing and replacing Board members and in appointing officers or advisors and develop, update as necessary and recommend to the Board policies for considering nominees for directors, officers or advisors
- Held four (4) meetings in 2018

The Remuneration Committee

- Composed of four (4) members, three (3) of whom are independent directors, and under its Charter is required to be chaired by an independent director
- Tasked with the duty: to determine and approve all matters and policies relating to the remuneration and benefits of the Company's directors and key officers; to establish a formal and transparent procedure for developing a policy on remuneration of directors and officers to ensure that their compensation is consistent with the Company's culture, strategy and the business environment in which it operates; to determine and approve all matters relating to the remuneration and benefits of the Board and the Company's officers; to evaluate and recommend for Board approval the pertinent guidelines on executive compensation, including non-monetary remuneration; to periodically review and evaluate the policy on remuneration in order that it be in a sufficient level to attract and retain directors and officers of the Company
- Continuously evaluates and recommends for Board approval, pertinent guidelines and policies on executive and employee compensation, including non-monetary remuneration
- Held three (3) meetings in 2018

The Board Risk Oversight Committee

- Composed of four (4) members, majority of whom are independent directors, and is required to be chaired by an independent director
- Tasked to provide assistance in fulfilling the Board's oversight responsibilities in relation to risk governance in Manila Water, which includes ensuring that the Management maintains a sound and responsive risk management system across the organization; promote an open discussion regarding risks faced by the Company, as well as risks faced by its subsidiaries that may have potential impact on the Company's operations, and ensure that risk awareness culture is pervasive throughout the organization; ensure that an overall set of risk management policies and procedures exist for the Company; review the Company's risk governance structure and the adequacy of the Company's risk management framework/ process; review and endorse to the Board changes or

amendments to the Enterprise Risk Management (ERM) Policy; perform oversight functions specifically in the areas of managing strategic, financial, compliance, regulatory, operational and other risks of the Company, and crisis management; in coordination with the Audit Committee, ensure that the Company's internal audit work plan is aligned with risk management activities and that the internal control system considers all risks identified in the risk assessment process
- Established separately from the Audit Committee in order to further enhance governance on risk matters and align with the best practices in risk management and supported by the Enterprise Risk and Insurance Management Department in the performance of its functions
- Held two (2) meetings in 2018

The Committee of Inspectors of Ballots and Proxies

- Membership consists of the Chief Audit Executive as Chairman, and the Chief Legal Officer and a representative of the external auditor of the Company as members
- Carries the mandate to validate proxies issued by the stockholders and to determine if the same are in accordance with existing laws, rules, and regulations prior to the Annual Stockholders' Meeting
- Default inspector of ballots and tabulator of votes during the Annual Stockholders' Meeting, and as such, is required to coordinate closely with the Office of the Corporate Secretary and the independent validator of votes appointed for the purpose
- Held two (2) meetings in 2018

CORPORATE ORIENTATION AND CORPORATE GOVERNANCE TRAININGS FOR DIRECTORS

The members of the Board are required to regularly attend seminars and conferences to continuously update themselves on the developments in policy, regulations and standards on good corporate governance. These seminars may have themes on key environmental issues, risk management and sustainability. Under the Company's Manual, the members of the Board are also provided with such resources, trainings and continuing education to enable each member to actively, independently and judiciously participate in Board and Committee meetings.

Newly elected members of the Board undergo orientation programs for them to have a working knowledge of the statutory and regulatory requirements affecting the Company. They are also required to keep abreast with industry developments and business trends in order that they may promote the Company's competitiveness and sustainability. Attendance in a corporate governance seminar conducted by a duly-recognized private or governmental institution is also a mandatory requirement prior to their assumption of office and during their term of office.

The Company also provides general access to training courses to its directors as a matter of continuous professional education as well as to enhance their skills as directors, and keep them updated in their knowledge and understanding of the Company's business. The Board and Board Committees are also allowed to hire independent legal counsel, accountants or other consultants to advise them when necessary.

At every board meeting, directors are provided with a management update on the operational and financial status of, and other relevant matters, about the Company to ensure that the directors are continuously informed of new developments and the performance of the Company.

Upon assumption of office, a director appointed for the first time undergoes a corporate orientation program conducted by the Office of the Corporate Secretary. The corporate orientation program includes modules on the operations of the Company, as well as relevant contracts of the Company. The orientation also covers existing policies, rules and regulations of the Company. The curriculum of the orientation program may be revised as often as necessary to include other relevant subjects and matters relating to the Company. In addition to the corporate orientation program for new directors, the Office of the Corporate Secretary informs the Board of any updates on the matters covered by the orientation program. The corporate orientation program and updates are usually given during the regular meetings of the Board.

These programs notwithstanding, Manila Water encourages its directors to attend external trainings, courses or continuing professional education programs on corporate governance. The Directors are required to inform the Office of the Corporate Secretary of the trainings or courses attended for record and disclosure purposes.

CORPORATE GOVERNANCE PROGRAMS ATTENDED BY THE BOARD OF DIRECTORS IN 2018

Director	Program	Training Provider	Date of Training
Fernando Zobel de Ayala	Ayala Corporate Governance and Risk Management Summit – Advanced Corporate Governance Training	Institute of Corporate Directors	September 10, 2018
Jaime Augusto Zobel de Ayala	Ayala Corporate Governance and Risk Management Summit – Advanced Corporate Governance Training	Institute of Corporate Directors	September 10, 2018
Ferdinand M. dela Cruz	Ayala Corporate Governance and Risk Management Summit – Advanced Corporate Governance Training	Institute of Corporate Directors	September 10, 2018
Gerardo C. Ablaza Jr.	Ayala Corporate Governance and Risk Management Summit – Advanced Corporate Governance Training	Institute of Corporate Directors	September 10, 2018
Antonino T. Aquino	Ayala Corporate Governance and Risk Management Summit – Advanced Corporate Governance Training	Institute of Corporate Directors	September 10, 2018
Delfin L. Lazaro	Ayala Corporate Governance and Risk Management Summit – Advanced Corporate Governance Training	Institute of Corporate Directors	September 10, 2018
John Eric T. Francia	Ayala Corporate Governance and Risk Management Summit – Advanced Corporate Governance Training	Institute of Corporate Directors	September 10, 2018
Jaime C. Laya	Ayala Corporate Governance and Risk Management Summit – Advanced Corporate Governance Training	Institute of Corporate Directors	September 10, 2018
Oscar S. Reyes	Sustainability Strategy in a Disruptive Business Environment: ESG Best Practices and Compliance Issues; and Blockchain Technology Use Cases and Strategic Benefits, Risk and Governance Issues	Matthew Bell and Paul Brody	November 16, 2018
Sherisa P. Nuesa	Ayala Corporate Governance and Risk Management Summit – Advanced Corporate Governance Training	Institute of Corporate Directors	September 10, 2018
	SEC-PSE Corporate Governance Forum	Securities and Exchange Commission/Philippine Stock Exchange, Inc.	October 23, 2018
Jose L. Cuisia Jr.	Ayala Corporate Governance and Risk Management Summit – Advanced Corporate Governance Training	Institute of Corporate Directors	September 10, 2018

On September 21, 2018, members of the Board also attended the Ayala Group Integrated Risk Management and Sustainability Summit themed key environmental issues, risk management, and sustainability.

BOARD MEETINGS

Under the Charter of the Board, the Board institutionalized a policy of holding at least six (6) meetings in a year. These include the organizational meeting of the Board which is held immediately after the Annual Stockholders' Meeting. Under the By-laws, special meetings may be called by the Chairman, Vice Chairman, President or at the instance of a majority of the members of the Board.

To promote transparency, the Board has a policy of requiring the presence of at least one independent director in all its meetings. In the past years, the Board has not conducted a meeting without the presence of at least one independent director.

Under the Manual, a director's absence or non-participation, for whatever reason in more than fifty percent (50%) of all Board meetings, both regular and special, in a year is a ground for temporary disqualification in the succeeding election.

BOARD ATTENDANCE IN MEETINGS

In 2018, all the members of the Board attended all meetings held during the year. A total of seven (7) meetings were held by the Board in 2018 (exclusive of the Annual Stockholders' Meeting), as follows:

- a regular meeting on March 1, 2018;
- an organizational meeting on April 16, 2018;
- regular meetings on June 4, 2018, August 9, 2018, October 2, 2018 and November 20, 2018; and
- a meeting of the Non-Executive Directors on November 20, 2018.

As the only Executive Director, Mr. Ferdinand M. dela Cruz was not a party to the meeting of the Non-Executive Directors.

During the 2018 Annual Stockholders' Meeting held on April 16, 2018 at Ballroom 2, Fairmont Makati in Makati City, the Chairman of the Board of Directors, President and CEO of the Company, and the Chairman of the Audit Committee along with the other directors and executive officers of the Company, were in attendance. Their attendance was duly recorded in the minutes of the said meeting.

QUORUM IN BOARD MEETINGS

Under the Charter of the Board, at least two-thirds (2/3) of the members of the Board (as fixed in the Articles of Incorporation) shall constitute a quorum for the transaction of corporate business, and every decision of at least a majority of the directors present at a meeting at which there is a quorum shall be valid as a corporate act, except when a higher quorum is required in contracts binding on the Company.

In the absence of a quorum, a majority of the directors present may adjourn any meeting from time to time until a quorum is obtained.

BOARD REMUNERATION

The Board determines a level of remuneration for directors that shall be sufficient to attract and retain directors, and compensate them for attendance at meetings of the Board and Board Committees and their performance of numerous responsibilities of a Board member. The Remuneration Committee is responsible for recommending to the Board the fees and other compensation for directors. In fulfilling this duty, the Remuneration Committee is guided by the objective of ensuring that the proposed fees should fairly compensate the directors for the work required consistent with the Company's size and industry.

In a special meeting held on April 11, 2011, the Board approved an increase in the Board remuneration. The approved remuneration for each member of the Board consists of ₱500,000 as a fixed annual retainer fee, ₱200,000 for each meeting of the Board actually attended, and ₱50,000 for each Committee meeting actually attended. This Board remuneration structure was approved by the stockholders in its Annual Stockholders' Meeting of even date, and has not been modified since then. In the same annual meeting held on April 11, 2011, the stockholders approved the amendment of the By-laws, giving the Board of Directors the authority to determine the amount, form, and structure of the fees and other compensation of the directors.

The table below summarizes the total compensation remuneration received by and/or to be paid to the directors for their attendance in meetings held in 2018:

NAME	ATTENDANCE		2018 Remuneration***** (Retainer, Board, Committee and Annual Stockholders' Meetings Fees)
	Meetings Attended/ Held*	Percentage	
Fernando Zobel de Ayala**	7/7	100%	2,350,000
Jaime Augusto Zobel de Ayala**	6/7	86%	1,900,000
Ferdinand M. dela Cruz**	6/6***	100%	2,100,000
Gerardo C. Ablaza Jr.	7/7	100%	2,650,000
Antonino T. Aquino	7/7	100%	2,300,000
Delfin L. Lazaro**	7/7	100%	2,100,000
John Eric T. Francia**	7/7	100%	2,250,000
Jaime C. Laya	7/7	100%	2,900,000
Jose L. Cuisia Jr.	7/7	100%	2,950,000
Oscar S. Reyes	7/7	100%	2,650,000
Sherisa P. Nuesa	7/7	100%	2,450,000

* Exclusive of the Annual Stockholders' Meeting held on April 16, 2018, and inclusive of the Meeting of Non-Executive Directors held on November 20, 2018.
**Remuneration of Messrs. Fernando Zobel de Ayala, Jaime Augusto Zobel de Ayala, Ferdinand M. dela Cruz, Delfin L. Lazaro and John Eric T. Francia were paid directly to Ayala Corporation.
*** Mr. dela Cruz is not required to attend the meeting of the Non-Executive Directors as he is an Executive Director.
***** Amounts (in Pesos) are tax-inclusive

2018 BOARD OF DIRECTORS' ATTENDANCE IN COMMITTEE MEETINGS

Board Committees and Members	Meetings Attended/ Held
Executive Committee	
Fernando Zobel de Ayala (Chairman)	8/8
Gerardo C. Ablaza Jr. (Vice Chairman)	8/8
Ferdinand M. dela Cruz	8/8
Antonino T. Aquino	8/8
John Eric T. Francia	7/8
Corporate Governance Committee	
Sherisa P. Nuesa (Chair/Independent Director)	4/4
Jaime C. Laya (Independent Director)	4/4
Jose L. Cuisia Jr. (Independent Director)	4/4
Audit Committee	
Oscar S. Reyes (Chairman/Lead Independent Director)	6/6
Jose L. Cuisia Jr. (Independent Director)	6/6
Jaime C. Laya (Independent Director)	6/6
Gerardo C. Ablaza Jr.	6/6
Related Party Transactions Committee	
Sherisa P. Nuesa (Chair/Independent Director)	2/2
Jose L. Cuisia Jr. (Independent Director)	2/2
Jaime C. Laya (Independent Director)	2/2

Board Committees and Members	Meetings Attended/ Held
Board Risk Oversight Committee	
Jaime C. Laya (Chairman/Independent Director)	2/2
Jose L. Cuisia Jr. (Independent Director)	2/2
Oscar S. Reyes (Lead Independent Director)	2/2
Gerardo C. Ablaza Jr.	2/2
Nomination Committee	
Jose L. Cuisia Jr. (Chairman/Independent Director)	4/4
Oscar S. Reyes (Lead Independent Director)	4/4
Jaime C. Laya (Independent Director)	4/4
Remuneration Committee	
Jose L. Cuisia Jr. (Chairman/Independent Director)	3/3
Oscar S. Reyes (Lead Independent Director)	3/3
Sherisa P. Nuesa (Independent Director)	3/3
Fernando Zobel de Ayala	3/3
Committee of Inspectors of Ballots and Proxies	
Xerxes Noel O. Ordanez (Chairman/Chief Audit Executive)	2/2
Gerardo M. Lobo II (Head of Legal and Assistant Corporate Secretary)	2/2
External Auditor Representative	2/2

VISION, MISSION, AND CORPORATE OBJECTIVES

To ensure good governance of the Company, the Board is mandated under the Manual to formulate strategic objectives, key policies and procedures for the management of the Company. Furthermore, the Board has established the mechanism for monitoring and evaluating the performance of the Management, especially that of the President and CEO. Under its Charter, the Board is enjoined to periodically review the vision, mission, corporate strategic objectives and key policies of the Company to sustain the Company's market competitiveness and enhance shareholder value. Accordingly, in its regular meeting held on November 20, 2018, the Board has confirmed the following mission and vision of the Company, as representative of its strategic and corporate objectives:

VISION

Our vision is to become a leader in the provision of water, used water and environmental services which will empower people, protect the environment, and enhance sustainable development.

MISSION

Our mission is to create an exceptional customer experience in the provision of sustainable solutions vital to health and life.

ANNUAL BOARD EVALUATION

The Board has an annual evaluation process that is required to be accomplished by the directors, which enables an informed and objective assessment of the following:

1. Board and Board Committee processes and meetings;
2. Compliance with the responsibilities and functions of the Board and Board Committees;
3. Board-Management relationship;
4. Board Member self-evaluation; and
5. Evaluation of the performance of the President and CEO.

This evaluation enables the Board and the Management to determine areas that need improvement on the very scope and criteria of the evaluation process. It also allows the Board to explain their respective ratings and to provide their own comments on the matters discussed in the evaluation. The scope and criteria for the Board Evaluation Process is contained in the Charter of the Board of Directors. The Charter of the Board is available for download at the Company's website.

FORM OF BOARD EVALUATION

SCOPE	CRITERIA	Point System Rate of 1 to 5, 1 being the lowest
Board Processes and Meetings	Adequacy, frequency, duration, and scheduling of Board meetings per year	
	Attendance to the Board meetings	
	Adequacy of materials for meetings of the Board	
	Content and quality of materials for meetings of the Board	
	Quality of presentations to the Board	
	Quality and adequacy of discussions and deliberations during Board meetings	
	Preparedness of the directors for the Board meetings	
Compliance with the Responsibilities and Functions of the Board	Involvement of the Board in the determination of the Company's strategic initiatives and direction	
	Effectiveness of the Board in monitoring of management's implementation of corporate strategy	
	Effectiveness of the Board in monitoring the operational and financial performance of the Company	
	Effectiveness of the Board in handling crisis situation	
	Commitment of the Board to good corporate governance practices	
	Consideration by the Board of the interest of the minority shareholders	
Board-Management Relationship	Existence of open lines of communication and constructive interaction between directors and the management of the Company	
	Clear understanding of the delineation between the roles of the Board and the key officers/ management	
	Support of the Board to the management	

Board Member Self-Evaluation	Exercise of independent judgment in that a Director views each problem/situation objectively and supports plans and ideas which such Director believes are beneficial to the Company	
	Avoidance of any situation where a Director may be placed in a conflict of interest	
	Inclination to disclose any conflict of interest	
	Prompt and complete attendance in Board meetings	
	Preparedness on the topics to be discussed on Board meetings	
	Active and objective participation in the Board discussions	
	Working knowledge on the statutory and regulatory requirements affecting the Company	
	Promotion and support on good corporate governance practices and policies	

FORM OF BOARD COMMITTEE EVALUATION

SCOPE	CRITERIA	**Point System** Rate of 1 to 5, 1 being the lowest
Committee Processes and Meetings	Adequacy, frequency, duration, and scheduling of Committee meetings per year	
	Attendance to the Committee meetings	
	Adequacy of materials for meetings of the Committees	
	Content and quality of materials for meetings of the Committees	
	Quality of presentations to the Committees	
	Quality and adequacy of discussions and deliberations during Board Committee meetings	
	Preparedness of the directors for the Board Committee meetings	
	Appropriateness of delegation of business to the Committees	
	Adequate information to the Board of Committee acts and approvals	
Compliance with the Responsibilities and Functions of the Committees	Involvement of the Committee in the determination of the Company's strategic initiatives and direction	
	Effectiveness of the Committee in monitoring of management's implementation of corporate strategy	
	Effectiveness of the Committee in monitoring the operational and financial performance of the Company	
	Effectiveness of the Committee in handling crisis situation	
	Commitment of the Committee to good corporate governance practices	
	Consideration by the Committee of the interest of the minority shareholders	
Committee Member Self Evaluation	Conscientiousness in the discharge of functions and responsibilities as member of Board Committee	
	Prompt and complete attendance in Committee meetings	
	Preparedness on the topics to be discussed on Committee meetings	
	Active and objective participation in Committee discussions	

FORM OF EVALUATION OF THE CHAIRMAN OF THE BOARD

SCOPE	CRITERIA	**Point System** Rate of 1 to 5, 1 being the lowest
Evaluation of Chairman of the Board	Possession by the Chairman of the competence and qualifications to effectively discharge the functions of the office	
	Performance by the Chairman of his functions under the laws, By-Laws, the Charter of the Board, the Manual of Corporate Governance, or under the resolutions adopted by the Board	
	Ability of the Chairman to lead and motivate the Board	

FORM OF EVALUATION OF PRESIDENT/CEO

SCOPE	CRITERIA	Point System Rate of 1 to 5, 1 being the lowest
Evaluation of President/CEO	Possession by the President/CEO of the competence and qualifications to effectively discharge the functions of the office	
	Ability of the President/CEO to achieve Key Result Areas and Performance of the CEO against clear, measurable and documented objectives	
	Ability of the President/CEO to lead and motivate the Management	

In addition to the annual Board evaluation process, the Audit Committee adopted SEC Memorandum Circular No. 4 Series of 2012 on the Guidelines for the Assessment of the Performance of Audit Committees of Companies Listed on the Philippine Stock Exchange which took effect on June 30, 2012. Pursuant to this, an annual evaluation is also being conducted to assess the performance of the Audit Committee.

These annual evaluation processes are facilitated by the Office of the Corporate Secretary in coordination with the Corporate Governance Committee.

OFFICE OF THE CORPORATE SECRETARY

The Corporate Secretary ensures that the Board and the Management follow internal and external rules and regulations, and facilitates clear communications between the Board and Management. More importantly, the Company recognizes the mandate of the Office in championing the compliance of the Board and the Company with good corporate governance practices and policies. For this purpose, the Office of the Corporate Secretary, under its Charter, is mandated to coordinate with the Office of the Compliance Officer with regard to the formulation and implementation of the corporate governance practices of the Company, especially those relevant to and affecting the Board. This is to ensure that sound corporate governance practices are embedded across the entire organization.

THE MANAGEMENT

The Management is primarily responsible for the operations of the Company. As part of its accountability, the Management is required to provide the Board with adequate, regular and timely information on the operations and affairs of the Company.

The roles of the Chairman, and the President and CEO were made separate to ensure an appropriate balance of authority, increased accountability and greater capacity of the Board for independent decision-making.

The Manual requires the Company to disclose the relationship between the Chairman, and the President and CEO, if any, in its annual report to the SEC. The Chairman of the Board, Fernando Zobel de Ayala, and the President and CEO of the Company, Ferdinand M. dela Cruz, are not related to each other.

SUCCESSION PLANNING

The Board, with the assistance of the Remuneration Committee, the Nomination Committee and the Company's Corporate Human Resources Group, has adopted a professional development program for employees, officers and senior management. Through competency management, the Company has put in place a process to determine the skills necessary for particular positions in the Company, and identifies key talents for purposes of succession. The Company's Corporate Human Resources Group has developed a Talent Master Plan to determine the optimal organizational structuring, recruitment strategies, performance evaluation methodologies, total rewards management and career development. These are all geared to attract, retain and engage the company's employees, officers and senior management, and to cultivate them to become the Company's future business leaders.

The development of a leadership talent pool is crucial to the success of Manila Water in the future. Hence, it is one of the top strategic priorities of the Company. For the succession of the top key management positions, the Company has formed an Acceleration Pool composed of selected high potential key talents within the organization.

Talents identified to be part of the Acceleration Pool undergo the following:

1. assessment that gauges a talent's business driver readiness and leadership competencies;

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2. creation of an Individual Development Plan that outlines possible developmental areas and stretched assignments; and
3. coaching and mentoring sessions with the Management Committee.

The Management Committee is composed of the top key executives of the Company from the President/CEO to those occupying positions equivalent to Vice Presidents.

THE COMPLIANCE OFFICER

In accordance with the Manual, and in order to ensure adherence to the principles and best practices in corporate governance, the Board appoints a Compliance Officer whose primary role is to operationalize the Manual, and monitor overall compliance with its provisions and requirements. Moreover, the Compliance Officer is tasked with the duty to communicate with the SEC on matters relating to the Company's compliance with the Manual and the clarification of matters required by the said Commission. Together with his primary function, the Compliance Officer is also tasked to oversee the implementation of the Company's Code of Business Conduct and Ethics and the Related Party Transactions Policy.

THE CORPORATE GOVERNANCE OFFICE

The Legal and Corporate Governance Department (the "Department") is the unit tasked to formulate and implement the initiatives and policies on good corporate governance. The Department, on matters of corporate governance, reports directly to the Compliance Officer under the supervision of the Corporate Governance Committee. The Department has been active in the continuous conduct of orientation to all Manila Water employees and business partners on the Company's governance policies, particularly on matters contained in the Manual and the Code of Business Conduct and Ethics, such as transparency, whistle blower policy, honesty and fair dealing, and prompt and adequate disclosure of material information, among other policies.

Among the mandates of the Department is the continuous identification of gaps and challenges on corporate governance practices across the organization. This allows the Department to propose improvements on the Company's policies based on international corporate governance standards. Finally, the Department, in coordination with the Office of the Corporate Secretary, also provides timely updates to the Board and the Management on the current and best practices on corporate governance in the industry and globally.

THE INTERNAL AUDIT

The Internal Audit (IA) team conducts an independent, objective assurance, and consulting activity designed to add value and improve the organization's operations.

It helps the organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.

The IA reports to and supports the Audit Committee in the effective discharge of the Committee's oversight roles and responsibilities. The IA consists of talents and professionals who are either a Certified Public Accountant, Certified Internal Auditor, Certified Information Systems Auditor, Certified in Risk and Information Systems Control, Certified Internal Control Auditor, Civil Engineer, Electrical Engineer, or a mix thereof.

Annually, a risk-based internal audit plan is prepared and approved by the Audit Committee. The IA conducts its activities guided by the Institute of Internal Auditors' (IIA) Professional Practices Framework consisting of the International Standards for the Professional Practice of Internal Auditing (Standards), the Definition of Internal Auditing and the Code of Ethics. In December 2017, the external auditing firm Punongbayan & Araullo conducted an independent validation of the internal audit function's Quality Assessment Review (QAR) and concurred that the internal audit activity "Generally Conforms" to the International Professional Practice Framework (IPPF) and its mandatory elements namely: (1) Core Principles for the Professional Practice of Internal Auditing; (2) Definition of Internal Auditing; (3) Code of Ethics; and, (4) International Standards for the Professional Practice of Internal Auditing (Standards). The rating is considered the highest possible rating per Institute of Internal Auditors (IIA) methodology. The Standards require that the external assessment be conducted at least once every five (5) years.

THE CHIEF RISK OFFICER

The Chief Risk Officer (CRO) oversees the entire risk management function and leads the development, implementation, maintenance and continuous improvement of Enterprise Risk Management (ERM) Program processes and tools. The CRO is the Vice Chairman of the Risk Management Executive Committee (RMEC) which directs the ERM Department in facilitating the ERM process throughout Manila Water and in collecting and analyzing key business risk information for reporting to the RMEC.

ENTERPRISE RISK MANAGEMENT

The Enterprise Risk Management (ERM) Department is responsible for the sustained implementation of the Enterprise Risk Management Program of the Company and ensures that key risks are identified and managed by the respective risk owners.

ERM Department is also responsible for managing the insurance program of the Company and provides oversight on the insurance program of the subsidiaries, with the objective of making the program optimal, cost-effective, risk-based and responsive to the Company's needs.

INVESTOR RELATIONS TEAM

The Investor Relations Team (IR) is tasked to regularly keep the Company's investors and stakeholders informed of the developments in the Company's business. For this purpose, the IR conducts quarterly analysts' briefings and regular meetings with shareholders, fund managers, and analysts to keep them updated on the financial and operating performance of the Company as well as other relevant material information and details on transactions of the Company. A press briefing is also held each year immediately after the Annual Stockholders' Meeting to engage other stakeholders, specifically the media.

The IR is easily reached through the contact details provided herein or in the Company website for any stockholder, stakeholder, or investor concerns.

THE CHIEF SUSTAINABILITY OFFICER

The Chief Sustainability Officer (CSO) ensures that environmental, social and governance issues and challenges of the Company are discussed at the Board and are well communicated to all stakeholders. As a result, there were no significant fines and sanctions above P50,000 noted for non-compliance with relevant socioeconomic and environmental laws and/or regulations in 2018. There were also no incidents of violation involving the rights of indigenous peoples in the reporting period The CSO also leads new initiatives and cross-functional teams, and understands how to translate external factors into internal opportunities. It also ensures that business growth and strategies take into account the environmental and social impacts.

On November 20, 2018, during its Regular meeting, it was approved by the Board to appoint the Company's President and CEO to be the CSO, as reviewed, evaluated, and endorsed by the Nomination Committee.

THE CORPORATE GOVERNANCE MANUAL

Manila Water is dedicated to observing the highest standards of corporate governance in order to serve the best interests of its stakeholders, including the investing public. The Board, Management, employees, and shareholders of the

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Company believe that sound and effective leadership is fundamental to its continued success and stability. These principles and practices enable the company to create and sustain increased value for all the shareholders.

The corporate governance policy of Manila Water is primarily contained in its Manual. The Company's corporate governance framework is based on the principles of accountability, fairness and transparency, and sustainability. The Manual is available for download at the Company's website.

The Manual contains the governance principles that the Company applies in all its undertakings and supplements Manila Water's Articles of Incorporation and By-laws, Code of Business Conduct and Ethics and other related Company policies. The Manual instituted the policies on:

- the Board of Directors', the Board Committees' and management's roles, functions and responsibilities in relation to good governance;
- the institution of training for the Board of Directors, executive directors and employees;
- evaluation of the Board and Management's performance;
- the enhanced roles of the Corporate Secretary and Audit Committee in corporate governance;
- general guidelines on related party transactions; and
- conflict of interest and prompt and adequate disclosures.

Manila Water is in full compliance with the Corporate Governance Manual and all disclosure rules of the Philippines Stock Exchange and the Securities and Exchange Commission.

As a key policy, the members of the Board and key executives of the Company are required to disclose to the Board any material interest, whether direct or indirect, that they may have in any transaction or matter that directly affects the Company. The Company commits, at all times, to adequately and timely disclose all material information that could potentially affect Manila Water's share price and such other information that are required to be disclosed pursuant to the Securities Regulations Code (SRC) and its Implementing Rules and Regulations (IRR) and other relevant laws. This information includes, but is not limited to, results of earnings, acquisition or disposal of significant assets, off-balance sheet transactions, changes in Board membership, as well as, changes in shareholdings of majority shareholders, directors and officers, and related party transactions. The Company also discloses its corporate governance practices, corporate events calendar and other material information on its website in a timely manner.

The directors are required to comply with all disclosure requirements of the Manual and the SRC and its IRR, and to voluntarily disclose any conflict of interest, whether actual or potential, upon its occurrence. The disclosure of any conflict of interest, including related party transactions, is required to be made fully and immediately. In cases where related party transactions exist, it is the Company's policy that complete information on such transaction be immediately disclosed, and, if a director or officer is involved, the director or officer concerned shall not be allowed to participate in the decision-making process. The policy also mandates that a director who has a continuing conflict of interest of a material nature shall be required to resign, or if the Board deems appropriate, be removed as a member of the Board.

The Company's Manual is continuously being revised in accordance with the directives and issuances of the SEC and to comply with the highest standards of corporate governance. The latest revisions to the Manual was approved and ratified by the Board in June 8, 2017.

RELATED PARTY TRANSACTIONS

To further instill the Company's policies on related party transactions, the Board adopted the Policy on Related Party Transactions (the "RPT Policy"). The RPT Policy confirms that the Company and its subsidiaries shall enter into any related party transactions solely in the ordinary course of business, on ordinary commercial terms, and on the basis of arm's length arrangements, which shall be subject to appropriate corporate approvals and actions of the Company or the related parties, as the case may be.

Any related party transactions entered into by the Company or its affiliates shall be in accordance with applicable law, rules and regulations, and the RPT Policy. Related party transactions entered into by the Company with one or more of its directors or officers are voidable at the option of the Company, unless the transaction is deemed fair and reasonable under the circumstances and at arm's length, and the procedure for the procurement and approval for similar transactions was strictly complied with.

The RPT Policy provides for the process of approving related party transactions, as well as the implications for violations. In addition, the RPT Policy prohibits related party transactions involving loans and/or financial assistance to a director and loans and/ or financial assistance to members of the Management, except when allowed pursuant to an established Company benefit or plan. Under the RPT Policy, the approval of the Related Party Transactions Committee is required for material related party transactions.

THE CODE OF BUSINESS CONDUCT AND ETHICS

The Company's commitment to the highest standards of ethics, good governance, competence and integrity was institutionalized through the Code of Business Conduct and Ethics (the "Code"). The Code sets forth the standards for professional and ethical behavior, as well as articulate acceptable and unacceptable conduct and practices in internal and external dealings of the Company. The Code should be properly disseminated to the Board, senior management and employees, and should also be disclosed and made available to the public through the company website.

The Code addresses the issues and relationships between and among the Company's directors, officers and employees, and its customers, suppliers, business partners, government offices and other stakeholders. The Code includes policies on: Honesty and Fair Dealing; Conflict of Interest; Corporate Entertainment and Gifts; Insider Trading; Disclosure; Creditor Rights; Anti-Corruption; and Anti-Sexual Harassment.

Honesty and Fair Dealing

- The core principle of the Company is to conduct business honestly and fairly with its investors, suppliers, contractors, service providers, customers and employees and other third parties.
- Directors, Officers and employees shall act honestly, ethically and in compliance with all applicable laws, rules and regulations and protect the name and reputation of the Company.
- Directors, Officers and employees shall not engage in any unfair dealing practices, such as taking advantage of anyone through abuse of confidential information, manipulation, concealment, or misrepresentation or other similar acts.
- Officers and employees involved in the procurement process for services, materials, supplies, and equipment shall strictly comply with the Company's Procurement Policy. The Procurement Policy is an integral part of this Code.
- Directors, Officers and employees are required to immediately report all suspected or actual fraudulent or dishonest acts to the Board, in case of directors, and to the immediate supervisor or to the Office of the Compliance

Officer in case of officers and employees. The Company shall promptly identify and investigate any suspected fraudulent or dishonest acts. Without prejudice to applicable administrative sanctions, the Company may pursue civil and/or criminal actions against directors, officers and employees as may be warranted.

The Implementing Guidelines on the Reporting of Fraudulent or Dishonest Acts are contained in the Whistle Blower Policy of the Company.

Reporting of Fraudulent or Dishonest Acts (Whistle Blower Policy)

- Provides for procedures to be followed to encourage all covered persons to report fraudulent or dishonest acts in order to protect the good name and reputation of the Company, and in the process, discourage the commitment of such acts.
- Directors, officers, employees and third parties are required to immediately report all suspected or actual fraudulent or dishonest acts to the Board in case of directors, and to the immediate supervisor or to the Office of the Compliance Officer in case of officers, employees and third parties.
- The Company shall promptly identify and investigate any suspected fraudulent or dishonest acts.
- Without prejudice to applicable administrative sanctions, the Company may pursue civil and/or criminal actions against directors, officers, employees and third parties as may be warranted.
- To ensure protection of the reporter from any form of retaliation or discrimination, the identity of the person making the report and the contents of the report shall be kept confidential to the extent legally permissible.

Conflict of Interest

- Prohibits conflict of interest situations involving all directors, officers, employees and their relatives up to the fourth degree of consanguinity and/or affinity, including common law relationships.
- Under the policy, a conflict of interest arises when a director, an officer or employee appears to have a direct or indirect personal or financial interest in any transaction, which may deter or influence him from acting in the best interest of the Company. It is not required that there be an actual conflict; it is only required that there could be perceived conflict by an impartial observer.
- All contracts/arrangements by directors, officers and employees, and their relatives that violates this policy on conflict of interest shall be terminated immediately and correspondingly reported to the Office of the Compliance Officer, for appropriate action under the Code.

Corporate Entertainment and/or Gifts

- Prohibits all officers and employees from accepting corporate entertainment/gifts from suppliers, contractors and other business partners, which can be viewed as influencing the manner by which an officer or employee may discharge his duties.

Insider Trading

- Prohibits directors, officers and confidential employees from trading in Manila Water shares:
- Ten (10) days before and three (3) days after the release of the financial statements; and Three (3) days before and three (3) days after the release of other material information.
- In addition, directors and officers who may be covered by the reporting requirements of the SEC and the Philippine Stock Exchange (PSE) in respect of their shareholding in the Company or any changes thereof, are required to report their dealings in Company shares within three (3) business days after the transaction.

Disclosure

- Encourages prompt and adequate disclosure of all material facts or changes in the affairs of the Company, including any information likely to affect the market price of the Company's shares.

Creditor Rights

- Institutionalizes the Company's adherence to its loan covenants and agreements for the protection of the rights of the creditors of the Company.
- No distribution or disposal of assets of the Company shall be made except: when allowed by the law; or by decrease of capital stock; or upon lawful dissolution and after payment of all its debts and liabilities; when allowed by the material agreements of the Company, but without prejudice to vested rights.

Anti-Corruption

- Strictly prohibits giving and facilitating of payments to any private or government officials or employees, their agents

or intermediaries, in order to expedite or secure performance of any governmental action, or to gain any perceived or actual favor or advantage from any private or government entities. The Company must ensure that it and its directors, officers and employees fully comply with the laws governing bribes, unlawful payments and other corrupt practices.

Anti-Sexual Harassment

- Recognizes the Company's protection of the dignity of its human resources, stakeholders, and customers.
- All forms of sexual harassment shall be dealt with appropriately and in accordance with the applicable and all relevant laws, rules and regulations.

Diversity in Board Membership

Promotes equality among the members of the Board regardless of gender, age, ethnicity, or political, religious or cultural beliefs.

PROCUREMENT POLICIES

The objectives of the Procurement Policies are to promote transparency in the procurement process, and to afford vendors equal access to business opportunity with Manila Water, with the end view of enhancing vendor participation and protecting the interest of Manila Water. Officers and employees of the Company involved in the procurement process for services, materials, supplies and equipment for Manila Water are required to strictly comply with its Procurement Policies.

The Procurement Policies of the Company are downloadable at the Company website.

THE VENDORS' CODE OF CONDUCT

The Vendors' Code of Conduct sets out the rules that will guide Manila Water's vendors in the performance of their obligations and/or transacting business with Manila Water, thus avoiding acts contrary to standards, policies, laws and morals. As business partners of Manila Water, its vendors are expected to act with utmost integrity, efficiency, and competence in performing awarded contracts and/or delivering ordered products. Moreover, they should demonstrate a strong sense of responsibility for public safety and interest that will ultimately promote and protect the good name of Manila Water. The Vendors' Code of Conduct is deemed incorporated in the contracts of Manila Water with its suppliers, vendors and contractors.

A copy of the Vendor's Code of Conduct is downloadable at the Company website.

THE ENTERPRISE RISK MANAGEMENT POLICY

Manila Water has established an Enterprise Risk Management (ERM) Program which aims to use a globally accepted approach in managing imminent and emerging risks in its internal and external operating environments. Under the ERM Program, Manila Water shall appropriately respond to risks and manage them in order to increase shareholder value and enhance its competitive advantage.

In order to bolster the risk oversight and management functions relating to strategic, financial, operational, compliance, legal and other risks of the Company, the Board, on August 11, 2015, approved the establishment of a separate Risk Committee. Subsequently, on November 26, 2015, the Board approved the Charter of the Risk Committee, which transferred the risk oversight and management functions to the to the BROC from the Audit and Governance Committee.

SAFETY, HEALTH, AND WELFARE POLICY

Manila Water is committed to achieving customer satisfaction, upholding environmental sustainability, and ensuring safety, preservation of life and health of its employees and all stakeholders. To achieve these objectives, it is the policy of Manila Water to:

- Continuously assess, implement and improve its processes and business conduct by adopting best practices and keeping abreast with the latest innovations to ensure reliability and efficiency of its operations;
- Ensure full compliance with relevant laws and standards in pollution prevention and environmental sustainability, safety and health protection, as well as applicable regulatory standards and customer requirements related to the quality of its products and services;
- Build a strong culture committed to customer satisfaction, environmental protection, health and safety through education, training and awareness at all levels of the organization that will empower its employees, contractors, suppliers and stakeholders;
- Actively promote the conservation and optimal use of precious resources by constantly creating and improving existing programs aimed at pollution prevention, waste minimization, resource conservation and environmental sustainability;

- Systematically manage and control its health and safety risks through effective risk assessment processes; and
- Regularly revisit, improve, develop and maintain its Quality, Environment, Health and Safety management system to ensure its effectiveness and relevance to the changing needs of the company to drive continuous improvement in operations, quality, environmental, health and safety performances.

STOCKHOLDER RIGHTS

It is the duty of the directors to promote shareholders rights, remove impediments to the exercise of shareholders rights and provide effective redress for violation of their rights.

Right to Notice of Meetings and Right to Attend Meetings
To promote transparency and goodwill, it is a Company policy to encourage the attendance of all its stockholders, including minority and non-controlling, and institutional investors, at the stockholders' meeting of the Company. The Board should encourage active shareholder participation by sending the Notice of Annual and Special Shareholders' Meeting with sufficient and relevant information at least twenty-eight (28) days before the scheduled meeting.

Unless otherwise provided by law or the By-laws, stockholders as of Record Date constituting at least a majority of the outstanding voting capital stock of the Company is necessary to constitute a quorum. The stockholders may be present in person or represented by proxy.

Right to Propose the Holding of and to Attend Meetings
The Manual provides that the minority shareholders shall have the right to propose the holding of a meeting as well as the right to propose items in the agenda of the meeting, provided that the items proposed are for legitimate business purposes.

Right to Make Nominations to the Board of Directors
Every stockholder, including non-controlling, has a right to submit a nomination for election to the Board. The stockholders, in making their nominations, or the Company, are encouraged to make use of professional search firms or external sources of candidates when searching for candidates to the Board.

Voting Right and Right to Participate at Stockholders' Meetings

(i) In all items for approval, each share of stock entitles its registered owner as of the record date to one vote. The Company has two classes of shares, common and participating preferred shares. Both classes of shares have equal voting rights.

(ii) Voting shall be by poll and the Company shall provide the mechanism to implement the same at every stockholders' meeting.

(iii) Under the Company's By-laws, the affirmative vote of stockholders as of the record date constituting at least a majority of the outstanding voting capital stock of the Company is necessary to approve matters requiring stockholders' action, unless otherwise provided for under existing laws, with the exception of the following corporate acts and measures which must be ratified and/or approved by the stockholders representing or constituting at least two thirds (2/3) of the outstanding capital stock of the Company:
- Amendment of the Articles of Incorporation;
- Adoption and/or amendment of the By-laws (unless the power to amend By-laws have been delegated to the Board by the stockholders);
- Sale, lease, exchange, mortgage, pledge or other disposition of all or substantially all of the corporate property;
- Incurring, creating or increasing bonded indebtedness; Increase or decrease of capital stock;
- Merger or consolidation of the Company with another company; Investment of corporate funds in another corporation or business for any purpose other than the primary purpose for which it was organized; and
- Dissolution of the Company, among others.

(iv) For the election for directors, every stockholder shall have the right to vote, in person or by proxy, the number of shares owned by him for as many persons as there are directors to be elected, or to cumulate his votes by giving one candidate as many votes as the number of such directors multiplied by the number of his shares shall equal, or by distributing such votes on the same principle among any number of candidates.

(v) The stockholders shall also have an opportunity during the stockholders' meeting to ask questions and raise their issues relevant to the agenda items. The minutes of the meeting record the shareholder questions and corresponding answers given by the directors and officers of the Company.

(vi) The Board should encourage active shareholder participation by making the result of the votes taken during the most recent Annual or Special Shareholders' Meeting publicly available the next working day. In addition, the Minutes of the Annual and Special Shareholders' Meeting should be available on the Company website within five (5) business days from the end of the meeting.

Dividend Rights

The Company continues its practice of offering its shareholders an equitable share of the Company's profits. In 2013, the Board of Directors confirmed its dividend payout policy which entitles holders of common shares and participating preferred shares to annual cash dividends equivalent to 35 percent of the prior year's net income payable at least semi-annually, on such dates as may be determined by the Board of Directors, subject to applicable rules and regulations on record dates and payment dates. The participating preferred shares participate in the earnings at a rate of 1/10 of the dividends paid to a common share. As a matter of policy, payment dates of dividends declared are fixed within thirty (30) days from date of declaration. In 2018, the Company paid a total of ₱2.151 billion as dividends.

Pre-Emptive Right

All stockholders have pre-emptive rights or the right to subscribe to new shares of the Company, unless there is a specific denial of this right in the Articles of Incorporation or an amendment thereto. They shall have the right to subscribe to the capital stock of the Company. The Articles of Incorporation may provide the specific rights and powers of shareholders with respect to the particular shares they hold, all of which are protected by law so long as they are not in conflict with the Corporation Code.

Right to Information and Inspection

In addition to regular posting and disclosures of material information at the Company website, a shareholder shall be provided with periodic reports regarding the performance of the Company upon written request for a legitimate purpose. Shareholders shall be allowed to inspect corporate books and records including minutes of Board meetings and stock registries in accordance with the Corporation Code and shall be provided an annual report, including financial statements, without cost or restrictions.

QUORUM AND VOTING PROCEDURES AT THE STOCKHOLDERS' MEETINGS

Unless otherwise provided by law or the By-laws, stockholders as of Record Date constituting at least a majority of the outstanding voting capital stock of the Company is necessary to constitute a quorum. The stockholders may be present in person or represented by proxy. The affirmative vote of stockholders constituting at least a majority of the outstanding voting capital stock of the Company is necessary to approve matters requiring stockholders' action. However, the following corporate acts and measures must be ratified and/or approved by the stockholders representing or constituting at least two-thirds (2/3) of the outstanding capital stock of the Company:

1. Amendment of the Articles of Incorporation
2. Adoption and/or amendment of the By-laws
3. Sale, lease, exchange, mortgage, pledge or other disposition of all or substantially all of the corporate property
4. Incurring, creating or increasing bonded indebtedness
5. Increase or decrease of capital stock
6. Merger or consolidation of the Company with another company
7. Investment of corporate funds in another corporation or business for any purpose other than the primary purpose for which it was organized
8. Dissolution of the Company

In all items for approval, each share of stock entitles its registered owner as of the record date to one vote. At each election for directors, every stockholder shall have the right to vote the number of shares owned by him for as many persons as there are directors to be elected, or to cumulate his votes by giving one candidate as many votes as the number of such directors multiplied by the number of his shares shall equal, or to distribute such votes on the same principle among as many candidates as he shall see fit.

Voting will be by poll. Stockholders may opt for manual or electronic voting either in person or by proxy. For manual voting, each stockholder will be given a ballot upon registration to enable the stockholder to vote in writing per item in the agenda. For electronic voting, there will be computer stations placed outside the Ballroom where stockholders may cast their votes electronically. Both the paper ballot and computer platform for electronic voting will contain the proposed resolutions for consideration by the stockholders and each proposed resolution will be shown on screens in front of stockholders as the same is taken up at the meeting. Stockholders may cast their vote anytime during the meeting.

In addition, a stockholder may vote electronically in absentia using the online web address provided by the Company subject to validation purposes. A stockholder voting electronically in absentia shall be deemed present for purposes of quorum.

All votes will be counted and tabulated by the Office of the Corporate Secretary and the Committee of Inspectors of Ballots and Proxies. The results of voting will be validated by SGV & Co., the independent party appointed for the purpose.

For the election of the eleven (11) members of the Board of Directors, the eleven (11) nominees receiving the highest number of votes will be declared elected as directors of the Company. However, if there are only eleven (11) nominees, all nominees shall be declared elected upon approval of motion.

PUBLIC OWNERSHIP

The Company is compliant with the requirement of the PSE on minimum public ownership with 55.52 percent of its shares subscribed and owned by the public as of December 31, 2018. In compliance with the requirements of the PSE, the Company regularly and timely discloses its public ownership report and immediately makes a public disclosure of any change thereon.

SUMMARY OF LEGAL AND BENEFICIAL OWNERSHIP OF THE BOARD, KEY OFFICERS, AND MAJOR SHAREHOLDERS

Name	December 31, 2018	Class of shares	December 31, 2017	Class of shares
Fernando Zobel de Ayala	1	Common	1	Common
Jaime Augusto Zobel de Ayala	1	Common	1	Common
Ferdinand M. dela Cruz	2,965,686	Common	1,248,264	Common
Gerardo C. Ablaza Jr.	4,126,078	Common	4,126,078	Common
Antonino T. Aquino	12,749,543	Common	12,749,543	Common
Delfin L. Lazaro	1	Common	1	Common
John Eric T. Francia	1	Preferred	1	Preferred
Jaime C. Laya (ID)	19,800	Common	19,800	Common
Jose L. Cuisia Jr. (ID)	1	Common	1	Common
Oscar S. Reyes (ID)	330,001	Common	330,001	Common
Sherisa P. Nuesa (ID)	5,093,607	Common	5,093,607	Common
Officers	**December 31, 2018**	**Class of shares**	**December 31, 2017**	**Class of shares**
Luis Juan B. Oreta*	N.A.	N.A.	1,572,727	Common
Virgilio C. Rivera Jr.	3,265,058	Common	2,242,795	Common
Ma. Cecilia T. Cruzabra*	N.A.	N.A.	N.A.	N.A.
Geodino V. Carpio	1,961,100	Common	817,600	Common
Abelardo P. Basilio	1,069,200	Common	775,200	Common
Thomas T. Mattison	474,100	Common	274,100	Common
Janine T. Carreon	514,800	Common	228,300	Common
Esmeralda R. Quines	837,590	Common	735,390	Common
Liwayway T. Sevalla**	63,000	Common	N.A.	N.A.
Maidy Lynne B. Quinto***	140,000	Common	N.A.	N.A.
Solomon M. Hermosura	50,100	Common	50,100	Common
Major Shareholders	**December 31, 2018**	**Class of shares**	**December 31, 2017**	**Class of shares**
Ayala Corporation	866,946,196****	Common	866,946,196****	Common
Philwater Holdings Corporation	3,999,999,999	Preferred	3,999,999,998	Preferred

* Due to the retirement of Mr. Luis Juan B. Oreta, the Board, in its meeting dated October 2, 2018, approved the appointment Ms. Ma.Cecilia T. Cruzabra as the Chief Finance Officer, Treasurer, Compliance Officer, and Group Director for Corporate Finance and Strategy effective November 1, 2018
** During the Organizational Meeting of the Board held on April 16, 2018, it was resolved to approve the appointment of Ms. Liwayway T. Sevalla as the Chief Information Officer, and Group Director for Business and Technology Services effective April 16, 2018
*** During the Regular meeting of the Board held on August 9, 2018, it was resolved to approve the appointment of Ms. Maidy Lynne B. Quinto as Group Director for Corporate Project Management effective August 9, 2018
**** Inclusive of shares held through PCD Nominee Corporation

President and CEO Ferdinand M. dela Cruz during the 2018 Annual Stockholders' Meeting

INDEPENDENT EXTERNAL AUDITOR AND ITS REMUNERATION

In the last ASM held on April 16, 2018, the stockholders approved the appointment of SGV & Co. as external auditor of the Company for an audit fee of ₱2,100,000, exclusive of value-added taxes. Prior to the stockholders' meeting, the Audit Committee endorsed, and the Board approved, the endorsement of SGV & Co. for appointment as the external auditor of the Company.

The external auditor of the Company is tasked with the audit of the Company's annual financial statements. Where the Company engages the services of SGV & Co. for non-audit services or consultancy, the Company, as a matter of policy, ensures that the fees received by SGV & Co. on such non-audit services are not more than the approved audit fees in order not to impair the external auditor's independence which should be maintained at all times to assure the stockholders of the integrity of the Company's financial reports.

External Audit Fees	Audit and Audit-Related Fees of the Company	
	2018	2017
Audit of Financial Statements	₱2,100,000	₱2,100,000
All Other Fees*	₱261,970	₱170,000
Total	**₱2,361,970**	**₱2,270,000**

*Includes Proxy Validation, Validation of ASM Votes, and Loan Compliance Report

COMPANY WEBSITE

In the pursuit of the Company's thrust to continuously improve awareness of best practices in the conduct of its business and operations especially in corporate governance across the organization, including dealings with its business partners and customers, Manila Water constantly updates its website, www.manilawater.com, with a section dedicated to corporate governance and investor relations. The Corporate Governance section of the website contains all disclosures made by the Company to the PSE and SEC, as well as its Manual, the Code, the Charters of the Board and its Committees, the various corporate governance policies and other matters and information of relevance to the stockholders and all stakeholders.

The Company discloses its corporate governance practices, corporate events calendar, and other material information on its website in a timely manner.

The Investor Relations section houses all information that may be required by the investors, stockholders and stakeholders. The site has been enhanced to be user-friendly and is accessible to the public at all times.

CORPORATE GOVERNANCE RECOGNITION AND AWARDS

The Company's commitment to uphold the highest standards of good corporate governance has again been confirmed and recognized through the prestigious awards it has received in 2018. In particular, the ASEAN's Top 50 Publicly-Listed Companies on Corporate Governance at the 2018 ASEAN Corporate Governance Awards, Top 10 Philippine Publicly-Listed Companies, and Top 5 Industry Sector by the Institute of Corporate Directors, and Platinum Awardee for Excellence in Environmental, Social and Governance Practices by The Asset.

2018 AWARDS AND CITATIONS

CORPORATE GOVERNANCE MANAGEMENT

The Asset Platinum Award
Excellence in Environmental, Social and Governance (ESG) Practices

Top 50 ASEAN Publicly Listed Companies (PLCs)
2nd ASEAN Corporate Governance Awards

2017 Top 10 Publicly Listed Companies (PLCs)Top 5 PLCs – Industrial Sector
ASEAN Corporate Governance Scorecard (ACGS), Institute of Corporate Directors

Enterprise Risk Programme of the Year Award
StrategicRISK Asia-Pacific Risk Management Awards

OPERATIONS AND TECHNICAL EXCELLENCE

ASEAN Energy Awards First Runner-up
Energy Management – Building and Industries, Small and Medium Industry Category for "Project Lights-Out" at N. Domingo Pumping Station

Award of Excellence for 12.7 Million Safe Man-Hours without Lost-Time Accident
Safety Organization of the Philippines Inc. (SOPI)

Chairman's Prize for Emergency Reservoirs
Ayala Innovation Excellence Awards

COMMUNICATIONS

Quill Award of Excellence, International Association of Business Communicators (IABC) Philippines
2016 Integrated Annual and Sustainability Report (Communication Skills – Publications)

Quill Award of Merit, International Association of Business Communicators (IABC) Philippines
Manila Water's 20th Anniversary Corporate Video (Communication Skills – Audio-Visual Category)

Gold Anvil Awards, Public Relations Society of the Philippines (PRSP)
2016 Integrated Annual and Sustainability Report (PR Tools – Publications) and The Marikina North Sewerage System Project Story (PR Tools – Multimedia/ Audio-Visual Presentation)

Silver Anvil Awards, Public Relations Society of the Philippines (PRSP)
Kasangga Day: Manila Water's Customer Appreciation Program (PR Program – Consumers/Communities), Manila Water's 20th Anniversary Corporate Video and Mural (PR Tool – Multimedia/Audio-Visual Presentation), Clark Water's Sitio HaduanWater Project (PR Program – Indigenous People), Boracay Water's Lingap Eskwela (PR Program – Communities/Schools), and Laguna Water TSEK ng Bayan!: Tamang Sanitasyon Equals Kalinisan, Kalusugan at Kaunlaran ng Bayan (PR Program – Consumers/Communities)

2018 MEMBERSHIPS **AND AFFILIATIONS**

ASEAN Business Club

Asia Pacific Occupational Health and Safety Organization (APOSHO)

Asia Water Council (AWC)

Association of Safety Practitioners of the Philippines, Inc (ASPPI)

British Chamber of Commerce of the Philippines (BCCP)

Corporate Network for Disaster Response (CNDR)

EU- Philippine Business Network (EPBN)

European Chamber of Commerce of the Philippines

Financial Executive Institute of the Philippines

Good Governance and Advocates of the Philippines (GGAPP)

Information Systems Audit and Control Association (ISACA) Philippines

Information Association of Business Communicators

International Water Association (IWA)

La Mesa Watershed Multi-sectoral Management Council

Makati Business Club (MBC)

Management Association of the Philippines (MAP)

People Management Association of the Philippines (PMAP)

Philippine Business for Social Progress (PBSP)

Philippine Business for the Environment (PBE)

Philippine Chamber of Commerce and Industry

Philippine Disaster Resiliency Foundation (PDRF)

Philippine Institute for Supply Management (PISM)

Philippine Water Partnership (PWP)

Philippine Watershed Management Coalition

Philippine Water Works Association (PWWA)

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102-51	Publication date of most recent report	April 2017
102-52	Reporting cycle	Annual
102-53	Contact point for questions regarding the report	Mark S. Orbos Director, Corporate Strategy and Investor Relations invrel@manilawater.com Florante A. Panganiban Head, Operations Management and Sustainability sustainability@manilawater.com
102-54	Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI standards: core option
102-55	GRI content index	128-131
102-56	External assurance	An assurance statement is provided on pages 136-139
ECONOMIC		
Scope and Boundary: All are consolidated figures of Manila Water which includes all local and international subsidiaries.		
GRI 201: ECONOMIC PERFORMANCE	Management Approach	15-17
201-1	Direct Economic Value Generated and Distributed	5
201-4	Financial assistance received from the government	The Manila Water Group has not received any financial assistance or subsidy from the government for the current year

GRI 203: INDIRECT ECONOMIC IMPACTS	Management Approach	15-17
203-1	Infrastructure investments and services supported	46-51 All engagements are commercial and neither pro bono nor in kind
GRI 204: PROCUREMENT PRACTICES	Management Approach	Manila Water, in parthnerships with Dun and Bradstreet ensures the compliance of vendors to financial and technical requirements by implementing a robust accreditation and pre-qualification processes. Compliance by these vendors and suppliers with environmental laws and other relevant standards is checked extensively through these processes, and is consistently monitored throughout the period of engagement with the company
Scope and Boundary: Manila Concession, Manila Water Philippine Ventures and Manila Water Total Solutions		
204-1	Proportion of spending on local suppliers	46-51
GRI 205: ANTI-CORRUPTION		
205-2	Communication and training about anti-corruption policies and procedures	119-132 The code of business conduct is incorporated in the on-boarding process for all new hires.

ENVIRONMENT		
Scope and Boundary: Environmental indicators include all operating Philippine subsidiaries particularly the BMDC, Boracay Water, Calasiao Water, Cebu Water, Clark Water, Estate Water, Laguna Water, Manila Concession, Manila Water Total Solutions and Obando Water. Manila Water Asia Pacific's Kenh Dong Water and Thu Duc Water data on water abstraction, non-revenue water, electricity and chemical consumption and greenhouse gas emissions Scope 2 are also included in the report.		
GRI 301:MATERIALS	Management Approach	68
301-1	Materials used by weight or volume	37, 69, reports.manilawater.com/2018
GRI 302:ENERGY	Management Approach	69
302-1	Energy consumption within the organization	37, 70, reports.manilawater.com/2018
302-3	Energy Intensity	69, 70, reports.manilawater.com/2018
302-4	Reduction of energy consumption	48, 69
GRI 303: WATER	Management Approach	43-44, 65-66, 80-81, 86, 91
303-1	Water Withdrawal by Source	66, reports.manilawater.com/2018
GRI 304: BIODIVERSITY	Management Approach	65-66, 80-81, 86, 89, 91
304-3	Habitats protected or restored	37, 48, 66, 81, reports.manilawater.com/2018
GRI 305: EMISSIONS	Management Approach	69-70
305-1	Direct (Scope 1) GHG emissions	71, reports.manilawater.com/2018
305-2	Energy Indirect (Scope 2) GHG emissions	71, reports.manilawater.com/2018
305-3	Other indirect (Scope 3) GHG emissions	71, reports.manilawater.com/2018
305-4	GHG emission intensity	71, 73, reports.manilawater.com/2018
GRI 306: EFFLUENTS AND WASTES	Management Approach	66-67, 83, 89
306-1	Water Discharge by Quality and Destination	6, 37, 17, 48, 67, 80, 86, 89 reports.manilawater.com/2018
306-2	Wastes by Type and Disposal Method	72
306-3	Significant spills	There were no significant spills associated with material/ chemicals/hazardous wastes storage and transport, and septic tank desludging activities.

GRI 307: ENVIRONMENTAL COMPLIANCE	Management Approach	43, 67, 69, 110
307-1	Non-compliance with environmental laws and regulations	112
GRI 308: SUPPLIER ENVIRONMENTAL ASSESSMENT	Management Approach	Manila Water ensures the compliance of vendors to financial and technical requirements by implementing a robust accreditation and pre-qualification processes. Compliance by these vendors and suppliers with environmental laws and other relevant standards is checked extensively through these processes, and is consistently monitored throughout the period of engagement with the company.
308-1	New suppliers that were screened using environmental criteria	All new and re-accredited suppliers were screened using environmental criteria conducted by a third-party service provider of Manila Water for accreditation.
Carbon dioxide avoided	Management Approach	86, 90
	Carbon dioxide avoided	17, 37, 48, 67, 86, 90, reports.manilawater.com/2018
Environmental Education and Advocacy	Management Approach	73, 83, 86, 89, 90-91
Non-revenue water	Management Approach	68, 82, 86, 88, 90
	% NRW (end-of-period)	4, 17, 68, 69, 80, 82, 85-86, 88, 90

SOCIAL		
Scope and Boundary: Consolidated figures of Manila Water which include all local and international subsidiaries		
GRI 401: EMPLOYMENT	Management Approach	57
401-1	New employee hires and turnover	59
GRI 403: OCCUPATIONAL HEALTH AND SAFETY	Management Approach	62
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism and number of work-related fatalities	62
GRI 404: TRAINING AND EDUCATION	Management Approach	57
404-1	Average hours of training per year per employee	58
GRI 405: DIVERSITY AND EQUAL OPPORTUNITY	Management Approach	59
405-1	Diversity of governance bodies and employees	58
GRI 406: NON DISCRIMINATION	Management Approach	58
406-1	Incidents of non-discrimination and corrective action taken	There were no incidents of discrimination in 2018
GRI 407: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING	Management Approach	58
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	61

GRI 411: RIGHTS OF INDIGENEOUS PEOPLE	Management Approach	The company adheres to all laws and regulations set by the government and regulatory bodies
411-1	Incidents of violation involving the rights of Indigenous	112
GRI 413: LOCAL COMMUNITIES	Management Approach	53
413-1	Operations with local community engagement, impact assessment, and development programs	53-55
GRI 416: CUSTOMER HEALTH AND SAFETY	Management Approach	61-62
416-1	Assessment of the health and safety impacts of product and service categories	64
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	There were no incidents of non-compliance concerning health and safety impacts of products and services
GRI 417: LABELLING AND MARKETING	Management Approach	64
Scope and Boundary: Manila Water Total Solutions Healthy Family Purified Packaged Drinking Water		
417-1	Requirements for products service information and labelling.	Manila Water Total Solution's Healthy Family is packaged with a 5-gallon and 500-ml bottle. The 500-ml is labeled with information about its source, content and proper disposal of the PET bottle.
417-2	Incidents of non-compliance concerning product and service information and labeling	Manila Water Total Solution's packaged water, Healthy Family, was not fined and did not have incidents of non-compliance concerning product and service information and labeling during the reporting period.
417-3	Incidents of non-compliance concerning marketing communications	Manila Water Total Solution's packaged water, Healthy Family, was not fined and did not have incidence of non-compliance concerning marketing communications during the reporting period.
GRI 419: SOCIOECONOMIC COMPLIANCE	Management Approach	110,112,119,122,124 The company adheres to all laws and regulations set by the government and regulatory bodies
419-1	Non-compliance with laws and regulations in the social and economic area	112
BUSINESS CONTINUITY	Management Approach	43,64
CLIMATE CHANGE ADAPTATION	Management Approach	65-66, 80-81, Sustainability Policy and Climate Change Policy at reports.manilawater.com/2018
CUSTOMER SERVICE	Management Approach	63
DATA PRIVACY	Management Approach	The company will adhere with the implementing rules and regulations of the Data Privacy Act of 2012 or Republic Act 10173. Aligned with the mandate of the Data Privacy Act of 2012, Manila Water has designated and registered to the National Privacy Commission a Data Protection Officer who will lead a commitee in the Information Campaign, enterprise-wide programs, monitoring and resolution in issues on Data Privacy.
WATER POTABILITY	Management Approach	62

DNV·GL

Independent assurance statement

Scope and approach

Manila Water Company, Inc. commissioned DNV GL AS Philippines Branch ("DNV GL") to undertake independent assurance of sustainability/non-financial disclosures, disclosed in the 2018 Integrated Report (the "Report") for the year ended 31 December 2018.

We performed our work using DNV GL's assurance methodology VeriSustain™[1], which is based on our professional experience, international assurance best practice including International Standard on Assurance Engagements 3000 (ISAE 3000) Revised and the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines.

We evaluated the performance disclosures using the reliability principle together with Manila Water Company, Inc. protocols for how the qualitative and quantitative disclosures are determined, measured, recorded and reported. The sustainability performance in the scope of assurance included economic, environmental and social performance.

We understand that the reported financial data and information are based on data from Manila Water Company, Inc.'s Audited Financial Statements [posted February 26, 2019], which are subject to a separate independent audit process. The section on Financial Review was also excluded from the scope of assurance –as this was a summary of the 20-IS figure submitted to regulatory authorities (Philippines Stock Exchange – Securities and Exchange Commission).

We planned and performed our work to obtain the evidence we considered necessary to provide a basis for our assurance opinion. We are providing a 'limited level' of assurance based on DNV GL VeriSustain.

A multi-disciplinary team of sustainability and assurance specialists performed work at Manila Water Company, Inc. The boundary of assurance covered operations of Manila Water Company, Inc. in the Philippines, and operational activities in Vietnam, Myanmar and Indonesia.

Responsibilities of the Directors of Manila Water Company, Inc. and of the assurance providers

The Management of Manila Water Company, Inc. have sole responsibility for the preparation of the Report. In performing our assurance work, our responsibility is to the management of Manila Water Company, Inc.; however, our statement represents our independent opinion about our assurance outcome to the readers of this Report. DNV GL's assurance engagements are based on the assumption that the data and information provided by the client to us as part of our review have been provided in good faith and free from misstatements.

Basis of our opinion

We undertook the following activities as part of the assurance process:

- Review of the current sustainability issues that could affect Manila Water Company, Inc. and are of interest to stakeholders;
- Review of Manila Water Company, Inc. approach to stakeholder engagement and recent outputs of a stakeholder engagement process that included employees, community, customers, government, parent companies and affiliates, and the media. Stakeholder engagement with vendors was conducted through third parties.
- Review of information provided to us by Manila Water Company, Inc. on its reporting and management processes relating to GRI Sustainability Reporting Standards;

[1] The VeriSustain protocol is available upon request from DNV GL Website (www.dnvgl.com)

- DNV GL was free to choose personnel from various functions for the interview so as to ensure adequate coverage of the report. Functions interviewed included Human Resources, Enterprise Risk Management, Technical and Business Operations, Finance, Corporate Governance, and Sustainability;
- Site visits to Manila Water Company, Inc HQ, U.P. Sewage Treatment Plant and Balara Filtration Plant for review of process and systems.
- Review of supporting evidence for key claims and data in the report. Our verification processes were prioritised according to materiality and we based our prioritisation on the materiality of issues at a consolidated corporate level;

Conclusion

On the basis of the work undertaken, nothing has come to our attention to suggest that the Report does not properly describe Manila Water Company, Inc.'s related sustainability performance i.e. GRI Standards - In accordance – 'Core' option of reporting, including GRI Standards principles for defining report content and guiding principles of <IR> framework.

Without affecting our assurance opinion, we also provide the following observations regarding the adherence to the reporting principles for defining the sustainability report content and for defining report quality as defined in the Global Reporting Initiative (GRI) Standards Sustainability Reporting standard.

Stakeholder Inclusiveness
The process of stakeholder identification and engagement is well established. Manila Water Company, Inc., describes how the concerns of different stakeholders are addressed in the Collaborating for Successful Partnerships section. However Manila Water Company, Inc. could include other non-local Stakeholders needs and expectations in the future reporting.

Materiality
Manila Water Company, Inc. has identified material topics based internal and external stakeholder opinions in 2018. The Report discloses the identified material aspects at macro-level and topic boundaries. The Report has not missed out any known material topics and the process of materiality assessment meets the requirements in GRI Standards. Additional material topics (non-GRI Standards) were also identified and included in the Report under the section Sustainability Framework and Material Topics.

Responsiveness
The Report has brought out responses to the identified material topics and fairly disclosed the strategies and management approach and challenges considering the overall sustainability context and external environment of its business within the identified reporting boundary. The Report could further bring out the long- and medium-term targets related to identified material topics.

Reliability and Completeness
The Report discloses both the positive and the negative trend of Manila Water Company, Inc. performance in 2018. Manila Water Company, Inc. has selected, compiled and reported information in a relatively consistent manner. The presentation within the report enables stakeholder to analyze changes in the sustainability performance over time. The data used for reporting of the sustainability performance presented in the Report is collected from their own operations and subsidiaries by a centrally, dedicated function in Manila Water Company, Inc. headquarters and consolidated for reporting. Data owners were able to demonstrate the origin and interpretation of the data in a reliable manner. The data was identifiable and traceable. Any errors or misstatements identified during the engagement were confirmed and corrected by Manila Water Company

Accuracy
The data measurement techniques and basis for calculations have been duly described to us and can be replicated with same results. We have evaluated the accuracy of data and information by sampling of data sets. Any errors or misstatements identified during the engagement were communicated for correction prior to the Report being published. Certain restatement are provided to changes in historical disclosure. The data used for reporting of the sustainability performance presented in the Report is centrally collected from the subsidiaries and consolidated for reporting.

Balance
In our opinion, the tone in the Report is generally balanced and with no obvious and deliberate intent to unduly influence the stakeholders.

Sustainability Context
The Report presents Manila Water Company, Inc.'s non-financial performance in the wide context of sustainability. Manila Water Company, Inc.'s Sustainability Framework commits to creating shared value and improving the impact on society and the environment through the five focus areas of the core businesses. The Report also explains how Manila Water Company, Inc.'s initiatives are aligned with the various United Nations Sustainable Development Goals

Strategic focus and future orientation
The section "Delivering Our Strategy" describes the various risks, potential impacts, and corresponding mitigation strategies. Manila Water Company, Inc. utilizes Key Risk Indicators (KRIs) with regular monitoring and reporting to management to aid in the quantification of risks and determine the effectivity of risk management plans. The strategy for the company is also explained in the Business Review section under the various subsidiaries.

Consistency and comparability
Manila Water Company, Inc. has applied a consistent process to select, compile and report information across the subsidiaries. The Report in general presents its performance over time so that the reader can analyse changes and compare the performances.

Timeliness
This is the third Integrated Report by Manila Water Company, Inc. and includes both the sustainability performance as well as the financial reporting. The Report clearly states which year it covers (1 Jan 2018 – 31 Dec 2018) and identifies any restatements of previous disclosures and the reasons for restatement.

Clarity
The information is presented in the Report is communicated in a simple manner. Consolidated non-financial data tables help to make the information understandable. Manila Water Company, Inc. plans to publish the printed version of the Report and also publish certain data sets online. Electronic copies of the Report in PDF format will be made available from its website which is publicly accessible.

Limitations

Our assurance relies on the premise that the data and information provided by Manila Water Company, Inc. to us as part of our review procedures have been provided in good faith. Because of the selected nature (sampling) and other inherent limitation of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities, possibly significant, may not have been detected. The engagement excludes the sustainability management, performance and reporting practices Manila Water Company, Inc.'s associated companies, suppliers, contractors and any third-parties mentioned in the Report, or any discrepancies between the Report and Manila Water Company, Inc's website. The company position statements, the statements for the management approach, and case studies and examples are excluded from the scope of our work. We did not interview external stakeholders as part of this assurance engagement. The reported disclosures related to Economic performances are based on the financial disclosures and data, which were cross-checked with internal documents and the audited consolidated financial statements for transcription errors. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied as per agreed scope of engagement. The baseline data for Environmental and Social performance are verified with samples randomly taken by and the aggregated data at the corporate level are used for the verification. The procedures performed in a limited assurance engagement vary in nature and timing, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained if a reasonable assurance engagement had been performed. We expressly disclaim any liability or co-responsibility for any decision a person or an entity may make based on this Assurance Statement.

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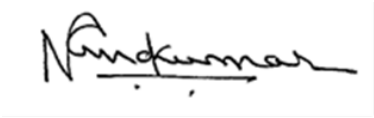
Statement of Our Competence and Independence

DNV GL applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the DNV GL Code of Conduct[2] during the assurance engagement and maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals. DNV GL was not involved in the preparation of any statements or data included in the Report except for this Assurance Statement. DNV GL maintains complete impartiality toward stakeholders interviewed during the assurance process. DNV GL have no other contract with Manila Water Company, Inc. and did not provide any services to Manila Water Company, Inc. in 2018 that could compromise the independence or impartiality of our work.

For and on behalf of DNV GL Business Assurance Philippines
1 April 2019

Grace Cheah
Lead Verifier
DNV GL Business Assurance Singapore Pte. Ltd.



Nandkumar Vadakepatth
Assurance Reviewer
Head, Sustainability Operations
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[2] The DNV GL Code of Conduct is available from DNV GL website (www.dnvgl.com)

FINANCIAL **REVIEW**

Consolidated Financial Statements
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MANAGEMENT'S DISCUSSION AND ANALYSIS OF OPERATIONS AND FINANCIAL CONDITION

The following management's discussion and analysis (MD&A) of Manila Water Company Inc. and subsidiaries' (Group) financial condition and results of operations should be read in conjunction with the Group's audited financial statements, including related notes. This report may contain forward-looking statements that involve risks and uncertainties. The actual results may differ materially from those discussed in the forward-looking statements as a result of various factors, including but not limited to, economic, regulatory, socio-political, financial and other risk factors.

Any references in this MD&A to "our", "us", "we", "MWCI" or the "Group" shall refer to Manila Water Company, Inc., including its subsidiaries. Any reference to "Manila Water Company", "Manila Water", "MWC" or the "Company" shall refer to the parent company only.

Additional information about the Group, including recent disclosures of material events and annual/ quarterly reports, are available at our corporate website at www.manilawater.com.

OVERVIEW OF THE BUSINESS

Manila Water Company holds the right to provide water and used water services to the eastern side of Metro Manila (Manila Concession or East Zone) under a Concession Agreement (CA) entered into between the Company and the Metropolitan Waterworks and Sewerage System (MWSS) in August 1997. The original term of the concession was for a period of 25 years to expire in 2022. The Company's concession was extended by another 15 years by MWSS and the Philippine Government in 2009, thereby extending the term from May 2022 to May 2037.

The Company provides water treatment, water distribution, sewerage and sanitation services to more than six million people in the East Zone, comprising a broad range of residential, semi-business, commercial and industrial customers. The East Zone encompasses 23 cities and municipalities spanning a 1,400-square kilometer area that includes Makati, Mandaluyong, Pasig, Pateros, San Juan, Taguig, Marikina, most parts of Quezon City, portions of Manila, as well as the following towns of Rizal: Angono, Antipolo, Baras, Binangonan, Cainta, Cardona, Jala-Jala, Morong, Pililia, Rodriguez, San Mateo, Tanay, Taytay, and Teresa.

Under the terms of the CA, the Company has the right to the use of land and operational fixed assets, and the right, as agent and concessionaire of MWSS, to extract and treat raw water, distribute and sell water, and collect, transport, treat and dispose used water, including reusable industrial effluent discharged by the sewerage system in the East Zone. The Company is entitled to recover over the concession period its operating, capital maintenance and investment expenditures, business taxes, and concession fee payments, and to earn a rate of return on these expenditures for the remaining term of the concession.

Aside from the Manila Concession, the Group has a holding company for all its domestic operating subsidiaries in Manila Water Philippine Ventures, Inc. (MWPV). Currently under MWPV are Clark Water Corporation (Clark Water), Laguna AAA Water Corporation (Laguna Water), Boracay Island Water Company (Boracay Water), Manila Water Consortium, Inc. (MW Consortium), a subsidiary of MW Consortium – Cebu Manila Water Development, Inc. (Cebu Water), Bulacan MWPV Development Corporation (BMDC), Filipinas Water Consortium Holdings Corp. (Filipinas Water), subsidiaries of Filipinas Water – Obando Water Company, Inc. (Obando Water) and Bulakan Water Company, Inc. (Bulakan Water), Davao del Norte Water Infrastructure Company, Inc. (Davao Water), a subsidiary of Davao Water – Tagum Water Company, Inc. (Tagum Water), Zamboanga Water Company, Inc. (Zamboanga Water), Manila Water International Solutions, Inc (MWIS), Aqua Centro MWPV Corporation (Aqua Centro MWPV), EcoWater MWPV Corporation (EcoWater), and Leyte Water Company, Inc. (Leyte Water). Also under MWPV is Estate Water, which is its division that operates and manages the water systems of townships developed by Ayala Land, Inc. Another subsidiary of Manila Water is Calasiao Water Company, Inc. (Calasiao Water), a water supply project for the Calasiao Water District.

The holding company for its international ventures is Manila Water Asia Pacific Pte. Ltd. (MWAP). Under MWAP are two affiliated companies in Vietnam, namely Thu Duc Water B.O.O Corporation (Thu Duc Water) and Kenh Dong Water Supply Joint Stock Company (Kenh Dong Water), both supplying treated water to Saigon Water Corporation (SAWACO) under a take-or-pay arrangement.

Also under MWAP are Saigon Water Infrastructure Corporation (Saigon Water), a holding company listed in the Ho Chi Minh City Stock Exchange, Cu Chi Water Supply Sewerage Company, Ltd. (Cu Chi Water) and another company tasked to pursue non-revenue water reduction projects in Vietnam called Asia Water Network Solutions Joints Stock Company (Asia Water). Apart from its operations in Vietnam, MWAP has affiliates in Thailand and Indonesia through Eastern Water Resources Development and Management Public Company Limited (East Water), and PT Sarana Tirta Ungaran (PT STU), respectively.

Lastly, Manila Water Total Solutions Corporation (MWTS), a wholly-owned subsidiary, handles after-the-meter products and services. Its current offerings include pipelaying, integrated used water services, and the sale of Healthy Family Purified Water as five-gallon and 500-ml purified water in selected areas in Metro Manila.

CONSOLIDATED FINANCIAL PERFORMANCE

The Group's key financial performance indicators are discussed below:

	For the years ended December 31 (in thousand Pesos)			
	2018	2017	Increase/ (Decrease)	%
Total operating revenues	**19,836,292**	18,515,772	1,320,520	7%
Total cost and expenses (excluding depreciation and amortization)	**8,076,088**	7,360,379	715,709	10%
Other income (expense) - net	**878,781**	540,980	337,800	62%
Equity share in net income of associates	**699,142**	457,208	241,934	53%
Others	**179,639**	83,772	95,867	114%
EBITDA	**12,638,985**	11,696,373	942,612	8%
Depreciation and amortization	**2,655,669**	2,556,999	98,670	4%
Income before other income/expenses	**9,983,316**	9,139,374	843,942	9%
Interest income (expense) - net	**(1,371,926)**	(1,057,498)	(314,428)	30%
Income before income tax	**8,611,390**	8,081,876	529,514	7%
Provision for income tax	**1,976,357**	1,941,929	34,428	2%
Net income	**6,635,033**	6,139,947	495,086	8%
Non-controlling interest	**111,332**	(6,661)	117,993	-1771%
Net income attributable to MWC	**6,523,701**	6,146,608	377,093	6%

Consolidated operating revenues grew by 7% to ₱19,836 million in 2018 from ₱18,516 million the previous year, on account of higher billed volume driven largely by the Manila Concession.

A breakdown of the revenue drivers is shown below:

	For the years ended December 31 (in thousand Pesos)			
	2018	2017	Increase/ (Decrease)	%
Water	**15,231,518**	14,269,066	962,452	7%
Environmental charges	**2,719,651**	2,481,248	238,403	10%
Sewer	**520,401**	455,606	64,795	14%
Other operating income	**1,364,722**	1,309,852	54,870	4%
Total operating revenues	**19,836,292**	18,515,772	1,320,520	7%

The Group derived 77% of its operating revenues from the sale of water, while 16% came from environmental and sewer charges. Other revenues, which accounted for the balance of 7%, were from after-the-meter services, connection fees and septic sludge disposal, among others.

On the other hand, consolidated costs and expenses (excluding depreciation and amortization) increased by 10% to ₱8,076 million in 2018, led by a 17% growth in direct costs to ₱3,514 million. This is due to higher costs of water treatment chemicals, higher contractual services, and increase in desludging costs due to higher number of households desludged. Another driver of operating costs and expenses was personnel costs brought about by higher headcount at the subsidiaries, driven by continued business expansion.

Below is a summary of the operating expenses incurred during the period:

	For the years ended December 31 (in thousand Pesos)			
	2018	2017	Increase/ (Decrease)	%
Salaries, wages and employee benefits	**2,323,082**	2,059,203	263,879	13%
Non-personnel costs	**5,329,406**	4,830,378	499,028	10%
Direct costs	**3,514,476**	2,992,401	522,075	17%
Overhead	**1,427,710**	1,507,402	(79,692)	-5%
Premises	**387,220**	330,575	56,645	17%
Other expenses	**423,600**	470,798	(47,198)	-10%
Total cost and expenses (excluding depreciation and amortization)	**8,076,088**	7,360,379	715,709	10%

Meanwhile, other income (net of expense) grew by 62% to ₱879 million in 2018 from ₱541 million the previous year, due to higher equity share in net income of associates and net foreign exchange gains. The two bulk water companies in Vietnam, namely Thu Duc Water and Kenh Dong Water, together with additional contributions coming from new acquisitions, East Water in Thailand and PT Sarana Tirta Ungaran in Indonesia, contributed ₱699 million in net income, growing by 53% year-on-year.

The movements in operating revenues and expenses as well as other income resulted in consolidated earnings before interest, income taxes, depreciation and amortization (EBITDA) of ₱12,639 million in 2018, improving by 8% from the previous year. EBITDA margin was recorded at 64%.

Depreciation and amortization rose by 4% to ₱2,656 million in line with the Group's continued asset build-up. Meanwhile, net interest expense was higher by 30% to ₱1,372 million due to incremental interest expense arising from the second and final drawdown from the Yen loan facility of the Manila Concession, as well as the new loan drawdowns of the subsidiaries. Provision for income tax increased by 2% to ₱1,976 million due to the higher taxable base of the Group. These developments resulted in a reported net income of ₱6,524 million in 2018, growing 6% from 2017.

BUSINESS UNITS' FINANCIAL AND OPERATING PERFORMANCE

MANILA CONCESSION

	For the years ended December 31			
	2018	2017	Increase/ (Decrease)	%
Operating Highlights				
Billed volume (in million cubic meters)	**503.3**	488.4	14.9	3%
Domestic	**324.2**	317.7	6.6	2%
Semi-Business	**63.7**	60.5	3.2	5%
Commercial	**91.5**	87.2	4.3	5%
Industrial	**23.9**	23.0	0.9	4%
Number of billed connections	**986,756**	961,663	25,093	3%
Non-revenue water	**11.4%**	11.6%	0.2% pt	
Financial Highlights (in thousand Pesos)				
Revenues	**16,234,100**	15,082,828	1,151,272	8%
Cost and expenses	**4,804,285**	4,235,462	568,823	13%
EBITDA	**11,616,869**	10,861,683	755,186	7%
Net income	**6,521,192**	5,949,821	571,371	10%

The Manila Concession's billed volume increased by 3% in 2018 to 503.3 million cubic meters (mcm), on account of a 3% improvement in billed water connections (net of permanent disconnections) to 986,756 customers at the end of the period. Average consumption slightly increased by 0.02% to 42.97 cubic meters per connection, while average effective tariff increased by 4% to ₱31.11 per cubic meter.

Billed volume growth was driven by the improvement in semi-business and commercial accounts both growing by 5%, with the latter due to increased foot traffic in business establishments and the reclassification of major accounts. Domestic accounts likewise grew by 2% mainly due to new regular accounts and the realization of prior year's projects. Lastly, industrial accounts grew by 4% driven by new developments under construction particularly in Taguig and Marikina areas.

The level of system losses, as measured by non-revenue water (NRW), improved to 11.4% at the end of the period from 11.6% during the same period in 2017, resulting from replaced pipelines and repaired assets. Meanwhile, collection efficiency in 2018 was at nearly 100%, with average accounts receivable days maintained at 19 days.

On September 27, 2018, the Metropolitan Waterworks and Sewerage System approved the Rate Rebasing Adjustment for the fifth Rate Rebasing period (2018 to 2022) amounting to an increase of 24.89%. To mitigate the impact of the tariff increase, Manila Water will stagger its implementation over a five-year period: (1) October 2018 at ₱1.46; (2) January 2019 at ₱0.00; (3) January 2020 at ₱2.00; (4) January 2021 at ₱2.00; and (5) January 2022 from ₱0.76 to ₱1.04. On October 16, 2018, the first tranche was implemented on the current basic tariff of ₱24.82 per cubic meter.

Supported by robust billed volume growth, revenues increased by 8% to ₱16,234 million in 2018. Cost and expenses, on the other hand, rose by 13% to ₱4,804 million due to an increase in direct and overhead costs, notably for the higher water turbidity at La Mesa intake and payment of management and legal services, respectively. This resulted in an EBITDA of ₱11,617 million and an EBITDA margin of 72%. Net income reached ₱6,521 million at the end of 2018, growing 10% from the same period last year.

MANILA WATER PHILIPPINES VENTURES (MWPV)

The following discussion includes the consolidated results of Manila Water Philippines Ventures, as well as the individual performance of the domestic operating subsidiaries in Boracay Water, Clark Water, Laguna Water, and Estate Water, which is a division within Manila Water Philippine Ventures.

	For the years ended December 31			
	2018	2017	Increase/ (Decrease)	%
Operating Highlights				
Billed volume (in million cubic meters)	**82.2**	83.9	(1.7)	-2%
Financial Highlights (in thousand Pesos)				
Revenues	**3,295,267**	3,111,778	183,489	6%
Cost and expenses	**2,288,540**	2,279,786	8,754	0%
EBITDA	**1,051,469**	886,720	164,749	19%
Net income attributable to MWC	**194,877**	287,473	(92,596)	-32%

On a consolidated MWPV level, revenues grew 6% to ₱3,296 million due to higher average tariff of Boracay Water and Laguna Water, as well as income coming from new subsidiaries Obando Water, BMDC, Aqua Centro and Calasiao Water. Operating expenses slightly rose by 1% year-on-year as business building efforts continue. These include business development costs of ₱129 million for 2018. While cost and expenses were held steady, higher interest expense resulting from loan availments of the subsidiaries placed a strain on net income, ending at ₱195 million in 2018. This is a 32% decline from the previous year.

	For the years ended December 31			
	2018	**2017**	**Increase/ (Decrease)**	**%**
Clark Water				
Billed volume (in million cubic meters)	**14.1**	14.5	(0.4)	-3%
Net income (in thousand Pesos)	**80,188**	94,200	(14,012)	-15%
Laguna Water				
Billed volume (in million cubic meters)	**42.5**	44.1	(1.6)	-4%
Net income (in thousand Pesos)	**308,206**	(321,393)	629,599	-196%
Boracay Water				
Billed volume (in million cubic meters)	**3.9**	5.5	(1.6)	-29%
Net income (in thousand Pesos)	**5,680**	142,434	(136,754)	-96%
Estate Water				
Billed volume (in million cubic meters)	**5.7**	4.5	1.2	27%
Net income (in thousand Pesos)	**133,324**	254,967	(121,643)	-48%

Clark Water registered lower billed volume of 14.1 mcm in 2018, 3% down from 14.5 mcm in 2017 due to lower consumption of several key locators. It also faced a deterioration in NRW as it increased by 1.2%-points to 6.7% in 2018 from 5.5% the previous year. Its average effective tariff, however, improved by 3% to ₱31.05 per cubic meter. Clark Water spent ₱53 million in capital

expenditures, mostly going to water supply projects. With lower billed volume, Clark Water's revenues dropped slightly by 1% to ₱455 million in 2018. Furthermore, cost and expenses rose by 2% to ₱256 million resulting in a 5% decline in EBITDA to ₱199 million. As a result, Clark Water net income declined by 15% to ₱80 million at the end of 2018.

Meanwhile, billed volume of Laguna Water dropped by 4% to 42.5 mcm in 2018, brought about by water conservation efforts undertaken by several of its LTI locators. On the other hand, NRW improved by 2.8%-points as it reached 16.7% at the end 2018 from 19.5% the previous year. Laguna Water spent ₱561 million in capital expenditures during the period, mostly for the expansion of water and used water networks. Revenues grew 10% in 2018 to ₱1.34 billion, on the back of a 13% improvement in average effective tariff to ₱27.81 per cubic meter and additional revenues from supervision fees. On the other hand, cost and expenses dropped 41% from 2017 to ₱724 million due to provision for unrecoverable receivables recognized the previous year. These movements resulted in a significant improvement in EBITDA to ₱636 million and 196% net income growth to ₱308 million at the end of 2018. The management takes a prudent approach in reflecting an objective view of the business. In 2018, Laguna Water recognized additional depreciation expense from its completed projects covering both the current and prior years and which resulted to a restatement of Laguna Water's 2017 statutory reported net loss. The additional depreciation expense was recognized in full in the 2018 consolidated operating expenses which does not materially affect the consolidated operating results of the Group for both 2018 and 2017.

Moving on to Boracay Water, its billed volume ended at 3.93 mcm in 2018, down by 29% from the previous year. This was a direct result of the island's closure in April 26, 2018 as part of the government's drive towards the island's environmental rehabilitation. Said closure led to a 53% decline in tourist arrivals during the period, with only 670,000 visitors allowed entry during the rehabilitation. Consequently, NRW improved by 8.7%-points to 13.8% during said period as leaks in the waterlines caused by the road improvements were repaired. Boracay Water spent capital expenditures of ₱444 million in 2018 for pipelaying and expansion of used water services. This is 4% lower than the previous year, mainly caused by project stoppage during the island's closure. Boracay Water's average effective tariff increased by 20% to ₱119.91 per cubic meter in line with the approval of its new rates by the Tourism Infrastructure and Enterprise Zone Authority (TIEZA) Regulatory Office in 2017. However, the 29% decline in billed volume due to the island closure caused revenues to decrease by 24% to ₱454 million. Meanwhile, cost and expenses were managed and grew by only 1% to ₱287 million. With the significantly impaired revenue base, EBITDA declined by 47% to ₱167 million, translating to a 96% drop in net income to ₱6 million in 2018.

Lastly, Estate Water posted billed volume growth of 25% to 5.7 mcm in 2018, on the back of a 3% increase in billed connections coming from the brownfield Ayala Land developments it has taken over. However, capital expenditures spent mostly for the development of water and used water networks in its greenfield projects, dropped by 3% to ₱490 million as it encountered delays in the construction start for several developments. Revenues and other income remained steady at ₱638 million in 2018. On the other hand, cost and expenses rose 57% to ₱431 million, resulting in a drop in EBITDA of 43% to ₱207 million. Estate Water posted a net income of ₱133 million in 2018, declining 48% from the previous year.

MANILA WATER ASIA PACIFIC (MWAP)

The following discussion includes the consolidated results of Manila Water Asia Pacific, as well as the individual performance of the associates in Vietnam.

	For the years ended December 31			
	2018	2017	Increase/ (Decrease)	%
Operating Highlights				
Billed volume (in million cubic meters)	**574.9**	236.7	338.2	143%
Financial Highlights (in thousand Pesos)				
Equity Share in Net Income of Associates	**699,142**	457,208	241,934	53%
Cost and expenses	**224,172**	164,925	59,247	36%
EBITDA	**412,842**	332,043	80,799	24%
Net income attributable to MWC	**278,434**	332,579	(54,146)	-16%

On a consolidated MWAP level, equity share in net income of associates increased by 53% to ₱699 million, from the combined income of Thu Duc Water, Kenh Dong Water, Saigon Water, and the addition of East Water and PT STU. Operating expenses increased by 36% to ₱224 million, driven by additional personnel and management and professional costs during the year. These also include business development costs amounting ₱90 million for 2018. In addition, an impairment loss amounting to ₱65.4 million was recognized by MWAP in relation to its investment in Saigon Water due to the difference in the volume weighted average price (VWAP) and carrying value of the Company's investment in Saigon Water. As a result, 2018 net income ended at ₱278 million, 16% lower than the previous year due also to the interest expense related to the loan which financed the East Water acquisition.

	For the years ended December 31			
	2018	2017	Increase/ (Decrease)	%
Thu Duc Water				
Billed volume (in million cubic meters)	**110.2**	110.9	(0.7)	-1%
Net income (in million VND)	**105,406**	104,057	1,349	1%
Net income at 49.00% contribution (in thousand Pesos)	**254,895**	241,946	12,949	5%
Kenh Dong Water				
Billed volume (in million cubic meters)	**57.0**	57.8	(0.8)	-1%
Net income (in million VND)	**74,452**	76,251	(1,799)	-2%
Net income at 47.35% contribution (in thousand Pesos)	**152,656**	148,387	4,269	3%

Thu Duc Water sold a total of 110.2 mcm in 2018, dropping slightly by 1% from a billed volume level of 110.9 mcm the previous year. The decline was due to the lower water intake of Saigon Water Corporation ("SAWACO"). Under the Vietnamese Accounting Standards ("VAS"), revenues grew by 2% to VND335 billion. Thu Duc Water's operating expenses were held steady, increasing by 1% to VND112 billion. This led to an improvement in EBITDA by 2% to VND223 billion. Consequently, net income increased by 1% equivalent to VND105 billion, further supported by the 2% increase in average tariff. In peso terms, the PFRS-translated income reflected in the consolidated financial statements as equity share in net income of associates amounted to ₱255 million in 2018, equivalent to Manila Water's 49% stake in Thu Duc Water.

Kenh Dong Water's billed volume slightly declined by 1% in 2018 to 57.0 mcm from the 57.8 mcm registered in 2017. This is due to lower production to SAWACO caused by low water supply. Under the Vietnamese Accounting Standards (VAS), Kenh Dong Water posted revenues of VND221 billion and an EBITDA of VND148 billion. With higher direct costs, Kenh Dong's net income declined to VND74 billion, down 2% from 2017. Similar to Thu Duc Water, income from Kenh Dong Water is translated into PFRS and is reported as equity share in net income of associates in the consolidated financial statements. In peso terms, the PFRS-translated income of Manila Water's 47.35% stake in Kenh Dong Water amounted to ₱153 million in 2018.

Aside from Thu Duc Water and Kenh Dong Water, MWAP's investment in Saigon Water, the listed holding company in Vietnam, contributed a net income of ₱27 million in 2018. MWAP's new associates in Thailand and Indonesia, East Water and PT STU, contributed P263 million and ₱1.4 million, respectively.

BALANCE SHEET

The consolidated statement of financial position as of the end 2018 reflected the Group's continuous asset base expansion. Total assets rose by 19% to ₱122.53 billion, as the Group undertook additional investments in East Water and PT STU during the first quarter. Liabilities increased by 26% to ₱68.91 billion primarily to fund expansion and new acquisitions. Cash and cash equivalents stood at ₱9.39 billion.

With respect to the Group's loans, debt to equity ratio stood at 1.16x, excluding service concession obligations, while net bank debt to equity registered at 0.64x.

Under the Company's dividend policy, common shares are entitled to annual cash dividends equivalent to 35% of the prior year's net income, payable semi-annually. On March 1, 2018, the Company declared cash dividends for the first half of the year, set at ₱0.4302 per common share and ₱0.04302 per preferred share, amounting to ₱1.06 billion. On October 2, 2018, the Company declared cash dividends for the second half of the year, set at ₱0.4283 per common share and ₱0.04283 per preferred share, totaling ₱1.06 billion.

CAPITAL EXPENDITURES

The Group ended 2018 with total capital expenditures of ₱9,979 million, 23% lower than the previous year.

The Manila Concession spent a total of ₱8,045 million (inclusive of concession fee payments) for capital expenditures in 2018. Of the total amount, 93% was spent on wastewater expansion, network reliability, and water supply projects, while the balance of 7% was accounted for by concession fees paid to MWSS.

Meanwhile, total capital expenditures of the domestic subsidiaries dropped by 20% to ₱1,850 million from the ₱2,315 million spent in 2017. Of the total amount, ₱561 million was spent by Laguna Water for its water network expansion, while Boracay Water and Tagum Water disbursed ₱444 million and ₱203 million, respectively. Estate Water spent ₱490 million for its greenfield and brownfield projects, with the balance being taken on by the remaining subsidiaries for its various projects.

REPORT OF THE AUDIT COMMITTEE TO THE **BOARD OF DIRECTORS**

FOR THE YEAR ENDED DECEMBER 31, 2018

The Audit Committee's roles, responsibilities and authority are defined in the Audit Committee Charter approved by the Board of Directors. The Committee provides assistance to the Board of Directors in fulfilling their oversight responsibility to the shareholders relating to the:

a) integrity of the Manila Water Company, Inc.'s (the Company) financial statements and the financial reporting process;
b) appointment, remuneration, independence and performance of internal audit and of the independent auditors, and integrity of the audit process;
c) effectiveness of the systems of internal controls and enterprise risk management process;
d) compliance with applicable legal and regulatory requirements and other reporting standards;
e) performance and leadership of the internal control function; and
f) preparation of a year-end report of the Committee for approval of the Board and to be included in the annual report.

In compliance with the Audit Committee Charter, the Committee confirms that:

- An independent director chairs the Audit Committee. The Committee has three out of four members who are independent directors;
- The Committee had five meetings during the year with the following attendance rate:

Directors	No. of Meetings Attended/Held	Percent Present
Oscar S. Reyes	5/5	100%
Jose L. Cuisia Jr.	5/5	100%
Jaime C. Laya	5/5	100%
Gerardo C. Ablaza Jr.	5/5	100%

- The Committee reviewed and approved the quarterly unaudited Consolidated Financial Statements and the annual audited Consolidated Financial Statements of Manila Water Company, Inc. and subsidiaries, including Management's Discussion and Analysis of Financial Condition and Results of Operations as of and for the year ended December 31, 2018, with the Company's Management, internal auditors, and SGV & Co. These activities were conducted in the following context:

  - Management has the primary responsibility for the financial statements and the reporting process; and
  - SyCip Gorres Velayo & Co. is responsible for expressing an opinion on the conformity of the Company's audited consolidated financial statements with the Philippine Financial Reporting Standards.

- The Committee reviewed and approved the Management representation letter before submission to the Company's independent external auditors.

  - The Committee recommended to the Board of Directors the re-appointment of SyCip Gorres Velayo & Co. as independent external auditors for 2018 based on its review of SyCip Gorres Velayo & Co. performance and qualifications, including consideration of Management's recommendation.
  - The Committee reviewed and approved all audit and audit-related services provided by SyCip Gorres Velayo & Co. to the Company and the related fees for such services.
  - The Committee discussed and approved the overall scope and the respective audit plans of the Company's internal auditors and of SyCip Gorres Velayo & Co., the results of their audits and their assessment of the Company's internal controls, and the overall quality of the financial reporting process.
  - The Committee discussed the reports of the internal auditors, and ensured that Management is taking appropriate actions in a timely manner, including addressing internal control and compliance issues. All the activities performed by Internal Audit were conducted in conformance with the International Standards for the Professional Practice of Internal Auditing.
  - The Audit Committee, through the audits conducted by SGV & Co. and Internal Audit, has reviewed Management's system of internal controls and the Committee found the internal control system to be adequate and effective.
  - The Committee discussed with Management the adequacy and effectiveness of the Enterprise Risk Management process, including significant risk exposures, the related risk-mitigation efforts and initiatives, and the status of the mitigation plans. The review was undertaken in the context that Management is primarily responsible for the risk management process.
  - The Committee reviewed and confirmed that the existing Audit and Internal Audit Charters are sufficient to accomplish the Committee's and Internal Audit's objectives. The Audit Committee Charter is in compliance with the Securities and Exchange Commission Memo Circular No. 04 (2012).
  - The Committee conducted a self-assessment of its performance to confirm that the Committee continues to meet the expectations of the Board, Management and shareholders.

Based on the reviews and discussions undertaken, and subject to the limitations on our roles and responsibilities referred to above, the Audit Committee recommended to the Board of Directors the inclusion of the Company's audited consolidated financial statements in the Company's Annual Report to the Stockholders for the year ended December 31, 2018 and the filing thereof with the Securities and Exchange Commission.

February 22, 2019

OSCAR S. REYES
Chairman, Audit Committee

JAIME C. LAYA
Independent Director

JOSE L. CUISIA JR.
Independent Director

GERARDO C. ABLAZA JR.
Member

STATEMENT OF MANAGEMENT'S RESPONSIBILITY **FOR FINANCIAL STATEMENTS**

The management of Manila Water Company, Inc. (the Company) and its subsidiaries (the Group) is responsible for the preparation and fair presentation of the consolidated financial statements including the schedules attached therein, as of December 31, 2018 and 2017 and for the years ended December 31, 2018, 2017, and 2016, in accordance with the prescribed financial reporting framework indicated therein, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or its subsidiaries, or to cease operations, or has no realistic alternative but to do so.

The Board of Directors is responsible for overseeing the Group's financial reporting process.

The Board of Directors reviews and approves the consolidated financial statements including the schedules attached therein, and submits the same to the stockholders.

SyCip Gorres Velayo & Co., the independent auditors appointed by the stockholders, has audited the consolidated financial statements of the Group in accordance with Philippine Standards on Auditing, and in its report to the stockholders, has expressed its opinion on the fairness of presentation upon completion of such audit.

FERNANDO ZOBEL DE AYALA
Chairman of the Board

FERDINAND M. DELA CRUZ
President and Chief Executive Officer

MA. CECILIA T. CRUZABRA
Chief Finance Officer

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BOA/PRC Reg. No. 0001,
October 4, 2018, valid until August 24, 2021
SEC Accreditation No. 0012-FR-5 (Group A),
November 6, 2018, valid until November 5, 2021

INDEPENDENT AUDITOR'S REPORT

The Board of Directors and Stockholders
Manila Water Company, Inc.

Opinion

We have audited the consolidated financial statements of Manila Water Company, Inc. (the Parent Company) and its subsidiaries (collectively referred to as "the Group"), which comprise the consolidated statements of financial position as at December 31, 2018 and 2017, and the consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for each of the three years in the period ended December 31, 2018, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2018 and 2017, and its consolidated financial performance and its consolidated cash flows for each of the three years in the period ended December 31, 2018 in accordance with Philippine Financial Reporting Standards (PFRSs).

Basis for Opinion

We conducted our audits in accordance with Philippine Standards on Auditing (PSAs). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the Code of Ethics for Professional Accountants in the Philippines (Code of Ethics) together with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Philippines, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.

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Revenue recognition for Manila Concession (East Zone)

The Group's revenue from East Zone accounts for 82% of total consolidated revenue. The recognition process for the East Zone revenue requires processing of data from large number of customers classified as either residential, commercial, semi-business, or industrial within the Parent Company's concession area. The amounts billed to customers consist of a number of components, including basic charge, environmental charge and foreign currency differential adjustment and where applicable, sewer charge. These tariffs depend on the customer type and are determined based on a formula as prescribed by the Metropolitan Waterworks and Sewerage System Regulatory Office (MWSS RO). This matter is significant to our audit because the revenue recognized depends on the completeness of capture of water consumption based on the meter readings over the concession area taken on various dates; the propriety of rates applied across customer types; and the reliability of the systems involved in processing the billing transactions. In addition, the Group adopted PFRS 15, Revenue from Contracts with Customers, effective January 1, 2018, which involves the application of significant judgment in the assessment of impracticability of retrospective restatement on accounting for connection fees.

Relevant disclosures related to this matter are provided in Notes 1, 2, 3 and 6 to the consolidated financial statements.

Audit response

We obtained an understanding, evaluated the design and tested the controls over the read and bill process, which includes the capture of water consumption and calculation of billed fees, downloading of data from the billing system and uploading of data to the Parent Company's financial reporting system. We involved our internal specialist in the testing of the related controls over these processes. We performed test calculation of the billed amounts using the volume of water consumption and MWSS RO-approved rates and compared them with the amounts reflected in the billing statement.

For the adoption of PFRS 15, we obtained an understanding of the Group's processes in implementing the new revenue recognition standard. We reviewed the PFRS 15 adoption papers and accounting policies prepared by management, including revenue streams identification and scoping, and contract analysis. For connection fees, we obtained an understanding of the process for new water service connections. We obtained sample water and sewer contracts and reviewed whether the accounting policies for connection fees appropriately considered requirements of PFRS 15. We also reviewed the basis of impracticability of retrospective restatement invoked by management against the requirements of PAS 8, Accounting Policies, Changes in Accounting Estimates and Errors, and against company and industry practices.

Provision and contingencies

The Group is involved in legal proceedings and assessments for local and national taxes. This matter is significant to our audit because the estimation of the potential liability resulting from these tax assessments requires significant judgment by management. The inherent uncertainty over the outcome of these tax and legal matters is brought about by the differences in the interpretation and implementation of the laws and tax rulings.

The Group's disclosure about provisions and contingencies are included in Note 28 to the consolidated financial statements.

Audit response

Our audit procedures include, among others, involvement of our tax specialists in reviewing the status of these assessments, the tax position of the Parent Company's legal counsels on the merits of the arguments against the assessments, previous court decisions, implementing rules and opinions issued by relevant government and regulatory bodies. In addition, we performed an independent calculation of the amount of the provisions and compared this with the outstanding provisions as of year-end.

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Amortization of Service Concession Assets Using the Units-of-production Method

The service concession assets (SCA) of the Group is related to its concession agreements. The Group uses units-of-production (UOP) method in amortizing its SCA based on the actual billed volume over the estimated billable water volume for the remaining period of the concession agreement. The UOP amortization method is a key audit matter as the method involves significant management judgment and estimates, particularly in determining the total estimated billable water volume over the remaining periods of the concession agreements. It considers different factors such as population growth, supply and consumption, and service coverage, including ongoing and future expansions.

Refer to Note 3 to the consolidated financial statements for the relevant disclosures related to this matter.

Audit response

We obtained an understanding of management's processes and controls in the estimation of billable water volume. We evaluated the competence, capabilities, and objectivity of management's specialist who estimated the total billable water volume. We also reviewed the report of the management's specialist and gained an understanding of the methodology and the basis of computing the forecasted volumes. Furthermore, we compared the estimated billable water volume for the year against the data generated from the billing system. We recalculated the amortization expense for the year based on the actual billed water volume.

Other Information

Management is responsible for the other information. The other information comprises the information included in the SEC Form 20-IS (Definitive Information Statement), SEC Form 17-A and Annual Report for the year ended December 31, 2018, but does not include the consolidated financial statements and our auditor's report thereon. The SEC Form 20-IS (Definitive Information Statement), SEC Form 17-A and Annual Report for the year ended December 31, 2018 are expected to be made available to us after the date of this auditor's report.

Our opinion on the consolidated financial statements does not cover the other information and we will not express any form of assurance conclusion thereon.

In connection with our audits of the consolidated financial statements, our responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audits, or otherwise appears to be materially misstated.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with PFRSs, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with PSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

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As part of an audit in accordance with PSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Michael C. Sabado.

SYCIP GORRES VELAYO & CO.

Michael C. Sabado
Partner
CPA Certificate No. 89336
SEC Accreditation No. 0664-AR-3 (Group A),
March 16, 2017, valid until March 15, 2020
Tax Identification No. 160-302-865
BIR Accreditation No. 08-001998-73-2018,
February 26, 2018, valid until February 25, 2021
PTR No. 7332607, January 3, 2019, Makati City

February 26, 2019

MANILA WATER COMPANY, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

	December 31	
	2018	2017
ASSETS		
Current Assets		
Cash and cash equivalents (Notes 5, 21 and 26)	**₱9,390,591,273**	₱9,020,744,089
Receivables (Notes 2, 6, 21 and 26)	**1,955,232,694**	2,043,815,823
Concession financial receivables - current portion (Notes 10, 25, 26 and 27)	**193,706,165**	197,043,608
Contract assets - current portion (Notes 2, 6 and 10)	**398,447,879**	–
Inventories (Note 7)	**205,923,232**	210,749,569
Other current assets (Notes 2 and 8)	**1,304,639,661**	1,286,412,717
Total Current Assets	**13,448,540,904**	12,758,765,806
Noncurrent Assets		
Property, plant and equipment (Notes 9 and 21)	**3,508,214,865**	2,735,314,542
Service concession assets - net (Notes 10, 21 and 22)	**82,529,565,838**	74,150,945,381
Concession financial receivables - net of current portion (Notes 2, 10, 25, 26 and 27)	**853,335,377**	1,187,507,674
Contract assets - net of current portion (Notes 2, 6 and 10)	**492,942,902**	–
Investments in associates (Note 11)	**15,994,949,046**	6,796,037,256
Goodwill (Note 4)	**136,566,475**	132,755,065
Deferred tax assets - net (Note 18)	**1,363,604,153**	1,202,732,462
Other noncurrent assets (Notes 2, 12, 15, 26 and 27)	**4,205,597,344**	4,430,377,797
Total Noncurrent Assets	**109,084,776,000**	90,635,670,177
	₱122,533,316,904	₱103,394,435,983
LIABILITIES AND EQUITY		
Current Liabilities		
Accounts and other payables (Notes 13, 21, 22 and 26)	**₱7,309,174,242**	₱5,882,548,281
Short-term debt (Notes 14, 25 and 26)	**8,596,538,853**	–
Current portion of:		
Long-term debt (Notes 14, 21, 25 and 26)	**5,525,372,414**	4,614,057,448
Service concession obligations (Notes 10, 22, 25, 26 and 27)	**809,405,231**	800,961,856
Income tax payable (Note 18)	**467,887,912**	441,002,056
Total Current Liabilities	**22,708,378,652**	11,738,569,641
Noncurrent Liabilities		
Noncurrent portion of:		
Long-term debt (Notes 14, 21, 25 and 26)	**37,525,555,157**	35,110,322,008
Service concession obligations (Notes 10, 22, 25, 26 and 27)	**7,119,121,473**	6,646,714,054
Pension liabilities - net (Note 15)	**109,391,800**	41,506,260
Deferred tax liabilities - net (Note 18)	**103,104,628**	111,542,934
Provisions (Note 28)	**569,893,356**	501,099,013
Other noncurrent liabilities (Notes 16, 25, 26 and 27)	**776,778,646**	683,984,650
Total Noncurrent Liabilities	**46,203,845,060**	43,095,168,919
Total Liabilities	**68,912,223,712**	54,833,738,560

(Forward)

	December 31	
	2018	2017
Equity		
Attributable to equity holders of Manila Water Company, Inc.		
Capital stock (Note 19):		
Common stock	**₱2,064,839,617**	₱2,053,666,576
Preferred stock	**400,000,000**	400,000,000
	2,464,839,617	2,453,666,576
Additional paid-in capital	**4,518,048,369**	4,230,508,417
Subscriptions receivable	**(458,453,326)**	(235,693,873)
Total paid-up capital	**6,524,434,660**	6,448,481,120
Common stock options outstanding (Note 19)	**51,742,998**	28,700,622
Retained earnings (Note 19):		
Appropriated	**32,444,000,000**	28,698,000,000
Unappropriated	**12,052,604,642**	11,426,282,242
Remeasurement gain (loss) on defined benefit plans (Note 15)	**(57,483,208)**	3,251,651
Other equity reserves (Notes 1 and 19)	**54,106,905**	54,106,905
Cumulative translation adjustment (Notes 2 and 11)	**1,420,590,161**	895,910,482
	52,489,996,158	47,554,733,022
Noncontrolling interests (Notes 2 and 19)	**1,131,097,034**	1,005,964,401
Total Equity	**53,621,093,192**	48,560,697,423
	₱122,533,316,904	₱103,394,435,983

See accompanying Notes to Consolidated Financial Statements.

MANILA WATER COMPANY, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Years Ended December 31		
	2018	2017	2016
REVENUE FROM CONTRACTS WITH CUSTOMERS			
Water (Notes 21 and 24):			
East Zone	**₱12,966,630,787**	₱12,123,443,381	₱12,034,756,289
Outside East Zone	**2,264,887,691**	2,145,622,488	1,635,673,199
Environmental charges (Notes 21 and 24)	**2,719,651,143**	2,481,248,409	2,420,227,209
Sewer (Notes 21 and 24):			
East Zone	**246,597,711**	226,593,869	223,006,038
Outside East Zone	**273,802,932**	229,012,345	190,936,818
Other operating income (Notes 17, 21 and 24)	**1,364,722,038**	1,309,851,738	1,207,311,554
	19,836,292,302	18,515,772,230	17,711,911,107
COST OF SERVICES			
Depreciation and amortization (Notes 9 and 10)	**2,208,750,431**	2,206,053,556	2,241,324,647
Power, light and water (Note 21)	**1,319,150,756**	1,183,196,711	970,000,400
Salaries, wages and employee benefits (Notes 15, 19 and 21)	**1,083,008,341**	1,063,651,691	1,315,751,741
Repairs and maintenance	**375,657,094**	379,544,022	375,526,324
Contractual services	**291,298,802**	316,447,411	388,677,337
Management, technical and professional fees (Note 21)	**254,675,568**	285,635,648	155,749,508
Water treatment chemicals	**235,095,937**	107,109,226	81,992,647
Regulatory costs (Note 1)	**215,435,898**	191,815,032	174,320,051
Wastewater costs	**199,369,725**	162,923,138	124,909,208
Amortization of water service connections	**178,663,181**	190,849,340	184,761,974
Collection fees	**138,568,031**	110,573,321	119,708,560
Cost of packaged water (Note 7)	**127,895,192**	111,340,926	69,741,022
Occupancy costs (Notes 23 and 27)	**35,989,179**	43,488,003	55,562,977
Other expenses	**272,638,498**	222,433,481	122,869,574
	6,936,196,633	6,575,061,506	6,380,895,970
GROSS PROFIT	**12,900,095,669**	11,940,710,724	11,331,015,137
OPERATING EXPENSES (Note 17)	**3,795,561,313**	3,342,316,747	2,677,731,651
INCOME BEFORE OTHER INCOME (EXPENSES)	**9,104,534,356**	8,598,393,977	8,653,283,486
OTHER INCOME (EXPENSES)			
Revenue from rehabilitation works (Notes 1, 2, 6 and 10)	**9,661,976,629**	11,672,137,031	6,804,908,377
Cost of rehabilitation works (Notes 1, 2, 6 and 10)	**(9,661,976,629)**	(11,672,137,031)	(6,804,908,377)
Interest expense (Notes 14 and 17)	**(1,783,808,602)**	(1,403,236,110)	(1,429,206,868)
Equity share in net income of associates (Note 11)	**699,142,026**	457,208,214	368,829,594
Interest income (Note 17)	**411,883,015**	345,737,796	257,123,462
Foreign currency differentials (Note 1)	**1,787,217,975**	152,454,045	796,311,013
Foreign exchange losses	**(1,753,929,481)**	(150,895,347)	(761,789,202)
Gain on disposal of property and equipment - net	**18,643,022**	15,999,530	2,173,007
Amortization of deferred credits (Note 16)	**12,535,602**	11,142,247	9,814,745
Other income - net (Notes 4, 9, 11 and 17)	**115,172,172**	55,071,907	36,825,155
	(493,144,271)	(516,517,718)	(719,919,094)
INCOME BEFORE INCOME TAX	**8,611,390,085**	8,081,876,259	7,933,364,392
PROVISION FOR INCOME TAX (Note 18)	**1,976,357,294**	1,941,928,572	1,746,374,542
NET INCOME	**6,635,032,791**	6,139,947,687	6,186,989,850

(Forward)

	Years Ended December 31		
	2018	2017	2016
OTHER COMPREHENSIVE INCOME (LOSS)			
Other comprehensive income to be reclassified to profit and loss in subsequent periods:			
Cumulative translation adjustment (Note 11)	**₱524,679,679**	₱108,488,162	₱288,592,221
Other comprehensive income (loss) not to be reclassified to profit or loss in subsequent periods:			
Actuarial gain (loss) on pension liabilities - net (Note 15)	**(55,044,900)**	(57,131,400)	187,090,600
Income tax effect (Note 18)	**(4,159,906)**	815,960	(1,193,263)
	(59,204,806)	(56,315,440)	185,897,337
TOTAL COMPREHENSIVE INCOME	**₱7,100,507,664**	₱6,192,120,409	₱6,661,479,408
Net income (loss) attributable to:			
Equity holders of Manila Water Company, Inc.	**₱6,523,700,728**	₱6,146,608,317	₱6,065,220,845
Noncontrolling interests (Note 1)	**111,332,063**	(6,660,630)	121,769,005
	₱6,635,032,791	₱6,139,947,687	₱6,186,989,850
Total comprehensive income attributable to:			
Equity holders of Manila Water Company, Inc.	**₱6,987,645,548**	₱6,197,535,437	₱6,538,209,743
Noncontrolling interests (Note 1)	**112,862,116**	(5,415,028)	123,269,665
	₱7,100,507,664	₱6,192,120,409	₱6,661,479,408
Earnings per Share (Note 20)			
Net income attributable to common equity holders of Manila Water Company, Inc.:			
Basic	**₱2.64**	₱2.49	₱2.45
Diluted	**₱2.64**	₱2.49	₱2.44

See accompanying Notes to Consolidated Financial Statements.

MANILA WATER COMPANY, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	Years Ended December 31		
	2018	2017	2016
ATTRIBUTABLE TO EQUITY HOLDERS OF MANILA WATER COMPANY, INC.			
CAPITAL STOCK (Note 19)			
Common stock - ₱1 par value			
Authorized - 3,100,000,000 shares			
Issued and outstanding - 2,030,732,360 in 2018, 2,026,067,122 in 2017 and 2,024,934,090 in 2016	**₱2,030,732,360**	₱2,026,067,122	₱2,024,934,090
Subscribed common stock - 34,107,257 in 2018, 27,599,454 shares in 2017 and 28,732,486 shares in 2016			
Balance at beginning of year	**27,599,454**	28,732,486	35,457,053
Additions	**10,893,733**	–	–
Issuance of shares	**(4,385,930)**	(1,133,032)	(6,724,567)
Balance at end of year	**34,107,257**	27,599,454	28,732,486
	2,064,839,617	2,053,666,576	2,053,666,576
Preferred stock - ₱0.10 par value, 10% cumulative, voting participating, nonredeemable and nonconvertible			
Authorized, issued, and outstanding - 4,000,000,000 shares	**400,000,000**	400,000,000	400,000,000
	2,464,839,617	2,453,666,576	2,453,666,576
ADDITIONAL PAID-IN CAPITAL (Note 19)			
Balance at beginning of year	**4,230,508,417**	4,221,712,962	4,193,022,955
Additions	**287,539,952**	8,795,455	28,690,007
Balance at end of year	**4,518,048,369**	4,230,508,417	4,221,712,962
SUBSCRIPTIONS RECEIVABLE (Note 19)			
Balance at beginning of year	**(235,693,873)**	(319,227,328)	(346,017,395)
Additions	**(297,787,156)**	–	–
Collections	**75,027,703**	83,533,455	26,790,067
Balance at end of year	**(458,453,326)**	(235,693,873)	(319,227,328)
COMMON STOCK OPTIONS OUTSTANDING (Note 19)			
Balance at beginning of year	**28,700,622**	25,325,260	20,818,325
Cost of share-based payment	**23,968,213**	12,170,817	33,196,942
Exercised	**(925,837)**	(8,795,455)	(28,690,007)
Balance at end of year	**51,742,998**	28,700,622	25,325,260
RETAINED EARNINGS (Note 19)			
Appropriated:			
Balance at beginning of year	**28,698,000,000**	21,100,000,000	–
Appropriations	**3,746,000,000**	7,598,000,000	21,100,000,000
Balance at end of year	**32,444,000,000**	28,698,000,000	21,100,000,000
Unappropriated:			
Balance at beginning of year	**11,426,282,242**	15,000,583,191	32,120,480,845
Net income	**6,523,700,728**	6,146,608,317	6,065,220,845
Appropriations	**(3,746,000,000)**	(7,598,000,000)	(21,100,000,000)
Dividends declared	**(2,151,378,328)**	(2,122,909,266)	(2,085,118,499)
Balance at end of year	**12,052,604,642**	11,426,282,242	15,000,583,191
	44,496,604,642	40,124,282,242	36,100,583,191

(Forward)

	Years Ended December 31		
	2018	2017	2016
REMEASUREMENT GAIN (LOSS) ON DEFINED BENEFIT PLANS (Note 15)			
Balance at beginning of year	**₱3,251,651**	₱60,812,693	(₱123,583,985)
Actuarial gain (loss) on pension liabilities - net	**(64,239,028)**	(58,467,800)	187,090,600
Income tax effect	**3,504,169**	906,758	(2,693,922)
Balance at end of year	**(57,483,208)**	3,251,651	60,812,693
OTHER EQUITY RESERVES (Notes 1 and 19)			
Balance at beginning of year	**54,106,905**	54,106,905	7,500,000
Gain on dilution of noncontrolling interest	**–**	–	46,606,905
Balance at end of year	**54,106,905**	54,106,905	54,106,905
CUMULATIVE TRANSLATION ADJUSTMENT (Notes 2 and 11)			
Balance at beginning of year	**895,910,482**	787,422,320	498,830,099
Other comprehensive income	**524,679,679**	108,488,162	288,592,221
Balance at end of year	**1,420,590,161**	895,910,482	787,422,320
NONCONTROLLING INTERESTS (Notes 1, 2 and 19)			
Balance at beginning of year	**1,005,964,401**	997,284,976	894,274,986
Additions	**12,270,517**	14,094,453	26,347,230
Remeasurement gain on defined benefit plans - net of income tax effect	**1,530,053**	1,245,602	1,500,660
Share in net income (loss)	**111,332,063**	(6,660,630)	121,769,005
Loss on dilution of noncontrolling interests (Note 19)	**–**	–	(46,606,905)
Balance at end of year	**1,131,097,034**	1,005,964,401	997,284,976
	₱53,621,093,192	₱48,560,697,423	₱44,381,687,555

See accompanying Notes to Consolidated Financial Statements.

MANILA WATER COMPANY, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31		
	2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES			
Income before income tax	**₱8,611,390,085**	₱8,081,876,259	₱7,933,364,392
Adjustments for:			
Depreciation and amortization (Notes 9 and 10)	**2,655,669,800**	2,556,998,878	2,866,043,020
Interest expense (Notes 14 and 17)	**1,783,808,602**	1,403,236,110	1,429,206,868
Equity share in net income of associates (Note 11)	**(699,142,026)**	(457,208,214)	(368,829,594)
Interest income (Note 17)	**(411,883,015)**	(345,737,796)	(257,123,462)
Impairment losses (Notes 9 and 11)	**136,835,943**	–	–
Gain on bargain purchase (Note 4)	**(43,753,620)**	(54,907,714)	–
Pension expense, contribution and benefit payment - net (Note 15)	**29,257,110**	59,730,460	(5,476,801)
Gain on disposal of property and equipment - net	**(18,643,022)**	(15,999,530)	(2,173,007)
Share-based payments (Note 19)	**23,968,213**	12,170,817	33,196,942
Amortization of deferred credits (Note 16)	**(12,535,602)**	(11,142,247)	(9,814,745)
Operating income before changes in operating assets and liabilities	**12,054,972,468**	11,229,017,023	11,618,393,613
Changes in operating assets and liabilities:			
Decrease (increase) in:			
Receivables	**(99,349,092)**	332,923,442	(507,924,210)
Contract assets	**(377,538,722)**	–	–
Inventories	**4,826,337**	(44,179,799)	10,457,502
Service concession assets	**(7,127,729,094)**	(10,692,179,117)	(7,031,012,111)
Concession financial receivable	**197,043,608**	2,357,501	143,659,168
Other current assets	**(197,212,618)**	181,652,388	(406,814,739)
Increase (decrease) in accounts and other payables	**786,531,476**	915,374,397	(547,863,167)
Net cash provided by operations	**5,241,544,363**	1,924,965,835	3,278,896,056
Income tax paid	**(1,943,955,666)**	(2,082,541,702)	(1,893,893,734)
Net cash provided by (used in) operating activities	**3,297,588,697**	(157,575,867)	1,385,002,322
CASH FLOWS FROM INVESTING ACTIVITIES			
Acquisitions of:			
Investments in associates (Notes 1 and 11)	**(8,871,042,180)**	(229,156,421)	–
Property, plant and equipment (Note 9)	**(1,353,557,438)**	(1,299,299,740)	(943,753,491)
Dividends received from associates (Note 11)	**413,819,111**	185,044,328	159,595,839
Interest received	**275,902,629**	150,589,335	109,917,563
Consideration paid for business combination (Note 4)	**(45,133,895)**	(74,244,286)	–
Proceeds from sale of property and equipment	**21,160,944**	3,183,205	3,827,265
Decrease (increase) in other noncurrent assets (Note 12)	**699,841,343**	(1,107,195,937)	(259,899,841)
Net cash used in investing activities	**(8,859,009,486)**	(2,371,079,516)	(930,312,665)

(Forward)

	Years Ended December 31		
	2018	2017	2016
CASH FLOWS FROM FINANCING ACTIVITIES			
Proceeds from the availments of (Note 14):			
Short-term debt	**₱8,864,235,143**	₱–	₱–
Long-term debt	**6,843,198,491**	15,428,965,322	7,565,619,992
Payments of:			
Long-term debt (Note 14):	**(5,208,266,498)**	(3,579,761,563)	(6,805,626,705)
Service concession obligation (Note 10)	**(955,119,919)**	(778,818,684)	(1,049,272,956)
Dividends (Note 19)	**(2,151,378,328)**	(2,122,909,266)	(2,085,118,499)
Interest	**(1,641,493,122)**	(1,557,039,464)	(1,117,317,490)
Collection of subscriptions receivable (Note 19)	**75,027,703**	83,533,455	26,790,067
Increase (decrease) in other noncurrent liabilities	**92,793,986**	(4,364,903)	199,633,147
Additions to noncontrolling interest (Note 1)	**12,270,517**	14,094,453	26,347,230
Net cash provided by (used in) financing activities	**5,931,267,973**	7,483,699,350	(3,238,945,214)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	**369,847,184**	4,955,043,967	(2,784,255,557)
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	**9,020,744,089**	4,065,700,122	6,849,955,679
CASH AND CASH EQUIVALENTS AT END OF YEAR (Note 5)	**₱9,390,591,273**	₱9,020,744,089	₱4,065,700,122

See accompanying Notes to Consolidated Financial Statements.

1. Corporate Information

Manila Water Company, Inc. (the Parent Company) was incorporated on January 6, 1997 with remaining corporate life of twenty-nine (29) years. The Parent Company started commercial operations on January 1, 2000. It became a publicly listed company via an initial public offering on March 18, 2005. As of December 31, 2018, the Parent Company is 41.99% owned by Ayala Corporation (Ayala). Ayala is a publicly listed company which is 47.04% owned by Mermac, Inc. and the rest by the public. The Parent Company and its subsidiaries (collectively referred to as the Group) are incorporated to provide water, integrated used water, sewerage and sanitation, distribution services, pipeworks and management services.

Parent Company Amendment of Articles of Incorporation
On March 1, 2018, the Board of Directors (BOD) approved the following:

a. amendment of the Parent Company's Articles of Incorporation to exclude the 300.00 million common shares from the pre-emptive rights of existing stockholders, and endorsed the said amendment for approval by the stockholders; and
b. allotment and subsequent issuance of up to 300.00 million common shares for the purpose of exchanging such shares for assets and/or raising funds to acquire assets needed for the business of the Parent Company.

On April 16, 2018, the stockholders of the Parent Company approved the amendment of the Seventh Article of the Articles of Incorporation to exempt from pre-emptive rights 300.00 million unissued common shares ("carved-out shares") which are reserved or allocated for issuance in one or more transactions or offerings, (i) for properties or assets needed for the business of the Parent Company, or (ii) for cash to acquire properties or assets needed for the business of the Parent Company. The issuance of all or any of the carved-out shares does not require the approval of stockholders.

The Parent Company's principal place of business is at the MWSS Administration Building, 489 Katipunan Road, Balara, Quezon City.

The consolidated financial statements comprise the financial statements of the Parent Company and the following subsidiaries:

	Country of Incorporation and Place of Business	Effective Percentages of Ownership	
		2018	2017
Manila Water Total Solutions Corp. (MWTS)	Philippines	**100.0**	100.0
Calasiao Water Company, Inc. (Calasiao Water)	-do-	**90.0**	90.0
Manila Water Asia Pacific Pte. Ltd. (MWAP)	Singapore	**100.0**	100.0
Manila Water South Asia Holdings Pte. Ltd. (MWSAH)	-do-	**100.0**	100.0
Asia Water Network Solutions Joint Stock Company (Asia Water)[1]	Vietnam	**67.9**	67.9
Thu Duc Water Holdings Pte. Ltd. (TDWH)	Singapore	**100.0**	100.0
Kenh Dong Water Holdings Pte. Ltd. (KDWH)	-do-	**100.0**	100.0
Manila Water Thailand Holdings Pte. Ltd. (MWTH)[2]	-do-	**100.0**	100.0
Manila Water (Thailand) Co., Ltd. (MWTC)[3]	Thailand	**100.0**	–
Manila South East Asia Water Holdings Pte. Ltd. (MSEA)[4]	Singapore	**100.0**	100.0
PT Manila Water Indonesia (PTMWI)[5]	Indonesia	**100.0**	–
Manila Water Philippine Ventures, Inc. (MWPV)	Philippines	**100.0**	100.0
Laguna AAAWater Corporation (Laguna Water)	-do-	**70.0**	70.0
Clark Water Corporation (Clark Water)	-do-	**100.0**	100.0
Boracay Island Water Company, Inc. (Boracay Water)	-do-	**80.0**	80.0

(Forward)

	Country of Incorporation and Place of Business	Effective Percentages of Ownership	
		2018	2017
Filipinas Water Holdings Corp. (Filipinas Water)[6]	-do-	**100.0**	100.0
Obando Water Company, Inc. (Obando Water)	-do-	**90.0**	90.0
Bulakan Water Company, Inc. (Bulakan Water)	-do-	**90.0**	–
Manila Water Consortium, Inc. (MW Consortium)	-do-	**57.2**	57.2
Cebu Manila Water Development, Inc. (Cebu Water)[7]	Philippines	**40.4**	40.4
Davao del Norte Water Infrastructure Company, Inc. (Davao Water)	-do-	**51.0**	51.0
Tagum Water Company, Inc. (Tagum Water)[8]	-do-	**45.9**	45.9
Bulacan MWPV Development Corp. (BMDC)	-do-	**100.0**	100.0
Aqua Centro MWPV Corp. (Aqua Centro)	-do-	**100.0**	100.0
Manila Water International Solutions, Inc. (MWIS)	-do-	**100.0**	100.0
EcoWater MWPV Corp. (EcoWater)	-do-	**100.0**	–
Leyte Water Company, Inc. (Leyte Water)	-do-	**100.0**	–
Zamboanga Water Company, Inc. (Zamboanga Water)	-do-	**70.0**	70.0

[1]Asia Water is 51.00% owned by Saigon Water Infrastructure Corporation (Saigon Water) and 48.50% owned by MWSAH. MWSAH's effective ownership interest in Asia Water is 67.87% as of December 31, 2018 and December 31, 2017 by virtue of its 37.99% ownership interest in Saigon Water.

[2]Previously named Manila Water Indonesia Holdings Pte. Ltd.

[3]MWTC was incorporated on February 20, 2018 and is 100% owned by MWTH.

[4]Previously named North-West of Saigon Holdings Pte. Ltd.

[5]PTMWI is incorporated on February 1, 2018 and is 95.00% owned by MSEA and 5.00% owned by a director of PTMWI whose ownership has been pledged to MSEA.

[6]Previously named Obando Water Consortium Holdings Corp. Filipinas Water is 49.00% owned by the Parent Company and 51.00% owned by MWPV.

[7]Cebu Water is 70.58% owned by MW Consortium. MWPV's effective ownership interest in Cebu Water is 40.39% by virtue of its 57.22% ownership interest in MW Consortium.

[8]Tagum Water Company is 90.00% owned by the Davao Water. MWCI's effective interest in Tagum Water is 45.90% by virtue of its 51.00% ownership interest in Davao Water.

Unless otherwise indicated, the Philippines is the principal place of business and country of incorporation of the Group's investments in subsidiaries.

Investments in MWIS, Davao Water, and Zamboanga Water

On October 3, 2017, the BOD approved the sale of the Parent Company's shareholdings in MWIS to MWPV.
On December 26, 2017, the Parent Company executed a Deed of Absolute Sale of Shares and Receivables to MWPV for the transfer of 2,500,000 common shares of MWIS and receivables from MWIS.

On May 23, 2018, the Parent Company sold to MWPV its 765,000 common shares of Davao Water comprising approximately 51% of Davao Water's outstanding capital stock in consideration for ₱75.58 million.

On July 2, 2018, the Parent Company sold to MWPV its 245,000 common shares of Zamboanga Water comprising approximately 70% of Zamboanga Water's outstanding capital stock in consideration for ₱35.81 million.

Parent Company's Concession Agreement with Metropolitan Waterworks and Sewerage System (MWSS)

On February 21, 1997, the Parent Company entered into a Concession Agreement (the Concession Agreement) with MWSS, a government corporation organized and existing pursuant to Republic Act (RA) No. 6234, as amended, with respect to the MWSS East Zone (East Zone). The Concession Agreement sets forth the rights and obligations of the Parent Company throughout a twenty-five (25)-year concession period. The MWSS Regulatory Office (MWSS-RO) monitors and reviews the performance of each of the Concessionaires – the Parent Company and Maynilad Water Services, Inc. (Maynilad), the West Zone Concessionaire.

Under the Concession Agreement, MWSS grants the Parent Company (as contractor to perform certain functions and as agent for the exercise of certain rights and powers under RA No. 6234) the sole right to manage, operate, repair, decommission, and refurbish all fixed and movable assets (except certain retained assets) required to provide water delivery and sewerage services in the East Zone for a period of twenty five (25) years commencing on August 1, 1997 (the Commencement Date) up to May 6, 2022 (the Expiration Date) or the early termination date as the case may be. While the Parent Company has the right to manage, operate, repair, and refurbish specified MWSS facilities in the East Zone, legal title to these assets remains with MWSS. The legal title to all fixed assets contributed to the existing MWSS system by the Parent Company during the Concession remains with the Parent Company until the Expiration Date (or until the early termination date) at which time all rights, titles and interest in such assets will automatically vest in MWSS.

On Commencement Date, the Parent Company officially took over the operations of the East Zone and rehabilitation works for the service area commenced immediately thereafter. As provided in the Parent Company's project plans, operational commercial capacity has been obtained upon substantial completion of the rehabilitation work.

Under the Concession Agreement, the Parent Company is entitled to the following rate adjustments:

a. annual standard rate adjustment to compensate for increases in the Consumer Price Index (CPI);
b. extraordinary price adjustment (EPA) to account for the financial consequences of the occurrence of certain unforeseen events stipulated in the Concession Agreement;
c. foreign currency differential adjustment (FCDA) to recover foreign exchange losses, including accruals and carrying costs thereof arising from MWSS loans and any Concessionaire loans used for capital expenditures and concession fee payments, in accordance with the provisions set forth in Amendment No. 1 of the Concession Agreement dated October 12, 2001 (see Notes 2, 10 and 14); and
d. Rebasing Convergence Adjustment for the purposes of calculating the Rates Adjustment Limit for each of the five Charging Years of the Rebasing Period determined based on the following:
    i. where the Rebasing Adjustment is found to be positive, the Rebasing Convergence Adjustment for the first Charging Year of the Rate Rebasing Period shall be equal to the Rebasing Adjustment, and the Rebasing Convergence Adjustment for each of the following four (4) Charging Years shall be zero; and
    ii. where the Rebasing Adjustment is found to be negative, the Rebasing Adjustment for each of the five (5) Charging Years of the Rebasing Period shall be equal to the Rebasing Adjustment divided by five (5).

These rate adjustments are subject to a rate adjustment limit which is equivalent to the sum of CPI published in the Philippines, EPA and Rebasing Convergence Adjustment as defined in the Concession Agreement. The Concession Agreement also provides a general rate setting policy for rates chargeable by the Parent Company for water and sewerage services as follows:

a. For the period through the second Rate Rebasing date (January 1, 2008), the maximum rates chargeable by the Parent Company (subject to interim adjustments) are set out in the Concession Agreement; and,
b. From and after the second Rate Rebasing date, the rates for water and sewerage services shall be set at a level that will permit the Parent Company to recover, over the twenty five (25)-year term of the concession, its investment including operating, capital maintenance and investment incurred, Philippine business taxes and payments corresponding to debt service on MWSS loans and the Parent Company's loans incurred to finance such expenditures, and to earn a rate of return equal to the appropriate discount rate (ADR) on these expenditures for the remaining term of the concession.

The maximum rates chargeable for such water and sewerage services shall be subject to general adjustment at five-year intervals commencing on the second Rate Rebasing date, provided that the MWSS-RO may exercise its discretion to make a general adjustment of such rates.

On April 16, 2009, the MWSS Board of Trustees (MWSS BOT) passed Resolution No. 2009-072 approving the fifteen (15)-year extension of the Concession Agreement (the Extension) from May 7, 2022 to May 6, 2037. This resolution was confirmed by the Department of Finance (DOF), by authority from the Office of the President of the Republic of the Philippines, on October 19, 2009. The significant commitments under the Extension follow:

a. To mitigate tariff increases such that there will be reduction of the balance of the approved 2008 rebased tariff by 66%, zero increase of the rebased tariff in 2009 and a ₱1.00 increase for years 2010 to 2016, subject to CPI and FCDA adjustments.

b. To increase the share in the current operating budget support to MWSS by 100% as part of the concession fees starting 2009.
c. To increase the total investments from the approved ₱187.00 billion for the periods 2008 to 2022 to ₱450.00 billion for 2008 to 2037.

With the approval of the Extension, the recovery period for the Parent Company's investment has been extended by another fifteen (15) years from 2022 to 2037.

In March 2012, the Parent Company submitted to MWSS a business plan embodying its rate rebasing proposals for charging year 2013. The rate rebasing activity is done every five (5) years. MWSS conducted a review of the proposal including the Parent Company's last five (5) years' financial performance. The financial review process extended up to the third quarter of 2013. On September 10, 2013, the MWSS-RO issued Resolution No. 13-09-CA providing for a negative rate rebasing adjustment of 29.47% on the Parent Company's 2012 average basic water rate of ₱24.57 per cubic meter shall be implemented in five (5) equal tranches of negative 5.894% per charging year. The Parent Company objected to MWSS' Rate Rebasing determination and formally filed its Dispute Notice on September 24, 2013, before a duly-constituted Appeals Panel, commencing the arbitration process, as provided under Section 12 (in relation to Section 9.4 of the Concession Agreement).

On December 10, 2013, the MWSS BOT, through MWSS-RO Resolution No. 13-012 CA, approved the implementation of a status quo for the Parent Company's Standard Rates including FCDA until such time that the Appeals Panel has rendered a final award on the 2013 Rate Rebasing determination.

On April 21, 2015, the Parent Company received the final award of the Appeals Panel in the arbitration which final award included the following tariff component determination:

a. ₱28.1 billion Opening Cash Position (OCP) which restored ₱11.0 billion from the September 2013 OCP determination of MWSS of ₱17.1 billion;
b. ₱199.6 billion capital expenditures and concession fees which restores ₱29.5 billion from the September 2013 future capital and concession fee expenditure of ₱170.1 billion;
c. 7.61% Appropriate Discount Rate (ADR) which was an improvement of 79 bps from the post-tax ADR of 6.82% in September 2013; and
d. exclusion of corporate income tax from cash flows beginning January 1, 2013.

Consequently, the final award resulted in a rate rebasing adjustment for the period 2013 to 2017 of negative 11.05% on the 2012 basic average water charge of ₱25.07 per cubic meter. This adjustment translates to a decrease of ₱2.77 per cubic meter from the tariff during the intervening years before the 2018 rate rebasing. Annual CPI adjustments and the quarterly FCDA will continue to be made consistent with the Parent Company's Concession Agreement with MWSS.

On September 27, 2018, the MWSS BOT (MWSS Resolution No. 2018-145-RO) approved the Parent Company's Rebasing Adjustment for the Fifth Rate Rebasing Period (2018 to 2022) as recommended by the MWSS-RO (MWSS-RO Resolution No. 2018-10-CA). To mitigate the impact on the tariff of its customers, the Parent Company shall stagger its implementation over a five-year period. The first tranche took effect on October 16, 2018.

On December 13, 2018, the MWSS BOT (MWSS Resolution No. 2018-190-RO) approved the Parent Company's implementation of the 5.70% CPI Adjustment to be applied to the 2018 average basic charge of ₱26.98 per cubic meter and the 2.62% FCDA to be applied to the 2019 average basic charge. These adjustments are recommended by the MWSS-RO (MWSS-RO Resolution No. 2018-12-CA) and shall take effect on January 1, 2019.

Arbitration under the United Nations Commission on International Trade Law (UNCITRAL) Rules (1976)
On April 23, 2015, the Parent Company served to the Republic of the Philippines (the "Republic"), through the DOF, its Notice of Claim demanding that the Republic indemnify the Parent Company in accordance with the indemnity clauses in the Republic's Letter Undertaking dated July 31, 1997 and Letter Undertaking dated October 19, 2009. At present, the arbitration case remains pending.

FCDA
The MWSS BOT approves the FCDA quarterly. The FCDA has no impact on the net income of the Parent Company, as the same is a recovery or refund mechanism of foreign exchange losses or gains. The following FCDA adjustments and their related foreign exchange basis took effect in 2016 to 2018.

Approval Date	Effective Date	FCDA	Foreign Exchange Rate Basis
March 10, 2016	April 1, 2016	₱0.26 per cubic meter	USD1: ₱47.51 / JPY1: ₱0.40
June 14, 2016	July 1, 2016	₱0.25 per cubic meter	USD1: ₱46.29 / JPY1: ₱0.42
April 5, 2017	April 22, 2017	₱0.69 per cubic meter	USD1: ₱49.74 / JPY1: ₱0.37
July 27, 2017	August 13, 2017	₱0.97 per cubic meter	USD1: ₱49.86 / JPY1: ₱0.45
September 14, 2017	October 1, 2017	₱1.21 per cubic meter	USD1: ₱50.64 / JPY1: ₱0.45
December 13, 2017	January 1, 2018	₱0.63 per cubic meter	USD1: ₱51.34 / JPY1: ₱0.45
March 13, 2018	April 1, 2018	₱0.59 per cubic meter	USD1: ₱50.51 / JPY1: ₱0.46
June 14, 2018	July 1, 2018	₱1.58 per cubic meter	USD1: ₱52.10 / JPY1: ₱0.48
September 14, 2018	October 1, 2018	₱1.56 per cubic meter	USD1: ₱53.43 / JPY1: ₱0.48
December 14, 2018	January 1, 2019	₱0.75 per cubic meter	USD1: ₱53.94 / JPY1: ₱0.48

There were no FCDA adjustments for the third and fourth quarters of 2016 and for the first quarter of 2017 due to the vacancies in the MWSS BOT, resulting in a lack of quorum necessary for the approval of any MWSS-RO resolution, including the FCDA.

Laguna Water's Concession Agreement with the Provincial Government of Laguna (PGL)
On April 9, 2002, Laguna Water entered into a concession agreement (as amended on March 31, 2004, July 22, 2009, and June 30, 2015) with PGL, a local government unit organized and existing under Philippine Laws.

Under the terms of the concession agreement, PGL grants Laguna Water (as contractor and as agent for the exercise of certain rights in Laguna) the sole and exclusive right and discretion during the concession period to manage, occupy, operate, repair, maintain, decommission and refurbish the identified facilities required to provide water services to specific areas for an operational period of twenty-five (25) years which commenced on October 20, 2004.

While Laguna Water has the right to manage, occupy, operate, repair, maintain, decommission and refurbish specified PGL facilities, legal title to these assets remains with PGL. Legal title to all assets procured by Laguna Water in the performance of its obligations under the agreement remains with Laguna Water and shall not pass to PGL until the end of the concession period at which time, Laguna Water will transfer, or if the ownership is vested in another person, cause the transfer to PGL. Laguna Water has the exclusive rights to provide water services in the service areas specified in the concession agreement. Concession fees set forth in the concession agreement are computed as a percentage of revenue from water services (see Note 10).

Seventy percent (70%) of the concession fees are applied against any advances made by Laguna Water to PGL. The remaining thirty percent (30%) of the concession fees are payable annually thirty (30) days after the submission of the audited financial statements by Laguna Water, from the start of the operational period.

On June 30, 2015, Laguna Water and the PGL signed an amendment to the concession agreement which expands the concession area to cover all cities and municipalities in the province of Laguna, as well as the service obligation to include the provision of wastewater services and the establishment of an integrated sewage and septage system in the province.

In connection with the amendment to the concession agreement, the Sangguniang Bayan of the municipality of Calauan, Laguna approved the resolution allowing Laguna Water to provide water and wastewater services to the municipality of Calauan. The provision of services by Laguna Water in the municipality of Calauan is being implemented in phases, with full coverage of the area targeted by the first quarter of 2020.

Furthermore, the concession period's commencement date was amended to mean the later of either: (i) three (3) years from the takeover date (i.e., October 20, 2004); or (ii) availment by at least 25,000 customers of the services (i.e., September 30, 2010). The concession period is deemed to have commenced on September 30, 2010 and shall end on September 30, 2035.

On August 23, 2017, the Sangguniang Bayan of Victoria, Laguna, has approved the inclusion of its municipality within the service area of Laguna Water.

On May 3, 2018, the concession agreement was amended to include the approval of Environmental Charge amounting to twenty percent (20%) of the water tariff for wastewater services, desludging services, and other environmental-related costs which was implemented on September 22, 2018.

Laguna Water implemented a tariff adjustment of 10% on December 1, 2018.

Boracay Water's Concession Agreement with Tourism Infrastructure and Enterprise Zone Authority (TIEZA)
On December 17, 2009, Boracay Water entered into a concession agreement with TIEZA, formerly Philippine Tourism Authority (PTA). The concession agreement sets forth the rights and obligations of Boracay Water as concessionaire throughout a twenty-five (25)-year concession period. TIEZA Regulatory Office (TIEZA-RO) will monitor and review the performance of the concessionaire throughout the concession period.

Under the concession agreement, TIEZA grants Boracay Water the sole right to manage, operate, repair, decommission, and refurbish all fixed and movable assets (except certain retained assets) required to provide water delivery and sewerage services to the entire Boracay Island for a period of twenty-five (25) years commencing on January 1, 2010 until December 31, 2035, or the early termination date as the case may be. The legal title to all fixed assets contributed to the existing TIEZA system by Boracay Water during the concession remains with Boracay Water until the expiration date (or the early termination date) at which time all rights, titles and interest in such assets will automatically vest in TIEZA.

On January 1, 2010, Boracay Water officially took over the operations of the service area. Rehabilitation works for the service area commenced immediately thereafter. As provided in Boracay Water's project plans, operational commercial capacity will be attained upon completion of the rehabilitation works.

Under its concession agreement, Boracay Water is entitled to the following rate adjustments:

a. annual standard rate adjustment to compensate for increases in the consumer CPI;
b. EPA to account for the financial consequences of the occurrence of certain unforeseen events stipulated in the concession agreement; and
c. FCDA to recover foreign exchange losses including accruals and carrying costs thereof arising from TIEZA loans and any loans used for capital expenditures and concession fee payments (see Notes 2, 10 and 14).

These rate adjustments are subject to a rate adjustment limit which is equivalent to the sum of CPI published in the Philippines, EPA and Rebasing Convergence adjustment as defined in Boracay Water's concession agreement.

The rate rebasing date is set every five (5) years starting January 1, 2011. Hence, the first rate rebasing period commenced on January 1, 2010 and ended on December 31, 2010 and, in the case of subsequent rate rebasing periods, the period commencing on the last rate rebasing date and ending on December 31 of the fifth year thereafter.

In January 2016, Boracay Water implemented an increase of 8.18% comprising of rate rebasing adjustment of 6.97% and CPI of 1.21%. The downward FCDA adjustment of 14.34% was continuously implemented throughout the year.

On June 7, 2017, TIEZA approved the new water rates of Boracay Water, which is equivalent to an increase of 52.83% from its existing rate to be implemented on a staggered basis for a period of three (3) years with an increase of 30.14%, 11.99%, and 10.70% in 2017, 2018 and 2019, respectively. The first tranche of tariff increase was implemented on July 1, 2017.

On December 15, 2017, TIEZA approved Boracay Water's implementation of the second tranche of tariff increase of 15.53% effective January 1, 2018.

On August 1, 2018, TIEZA-RO approved the suspension of the 14.34% downward adjustment, which resulted to the implementation of 0.00% FCDA effective August 17, 2018.

On December 4, 2018, TIEZA approved Boracay Water's implementation of the third tranche of tariff increase equivalent to 18.08% of the basic water and sewer charge, inclusive of CPI, arising from its 2017 rate rebasing. Furthermore, a 3.00% increase shall be applied to the basic water and sewer charge to account for FCDA. The new rates shall take effect on January 1, 2019.

Boracay Water's concession agreement also provides a general rate setting policy for rates chargeable by Boracay Water for water and sewerage services as follows:

a. For the period through the second rate rebasing date (January 1, 2017), the maximum rates chargeable by Boracay Water (subject to interim adjustments) are set out in the concession agreement; and,
b. From and after the second rate rebasing date, the rates for water and sewerage services shall be set at a level that will permit Boracay Water to recover, over the twenty five (25)-year term of its concession, its investment including operating expenses, capital maintenance and investment incurred, Philippine business taxes and payments corresponding to debt service on the TIEZA loans incurred to finance such expenditures, and to earn a rate of return on these expenditures for the remaining term of the concession in line with the rates of return being allowed from time to time to operators of long-term infrastructure concession arrangements in other countries having a credit standing similar to that of the Philippines.

The maximum rates chargeable for such water and sewerage services shall be subject to general adjustment at five (5)-year intervals commencing on the second rate rebasing date, provided that the TIEZA may exercise its discretion to make a general adjustment of such rates.

Also, as part of the concession agreement, Boracay Water assumed certain property and equipment of Boracay Water Sewerage System (BWSS), as well as its outstanding loan from Japan International Cooperation Agency (JICA), considered as part of its TIEZA loans under the concession agreement, and regulatory costs.

As a result of the above terms of the concession agreement, Boracay Water recognized a total of ₱986.86 million service concession assets on commencement date. It includes the JICA loan assumed by Boracay Water, regulatory costs, construction costs for the improvement and expansion of the water and wastewater facilities and the advanced concession fees (see Note 10).

Clark Water's Concession Agreement with Clark Development Corporation (CDC)
On March 16, 2000, Vivendi Water Philippines, Inc., which subsequently changed its name to Veolia Water Philippines, Inc (VWPI), entered into a concession agreement with CDC, a government corporation organized and existing under Executive Order No. 80, series of 1993. The concession agreement sets out the terms and conditions under which VWPI will finance, design, construct, operate and maintain the water and sewerage system inside the Clark Freeport Zone (CFZ) commencing on October 1, 2000 and ending on the date falling twenty-five (25) years thereafter or as may be extended by the terms of the concession agreement. As the implementing arm of the Bases Conversion Development Authority and the regulatory and development body for the CFZ, CDC has the power and authority to regulate and monitor the performance and compliance of VWPI, or its assignee, with its obligations under the concession agreement.

On September 1, 2000, in accordance with the terms of the concession agreement, VWPI assigned its rights and obligations under the concession agreement to Clark Water by virtue of an assignment and assumption agreement between VWPI and Clark Water. As consideration for the grant of the concession and franchise to develop, operate and maintain the water and sewerage system within the CFZ, Clark Water pays CDC an annual franchise fee of ₱1.50 million. Any new construction, change, alteration, addition or improvement on the facilities is permitted to the extent allowed under the agreement with CDC or with the prior written consent of CDC. Legal title, free of all liens and encumbrances, to improvements made or introduced by Clark Water on the facilities as well as title to new facilities procured by Clark Water in the performance of its obligations under the concession agreement shall automatically pass to CDC on the date when the concession period expires or the date of receipt of a validly served termination notice, where in the latter case, subject to payment of the amount due as termination payments as defined in the concession agreement.

On September 29, 2000, CDC leased in favor of Clark Water the existing facilities in compliance with the condition precedent to the effectivity of and the respective obligations of Clark Water and CDC under the concession agreement. Under the lease agreement, Clark Water was required to make a rental deposit amounting to ₱2.77 million equivalent to six (6) months lease rental and a performance security amounting to ₱6.72 million to ensure the faithful compliance of Clark Water with the terms and conditions of the lease agreement. Clark Water pays semi-annual rental fees of ₱2.77 million amounting to a total of ₱ 138.28 million for the entire concession period. The lease term shall be co-terminus with the concession period, unless sooner terminated for any of the reasons specified in the concession agreement.

On August 15, 2014, Clark Water and CDC signed an amendment agreement to the concession agreement dated March 16, 2000. The amendment provides for the following:

a. extension of the original concession period for another fifteen (15) years up to October 1, 2040;
b. additional investment of ₱4.00 billion over the remaining life of the extended concession period, provided under the amended concession agreement, to be spent for further improvement and expansion of water and waste water services in the area. Investment requirement under the original concession agreement amounted to ₱3.00 billion and the amended concession agreement required an additional investment of ₱2.00 billion. Initial investment prior to the amendment of the concession agreement amounted to ₱1.00 billion.
c. introduction of a rate rebasing mechanism for every four (4) years starting 2014.
d. reduction in tariff rates by 3.9% (from ₱25.63/m^3 to ₱24.63/m^3) effective September 1, 2014, subject to the EPA; and
e. increase in tariff rates by:
    i. ₱0.41/m3 (from 24.63/m^3 to ₱25.04/m^3) in 2018;
    ii. ₱0.42/m3 (from ₱25.04/m^3 to ₱25.45/m^3) in 2019;
    iii. ₱0.42/m3 (from ₱25.45/m^3 to ₱25.87/m^3) in 2020; and
    iv. ₱0.43/m3 (from ₱25.87/m^3 to ₱26.30/m^3) in 2021.

As a result of the extension of the concession period, service concession assets and service concession obligation as of August 15, 2014 increased by ₱56.58 million. Further, the recovery period of the Clark Water's investment was extended by another fifteen (15) years from 2025 to 2040.

On May 26, 2017, Clark Water submitted its proposed 2018 rate rebasing plan following the four (4)-year rebasing period stated in the concession agreement. As of December 31, 2018, the rate rebasing is still ongoing.

MW Consortium Agreement with the Provincial Government of Cebu (PGC)
On March 21, 2012, MW Consortium signed a joint investment agreement with the PGC for the formation of a joint venture company with 51.00% and 49.00% equity participation for MW Consortium and the PGC, respectively. Under the joint investment agreement, the parties agreed to develop and operate a bulk water supply system that will supply 35.0 million liters of water per day to target areas in the province of Cebu with the joint venture company serving as a bulk water supplier. The term of the agreement is thirty (30) years starting March 2012 and renewable for another twenty-five (25) years. MW Consortium and the PGC incorporated Cebu Water, with an ownership of 51.00% and 49.00%, respectively, pursuant to the joint investment agreement.

On December 13, 2013, Cebu Water received a Notice of Award for the bulk supply of water to the Metropolitan Cebu Water District (MCWD). On December 18, 2013, Cebu Water and MCWD signed a twenty (20)-year Bulk Water Supply Contract for the supply of 18 million liters per day of water for the first year and 35.0 million liters per day of water for years two (2) up to twenty (20). Cebu Water delivered its initial 18.0 million liters per day bulk water supply to MCWD on January 5, 2015. Cebu Water increased its bulk water delivery to 35.0 million liters per day in 2016.

JVA for Non-revenue Water (NRW) Reduction Activities with Zamboanga City Water District (ZCWD)
On December 19, 2014, the Parent Company received a notice from the ZCWD awarding the project for NRW reduction in Zamboanga City, Zamboanga. On January 30, 2015, the Parent Company and ZCWD signed and executed a JVA in relation to the NRW reduction project in Zamboanga City. On April 10, 2015, the Parent Company and ZCWD incorporated Zamboanga Water to implement the NRW project.

On June 2, 2015, Zamboanga Water entered into a NRW Service Agreement (NRWSA) with ZCWD. Under the NRWSA, ZCWD grants Zamboanga Water the right to implement Network Restructuring and NRW Reduction Programs for ZCWD's water distribution system.

Bulk Water Supply Agreements between Davao Water and Tagum Water District (TWD)
On July 28, 2015, TWD awarded the Tagum City Bulk Water Supply Project (the "Tagum Bulk Water Project") to Davao Water, a consortium of the Parent Company and iWater, Inc.

On October 15, 2015, Davao Water has signed and executed a Joint Venture Agreement (JVA) with TWD. The JVA governs the relationship of Davao Water and TWD as joint venture partners in the Tagum Bulk Water Project. Pursuant to the JVA, Davao Water and the TWD caused the incorporation of a joint venture company, namely, Tagum Water, which shall implement the Tagum Bulk Water Project for fifteen (15) years from the Operations Start Date as defined in the JVA.

The consortium of Davao Water owns 90.00%, while TWD owns 10.00% of Tagum Water's outstanding capital stock. Tagum Water was registered with the SEC on December 15, 2015 and its primary purpose is to develop, construct, operate and maintain the bulk water supply facilities, including the development of raw surface water sources, water treatment, delivery and sale of treated bulk water exclusively to TWD.

On February 26, 2016, Tagum Water and TWD signed and executed a Bulk Water Sales and Purchase Agreement for the supply of bulk water to TWD for a period of fifteen (15) years from the Operations Start Date.

MWPV's Memorandum of Agreement (MOA) with Ayala Land Inc. (ALI)
On January 15, 2016, MWPV entered into a MOA with ALI and its subsidiaries (collectively, the ALI Group), whereby MWPV shall exclusively provide water and used water services and facilities to all property development projects of the ALI Group.

Aqua Centro's MOA with the SM Group
On December 8, 2016, MWPV entered into MOAs with each of SM Prime Holdings Inc.'s and the latter's affiliates and subsidiaries, SM Development Corporation and SM Residences Corp. (collectively, the SM Group). Pursuant to the MOA, MWPV will provide the water and/or used water services and facilities to the property development projects of the SM Group identified in each of the MOA.

On October 5, 2017, Aqua Centro was incorporated to handle property development projects, other than those within the ALI Group, by engaging in the development, improvement, maintenance, and expansion of water, sewerage, wastewater, and drainage facilities, and provide services necessary or incidental thereto.

On December 28, 2017, MWPV entered into a Novation Agreement with the SM Group and Aqua Centro to transfer its rights, duties and obligations to provide water and/or used water services and facilities to the property development projects of the SM Group to Aqua Centro, effective from the inception of the MOA.

As of December 31, 2018 and 2017, Aqua Centro has six (6) and four (4) signed MOAs with the SM Group, respectively. MWPV has one (1) signed MOA with SM Group as of December 31, 2018 and 2017.

Calasiao Water's Concession Agreement with Calasiao Water District (CWD)
On December 9, 2016, the Parent Company received a Notice of Award from CWD for the implementation of the joint venture project for the design, construction, rehabilitation, maintenance, operation, financing, expansion and management of the water supply system of CWD in Calasiao, Pangasinan.

On June 19, 2017, the Parent Company signed a JVA with CWD which will govern the relationship of the two in undertaking the joint venture project. Under the JVA, the Parent Company and CWD shall cause the incorporation of a joint venture company where the Parent Company and CWD shall own 90.00% and 10.00%, respectively, of the outstanding capital stock.

On August 2, 2017, the SEC approved the incorporation of Calasiao Water Company, Inc.

On October 23, 2017, Calasiao Water and CWD signed and executed a concession agreement. Under the concession agreement, the CWD grants Calasiao Water, (as contractor to perform certain functions and as agent for the exercise of certain rights and powers under Presidential Decree No. 564) the sole right to develop, manage, operate, maintain, repair, decommission, and refurbish all fixed and movable assets (except certain retained assets) required to provide water delivery in the entire Municipality of Calasiao for a period of twenty-five (25) years commencing on December 29, 2017 (the Commencement Date) until December 29, 2042 (the Expiration Date) or the early termination date as the case may be. While Calasiao Water has the right to manage, operate, repair, and refurbish specified CWD facilities in the service area, legal title to these assets remains with the CWD. The legal title to all fixed assets contributed to the existing CWD system by Calasiao Water during the concession remains with Calasiao Water until the Expiration Date (or the early termination date) at which time all rights, titles and interest in such assets will automatically vest in CWD.

Under the concession agreement, in the event that one or more grounds for EPA has occurred or is expected to occur, an appropriate price adjustment to be applied to the tariff or an appropriate adjustment to the service obligations of the concessionaire will be determined by the CWD.

The ground for EPA means any of the following circumstances:

a. change in law or change in the interpretation of the terms of the concession agreement;
b. extraordinary cost incurred due to prolonged force majeure;

c. a material change has been made to the basis of calculation or definition of the CPI or replacement index agreed; or
d. the concessionaire has incurred significant additional costs as a result of an event of force majeure which are not covered by insurance.

MWPV Asset Purchase Agreement (APA) with Asian Land Strategies Corporation (Asian Land) and Incorporation of BMDC
On January 4, 2017, MWPV entered into an APA with Asian Land to acquire and operate the latter's assets used in the water business operations in Asian Land's developments in the province of Bulacan. The intention of MWPV was to assign the rights under the APA to its wholly owned subsidiary upon its incorporation.

On April 11, 2017, BMDC was incorporated to design, construct, rehabilitate, maintain, operate, finance, expand, and manage water supply system and sanitation facilities. BMDC is the ultimate entity that will own and operate the assets acquired from Asian Land.

On July 31, 2017, MWPV assigned all its rights and obligations on the APA to BMDC, a wholly-owned subsidiary of MWPV, under a Deed of Assignment. On the same day, the Deed of Absolute Sale was also executed between Asian Land and BMDC (see Note 4).

Obando Water's Concession Agreement with Obando Water District (OWD)
On January 24, 2017, the consortium of the Parent Company and MWPV received the Notice of Award from OWD for the implementation of the joint venture project for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply system and sanitation facilities of OWD in Obando, Bulacan.

On February 2, 2017, Obando Water Consortium Holdings Corp. (now Filipinas Water) was registered with the SEC. Filipinas Water is the consortium between the Parent Company and MWPV with an equity share of 49.00% and 51.00%, respectively. The primary purpose of Filipinas Water is to engage in the business of a holding company without acting as stockbroker or dealer in securities.

On July 26, 2017, Filipinas Water signed and executed a JVA with OWD. The JVA governs the relationship of Filipinas Water and OWD as joint venture partners in the Obando Water Concession Project (the "Obando Concession Project").
On October 10, 2017, Obando Water was incorporated. Obando Water is 90% and 10% owned by Filipinas Water and OWD, respectively.

On October 12, 2017, Obando Water and OWD signed and executed a concession agreement without the necessity for another bidding and subject to mutual agreement by Obando Water and the OWD. Under the concession agreement, OWD grants Obando Water, (as contractor to perform certain functions and as agent for the exercise of certain rights and powers under Presidential Decree No. 564), the sole right to manage, operate, maintain, repair, refurbish, and expand the fixed and movable assets required to provide water and sanitation services in the entire Municipality of Obando for a period of twenty five (25) years commencing on January 1, 2018 (the Commencement Date) until January 1, 2043 (the Expiration Date) or the early termination date, as the case may be.

The initial water tariff, exclusive of value-added tax (VAT) and/or any applicable tax, to be charged to the customers for the first three (3) years of the concession agreement shall be based on the 2005 Local Water Utilities Administration (LWUA) approved tariff table of OWD. Under the concession agreement, in the event that one or more grounds for EPA has occurred or is expected to occur, an appropriate price adjustment to be applied to the tariff or an appropriate adjustment to the service obligations of the concessionaire will be determined by OWD.

The grounds for EPA means any of the following circumstances:

a. change in law or change in the interpretation of the terms of the concession agreement;
b. extraordinary cost incurred due to prolonged force majeure;
c. a material change has been made to the basis of calculation or definition of the CPI or replacement index agreed;
d. change in assumptions at the time of the execution of the concession agreement; or
e. the concessionaire has incurred significant additional costs as a result of an event of force majeure which are not covered by insurance.

BMDC APA with Solar Resources, Inc. (Solar Resources)
On July 26, 2017, BMDC entered into an APA with Solar Resources to acquire and operate the latter's assets used in the water business operations in Solar Resources developments in the province of Bulacan.

On the same day, Solar Resources executed a Deed of Absolute Sale to sell and transfer its properties pertaining to water facilities and its operations in the Las Palmas Subdivisions Phases 1 to 7 to BMDC (see Note 4).

BMDC APA with Borland Development Corporation (Borland)
On December 14, 2017, BMDC and Borland executed the APA, Deed of Assignment, and Deed of Absolute Sale between the parties for the sale, assignment, transfer, and conveyance of Borland's assets pertaining to water facilities and its operation in San Vicente Homes subdivision in Bulacan (see Note 4).

Notice of Award from Leyte Metropolitan Water District (LMWD)
On December 6, 2017, the Parent Company received the Notice of Award from LMWD for the implementation of the joint venture project (the "Leyte Project") for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply and sanitation facilities and services of LMWD in the Province of Leyte.

The conditions precedent specified in the Notice of Award include the incorporation of a special purpose vehicle (SPV) which will implement the Leyte Project under a contractual joint venture with LMWD.

Upon completion of the conditions precedent specified in the Notice of Award, the SPV and LMWD shall enter into a JVA that will grant the SPV, as contractor, to perform certain functions and as agent for the exercise of, the sole and exclusive right to manage, operate, maintain, repair, refurbish and improve, expand and as appropriate, decommission, the facilities of LMWD in its Service Area, including the right to bill and collect tariff for the provision of water supply and sanitation services in the Service Area of LMWD.

LMWD's service area covers the City of Tacloban and seven other municipalities namely Palo, Tanauan, Dagami, Tolosa, Pastrana, TabonTabon, and Santa Fe.

MWPV JVA with Tubig Pilipinas Group, Inc. (TPGI)
On December 11, 2017, the Municipality of Malasiqui granted a franchise to MWPV and TPGI for the implementation of a joint venture project to establish, construct, operate, manage, repair, and maintain water supply and wastewater system and facilities in the municipality of Malasiqui, Pangasinan. The franchise has a term of twenty-five (25) years from the commencement date.

On February 20, 2018, the board of directors of MWPV approved the creation of a SPV for this project.

On November 16, 2018, MWPV has signed and executed a JVA with TPGI. Under the agreement, MWPV and TPGI shall incorporate a joint venture company, with 50% and 50% ownership, respectively, which shall implement the project.

MWPV Lease Agreement with the Philippine Economic Zone Authority (PEZA)
On December 18, 2017, MWPV signed a twenty-five (25) year lease agreement with PEZA. Pursuant to the agreement, MWPV will lease, operate, and manage the water and used water facilities of PEZA in the Cavite Special Economic Zone for the provision of water and used water services to the locators therein. MWPV shall apply its expertise in the industrial zones operations and shall provide capital expenditures for the duration of the agreement. The Cavite Special Economic Zone is a 275-hectare industrial estate with 297 locators consuming approximately 350,000 cubic meters per month or 12.0 million liters per day.

Notice of Award from Ilagan City Water District (ICWD) and JVA with ICWD
On January 26, 2018, the Parent Company and MWPV (collectively the "Consortium") received the Notice of Award from ICWD for the implementation of the joint venture project for the development, financing, operation and management of a raw water source, provision of bulk water supply with system expansion, and the development of septage management in Ilagan City, Isabela (the "Ilagan Project").

On November 16, 2018, the Consortium signed and executed a JVA with the ICWD. Under the JVA, the Consortium and ICWD shall incorporate a joint venture company, with 90.00% and 10.00% ownership, respectively, which shall implement the Ilagan Project.

Upon completion of conditions precedent set out in the JVA, the joint venture company will consequently enter into a Bulk Water Sales and Purchase Agreement and Septage Management Agreement with ICWD for the implementation of the Ilagan Project for twenty-five (25) years from the commencement date.

Share Purchase Agreement (SPA) with Electricity Generating Public Company Limited (EGCO)
On February 19, 2018, the Parent Company signed a SPA with EGCO to acquire EGCO's 18.72% equity in Eastern Water Resources Development and Management Public Company Limited (East Water). East Water is a publicly listed company whose shares are traded in the Stock Exchange of Thailand. It is engaged in the provision of raw water and tap water since 1992 in the eastern seaboard of Thailand.

On March 5, 2018, MWTC entered into a one-year term facility agreement with Mizuho Bank, Ltd., Bangkok Branch (Mizuho Bangkok), whereby Mizuho Bangkok extended credit to MWTC for THB5.30 billion to finance MWTC's acquisition of shares in East Water (see Note 14).

On March 14, 2018, MWTC acquired 311,443,190 ordinary shares in East Water representing 18.72% equity of East Water (see Note 11).

SPA with PT. Triguna Rapindo Mandiri
On March 6, 2018, PTMWI signed a SPA with PT. Triguna Rapindo Mandiri to acquire 4,478 shares of PT. Sarana Tirta Ungaran (PT STU) which allowed PTMWI to own twenty percent (20%) of the outstanding capital stock of PT STU (see Note 11).

PT STU is a bulk water supply company servicing PDAM Kabupaten Semarang and industrial customers in Bawen, located in Ungaran area of Semarang Regency, Central Java Province, with a capacity of 21.5 million liters per day.

Notice of Award from Balagtas Water District (BWD)
On April 25, 2018, the Parent Company and MWPV (collectively the "Consortium") received the Notice of Award from BWD for the implementation of a joint venture project for the design, construction, rehabilitation, maintenance, operation, financing, expansion and management of the water supply system and sanitation facilities of BWD in the municipality of Balagtas, Bulacan.

Notice of Award from Bulacan Water District (BuWD) and JVA with BuWD
On April 30, 2018, the Parent Company and MWPV (collectively the "Consortium") received the Notice of Award from BuWD for the implementation of a joint venture project for the design, construction, rehabilitation, maintenance, operation, financing, expansion and management of the water supply system and sanitation facilities of the BuWD in the Municipality of Bulacan in Bulacan.

On August 16, 2018, Filipinas Water signed and executed a JVA with the BuWD. Under the JVA, Filipinas Water and BuWD shall incorporate a joint venture company, with 90.00% and 10% ownership, respectively, which shall be granted a concession by BuWD for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply system and sanitation facilities of the BuWD in the municipality of Bulacan. On October 16, 2018, the joint venture company was incorporated and was registered with the SEC under the name of Bulakan Water Company, Inc.

Notice to Proceed from the Municipality of Sta. Barbara, Pangasinan
On June 14, 2018, MWPV received a Notice to Proceed from the municipality of Sta. Barbara, Pangasinan following the enactment of the municipality's ordinance granting a franchise to MWPV for the provision of water supply and the improvement, operation, maintenance, management, financing, and expansion of water supply facilities, and the provision of septage management in Sta. Barbara.

The franchise shall be for a term of twenty-five (25) years and is expected to be operational by 2019.

Notice of Award from Pagsanjan Water District (PAGWAD)
On July 12, 2018, Laguna Water received the Notice of Award from PAGWAD for the implementation of the contractual joint venture project for the design, improvement, upgrade, rehabilitation, and expansion of water supply and sanitation facilities including the financing and construction of such facilities and infrastructure in the service area of the PAGWAD, and the management, operation, and maintenance of such water supply and sanitation facilities and the provision of the services necessary or incidental thereto in the PAGWAD's service area.

Incorporation of EcoWater
On July 27, 2018, MWPV incorporated EcoWater MWPV Corp. which will eventually handle the Lease Agreement for the Operations and Management of the Water and Used Water Facilities of PEZA in Cavite Economic Zone (CEZ) (see Note 20). Out of 75.00 million subscribed shares, 25.00 million shares at ₱1.00 par value or ₱25.00 million was initially paid by MWPV for the 100.00% equity interest.

Notice of Award from Tanauan Water District
On October 12, 2018, MWPV received the Notice of Award from Tanauan Water District for the implementation of the joint venture project for the design, improvement, upgrade, rehabilitation, and expansion of water supply and sanitation facilities including the financing and construction of such facilities and infrastructure in the service area of Tanauan Water District, and the management, operation, and maintenance of such water supply and sanitation facilities and the provision of the services necessary or incidental thereto in Tanauan Water District's service area.

Notice to Proceed from the Municipality of San Fabian, Pangasinan
On October 15, 2018, MWPV received a Notice to Proceed from the municipality of San Fabian, Pangasinan following the enactment of the municipality's ordinance granting a franchise to MWPV to establish, construct, operate, manage, repair, and maintain water supply system and facilities, and the provision of septage management in the municipality of San Fabian, Pangasinan.

The franchise shall be for a term of twenty-five (25) years and is expected to be operational by 2019.

Notice of Award from Lambunao Water District
On November 27, 2018, the Parent Company received a Notice of Award from Lambunao Water District for a joint venture for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply system of Lambunao Water District in the Municipality of Lambunao, Iloilo.

Upon completion of conditions precedent specified in the notice, the Parent Company and Lambunao Water District shall enter into a JVA for the implementation of the joint venture activity of which shall be undertaken by Aqua Centro.

Notice of Award from Calinog Water District
On November 27, 2018, the Parent Company received a Notice of Award from Calinog Water District for a joint venture for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply system of Calinog Water District in the Municipality of Calinog, Iloilo.

Upon completion of conditions precedent specified in the notice, the Parent Company and Calinog Water District shall enter into a JVA for the implementation of the joint venture activity of which shall be undertaken by Aqua Centro.

Aqua Centro and Laguna Water APAs with Extraordinary Development Corporate Group (EDCG)
On December 11, 2018, Aqua Centro entered into seven (7) APAs with EDCG's subsidiaries to acquire the subsidiaries' assets related to the provision of water service in ten (10) subdivisions in Imus, General Trias, and Naic in the province of Cavite. These subsidiaries are Earth Aspire Corporation, First Advance Development Corporation, Ambition Land Inc., Prosperity Builders Resources Inc., Tahanang Yaman Homes Corporation, Extraordinary Development Corp., and Earth + Style Corporation.

As of December 31, 2018, Aqua Centro has already started operations in six (6) out of the ten (10) subdivisions. Aqua Centro shall operate in the remaining subdivisions once all the conditions precedent under the APAs have been fulfilled.

On December 11, 2018, Laguna Water entered into four (4) APAs with EDCG's subsidiaries to acquire the subsidiaries' assets related to or used in its water service provision operations in Biñan, Laguna. The APAs are with the following EDCG subsidiaries, namely, Earth Aspire Corporation, Earth Prosper Corporation, Earth and Style Corporation and Extraordinary Development Corp.

Notice of Award from San Jose City Water District
On December 21, 2018, the consortium of MWPV and TPGI received a Notice of Award from San Jose City Water District (SJCWD) for the implementation of the joint venture project for the design, construction, improvement, upgrade, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply system and the provision of water and sanitation services of SJCWD in San Jose City, Nueva Ecija.

Upon the completion of the conditions precedent specified in the notice of award, the consortium partners and the water district would enter into a JVA that will grant them as contractor to perform certain functions and as agent for the exercise of its right and powers, the sole right to develop, manage, operate, maintain, repair, refurbish and improve, expand and as appropriate, decommission, the facilities in the service area, including the right to bill and collect tariff for water and sanitation services supplied in the service area of SJCWD.

Notice of Award from Calbayog City Water District
On December 27, 2018, the Parent Company received the Notice of Award from Calbayog City Water District for the implementation of the joint venture project for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water and wastewater systems of Calbayog City Water District in the Calbayog City, as well as other areas which may eventually form part of the service coverage of the Calbayog City Water District in the Province of Samar.

Upon completion of the conditions precedent specified in the notice, the Parent Company shall enter into a JVA with the Calbayog City Water District for the implementation of the joint venture project over a twenty-five (25)-year contract period.

Approval for the Issuance of the Consolidated Financial Statements
The BOD approved and authorized the issuance of the consolidated financial statements on February 26, 2019.

2. Summary of Significant Accounting Policies

Basis of Preparation
The consolidated financial statements of the Group have been prepared using the historical cost basis. The Parent Company's presentation and functional currency is the Philippine Peso (₱, Peso, or PHP). Amounts are rounded off to the nearest Peso, except otherwise stated. The consolidated financial statements of the Group provide comparative information in respect of the previous periods.

Statement of Compliance
The consolidated financial statements of the Group have been prepared in compliance with Philippine Financial Reporting Standards (PFRS).

Basis of Consolidation
The consolidated financial statements comprise the financial statements of the Group as of December 31, 2018 and 2017, and for each of the three years in the period ended December 31, 2018.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Assets, liabilities, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated financial statements from the date the Group gains control until the date the Group ceases to control the subsidiary.

Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Specifically, the Group controls an investee if and only if the Group has:

a. power over the investee (i.e. existing rights that give it the current ability to direct the relevant activities of the investee);
b. exposure, or rights, to variable returns from its involvement with the investee; and
c. the ability to use its power over the investee to affect its returns.

Generally, there is a presumption that a majority of voting rights result in control.

When the Group has less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

a. the contractual arrangement with the other vote holders of the investee;
b. rights arising from other contractual arrangements; and
c. the Group's voting rights and potential voting rights.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control.

Profit or loss and each component of other comprehensive income (OCI) are attributed to the equity holders of the parent of the Group and to the noncontrolling interests, even if this results in the noncontrolling interests having a deficit balance. When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies in line with the Group's accounting policies. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. If the Group loses control over a subsidiary, it:

a. derecognizes the assets (including goodwill) and liabilities of the subsidiary;
b. derecognizes the carrying amount of any noncontrolling interests;
c. derecognizes the cumulative translation differences recorded in equity;
d. recognizes the fair value of the consideration received;
e. recognizes the fair value of any investment retained;
f. recognizes any surplus or deficit in profit or loss; and
g. reclassifies the parent's share of components previously recognized in OCI to profit or loss or retained earnings, as appropriate, as would be required if the Group had directly disposed of the related assets or liabilities.

Changes in Accounting Policies and Disclosures

The accounting policies adopted in the preparation of the consolidated financial statements are consistent with those of the previous financial years, except for the PFRS, amended PFRS and improvements to PFRS which were adopted as of January 1, 2018. Unless otherwise stated, the new standards and amendments did not have any material impact to the Group.

a. Amendments to PFRS 2, *Share-based Payment, Classification and Measurement of Share-based Payment Transactions*

The amendments to PFRS 2 address three main areas: the effects of vesting conditions on the measurement of a cash-settled share-based payment transaction; the classification of a share-based payment transaction with net settlement features for withholding tax obligations; and the accounting where a modification to the terms and conditions of a share-based payment transaction changes its classification from cash settled to equity settled.

The Group's accounting policy for cash-settled share-based payments is consistent with the approach clarified in the amendments. In addition, the Group has no share-based payment transaction with net settlement features for withholding tax obligations and has not made any modification to the terms and conditions of its share-based payment transactions. Therefore, these amendments do not have any impact on the Group's consolidated financial statements.

b. PFRS 9, *Financial Instruments*

PFRS 9, *Financial Instruments*, replaces Philippine Accounting Standards (PAS) 39, *Financial Instruments: Recognition and Measurement*, for annual periods beginning on or after January 1, 2018, bringing together all three aspects of the accounting for financial instruments: classification and measurement; impairment and hedge accounting.

The Group adopted PFRS 9 prospectively, with an initial application date as of January 1, 2018. The Group has not restated comparative information for the year ended December 31, 2017, which was reported under PAS 39. The adoption of PFRS 9 did not result to differences requiring adjustment to the Group's opening retained earnings.

i. Classification and measurement

Under PFRS 9, debt instruments are subsequently measured at fair value through profit or loss (FVPL), amortized cost, or fair value through OCI (FVOCI). The classification is based on two criteria: the Group's business model for managing the assets; and whether the instruments' contractual cash flows represent 'solely payments of principal and interest' on the principal amount outstanding.

The assessment of the Group's business model was made as of the date of initial application, January 1, 2018. The assessment of whether contractual cash flows on debt instruments are solely comprised of principal and interest was made based on the facts and circumstances as at the initial recognition of the assets.

The classification and measurement requirements of PFRS 9 did not have a significant impact to the Group. All financial assets held at amortized costs under PAS 39 continues to be measured at amortized costs and are classified and measured as debt instruments at amortized cost beginning January 1, 2018. Also, the adoption of PFRS 9 did not have a material impact on the Group's other comprehensive income and its operating, investing, and financing cash flows.

In summary, upon the adoption of PFRS 9, the Group had the following required or elected reclassifications for financial assets:

	At January 1, 2018	
	PAS 39 Carrying Value	PFRS 9 At Amortized Cost
PAS 39 measurement category:		
Loans and receivables		
Cash and cash equivalents	₱9,020,744,089	₱9,020,744,089
Receivables	1,848,352,530	1,848,352,530
Concession financial receivable	1,177,597,647	1,177,597,647

The Group has not designated any financial assets or liabilities as at FVPL. The adoption has no impact on the classification and measurement of the Group's financial liabilities.

ii. Impairment

The adoption of PFRS 9 has changed the Group's accounting for impairment losses for financial assets by replacing PAS 39's incurred loss approach with a forward-looking expected credit loss (ECL) approach. PFRS 9 requires the Group to recognize an allowance for ECLs for all debt instruments not held at FVPL and contract assets. The Group has applied the simplified approach and recorded lifetime ECLs on all trade receivables. Adoption of ECL approach under PFRS 9 did not result to changes in the impairment loss allowance to the Group's financial assets as of January 1, 2018.

iii. Hedge accounting

Under PAS 39, all gains and losses arising from the Group's cash flow hedging relationships were eligible to be subsequently reclassified to profit or loss. However, under PFRS 9, gains and losses arising on cash flow hedges of forecast purchases of non-financial assets need to be incorporated into the initial carrying amounts of the non-financial assets. This change is not applicable to the Group because it does not have cash flow hedging arrangements.

c. Amendments to PFRS 4, *Insurance Contracts, Applying PFRS 9, Financial Instruments, with PFRS 4*

The amendments address concerns arising from implementing PFRS 9, the new financial instruments standard before implementing the new insurance contracts standard. The amendments introduce two options for entities issuing insurance contracts: a temporary exemption from applying PFRS 9 and an overlay approach. The temporary exemption is first applied for reporting periods beginning on or after January 1, 2018. An entity may elect the overlay approach when it first applies PFRS 9 and apply that approach retrospectively to financial assets designated on transition to PFRS 9. The entity restates comparative information reflecting the overlay approach if, and only if, the entity restates comparative information when applying PFRS 9.

The amendments are not applicable to the Group since none of the entities within the Group have activities that are predominantly connected with insurance nor does the Group issue insurance contracts.

d. PFRS 15, *Revenue from Contracts with Customers*

PFRS 15 supersedes PAS 11, *Construction Contracts*, PAS 18, *Revenue*, and related Interpretations and it applies, with limited exceptions, to all revenue arising from contracts with its customers. PFRS 15 establishes a five-step model to account for revenue arising from contracts with customers and requires that revenue be recognized at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer.

PFRS 15 requires entities to exercise judgment, taking into consideration all of the relevant facts and circumstances when applying each step of the model to contracts with their customers. The standard also specifies the accounting for the incremental costs of obtaining a contract and the costs directly related to fulfilling a contract. In addition, the standard requires extensive disclosures.

The Group adopted PFRS 15 using the modified retrospective method of adoption with January 1, 2018 as the date of initial application. Under this method, the standard can be applied either to all contracts at the date of initial application or only to contracts that are not completed at this date. The Group elected to apply the standard to all contracts as at January 1, 2018.

Before the adoption of PFRS 15, the Group has been recognizing revenue from connection fee when the customer is connected to the Group's water or sewer network. Under PFRS 15, the connection fee and the related water and sewer services are accounted for as arising from a single performance obligation that will be satisfied over the period when the related services are expected to be provided. Accordingly, connection fees previously recognized for all active water service connections will have to be recognized over time. Management invoked the impracticability of retrospective restatement under PAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors*, and has accounted for the change in accounting for connection fees prospectively starting on the date of initial application as allowed under PAS 8 (see Note 3).

The adoption of PFRS 15 did not result to differences requiring adjustment to the Group's opening retained earnings. The comparative information was not restated and continues to be reported under PAS 11, PAS 18, and related Interpretations.

The effect of adopting PFRS 15 in the consolidated statements of financial position as at January 1, 2018 is as follows:

	Reference	Increase (Decrease)
Assets:		
Receivables	(a)	(₱195,463,293)
Contract assets - current portion	(a)	195,463,293
Total current assets		–
Contract assets - net of current portion	(a), (b)	258,970,410
Concession financial receivable - net of current portion	(b)	(206,953,634)
Other noncurrent assets	(a)	(52,016,776)
Total noncurrent assets		–
Total assets		₱–

The adoption of PFRS 15 did not have a material impact on total liabilities, total comprehensive income, and the Group's operating, investing, and financing cash flows.

The nature of the adjustments as at January 1, 2018 and the reasons for the significant changes in the consolidated statement of financial position as at December 31, 2018 are described below:

a. Accrued receivable for supervision fees and for performance fees – before the adoption of PFRS 15, the Group recognized receivables even if the receipt of the total consideration was conditional on the final acceptance and milestone completion of the related services. Under PFRS 15, any earned consideration that is conditional should be recognized as a contract asset rather than a receivable. Therefore, upon the adoption of PFRS 15, the Group reclassified ₱244.31 million (inclusive of the noncurrent portion amounting to ₱52.02 million) from "Receivables" to "Contract assets" as at January 1, 2018.

b. Concession financial receivables – before the adoption of PFRS 15, the Group recognized revenue from rehabilitation works and finance income earned during the construction phase as concession financial receivable. Under PFRS 15, during the construction phase, any amount earned is classified as a contract asset. Contract assets are derecognized when construction is completed, and the consideration to be received is recognized as concession financial receivable. Therefore, upon the adoption of PFRS 15, the Group reclassified ₱206.95 million from "Concession financial receivables" to "Contract assets" as at January 1, 2018.

There were no adjustments made to the consolidated statement of comprehensive income for the year ended December 31, 2018.

e. Amendments to PAS 28, *Investments in Associates and Joint Ventures, Measuring an Associate or Joint Venture at Fair Value* (Part of *Annual Improvements to PFRSs* 2014 - 2016 Cycle)

The amendments clarify that an entity that is a venture capital organization, or other qualifying entity, may elect, at initial recognition on an investment-by-investment basis, to measure its investments in associates and joint ventures at fair value through profit or loss. They also clarify that if an entity that is not itself an investment entity has an interest in an associate or joint venture that is an investment entity, the entity may, when applying the equity method, elect to retain the fair value measurement applied by that investment entity associate or joint venture to the investment entity associate's or joint venture's interests in subsidiaries. This election is made separately for each investment entity associate or joint venture, at the later of the date on which (i) the investment entity associate or joint venture is initially recognized; (ii) the associate or joint venture becomes an investment entity; and (iii) the investment entity associate or joint venture first becomes a parent. Retrospective application is required.

The amendments are not applicable to the Group as the Group does not include an entity that is considered as a venture capital organization or other qualifying entity under the amendments.

f. Amendments to PAS 40, *Investment Property, Transfers of Investment Property*

The amendments clarify when an entity should transfer property, including property under construction or development into or out of investment property. The amendments state that a change in use occurs when the property meets, or ceases to meet, the definition of investment property and there is evidence of the change in use. A mere change in management's intentions for the use of a property does not provide evidence of a change in use. The amendments should be applied prospectively to changes in use that occur on or after the beginning of the annual reporting period in which the entity first applies the amendments. Retrospective application of the amendments is not required and is only permitted if this is possible without the use of hindsight.

The amendments are not applicable to the Group as the Group does not have assets classified as investment property.

g. Philippine Interpretation IFRIC 22, *Foreign Currency Transactions and Advance Consideration*

The interpretation clarifies that, in determining the spot exchange rate to use on initial recognition of the related asset, expense or income (or part of it) on the derecognition of a non-monetary asset or non-monetary liability relating to advance consideration, the date of the transaction is the date on which an entity initially recognizes the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, then the entity must determine a date of the transactions for each payment or receipt of advance consideration. Entities may apply the amendments on a fully retrospective basis. Retrospective application of this interpretation is not required.

The interpretation did not have any significant impact on the Group's consolidated financial statements.

h. Philippine Interpretation Committee (PIC) Question and Answer (Q&A) 2018-15, PAS 1 – *Classification of Advances to Contractors in the Nature of Prepayments: Current vs. Noncurrent*

Upon the adoption of PIC Q&A 2018-15, advances to contractors and suppliers that have been previously presented under current assets were reclassified to noncurrent assets. Before the adoption of PIC Q&A 2018-15, the classification of the Group is based the timing of application of these advances against billings and timing of delivery of goods and services. This interpretation aims to classify the prepayment based on the actual realization of such advances based on the determined usage or realization of the asset to which it is intended for (e.g. inventory, investment property, property plant and equipment).

The Group adopted PIC Q&A 2018-15 starting January 1, 2018. The impact adoption is applied retrospectively which resulted to the decrease in other current assets and increase in other noncurrent assets by ₱940.65 million as of December 31, 2017. The adoption of the PIC also resulted to an increase in cash flows from operating activities and corresponding decrease in cash flows from investing activities amounting to ₱46.64 million and ₱316.04 million for the years ended 2017 and 2016, respectively.

Future Changes in Accounting Policies

Pronouncements issued but not yet effective are listed below. Unless otherwise indicated, the Group does not expect that the future adoption of the said pronouncements will have a significant impact on its consolidated financial statements. The Group intends to adopt the following pronouncements when they become effective.

Effective beginning on or after January 1, 2019

a. Amendments to PFRS 9, *Prepayment Features with Negative Compensation*

Under PFRS 9, a debt instrument can be measured at amortized cost or FVOCI, provided that the contractual cash flows are 'solely payments of principal and interest on the principal amount outstanding' (the SPPI criterion) and the instrument is held within the appropriate business model for that classification. The amendments to PFRS 9 clarify that a financial asset passes the SPPI criterion regardless of the event or circumstance that causes the early termination of the contract and irrespective of which party pays or receives reasonable compensation for the early termination of the contract. The amendments should be applied retrospectively and are effective from January 1, 2019, with earlier application permitted.

The amendments are not expected to have any significant impact on the consolidated financial statements.

b. PFRS 16, *Leases*

PFRS 16 sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model similar to the accounting for finance leases under PAS 17, *Leases*. The standard includes two recognition exemptions for lessees – leases of 'low-value' assets (e.g., personal computers) and short-term leases (i.e., leases with a lease term of 12 months or less). At the commencement date of a lease, a lessee will recognize a liability to make lease payments (i.e., the lease liability) and an asset representing the right to use the underlying asset during the lease term (i.e., the right-of-use asset). Lessees will be required to separately recognize the interest expense on the lease liability and the depreciation expense on the right-of-use asset.

Lessees will also be required to remeasure the lease liability upon the occurrence of certain events (e.g., a change in the lease term, a change in future lease payments resulting from a change in an index or rate used to determine those payments). The lessee will generally recognize the amount of the remeasurement of the lease liability as an adjustment to the right-of-use asset.

Lessor accounting under PFRS 16 is substantially unchanged from today's accounting under PAS 17. Lessors will continue to classify all leases using the same classification principle as in PAS 17 and distinguish between two types of leases: operating and finance leases.

PFRS 16 also requires lessees and lessors to make more extensive disclosures than under PAS 17.

A lessee can choose to apply the standard using either a full retrospective or a modified retrospective approach. The standard's transition provisions permit certain reliefs.

The Group is currently assessing the impact of adopting PFRS 16.

c. Amendments to PAS 19, *Employee Benefits, Plan Amendment, Curtailment or Settlement*

The amendments to PAS 19 address the accounting when a plan amendment, curtailment or settlement occurs during a reporting period. The amendments specify that when a plan amendment, curtailment or settlement occurs during the annual reporting period, an entity is required to:

- Determine current service cost for the remainder of the period after the plan amendment, curtailment or settlement, using the actuarial assumptions used to remeasure the net defined benefit liability (asset) reflecting the benefits offered under the plan and the plan assets after that event; and

- Determine net interest for the remainder of the period after the plan amendment, curtailment or settlement using: the net defined benefit liability (asset) reflecting the benefits offered under the plan and the plan assets after that event; and the discount rate used to remeasure that net defined benefit liability (asset).

The amendments also clarify that an entity first determines any past service cost, or a gain or loss on settlement, without considering the effect of the asset ceiling. This amount is recognized in profit or loss. An entity then determines the effect of the asset ceiling after the plan amendment, curtailment or settlement. Any change in that effect, excluding amounts included in the net interest, is recognized in other comprehensive income.

The amendments apply to plan amendments, curtailments, or settlements occurring on or after the beginning of the first annual reporting period that begins on or after January 1, 2019, with early application permitted. These amendments will apply only to any future plan amendments, curtailments, or settlements of the Group.

d. Amendments to PAS 28, *Long-term Interests in Associates and Joint Ventures*

The amendments clarify that an entity applies PFRS 9 to long-term interests in an associate or joint venture to which the equity method is not applied but that, in substance, form part of the net investment in the associate or joint venture (long-term interests). This clarification is relevant because it implies that the expected credit loss model in PFRS 9 applies to such long-term interests.

The amendments also clarified that, in applying PFRS 9, an entity does not take account of any losses of the associate or joint venture, or any impairment losses on the net investment, recognized as adjustments to the net investment in the associate or joint venture that arise from applying PAS 28, *Investments in Associates and Joint Ventures*.

The amendments should be applied retrospectively and are effective from January 1, 2019, with early application permitted. Since the Group does not have such long-term interests in its associates and joint ventures, the amendments will not have an impact on its consolidated financial statements.

e. Philippine Interpretation IFRIC 23, *Uncertainty over Income Tax Treatments*

The interpretation addresses the accounting for income taxes when tax treatments involve uncertainty that affects the application of PAS 12, *Income Taxes*, and does not apply to taxes or levies outside the scope of PAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments.

The interpretation specifically addresses the following:

- Whether an entity considers uncertain tax treatments separately;
- The assumptions an entity makes about the examination of tax treatments by taxation authorities;
- How an entity determines taxable profit (tax loss), tax bases, unused tax losses, unused tax credits and tax rates; and,
- How an entity considers changes in facts and circumstances.

An entity must determine whether to consider each uncertain tax treatment separately or together with one or more other uncertain tax treatments. The approach that better predicts the resolution of the uncertainty should be followed.

This interpretation is not relevant to the Group because there is no uncertainty involved in the tax treatments made by management in connection with the calculation of current and deferred taxes as of December 31, 2018 and 2017.

f. Annual Improvements to PFRSs 2015- 2017 Cycle

- Amendments to PFRS 3, *Business Combinations, and PFRS 11, Joint Arrangements, Previously Held Interest in a Joint Operation*

  The amendments clarify that, when an entity obtains control of a business that is a joint operation, it applies the requirements for a business combination achieved in stages, including remeasuring previously held interests in the assets and liabilities of the joint operation at fair value. In doing so, the acquirer remeasures its entire previously held interest in the joint operation.

A Group's party that participates in, but does not have joint control of, a joint operation might obtain joint control of the joint operation in which the activity of the joint operation constitutes a business as defined in PFRS 3. The amendments clarify that the previously held interests in that joint operation are not remeasured.

An entity applies those amendments to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after January 1, 2019 and to transactions in which it obtains joint control on or after the beginning of the first annual reporting period beginning on or after January 1, 2019, with early application permitted. These amendments are currently not applicable to the Group but may apply to future transactions.

- Amendments to PAS 12, *Income Tax Consequences of Payments on Financial Instruments Classified as Equity*

  The amendments clarify that the income tax consequences of dividends are linked more directly to past transactions or events that generated distributable profits than to distributions to owners. Therefore, an entity recognizes the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity originally recognized those past transactions or events.

  An entity applies those amendments for annual reporting periods beginning on or after January 1, 2019, with early application is permitted. These amendments are not relevant to the Group because dividends declared by the Group do not give rise to tax obligations under the current tax laws.

- Amendments to PAS 23, *Borrowing Costs, Borrowing Costs Eligible for Capitalization*

  The amendments clarify that an entity treats as part of general borrowings any borrowing originally made to develop a qualifying asset when substantially all of the activities necessary to prepare that asset for its intended use or sale are complete.

  An entity applies those amendments to borrowing costs incurred on or after the beginning of the annual reporting period in which the entity first applies those amendments. An entity applies those amendments for annual reporting periods beginning on or after January 1, 2019, with early application permitted.

  Since the Group's current practice is in line with these amendments, the Group does not expect any effect on its consolidated financial statements upon adoption.

Effective beginning on or after January 1, 2020

a. Amendments to PFRS 3, *Definition of a Business*

   The amendments to PFRS 3 clarify the minimum requirements to be a business, remove the assessment of a market participant's ability to replace missing elements, and narrow the definition of outputs. The amendments also add guidance to assess whether an acquired process is substantive and add illustrative examples. An optional fair value concentration test is introduced which permits a simplified assessment of whether an acquired set of activities and assets is not a business.

   An entity applies those amendments prospectively for annual reporting periods beginning on or after January 1, 2020, with earlier application permitted.

   These amendments will apply on future business combinations of the Group.

b. Amendments to PAS 1, *Presentation of Financial Statements, and* PAS 8*, Accounting Policies, Changes in Accounting Estimates and Errors, Definition of Material*

   The amendments refine the definition of material in PAS 1 and align the definitions used across PFRSs and other pronouncements. They are intended to improve the understanding of the existing requirements rather than to significantly impact an entity's materiality judgements.

   An entity applies those amendments prospectively for annual reporting periods beginning on or after January 1, 2020, with earlier application permitted.

These amendments will apply to future financial statements of the Group.

Effective beginning on or after January 1, 2021

a. PFRS 17, *Insurance Contracts*

PFRS 17 is a comprehensive new accounting standard for insurance contracts covering recognition and measurement, presentation and disclosure. Once effective, PFRS 17 will replace PFRS 4, *Insurance Contracts*. This new standard on insurance contracts applies to all types of insurance contracts (i.e., life, non-life, direct insurance and re-insurance), regardless of the type of entities that issue them, as well as to certain guarantees and financial instruments with discretionary participation features. A few scope exceptions will apply.

The standard is not applicable to the Group since none of the entities within the Group have activities that are predominantly connected with insurance or issue insurance contracts.

Interpretation with Deferred Effective Date

a. Amendments to PFRS 10 and PAS 28, *Sale or Contribution of Assets between an Investor and its Associate or Joint Venture*

The amendments address the conflict between PFRS 10 and PAS 28 in dealing with the loss of control of a subsidiary that is sold or contributed to an associate or joint venture. The amendments clarify that a full gain or loss is recognized when a transfer to an associate or joint venture involves a business as defined in PFRS 3, *Business Combinations*. Any gain or loss resulting from the sale or contribution of assets that does not constitute a business, however, is recognized only to the extent of unrelated investors' interests in the associate or joint venture.

On January 13, 2016, the Financial Reporting Standards Council postponed the original effective date of January 1, 2016 of the said amendments until the International Accounting Standards Board has completed its broader review of the research project on equity accounting that may result in the simplification of accounting for such transactions and of other aspects of accounting for associates and joint ventures.

Significant Accounting Policies

Current versus Noncurrent Classification

The Group presents assets and liabilities in the consolidated statement of financial position based on a current and noncurrent classification. An asset is current when it is:

a. expected to be realized or intended to be sold or consumed in normal operating cycle;
b. held primarily for the purpose of trading;
c. expected to be realized within twelve (12) months after the reporting period; or
d. cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve (12) months after the reporting period.

All other assets are classified as noncurrent.

A liability is current when:

a. it is expected to be settled in normal operating cycle;
b. it is held primarily for the purpose of trading;
c. it is due to be settled within twelve (12) months after the reporting period, or
d. there is no unconditional right to defer the settlement of the liability for at least twelve (12) months after the reporting period.

The Group classifies all other liabilities as noncurrent.

Deferred tax assets and liabilities are classified as noncurrent assets and liabilities.

Fair Value Measurement

Fair value is the estimated price that would be received for selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either:

a. in the principal market for the asset or liability; or
b. in the absence of a principal market, in the most advantageous market for the asset or liability.

The principal or the most advantageous market must be accessible by the Group.

The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use. The Group uses valuation techniques that are appropriate in the circumstances and for which value, maximizing the use of relevant observable inputs and minimizing the use of unobservable inputs.

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

a. Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities.
b. Level 2: valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable.
c. Level 3: valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

For assets and liabilities that are recognized in the consolidated financial statements on a recurring basis, the Group determines whether transfers have occurred between Levels in the hierarchy by reassessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

The Group's management determines the policies and procedures for both recurring and nonrecurring fair value measurement.

For the purpose of fair value disclosures, the Group has determined classes of assets and liabilities on the basis of the nature, characteristics and risks of the asset or liability and the level of the fair value hierarchy as explained above.

Cash and Cash Equivalents

Cash includes cash on hand and in banks. Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash with original maturities of three months or less from the date of acquisition and that are subject to an insignificant risk of change in value.

Recognition and Measurement of Financial Instruments (Effective January 1, 2018)

Financial assets

a. Initial recognition

Financial assets are classified, at initial recognition, as either subsequently measured at amortized cost, at FVOCI, or at FVPL.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient, the Group initially measures a financial asset at its fair value plus, in the case of a financial asset not at FVPL, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under PFRS 15.

In order for a financial asset to be classified and measured at amortized cost or at FVOCI, it needs to give rise to cash flows that are 'solely payments of principal and interest' on the principal amount outstanding. This assessment is referred to as the 'solely payments of principal and interest test' and is performed at an instrument level.

The Group's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the market place (regular way trades) are recognized on the trade date, i.e., the date that the Group commits to purchase or sell the asset.

As of December 31, 2018, the Group's financial assets comprise of financial assets at amortized cost.

b. Subsequent measurement – Financial assets at amortized cost

Financial assets are measured at amortized cost if both of the following conditions are met:

- the asset is held within the Group's business model whose objective is to hold assets in order to collect contractual cash flows; and
- the contractual terms of the instrument give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets at amortized cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognized in profit or loss when the asset is derecognized, modified or impaired.

The Group classified cash in banks and cash equivalents, receivables, and concession financial receivable as financial assets at amortized cost (see Notes 5, 6, and 10).

c. Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of financial assets) is derecognized when:

- the right to receive cash flows from the asset has expired; or
- the Group has transferred its right to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a pass-through arrangement; and either (i) the Group has transferred substantially all the risks and rewards of the asset, or (ii) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Group continues to recognize the transferred asset to the extent of its continuing involvement. In that case, the Group also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

d. Impairment

The Group recognizes an allowance for ECLs for all debt instruments not held at FVPL. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate (EIR). The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For receivables and contract assets, the Group applies a simplified approach in calculating ECLs. Therefore, the Group does not track changes in credit risk, but instead recognizes a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Group considers a financial asset in default when contractual payments are ninety (90) up to one hundred eighty (180) days past their due dates. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

Financial liabilities

a. *Initial recognition*

Financial liabilities are classified, at initial recognition, either as financial liabilities at FVPL, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognized initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

As of December 31, 2018, the Group's financial liabilities comprise of financial liabilities at amortized cost.

b. *Subsequent measurement*

After initial recognition, other financial liabilities are subsequently measured at amortized cost using the effective interest method.

Gains and losses are recognized under the "Other income (expense)" account in the consolidated statements of comprehensive income when the liabilities are derecognized or impaired, and through the "Interest expense" account when the gains and losses are amortized.

This accounting policy applies to the Group's accounts and other payables, and other obligations that meet the above definition (other than liabilities covered by other accounting standards, such as pension liabilities, income tax payable, and other statutory liabilities).

c. *Derecognition*

A financial liability is derecognized when the obligation under the liability is discharged or canceled or has expired. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the Group's comprehensive income.

Offsetting Financial Instruments

Financial assets and financial liabilities are offset and the net amount reported in the consolidated statements of financial position, if and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, to realize the asset and settle the liability simultaneously. The Group assesses that it has a currently enforceable right of offset if the right is not contingent on a future event and is legally enforceable in the normal course of business, event of default, and event of insolvency or bankruptcy of the Group and all of the counterparties.

Recognition and Measurement of Financial Instruments (Prior to Adoption of PFRS 9)

Date of recognition

The Group recognizes a financial asset or a financial liability in the consolidated statements of financial position when it becomes a party to the contractual provisions of the instrument. Purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace are recognized on the settlement date.

Initial recognition
All financial assets are initially recognized at fair value. Except for financial assets and liabilities at FVPL, the initial measurement of financial assets and liabilities includes transaction costs. The Group classifies its financial assets in the following categories: financial assets at FVPL, held-to-maturity (HTM) investments, available-for-sale (AFS) financial assets, and loans and receivables. The Group classifies its financial liabilities as either financial liabilities at FVPL or other financial liabilities. The classification depends on the purpose for which the investments were acquired and whether these are quoted in an active market. Management determines the classification of its investments at initial recognition and, where allowed and appropriate, re-evaluates such designation at every reporting date.

Financial instruments are classified as liability or equity in accordance with the substance of the contractual arrangement. Interest, dividends, gains, and losses relating to a financial instrument, or a component that is a financial liability, are reported as expense or income. Distributions to holders of financial instruments classified as equity are charged directly to equity, net of any related income tax benefits.

As of December 31, 2017, the Group's financial instruments primarily consist of loans and receivables and other financial liabilities.

Day 1 profit
For transactions other than those related to customers' guaranty deposits and other deposits, where the transaction price in a non-active market is different from the fair value from other observable current market transactions in the same instruments or based on a valuation technique whose variables include only data from observable market, the Group recognizes the difference between the transaction price and fair value (a 'Day 1' profit) in profit or loss under "Other income" unless it qualifies for recognition as some other type of asset or liability. In cases where use is made of data which is not observable, the difference between the transaction price and model value is only recognized in profit or loss when the inputs become observable or when the instrument is derecognized. For each transaction, the Group determines the appropriate method of recognizing the 'Day 1' profit amount.

Embedded derivatives
An embedded derivative is separated from the host contract and accounted for as a derivative if all of the following conditions are met: (a) the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host contract; (b) a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and (c) the hybrid or combined instrument is not recognized at FVPL. Embedded derivatives are measured at fair value with fair value changes being reported through profit or loss and are carried as assets when the fair value is positive and as liabilities when the fair value is negative.

Subsequent reassessment is prohibited unless there is a change in the terms of the contract that significantly modifies the cash flows that otherwise would be required under the contract, in which case reassessment is required. The Group determines whether a modification in the cash flows is significant by considering the extent to which the expected future cash flows associated with the embedded derivative, the host contract, or both have changed and whether the change is significant relative to the previously expected cash flows from the contract.

The Group has certain closely and clearly related derivatives that are embedded in the host contract (such as long-term debt) which do not require bifurcation.

Loans and receivables
Loans and receivables are financial assets with fixed or determinable payments and fixed maturities that are not quoted in an active market. These are not entered into with the intention of immediate or short-term resale and are not designated as AFS financial assets or financial assets at FVPL. These are included in current assets if maturity is within twelve (12) months from the reporting date. Otherwise, these are classified as noncurrent assets.

After initial measurement, loans and receivables are subsequently measured at amortized cost using the EIR method, less allowance for impairment. Amortized cost is calculated by taking into account any discount or premium on acquisition and fees that are an integral part of the effective interest rate. The amortization is included in "Interest income" in profit or loss. The losses arising from impairment of such loans and receivables are recognized as "Provision for probable losses and doubtful accounts" in profit or loss.

This accounting policy applies primarily to the Group's cash in banks and cash equivalents, receivables, concession financial receivables, deposits under other current assets and other noncurrent assets, and advances and receivable from related parties.

Other financial liabilities
Issued financial instruments or their components, which are not designated as at FVPL are classified as other financial liabilities where the substance of the contractual arrangement results in the Group having an obligation either to deliver cash or another financial asset to the holder, or to satisfy the obligation other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of its own equity shares. The components of issued financial instruments that contain both liability and equity elements are accounted for separately, with the equity component being assigned the residual amount, after deducting from the instrument as a whole the amount separately determined as the fair value of the liability component on the date of issuance.

After initial measurement, other financial liabilities are subsequently measured at amortized cost using the effective interest rate method. Amortized cost is calculated by taking into account any discount or premium on the issue and fees that are an integral part of the effective interest rate. Any effect of restatement of foreign currency-denominated liabilities is recognized in profit or loss.

This accounting policy applies primarily to the Group's long-term debt, service concession obligation, accounts and other payables except statutory liabilities, customers' guaranty deposits and other deposits under other noncurrent liabilities, payable to related parties and stockholders, and other payables that meet the above definition (other than liabilities covered by other accounting standards, such as pension liabilities and income tax payable).

Derecognition of Financial Assets and Financial Liabilities (Prior to Adoption of PFRS 9)
Financial assets
A financial asset (or, where applicable, a part of a financial asset or part of a group of financial assets) is derecognized when:

a. the right to receive cash flows from the asset has expired;
b. the Group retains the right to receive cash flows from the asset, but has assumed an obligation to pay them in full without material delay to a third party under a "pass-through" arrangement; or
c. the Group has transferred its right to receive cash flows from the asset and either (a) has transferred substantially all the risks and rewards of the asset, or (b) has neither transferred nor retained the risks and rewards of the asset but has transferred the control of the asset.

Where the Group has transferred its right to receive cash flows from an asset or has entered into a "pass-through" arrangement, and has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the asset is recognized to the extent of the Group's continuing involvement in the asset. Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

Financial liabilities
A financial liability is derecognized when the obligation under the liability is discharged, cancelled, or has expired. Where an existing financial liability is replaced by another financial liability from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in profit or loss.

Offsetting Financial Instruments (Prior to Adoption of PFRS 9)
Financial assets and financial liabilities are offset and the net amount reported in the consolidated statements of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the asset and settle the liability simultaneously.

Impairment of Financial Assets (Prior to Adoption of PFRS 9)
The Group assesses at each reporting date whether there is objective evidence that a financial asset or group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred 'loss event') and that loss event (or events) has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Objective evidence of impairment may include indications that the borrower or a group of borrowers is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganization and where observable data indicate that there is a measurable decrease in the estimated future cash flows, such as changes in arrears or economic condition that correlate with default. For the Group's receivables from customers, evidence of impairment may also include non-collection of the Group's trade receivables, which remain unpaid after thirty days from bill generation.

Loans and receivables
For loans and receivables carried at amortized cost, the Group first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If the Group determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assessed for impairment. Those characteristics are relevant to the estimation of future cash flows for groups of such assets by being indicative of the debtors' ability to pay all amounts due according to the contractual terms of the assets being evaluated. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be recognized, are not included in a collective assessment for impairment.

If there is objective evidence that an impairment loss has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of the estimated future cash flows (excluding future credit losses that have not been incurred). The carrying amount of the asset is reduced through use of an allowance account and the amount of loss is charged to profit or loss. Interest income continues to be recognized based on the original effective interest rate of the asset. Receivables, together with the associated allowance accounts, are written off when there is no realistic prospect of future recovery.

If, in a subsequent year, the amount of the estimated impairment loss decreases because of an event occurring after the impairment was recognized, the previously recognized impairment loss is reversed. Any subsequent reversal of an impairment loss is recognized in profit or loss, to the extent that the carrying value of the asset does not exceed its amortized cost at the reversal date.

For the purpose of a collective evaluation of impairment, financial assets are grouped on the basis of such credit risk characteristics as industry, customer type, customer location, past-due status and term. Future cash flows in a group of financial assets that are collectively evaluated for impairment are estimated on the basis of historical loss experience for assets with credit risk characteristics similar to those in the group. Historical loss experience is adjusted on the basis of current observable data to reflect the effects of current conditions that did not affect the period on which the historical loss experience is based and to remove the effects of conditions in the historical period that do not exist currently. The methodology and assumptions used for estimating future cash flows are reviewed regularly by the Group to reduce any differences between loss estimates and actual loss experience.

Inventories
Inventories are valued at the lower of cost or net realizable value (NRV). NRV is the estimated selling price less estimated costs to complete and to sell. The cost is determined using the moving average method for all inventories, except for raw materials and finished goods. The cost of raw materials and finished goods are determined based on the periodic weighted average method.

The cost of raw materials includes all costs directly attributable to their acquisition.

Finished goods include the cost of raw materials, direct labor, and a proportion of manufacturing overhead.

Prepaid Expenses
Prepaid expenses are carried at cost less the amortized portion. These typically include prepayments for business taxes, insurance and employee health care expenses and other benefits, as well as prepaid concession fees of Laguna Water with the PGL.

Property, Plant and Equipment
Property, plant and equipment, except land, are stated at cost less accumulated depreciation and amortization and any impairment in value. Land is stated at cost less any impairment in value.

The initial cost of property, plant and equipment comprises its purchase price, including import duties, taxes and any directly attributable costs of bringing the property, plant and equipment to its working condition and location for its intended use, including capitalized borrowing costs incurred during the construction period. Expenditures incurred after the property, plant and equipment have been put into operation, such as repairs and maintenance, are normally charged to operations in the period in which the costs are incurred. In situations where it can be clearly demonstrated that the expenditures have resulted in an increase in the future economic benefits expected to be obtained from the use of an item of property, plant and equipment beyond its originally assessed standard of performance, the expenditures are capitalized as additional cost of the related property, plant and equipment.

Depreciation and amortization of property, plant and equipment commences once the property, plant and equipment are available for use and are calculated on a straight-line basis over the estimated useful lives (EUL) of the property, plant and equipment as follows:

Leasehold improvements	5 years or lease term, whichever is shorter
Plant and technical equipment	5 years or the term of the related management contract, whichever is shorter
Office furniture and equipment	3 to 5 years
Transportation equipment	5 years

The EUL and depreciation and amortization method are reviewed periodically to ensure that the period and method of depreciation and amortization are consistent with the expected pattern of economic benefits from items of property, plant and equipment.

Construction in progress represents property, plant and equipment under construction and is stated at cost including costs of construction and other direct costs. Construction in progress is not depreciated until such time that the relevant assets are in the location and condition necessary for it to be capable of operating in the manner intended by management.

When property, plant and equipment is retired or otherwise disposed of, the cost and the related accumulated depreciation and amortization and accumulated impairment, if any, are removed from the accounts and any resulting gain or loss is credited to or charged against current operations.

Service Concession Assets and Obligations

The Group accounts for its concession arrangements with MWSS, PGL, TIEZA, CDC, OWD, and CWD under the Intangible Asset model as it receives the right (license) to charge users of public service. Under the Group's concession agreements, the Group is granted the sole and exclusive right and discretion during the concession period to manage, occupy, operate, repair, maintain, decommission and refurbish the identified facilities required to provide water services. The legal title to these assets shall transfer to MWSS, PGL, TIEZA, CDC, OWD, and CWD at the end of the concession period.

On the other hand, the concession arrangements with PGC and TWD are accounted for under the Financial Asset model as it has an unconditional contractual right to receive cash or other financial asset for its construction services from or at the direction of the grantor. Under the concession arrangement, Cebu Water and Tagum Water are awarded the right to deliver bulk water supply to the grantor for a specific period of time under the concession period.

During the construction phase of the arrangements, the Group's contract asset (representing its accumulating right to be paid for rehabilitation works) is presented as part of "Service concession assets" (SCA) for Intangible Asset model and under "Contract Assets" for Financial Asset model. The SCA also include the fair value of the service concession obligations at drawdown date and other local component costs and cost overruns paid by the Group.

Amortization of SCA commences once the SCA are available for use and are calculated on a straight-line basis over the remaining concession period. Beginning May 1, 2017, the Parent Company, Boracay Water, Clark Water, and Laguna Water's water and used water assets are amortized using the units of production (UOP) method over the estimated total billable volume for the remaining period of the respective concession agreements to better reflect the usage of these assets, which is directly related to its estimated total billable volume and is aligned with industry practice. This change in method resulted to a ₱553.96 million reduction of amortization expense from May 1 to December 31, 2017.

Investments in Associates

An associate is an entity in which the Group has significant influence and which is neither a subsidiary. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over these policies.

The considerations made in determining significant influence is similar to those necessary to determine control over subsidiaries.

The Group's investments in its associates are accounted for using the equity method.

Under the equity method, an investment in an associate is initially recognized at cost. The carrying amount of the investment is adjusted to recognize changes in the Group's share of net assets of the associate since the acquisition date. Goodwill relating to the associate is included in the carrying amount of the investment and is not tested for impairment separately.

The consolidated statement of comprehensive income reflects the Group's share of the results of operations of the associate. Any change in the other comprehensive income of those investees is presented as part of the Group's other comprehensive income. In addition, when there has been a change recognized directly in the equity of the associate, the Group recognizes its share of any changes, when applicable, in the consolidated statement of changes in equity. Unrealized gains and losses resulting from transactions between the Group and the associate are eliminated to the extent of the interest in the associate.

The aggregate of the Group's share of profit or loss of an associate is shown on the face of the consolidated statement of comprehensive income outside of operating profit and represents profit or loss after tax and noncontrolling interests in the subsidiaries of the associate. If the Group's share of losses of an associate equals or exceeds its interest in the associate, the Group discontinues recognizing its share of further losses.

The financial statements of the associate are prepared for the same reporting period as the Group. When necessary, adjustments are made to bring the accounting policies in line with those of the Group.

After application of the equity method, the Group determines whether it is necessary to recognize an impairment loss on its investment in its associate. At each reporting date, the Group determines whether there is objective evidence that the investment in the associate is impaired. If there is such evidence, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and then recognizes the loss as "Equity share in net income of associates" in the consolidated statement of comprehensive income.

Upon loss of significant influence over the associate, the Group measures and recognizes any retained investment at its fair value. Any difference between the carrying amount of the associate upon loss of significant influence and the fair value of the retained investment and proceeds from disposal is recognized in profit or loss.

Business Combinations and Goodwill

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value, and the amount of any noncontrolling interest in the acquiree. For each business combination, the Group elects whether to measure the noncontrolling interest in the acquiree either at fair value or at the proportionate share of the acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts by the acquiree.

If the business combination is achieved in stages, the acquisition date fair value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date through profit or loss included under "Remeasurement gain (loss) arising from business combination."

Any contingent consideration to be transferred by the acquirer will be recognized at fair value at the acquisition date. Contingent consideration classified as equity is not remeasured and its subsequent settlement is accounted for within equity. Contingent consideration classified as an asset or liability that is a financial instrument and within the scope of PFRS 9, is measured at fair value with the changes in fair value recognized in the statement of profit or loss in accordance with PFRS 9. Other contingent consideration that is not within the scope of PFRS 9 is measured at fair value at each reporting date with changes in fair value recognized in profit or loss.

If the initial accounting for a business combination can be determined only provisionally by the end of the period in which the combination is effected because either the fair values to be assigned to the acquiree's identifiable assets, liabilities or contingent liabilities or the cost of the combination can be determined only provisionally, the acquirer shall account for the combination using those provisional values. The acquirer shall recognize any adjustments to those provisional values as a result of completing the initial accounting within twelve (12) months of the acquisition date as follows: (i) the carrying amount of the identifiable asset, liability or contingent liability that is recognized or adjusted as a result of completing the initial accounting shall be calculated as if its fair value at the acquisition date had been recognized from that date; (ii) goodwill or any gain recognized shall be adjusted by an amount equal to the adjustment to the fair value at the acquisition date of the identifiable asset, liability or contingent liability being recognized or adjusted; and (iii) comparative information presented for the periods before the initial accounting for the combination is complete shall be presented as if the initial accounting has been completed from the acquisition date.

Goodwill is initially measured at cost where cost is the excess of the aggregate of the consideration transferred and the amount recognized for noncontrolling interest over the net identifiable assets acquired and liabilities assumed. If the fair value of the net assets acquired is in excess of the aggregate consideration transferred, the Group re-assesses whether it has correctly identified all of the assets acquired and all of the liabilities assumed and reviews the procedures used to measure the amounts to be recognized at the acquisition date. If the reassessment still results in an excess of the fair value of net assets acquired over the aggregate consideration transferred, then the gain is recognized in profit or loss and included under "Other income (expenses)."

Following initial recognition, goodwill is measured at cost less any accumulated impairment loss. Goodwill is reviewed for impairment, annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired. For purposes of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units (CGUs), or groups of CGUs, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units. Each unit or group of units to which the goodwill is allocated should:

- represent the lowest level within the Group at which the goodwill is monitored for internal management purposes; and
- not be larger than an operating segment determined in accordance with PFRS 8, *Operating Segments.*

Occasionally, an acquirer will make a bargain purchase, which is a business combination in which the the net of the acquisition-date amounts of the identifiable assets acquired and the liabilities assumed measured exceeds the aggregate of the consideration transferred.

Before recognizing a gain on a bargain purchase, the acquirer shall reassess whether it has correctly identified all of the assets acquired and all of the liabilities assumed and shall recognize any additional assets or liabilities that are identified in that review. The acquirer shall then review the procedures used to measure the amounts to be recognized at the acquisition date for all of the following:

a. the identifiable assets acquired and liabilities assumed;
b. the non-controlling interest in the acquiree, if any;
c. for a business combination achieved in stages, the acquirer's previously held equity interest in the acquiree; and
d. the consideration transferred.

If that excess remains after applying the requirements above, the acquirer shall recognize the resulting gain in profit or loss on the acquisition date. The gain shall be attributed to the acquirer.

Where goodwill forms part of a CGU (or group of CGUs) and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. Goodwill disposed of in these circumstances is measured based on the relative values of the operation disposed of and the portion of the CGU retained.

Water Banking Rights

Water banking rights are accounted for as an intangible asset with indefinite useful life. These pertain to the permit acquired separately, and are recognized as an intangible asset as these were issued by the National Water Resources Board (NWRB) without an explicit provision on the period of effectivity. Costs incurred for the acquisition of water banking rights are capitalized and measured on initial recognition at cost.

Presidential Decree No. 1067, also known as the Water Code, states that water permits shall continue to be valid as long as water is beneficially used. The rights may be suspended or revoked based on certain grounds such as non-compliance with approved plans and specifications or schedules of water distribution, and use of water for a purpose other than that for which it was granted.

All water permits are subject to modification or cancellation by the NWRB, after due notice and hearing, in favor of a project of greater beneficial use or for multi-purpose development, and a water permittee who suffers thereby shall be duly compensated by the entity or person in whose favor the cancellation was made.

Impairment of Nonfinancial Assets
This accounting policy applies primarily to the Group's property, plant, and equipment, SCA, investments in associates, water banking rights, and other current and noncurrent assets. The Group assesses these nonfinancial assets, excluding water banking rights, at each reporting date whether there is an indication that an asset may be impaired. If any such indication exists, or when annual impairment testing for an asset is required, the Group makes an estimate of the asset's recoverable amount.

Water banking rights with indefinite useful life are tested for impairment annually at the CGU level. Such intangibles are not amortized. The life of an intangible asset with an indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable. If not, the change in the life from indefinite to finite is made on a prospective basis.

An asset's recoverable amount is calculated as the higher of the asset's or CGU's fair value less cost of disposal and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. When the carrying amount of an asset exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessment of the time value of money and the risks specific to the asset. In determining fair value less costs of disposal, recent market transactions are taken into account. If no such transactions can be identified, an appropriate valuation model is used. These calculations are corroborated by valuation multiples or other fair value indicators. Impairment losses of continuing operations are recognized in profit or loss in those expense categories consistent with the function of the impaired asset.

For assets excluding goodwill and water banking rights with indefinite life, an assessment is made at each reporting date as to whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such indication exists, the recoverable amount is estimated.

A previously recognized impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognized. If that is the case, the carrying amount of the asset is increased to its recoverable amount. That increased amount cannot exceed the carrying amount that would have been determined, net of depreciation and amortization, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in profit or loss unless the asset is carried at revalued amount, in which case the reversal is treated as revaluation increase. After such a reversal, the depreciation and amortization charge is adjusted in future periods to allocate the asset's revised carrying amount, less any residual value, on a systematic basis over its remaining useful life.

Leases
The determination of whether an arrangement is, or contains a lease, is based on the substance of the arrangement at inception date of whether the fulfillment of the arrangement is dependent on the use of a specific asset or assets or the arrangement conveys a right to use the asset, even if that right is not explicitly specified in an arrangement.

A reassessment is made after the inception of the lease only if one of the following applies:

a. there is a change in contractual terms, other than a renewal of or extension of the arrangement;
b. a renewal option is exercised or extension granted, unless the term of the renewal or extension was initially included in the lease term;
c. there is a change in the determination of whether fulfillment is dependent on a specified asset; or
d. there is a substantial change to the asset.

Where reassessment is made, lease accounting shall commence or cease from the date when the change in circumstances gave rise to the reassessment scenarios (a), (c) or (d) and at the date of renewal or extension period for scenario (b).

A lease where the lessor retains substantially all the risks and benefits of ownership of the asset is classified as an operating lease.

Revenue Recognition (Upon the Adoption of PFRS 15)
Revenue from contracts with customers is recognized when control of the goods or services are transferred to the customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services. The Group has generally concluded that it is the principal in its revenue arrangements. The following specific recognition criteria must also be met before revenue is recognized.

Revenue recognized over time using output method

The Group recognizes revenue from water and sewerage services, environmental charge, operation and maintenance services and performance fees over time using output method. As a practical expedient allowed under PFRS 15, the Group recognizes revenue in the amount to which the Group has a right to invoice since the Group bills a fixed amount for every cubic meter of water delivered or NRW recovered.

- *Water and sewer revenue*
  Water and sewer revenue are recognized over time as the customer receives and consumes the benefit from the performance of the related water and sewerage services. Water and sewerage are billed every month according to the bill cycles of the customers. As a result of bill cycle cut-off, monthly service revenue earned but not yet billed at end of the month are estimated and accrued. These estimates are based on historical consumption of the customers. Also, twenty percent (20%) of water revenue is recognized by the Parent Company as environmental charge.

- *Operation and maintenance services*
  Revenue from operation and maintenance services is recognized over time as the operation, maintenance and management services are rendered for water and waste water facilities of Bonifacio Water Corporation (BWC).

- *Performance fees*
  Performance fees are recognized as revenue over time as the NRW are recovered as agreed in the NRWSA with ZCWD.

The Group has determined that the output method is the appropriate method in measuring the progress of the connection services, project management services, and pipeworks and integrated used water services since this depicts the Group's performance in managing and providing service connection from water and used water facilities to the developments.

- *Connection fees*
  Connection fees are amounts paid by customers in exchange for the set-up of a connection from the customer's establishment to the Group's water or sewer network. Revenue from connection fees is recognized over time using the output method based on time elapsed over the period when the related water and sewer services are expected to be provided.

- *Supervision fees*
  Supervision fees arise from MWPV, Aqua Centro, and Laguna Water's assurance for potable water and effective used water services for new developments, functions includes, but not limited to the provision of design and project management services in the development of water and used water facilities. Revenue from supervision fees is recognized over time using an output method. Under this method, progress is measured using survey of performance completed to date and milestone reached. This is based on the work accomplishment report prepared by the project contractor and reviewed and approved by the project management head.

- *Revenue from pipeworks and integrated used water services*
  Revenue from pipeworks and integrated used water services is recognized over time as the water and wastewater network related services are rendered using an output method. Under this method, progress is measured using survey of performance completed to date and milestone reached. This is based on the work accomplishment report prepared by the project contractor as approved by the project management head.

Revenue recognized over time using input method

The Group determined that the input method is the appropriate method in measuring progress of the rehabilitation works, construction revenue, and service fees because there is a direct relationship between the Group's effort (i.e., actual cost incurred incurred) and the transfer of service to the customer.

- *Revenue from rehabilitation works and Cost of rehabilitation works*
  Revenue from rehabilitation works is equivalent to the related cost for the rehabilitation works covered by the service concession arrangements which is recognized as part of contract assets included under SCA or concession financial receivables and pertain to revenue from construction or upgrade services. Revenue from rehabilitation works is recognized over time, using input method. Under this method, progress is measured by reference to the actual costs incurred to date.

- *Construction revenue*
  Construction revenue arise from the NRWSA with ZCWD for the establishment of district metering areas. Revenue from construction services is recognized over time, using input method. Under this method, progress is measured based on actual costs incurred on materials, labor, and overhead relative to the total project costs.

- *Service fees*
  Service fees for technical assistance extended to ZCWD are recognized over time, using input method, when the related services have been rendered to the ZCWD. Under this method, progress is measured based on actual costs incurred on manpower and overhead relative to the total project costs.

Revenue recognized at a point in time

- *Distributors' fee*
  Distributors' fee is recognized as revenue at a point in time when control of the trade assets has been transferred to the distributor, generally upon delivery of the related assets.

- *Revenue from packaged water*
  Revenue from packaged water and other water related products is recognized at the point in time when control of the goods is transferred to the distributor, generally upon receipt of the related product, to the customer.

- *Other operating income*
  Other customer related fees such as reconnection and disconnection fees, income from customers late payments, income from septic sludge disposal, and income from bacteriological water analysis are recognized at a point in time when the control over these good or services have been transferred to the customer.

Interest income
Interest income is recognized as it accrues, taking into account the effective yield of the assets.

For all financial instruments measured at amortized cost, interest income is recorded using the EIR. EIR is the rate that exactly discounts the estimated future cash payments or receipts over the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset or liability. Interest income is included in finance income in the consolidated statement of comprehensive income.

Contract Balances
Receivables
A receivable represents the Group's right to an amount of consideration that is unconditional (i.e., only the passage of time is required before payment of the consideration is due).

Contract assets
A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the payment is due, a contract asset is recognized for the earned consideration that is conditional.

Contract liabilities
A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Group transfers goods or services to a customer, a contract liability is recognized when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognized as revenue when the Group performs under the contract.

Revenue Recognition (Prior to Adoption of PFRS 15)
Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Group and the revenue can be reliably measured, regardless of when the payment is made. Revenue is measured at the fair value of the consideration received or receivable, taking into account contractually defined terms of payment and excluding taxes or duty. The following specific recognition criteria must also be met before revenue is recognized.

Water and sewer revenue
Water and sewer revenue are recognized when the related water and sewerage services are rendered. Water and sewerage are billed every month according to the bill cycles of the customers. As a result of bill cycle cut-off, monthly service revenue earned but not yet billed at end of the month are estimated and accrued. These estimates are based on historical consumption of the customers. Also, twenty percent (20%) of water revenue is recognized by the Parent Company as environmental charge.

Connection fees
Revenue from connection fee is recognized outright upon when the customer's establishment is connected to the Group's water or sewer network.

Revenue from rehabilitation works and Cost of rehabilitation works
Revenue from rehabilitation works is recognized and measured by the Group in accordance with PAS 11 for the construction and PAS 18 for the service. This includes revenue from rehabilitation works which is equivalent to the related cost for the rehabilitation works covered by the service concession arrangements which is recognized as part of SCA.

Supervision fees
Supervision fees are recognized using the percentage of completion method of accounting, measured principally on the basis of the physical proportion of the contract work to the estimated completion of a project.

Construction revenue
Construction revenue arising from the NRWSA with ZCWD is recognized by reference to the stage of completion of the construction activity at the end of the reporting period.

Revenue from pipeworks and integrated used water services
Revenue from pipeworks and integrated used water services is recognized when the related water and wastewater network related services are rendered.

Distributors' fee
Distributors' fee is recognized when significant risk and rewards of ownership of trade assets have been transferred to the distributor.

Revenue from packaged water
Revenue from packaged water and other water related products is recognized when the significant risks and rewards of ownership have been transferred to the customer. The timing of transfers of risks and rewards varies depending on the individual terms of the contract of sale but usually occurs when the customer receives the product.

Operation and maintenance services
Service fee income is recognized when the operation, maintenance and management services have been rendered for water and waste water facilities of BWC.

Performance fees
Performance fees are recognized when the NRW has been recovered based on specific targets and schedule as agreed in the NRWSA with ZCWD.

Service fees
Service fees for technical assistance extended to ZCWD are recognized when the related services have been rendered.

Other operating income
Other customer related fees such as reconnection and disconnection fees, income from customers late payments, income from septic sludge disposal, and income from bacteriological water analysis are recognized when these services have been rendered.

Interest income
Interest income is recognized as it accrues, taking into account the effective yield of the assets.

For all financial instruments measured at amortized cost, interest income is recorded using the effective interest rate. EIR is the rate that exactly discounts the estimated future cash payments or receipts over the expected life of the financial

instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset or liability. Interest income is included in finance income in the consolidated statement of comprehensive income.

Cost of Services and Operating Expenses
Costs and expenses are recognized in profit or loss when a decrease in future economic benefits related to a decrease in an asset or an increase in a liability has arisen that can be measured reliably. These are recognized:

- on the basis of a direct association between the costs incurred and the earning of specific items of income;
- on the basis of systematic and rational allocation procedures when economic benefits are expected to arise over several accounting periods and the association can only be broadly or indirectly determined; or,
- immediately when expenditure produces no future economic benefits or when, and to the extent that, future economic benefits do not qualify or cease to qualify, for recognition in the consolidated statement of financial position as an asset.

Cost of services and operating expenses are measured at the amount paid or payable.

Foreign Currency-Denominated Transactions
Foreign exchange differentials arising from foreign currency transactions are credited to or charged against operations. For the Parent Company, as approved by the MWSS BOT under Amendment No.1 of the Concession Agreement, the following will be recovered through billings to customers:

a. restatement of foreign currency-denominated loans;
b. excess of actual concession fee payment over the amounts of concession fees translated using the base exchange rate assumed in the business plan approved every rate rebasing exercise. The current base exchange rate is ₱53.16:US$1.00 based on the latest rate rebasing exercise effective January 1, 2018.
c. excess of actual interest payment translated at exchange spot rate on settlement date over the amount of interest translated at drawdown rate; and
d. excess of actual payment of other financing charges relating to foreign currency-denominated loans translated at exchange spot rate on settlement date over the amount of other financing charges translated at drawdown rate.

For Boracay Water, its concession agreement with TIEZA allows for the recovery of the following from its customers:

a. restatement of foreign currency-denominated loans;
b. excess of actual interest payments translated at exchange spot rates on settlement dates over the amounts of interest translated at agreed base rate; and
c. excess of actual payments of other financing charges relating to foreign currency-denominated loans translated at exchange spot rates on settlement dates over the amount of other financing charges translated at agreed base rate.

The functional and presentation currency of the Parent Company and its Philippine subsidiaries is the Philippine Peso. Each entity in the Group determines its own functional currency and items included in the separate financial statements of each entity are measured using that functional currency. Transactions in foreign currencies are initially recorded by the Group's entities at their respective functional currency spot rates at the date the transaction first qualifies for recognition. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange ruling at the reporting date. All differences are taken to profit or loss, with the exception of differences on foreign currency borrowings that provide a hedge against a net investment in a foreign entity. These are recognized in OCI until the disposal of the net investment, at which time they are recognized in profit or loss. Tax charges and credits attributable to exchange differences on those borrowings are also dealt with in equity. Nonmonetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rate as at the date of initial transaction. Nonmonetary items measured at fair value in a foreign currency are translated using the exchange rate at the date when the fair value was determined.

In view of the automatic reimbursement mechanism, the Group recognizes deferred FCDA (included as part of "Other noncurrent assets" in the consolidated statement of financial position) for both the realized and unrealized foreign exchange gains and losses. Other water revenue-FCDA is credited (debited) upon recovery (refund) of realized foreign exchange losses (gains). The write-off or reversal of the deferred FCDA pertaining to concession fees will be made upon determination of the rebased foreign exchange rate, which is assumed in the business plan approved by the MWSS-RO during the latest Rate Rebasing exercise, unless indication of impairment of the deferred FCDA would be evident at an earlier date.

The functional currency of MWAP, MWSAH, TDWH, KDWH, MSEA, and MWTH is the United States Dollar (US$ or USD), while Asia Water's functional currency is the Vietnamese Dong (VND), PTMWI's is the Indonesian Rupiah (IDR), and MWTC's is the Thailand Baht (THB). As of reporting date, the assets and liabilities of these subsidiaries are translated into the presentation currency of the Group at the rate of exchange at the reporting date and their profit and loss accounts are translated at the weighted average exchange rates for the year. The exchange differences arising on the translation are recognized in OCI and reported as "Cumulative translation adjustment", a separate component of equity. On disposal of a foreign entity, the "Cumulative translation adjustment" relating to that particular foreign operation shall be recognized in profit or loss.

Borrowing Costs

Borrowing costs that are directly attributable to the acquisition, development, improvement and construction of fixed assets (including costs incurred in connection with rehabilitation works) that necessarily takes a substantial period of time to get ready for its intended use are recorded as property, plant and equipment or SCA, as applicable. All other borrowing costs are expensed in the period they occur. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

The interest capitalized is calculated using the Group's weighted average cost of borrowings after adjusting for borrowing associated with specific developments. Where borrowings are associated with specific developments, the amounts capitalized is the gross interest incurred on those borrowings less any investment income arising on their temporary investment.

The capitalization of those borrowing costs commences when the activities to prepare the asset are in progress and expenditures and borrowing costs are being incurred. Capitalization of borrowing costs ceases when substantially all activities necessary in preparing the related assets for their intended use are complete. Borrowing costs include interest charges and other related financing charges incurred in connection with the borrowing of funds. Premiums and/or discounts on long-term debt are included in the "Short-term and Long-term debt" account in the consolidated statement of financial position and are amortized using the effective interest rate method.

Provisions

A provision is recognized when the Group has: (a) a present obligation (legal or constructive) as a result of a past event; (b) it is probable (i.e. more likely than not) that an outflow of resources embodying economic benefits will be required to settle the obligation; and (c) a reliable estimate can be made of the amount of the obligation. If the effect of the time value of money is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessment of the time value of money and, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognized as an interest expense. Where the Group expects a provision to be reimbursed, the reimbursement is not recognized as a separate asset and only when the reimbursement is virtually certain. Provisions are reviewed at each reporting date and adjusted to reflect the current best estimate.

Contingencies

Contingent liabilities are not recognized in the consolidated financial statements. These are disclosed unless the possibility of an outflow of resources embodying economic benefits is remote. Contingent assets are not recognized in the consolidated financial statements but disclosed when an inflow of economic benefits is probable.

Defined Benefit Plan

The net defined benefit liability or asset is the aggregate of the present value of the defined benefit obligation at the end of the reporting period reduced by the fair value of plan assets (if any).

The cost of providing benefits under the defined benefit plans is actuarially determined using the projected unit credit method.

Defined benefit costs comprise the following:

a. service cost,
b. net interest on the net defined benefit liability or asset, and
c. remeasurements of net defined benefit liability or asset.

Service costs which include current service costs, past service costs, and gains or losses on non-routine settlements are recognized as expense in profit or loss. Past service costs are recognized when plan amendment or curtailment occurs. These amounts are calculated periodically by independent qualified actuaries.

Net interest on the net defined benefit liability or asset is the change during the period in the net defined benefit liability or asset that arises from the passage of time which is determined by applying the discount rate based on government bonds to the net defined benefit liability or asset.

Net interest on the net defined benefit liability or asset is recognized as expense or income in the consolidated statement of comprehensive income.

Remeasurements comprising actuarial gains and losses and return on plan assets (excluding net interest on defined benefit liability or asset) are recognized immediately in other comprehensive income in the period in which they arise. Remeasurements are not reclassified to profit or loss in subsequent periods.

Plan assets are assets that are held by a long-term employee benefit fund or qualifying insurance policies. Plan assets are not available to the creditors of the Group, nor can they be paid directly to the Group. The fair value of plan assets is based on market price information. When no market price is available, the fair value of plan assets is estimated by discounting expected future cash flows using a discount rate that reflects both the risk associated with the plan assets and the maturity or expected disposal date of those assets (or, if they have no maturity, the expected period until the settlement of the related obligations). If the fair value of the plan assets is higher than the present value of the defined benefit obligation, the measurement of the resulting defined benefit asset is limited to the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan.

The Group's right to be reimbursed of some or all of the expenditure required to settle a defined benefit obligation is recognized as a separate asset at fair value when and only when reimbursement is virtually certain.

Termination Benefit
Termination benefits are employee benefits provided in exchange for the termination of an employee's employment as a result of either an entity's decision to terminate an employee's employment before the normal retirement date or an employee's decision to accept an offer of benefits in exchange for the termination of employment.

A liability and expense for a termination benefit is recognized at the earlier of when the entity can no longer withdraw the offer of those benefits and when the entity recognizes related restructuring costs. Initial recognition and subsequent changes to termination benefits are measured in accordance with the nature of the employee benefit, as either post-employment benefits, short-term employee benefits, or other long-term employee benefits.

Short-term Employee Benefits
Short-term employee benefits include items such as salaries and wages, social security contributions, and nonmonetary benefits, if expected to be settled wholly within twelve (12) months after the end of the reporting period in which the employees rendered the related services. Short-term employee benefits are recognized as expense as incurred. When an employee has rendered service to the Group during the reporting period, the Group recognizes the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service as a liability (accrued expense), after deducting any amount already paid.

Employee Leave Entitlement
Employee leave entitlements to annual leave are recognized as a liability when they are accrued to the employees. The undiscounted liability for employee leaves expected to be settled wholly before twelve (12) months after the end of the annual reporting period is recognized for services rendered by employees up to the end of the reporting period.

Share-Based Payment
Employee share purchase plan
The Parent Company has an employee stock ownership plan (ESOWN) which allows the grantees to purchase the Company's shares at a discounted price. The Parent Company recognizes stock compensation expense over the holding period. The Parent Company treats its ESOWN plan as option exercisable within a given period. These are accounted for similar to the PFRS 2, *Share-based Payment*, options. Dividends paid on the awards that have vested are deducted from equity and those paid on awards that are unvested are charged to profit or loss. For the unsubscribed shares where the employees still have the option to subscribe in the future, these are accounted for as "Common stock options outstanding" in the consolidated statement of financial position.

Equity
Capital stock is measured at par value for all shares subscribed, issued and outstanding. When the Group issues more than one class of stock, a separate account is maintained for each class of stock and the number of shares issued.

When the shares are sold at premium, the difference between the proceeds at the par value is credited to "Additional paid-in capital" account. Direct costs incurred related to equity issuance are chargeable to "Additional paid-in capital" account. If additional paid-in capital is not sufficient, the excess is charged against retained earnings. When the Group issues more than one class of stock, a separate account is maintained for each class of stock and the number of shares issued.

Subscriptions receivable pertains to the uncollected portion of the subscribed shares.

Retained earnings represent accumulated earnings of the Group. Appropriated retained earnings are set aside for future business expansions. The Parent Company's BOD declares dividends from the unappropriated portion of its retained earnings.

Other equity reserves pertain to gain from sale of investments in a subsidiary by the Parent Company that did not result to a loss of control.

Taxes

VAT

Input VAT pertains to the 12% indirect tax paid by the Group in the course of the Group's trade or business on local purchase of goods or services. Deferred input VAT pertains to input VAT on accumulated purchases of property, plant and equipment and service concession assets for each month amounting to ₱1 million or more. This is amortized over five (5) years or the life of the property, plant and equipment or service concession assets, whichever is shorter, in accordance with the Bureau of Internal Revenue (BIR) regulation.

Output VAT pertains to the 12% tax due on the local sale of goods and services by the Group.

If at the end of any taxable month, the output VAT exceeds the input VAT, the outstanding balance is included under "Trade payables" in the "Accounts and other payables" account. If the input VAT exceeds the output VAT, the excess shall be carried over to the succeeding months and included under the "Other current assets" account.

Current income tax

Current income tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that have been enacted or substantively enacted at the reporting date.

Deferred tax

Deferred tax is provided, using the liability method, for all temporary differences, with certain exceptions, between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes at the reporting date.

Deferred tax liabilities are recognized for all taxable temporary differences, except:

- When the deferred tax liability arises from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination, and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.
- In respect of taxable temporary difference associated with investments in subsidiaries and associates, when the timing of the reversal of the temporary difference can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets are recognized for all deductible temporary differences, the carryforward of unused tax credits and any unused tax losses. Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carryforward of unused tax credits and unused tax losses can be utilized, except:

- When the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss.
- In respect of deductible temporary differences associated with investments in subsidiaries and associates, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred tax assets is reviewed at each reporting date and reduced to the extent that it is no longer probable that sufficient taxable income will be available to allow all or part of the deferred tax assets to be utilized. Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it has become probable that future taxable income will allow all or part of the deferred tax assets to be recovered.

Deferred tax assets and liabilities are measured at the tax rate that is expected to apply in the year when the asset is realized or the liability is settled, based on tax rates and tax laws that have been enacted or substantively enacted as of the reporting date.

Deferred tax relating to items recognized outside profit or loss is recognized outside profit or loss. Deferred tax items are recognized in correlation to the underlying transaction either in other comprehensive income or directly in equity.

The Group offsets deferred tax assets and deferred tax liabilities if and only if it has a legally enforceable right to set off current tax assets and current tax liabilities and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

Earnings per Share (EPS)
Basic EPS is computed by dividing net income applicable to common stock by the weighted average number of common shares outstanding during the year and adjusted to give retroactive effect to any stock dividends declared, if any, during the period. The net income attributable to common stock is net of the dividends on preferred shares including the participating preferred shares' participation in earnings. The participating preferred shares participate in the earnings at a rate of 1/10 of the dividends paid to a common share.

Diluted EPS is computed by dividing earnings attributable to common shares by the weighted average number of common shares outstanding during the period, after giving retroactive effect of any stock dividends, if any, during the period and adjusted for the effect of dilutive options. Outstanding stock options will have a dilutive effect under the treasury stock method only when the average market price of the underlying common share during the period exceeds the exercise price of the option. Where the effects of the assumed exercise of all outstanding options have anti-dilutive effect, basic and diluted EPS are stated at the same amount.

Assets Held in Trust
Assets which are owned by MWSS, PGL, TIEZA, CDC, OWD, and CWD that are operated by the Group under the Group's concession agreements are not reflected in the consolidated statement of financial position but are considered as Assets Held in Trust (see Note 23).

Segment Reporting
The Group aggregates two or more operating segments into a single operating segment when separately, each operating segment has similar economic characteristics and service area. The Group aggregated its local and foreign subsidiaries into the Domestic Subsidiaries segment and Foreign Subsidiaries segment, even if the subsidiaries cater to different customers, since management has assessed that these entities have similar economic characteristics and service area. The Group considers the Manila Concession and Head Office, Domestic Subsidiaries, and Foreign Subsidiaries as its operating segments that are aggregated based on the geographical location and source of revenues. Financial information on business segments is presented in Note 24 to the consolidated financial statements.

Events after the Reporting Date
Any event after the reporting date up to the date of the auditors' report that provide additional information about the Group's financial position at the reporting date (adjusting events) is reflected in the consolidated financial statements. Any event after the reporting date that is not an adjusting event is disclosed in the consolidated financial statements when material.

3. Significant Accounting Judgments, Estimates and Assumptions

The preparation of the consolidated financial statements, in conformity with PFRS, requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and the accompanying notes. The estimates and assumptions used in the consolidated financial statements are based upon management's evaluation of relevant facts and circumstances as of the date of the consolidated financial statements. Actual results could differ from such estimates.

Management believes the following represent a summary of these significant estimates and judgments:

Judgments

In the process of applying the Group's accounting policies, management has made the following judgments, which have the most significant effect on the amounts recognized in the consolidated financial statements.

Service concession arrangements

In applying Philippine Interpretation IFRIC 12, *Service Concession Arrangements*, the Group has made a judgment that its concession agreements with MWSS, PGL, TIEZA, CDC, OWD, and CWD qualify under the Intangible Asset model as it receives the right (license) to charge users of public service (see Notes 2 and 10).

On the other hand, the Group has made a judgment that the bulk water sale and purchase agreements with MCWD and TWD qualify under the Financial Asset model as it has an unconditional contractual right to receive cash or other financial assets for its construction services directly from MCWD and TWD (see Notes 2 and 10).

Investments in associates

The Group has determined that it has significant influence over East Water despite holding less than 20% of East Water's outstanding shares of stock. The Group considers several factors including its representation in East Water's BOD, representation in East Water's Investment Committee, and its voting power through share ownership to determine the Group's power to participate in the financial and operating policy decisions of East Water.

As of December 31, 2018, the Group owns 18.72% of East Water (see Note 11).

Revenue recognized using the input and output method

The Group recognizes revenue from rehabilitation works, construction revenue, and service fees using the input method while it recognizes supervision fees and revenue from pipeworks and integrated used water services using the output method. The input or output method of recognizing revenue over the period covered by the separate contracts with customers requires the Group to base the level of transfer of control over these services based on the Group's review and concurrence with work accomplishment reports prepared by project managers or submitted by independent project contractors.

Operating lease commitments - Group as lessee

The Group entered into various lease arrangements for its Healthy Family plant sites, stockyard, office areas, and water and used water facilities. The Group has determined, based on the evaluation of the terms and conditions of the arrangements, that the significant risks and rewards for properties leased from third parties are retained by the lessors and accordingly, accounts for these contracts as operating leases (see Notes 23 and 27).

Segment reporting

The Group aggregates two or more operating segments into a single operating segment when separately, each operating segment has similar economic characteristics and service area. The Group aggregated its local and foreign subsidiaries into the Domestic Subsidiaries segment and Foreign Subsidiaries segment even if it caters to different customers since management assessed that these entities have similar economic characteristics and service area. As of December 31, 2018 and 2017, the Group considers the Manila Concession and Head Office, Domestic Subsidiaries, and Foreign Subsidiaries as its operating segments that are aggregated based on the geographical location and source of revenues (see Note 24).

Provisions and contingencies

The Group is currently involved in various legal proceedings and exposures in the ordinary conduct of business. The estimate of the probable costs for the resolution of these claims has been developed in consultation with internal and outside counsels handling the defense in these matters and is based upon an analysis of potential results.

The Group currently does not believe that these proceedings and exposures will have a material or adverse effect on the Group's financial position and results of operations (see Note 28).

Use of Estimates

Key assumptions concerning the future and other sources of estimation uncertainty at the reporting date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities are discussed below. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising that are beyond the control of the Group. Such changes are reflected in the assumptions when they occur.

Revenue and cost recognition – rehabilitation works

The Group measures revenue from rehabilitation works at the fair value of the consideration received or receivable. The Group's revenue from rehabilitation works are recognized over time, using the input method. Under this method, progress is measured by reference to the actual costs incurred to date. Revenue from rehabilitation works recognized by the Group is equivalent to the costs of rehabilitation works incurred as these costs are recovered by the Group through its right to charge the customers. The Group's revenue from and cost of rehabilitation works amounted to ₱9,661.98 million and ₱11,672.14 million in 2018 and 2017, respectively (see Notes 6 and 10).

Provision for expected credit losses of receivables from customers

The Group uses a provision matrix to calculate ECLs for receivables. The provision rates are based on days past due for groupings of various customer segments that have similar loss patterns.

The provision matrix is initially based on the Group's historical observed default rates. The Group calibrates the matrix to adjust the historical credit loss experience with forward-looking information. For instance, if forecast economic conditions (i.e., inflation) are expected to deteriorate over the next year which can lead to an increase in prices of basic goods and services, the historical default rates are adjusted. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analyzed.

The assessment of the correlation between historical observed default rates, forecast economic conditions, and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and of forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future.

As of December 31, 2018 and 2017, allowance for expected credit losses of receivables from customers amounted to ₱1,239.76 million and ₱1,064.89 million, respectively (see Note 6).

Accounting for connection fees

Under PFRS 15, the connection fee and the related water and sewer services are accounted for as arising from a single performance obligation that will be satisfied over the period when the related services are expected to be provided. The adoption of PFRS 15 requires that the connection fee collected for all active water service connections as at January 1, 2018 to be recognized as revenue over time. Management has made a judgment that it is impracticable to restate revenue from connection fee retrospectively given the impracticality in obtaining all the relevant information to properly and accurately estimate the cumulative impact of the change in accounting for connection fees, including among others, sources and number of active service connections, amount of connection fee paid per connection, and the related cost.

Considering impracticability of retrospective restatement, the Group adopted the change in accounting for connection fees prospectively starting on January 1, 2018, as allowed under PAS 8.

Estimating the period over which control over services is transferred to the customer

For each group of similar customer contracts that result in revenues recognized over a period of the time, the Group makes an estimate of such period over which the Group transfers the control of the services provided to the customer. For revenue from rehabilitation works, construction revenue, service fees, supervision fees, and revenue from pipeworks and integrated used water services, the Group has determined that the period of revenue recognition is the term of the customer contract. For connection fees revenue, the Group has estimated that the customer receives control over the remaining concession period or remaining corporate life.

Estimating useful lives of water banking rights

Cebu Water and MWPV estimate that the useful lives of the water banking rights to be indefinite, considering that the water permits remain valid for as long as water is beneficially used. It is possible that future results of operations could be materially affected by changes in Cebu Water and MWPV's estimates. The amounts and timing of recording of expenses for any period would be affected by changes in these factors and circumstances (see Note 12).

Impairment of nonfinancial assets
The Group assesses the impairment of nonfinancial assets (property, plant and equipment, SCA, investments in associates, other current assets, and other noncurrent assets) whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The factors that the Group considers important which could trigger an impairment review include the following:

- significant underperformance relative to expected historical or projected future operating results;
- significant changes in the manner of usage of the acquired assets or the strategy for the Group's overall business;
- significant negative industry or economic trends;
- significant decline in net worth or market capitalization; and
- significant decline in distributed profits or increase in losses.

As described in the accounting policy, the Group estimates the recoverable amount as the higher of the net selling price and value in use.

In determining the present value of estimated future cash flows expected to be generated from the continued use of the assets, the Group is required to make estimates and assumptions regarding the expected future cash generation of the assets, discount rates to be applied and the expected period of benefits.

In 2018, MWTS closed three (3) water bottling plants. As a result, the Group recognized impairment loss on its property, plant and equipment amounting to ₱71.43 million, representing the write-down of leasehold improvements and water treatment equipment to its recoverable amounts as of December 31, 2018 (see Note 9). This is presented as part of "Other income - net" in the consolidated statements of comprehensive income.

For the year ended December 31, 2018, the Group recognized impairment loss on its investment in Saigon Water amounting to ₱65.41 million due to market capitalization. This is presented as part of "Other income - net" in the consolidated statements of comprehensive income.

As of December 31, 2018 and 2017, the Group has determined that there are no indicators of impairment on its investments in Thu Duc Water, Kenh Dong Water, Cu Chi Water, East Water, and PT STU (see Note 11).

As of December 31, 2018, there were no indicators of impairment on the Group's SCA, other current assets, and other noncurrent assets. As of December 31, 2017, there were no indicators of impairment on the Group's investment in nonfinancial assets (see Notes 9, 10, and 11).

Impairment of goodwill on the acquisition of Clark Water
Goodwill impairment testing requires an estimation of the recoverable amount which is the fair value less cost to sell or value in use of the cash-generating units to which the goodwill is allocated. Estimating value in use amount requires management to make an estimate of the expected future cash flows for the cash-generating unit and to choose a suitable discount rate in order to calculate the present value of cash flows.

The Parent Company's impairment test for goodwill related to the acquisition of Clark Water is based on value in use calculations using a discounted cash flow model. The 2018 cash flows for the next twenty-two (22) years assume a steady growth rate and is are derived from Clark Water's latest business plan. The Parent Company used the remaining concession life of Clark Water when testing for impairment. The recoverable amount is most sensitive to discount rate used for the discounted cash flow model. The post-tax discount rate applied to cash flow projections was 12.48% and 8.97% in 2018 and 2017, respectively.

The carrying value of goodwill on the acquisition of Clark Water in the consolidated statements of financial position amounted to ₱130.30 million as of December 31, 2018 and 2017. No impairment loss was recognized as a result of the impairment testing performed.

Estimating billable water volume
Starting May 1, 2017, the SCAs related to the Group's concession agreements are amortized using the UOP method based on actual billed volume and total estimated billable volume for the remaining period of the concession agreements. The Group considers factors such as population growth rate, supply and consumption, and service coverage, including ongoing and future expansions in estimating the total billable water volume over the remaining periods of the concession agreements. For the years ended December 31, 2018 and 2017, SCA amortization expense based on the UOP method amounted to ₱2,042.04 million and ₱1,194.45 million, respectively (see Note 10).

Deferred FCDA
Under the concession agreements entered into by the Parent Company and Boracay Water with MWSS and TIEZA, respectively, the Parent Company and Boracay Water are entitled to recover (refund) foreign exchange losses (gains) arising from concession loans and any concessionaire loans. The Parent Company and Boracay Water recognized deferred FCDA (included as part of "Other noncurrent assets" in the consolidated statement of financial position) for both realized and unrealized foreign exchange gains and losses. Deferred FCDA is set up as an asset for the realized and unrealized exchange losses since this is a resource controlled by the Parent Company and Boracay Water as a result of past events and from which future economic benefits are expected to flow to the Parent Company and Boracay Water. Realized and unrealized foreign exchange gains, on the other hand, which will be refunded to the customers, are presented as liability. As of December 31, 2018 and 2017, the Parent Company and Boracay Water's deferred FCDA classified under "Other noncurrent assets" amounted to ₱2,620.32 million and ₱1,329.35 million (see Note 12).

The Group's deferred FCDA arises from a rate adjustment mechanism for the recovery or compensation on a current basis, subject to quarterly review and adjustment by MWSS or TIEZA, when necessary, of accrued foreign exchange gains and losses, arising from MWSS or TIEZA loans and concession loans used for capital expenditures and concession fee payments.

Deferred tax assets
The Group reviews the carrying amounts of deferred taxes at each reporting date and reduces deferred tax assets to the extent that it is no longer probable that sufficient taxable income will be available to allow all or part of the deferred tax assets to be utilized. Significant management judgement is required to determine the amounts that could be recognized, based upon the likely timing and the level of future taxable profits, together with future tax planning.

Also, the Group does not recognize certain deferred taxes on deductible temporary differences where doubt exists as to the tax benefits they will bring in the future (see Note 18).

Pension assets and liabilities
The cost of defined benefit pension plans is determined using actuarial valuations. The actuarial valuation involves making various assumptions. These include the determination of the discount rates, future salary increases, mortality rates, incapacity rates, retirement rate, and termination rates. The amounts of defined benefit obligations are highly sensitive to changes due to the complexity of the valuation and its long-term nature. Discount rate, salary increase rate, retirement rate, and termination rate assumptions are reviewed at each reporting date. The net pension liability amounted to ₱109.39 million and ₱25.39 million as of December 31, 2018 and 2017, respectively (see Notes 12 and 15).

In determining the appropriate discount rate, management considers the interest rates of government bonds that are denominated in the currency in which the benefits will be paid, with extrapolated maturities corresponding to the expected duration of the defined benefit obligation. Future salary increases are based on expected future inflation rates for the specific country. Retirement and termination rates are based on expected rates at which employees are assumed to retire or leave the employment of the Group.

Further details about the assumptions used are provided in Note 15.

4. Business Combination and Goodwill

2018 Business Combinations

EDCG
On December 11, 2018, Aqua Centro entered into seven (7) APAs with EDCG's subsidiaries to acquire the subsidiaries' assets related to the provision of water service in ten (10) subdivisions in Imus, General Trias, and Naic in the province of Cavite. These subsidiaries are Earth Aspire Corporation, First Advance Development Corporation, Ambition Land Inc., Prosperity Builders Resources Inc., Tahanang Yaman Homes Corporation, Extraordinary Development Corp., and Earth + Style Corporation.

On January 9, 2019, Aqua Centro paid 50% of the total contract price amounting to total consideration of ₱24.67 million, while the remaining 50% shall be payable upon compliance with all conditions precedent, within six (6) months after agreement date.

On December 11, 2018, Laguna Water entered into four (4) APAs with EDCG's subsidiaries to acquire the subsidiaries' assets related to or used in its water service provision operations in Biñan, Laguna. The APAs are with the following EDCG subsidiaries, namely, Earth Aspire Corporation, Earth Prosper Corporation, Earth and Style Corporation and Extraordinary Development Corp. Total acquisition cost amounted to ₱20.46 million, while the remaining 50% shall be payable upon compliance with all conditions precedent, within six (6) months after agreement date .

The fair values of the identifiable assets on these transactions as of the date of acquisition were as follows:

	Assets Acquired (Property, Plant and Equipment)	Acquisition Cost	Goodwill (Bargain Purchase)
Aqua Centro			
First Advance Development Corporation	₱40,790,000	₱20,769,400	(₱20,020,600)
Earth Aspire Corporation	3,753,000	1,356,000	(2,397,000)
Ambition Land Inc.	5,528,000	4,559,550	(968,450)
Prosperity Builders Resources Inc.	11,604,000	12,475,200	871,200
Tahanang Yaman Homes Corporation	7,249,000	10,189,210	2,940,210
Laguna Water			
Earth Prosper Corporation	13,952,000	6,880,570	(7,071,430)
Earth + Style Corporation	23,303,000	17,337,590	(5,965,410)
Extraordinary Development Corp.	5,753,000	81,360	(5,671,640)
Earth Aspire Corporation	18,278,000	16,618,910	(1,659,090)

No identifiable liabilities were assumed by Aqua Centro and Laguna Water in these acquisitions. Total gain on bargain purchase amounting to ₱43.75 million is presented as part of "Other income - net" in the 2018 consolidated statement of comprehensive income.

As of December 31, 2018, the purchase price allocations of Aqua Centro and Laguna Water for the acquisitions are provisional as the valuation of property, plant and equipment is yet to be finalized.

2017 Business Combinations

Asian Land

On January 4, 2017, MWPV entered into an APA with Asian Land to acquire and operate the latter's assets used in the water business operations in Asian Land's developments in the province of Bulacan. The intention of MWPV was to assign the rights under the APA to BMDC, its wholly owned subsidiary.

On July 31, 2017, MWPV assigned all its rights and obligations on the APA to BMDC under a Deed of Assignment. On the same day, the Deed of Absolute Sale has also been executed between Asian Land and BMDC. Total consideration paid by BMDC to Asian Land amounted to ₱54.00 million, inclusive of VAT.

Solar Resources

On July 26, 2017, BMDC entered into an APA with Solar Resources to acquire and operate the latter's assets used in the water business operations in Solar developments in the province of Bulacan. On July 31, 2017, Solar Resources executed a Deed of Assignment in relation to the APA and a Deed of Absolute Sale to sell and transfer its properties pertaining to water facilities and its operations in the Las Palmas Subdivisions Phases 1 to 7 to BMDC. Total consideration paid by BMDC to Solar Resources amounted to ₱21.00 million, inclusive of VAT.

Borland

On December 14, 2017, Borland executed the APA, Deed of Assignment, and Deed of Absolute Sale to sell, assign, transfer, and convey its assets pertaining to water facilities and its operation in San Vicente Homes subdivision in Bulacan to BMDC. Total consideration paid by BMDC to Borland amounted to ₱7.28 million, exclusive of VAT.

The fair values of the identifiable assets on these transactions as of the date of acquisition were as follows:

	Assets Acquired (Property, Plant and Equipment)	Acquisition Cost	Goodwill (Bargain Purchase)
Asian Land	₱103,122,000	₱48,214,286	(₱54,907,714)
Solar Resources	17,544,000	18,750,000	1,206,000
Borland	6,050,400	7,280,000	1,229,600

No identifiable liabilities were assumed by BMDC in these acquisitions. The gain on bargain purchase is presented as part of "Other income - net" in the 2017 consolidated statement of comprehensive income.

The rollforward of goodwill is as follows:

	2018	2017
Balance at beginning of year	**₱132,755,065**	₱130,319,465
Additions from business combination	**3,811,410**	2,435,600
Balance at end of year	**₱136,566,475**	₱132,755,065

The goodwill balance is attributable to acquisitions of the following businesses:

	2018	2017
Clark Water	**₱130,319,465**	₱130,319,465
Tahanang Yaman Homes Corporation	**2,940,210**	–
San Vicente Homes	**1,229,600**	1,229,600
Las Palmas Subdivisions Phases 1 to 7	**1,206,000**	1,206,000
Prosperity Builders Resources Inc.	**871,200**	–
Balance at end of year	**₱136,566,475**	₱132,755,065

5. Cash and Cash Equivalents

This account consists of:

	2018	2017
Cash on hand and in banks (Note 21)	**₱1,440,142,718**	₱1,200,628,004
Cash equivalents (Note 21)	**7,950,448,555**	7,820,116,085
	₱9,390,591,273	₱9,020,744,089

Cash in banks earn interest at the respective bank deposit rates ranging from 0.01% to 3.33%, 0.01% to 2.80%, and 0.01% to 2.38% in 2018, 2017, and 2016, respectively. Cash equivalents are highly liquid investments with varying periods of up to three (3) months and earn interest at the respective short-term rates.

Interest income earned from cash in banks and cash equivalents amounted to ₱255.35 million, ₱116.52 million, and ₱82.14 million in 2018, 2017, and 2016, respectively (see Note 17).

6. Receivables and Contract Assets

a. Receivables

This account consists of receivables from:

	2018	2017
Customers of:		
Water and used water services:		
Residential	**₱1,814,528,501**	₱1,694,829,492
Commercial	**265,422,961**	273,305,137
Semi-business	**91,609,334**	81,899,863
Industrial	**44,800,792**	82,519,488
Pipework services	**407,668,929**	296,247,701
Distributor's fees	**146,564,312**	141,352,430
Supervision fees	**108,366,330**	261,780,202
BWC	**388,410,670**	501,014,249
ZCWD	**10,450,032**	112,293,823
Employees	**31,155,782**	34,775,785
Interest from banks	**23,936,806**	16,405,733
Others (Note 14)	**183,093,834**	115,616,360
	3,516,008,283	3,612,040,263
Less allowance for ECLs	**1,239,761,340**	1,064,885,100
	2,276,246,943	2,547,155,163
Less noncurrent portion of:		
Receivable from BWC (Note 12)	**321,014,249**	451,322,564
Receivable from ZCWD (Note 12)	**–**	52,016,776
	₱1,955,232,694	₱2,043,815,823

The classes of the Group's receivables arising from water and sewer services rendered to customers, collectible within thirty (30) days from billing date, follow:

- Residential - pertains to receivables from residential households.
- Commercial - pertains to receivables from commercial customers.
- Semi-business - pertains to receivables from small businesses.
- Industrial - pertains to receivables from customers for industrial and manufacturing purposes.

Trade receivables from pipework services pertain to pipelaying, pipe replacements, and other services related to water and used water treatment facilities. These receivables are collectible within twelve (12) months.

Trade receivables from distributors' fees arise from the Exclusive Distributorship Agreement (EDA) entered into by MWTS with distributors of its Healthy Family drinking water and are collectible within the period that is agreed with the distributors.

Trade receivables arising from supervision fees on the development of water and used water facilities are collectible within thirty (30) days from billing date.

Receivable from ZCWD pertains to billed charges for service fees, construction revenue, and performance fees arising from Zamboanga Water's NRWSA. Zamboanga Water classifies as current the portion of the gross receivable from ZCWD that is collectible within the next twelve (12) months (see Note 12).

Receivable from BWC pertains to the assigned receivable between the Parent Company and VWPI covered by the Share Purchase Agreement related to the acquisition of VWPI's interest in Clark Water in 2011 (see Note 1).

The assigned receivable will be paid by BWC at an amount equal to 30% of the product consumed by all of BWC's customers and the tariff imposed by the Parent Company on its customers falling under the corresponding classification pursuant to the Concession Agreement and all amounts received by BWC as connection fees from customers and any fee BWC may charge in relation to the interconnection with the wastewater treatment plant of areas of developments outside the BWC service area. The assigned receivable from BWC is interest-bearing and the Parent Company classifies as current the portion of its gross receivable from BWC that is due within the next twelve (12) months in accordance with the agreed terms.

Receivable from employees arise from car, salary, and other loans which are due and demandable based on an agreed payment schedule and are collected through salary deductions.

Interest from banks are accrued interest arising from the Group's cash in banks and cash equivalents.

Other receivables include receivables from Land Bank of the Philippines in relation to the MWMP Loan (see Note 14), and receivables from shared facilities, and collection facilities.

Movements in the Group's allowance for ECLs follows:

	2018					
	Receivable from Customers				**Other**	
	Residential	**Commercial**	**Semi-business**	**Industrial**	**Receivables**	**Total**
Balance at beginning of year	**₱733,140,957**	**₱130,835,492**	**₱39,121,515**	**₱18,313,091**	**₱143,474,045**	**₱1,064,885,100**
Provision (Note 17)	**97,027,297**	**19,447,802**	**6,425,949**	**13,428,896**	**62,787,944**	**199,117,888**
Reversal (Note 17)	**–**	**–**	**–**	**(24,241,648)**	**–**	**(24,241,648)**
Balance at end of year	**₱830,168,254**	**₱150,283,294**	**₱45,547,464**	**₱7,500,339**	**₱206,261,989**	**₱1,239,761,340**

	2017					
	Receivable from Customers				Other	
	Residential	Commercial	Semi-business	Industrial	Receivables	Total
Balance at beginning of year	₱550,832,142	₱108,508,951	₱35,224,984	₱7,007,800	₱68,633,259	₱770,207,136
Provision (Note 17)	434,763,390	99,731,927	3,946,933	11,305,291	74,840,786	624,588,327
Reversal (Note 17)	(38,362,383)	–	–	–	–	(38,362,383)
Write-off	(214,092,192)	(77,405,386)	(50,402)	–	–	(291,547,980)
Balance at end of year	₱733,140,957	₱130,835,492	₱39,121,515	₱18,313,091	₱143,474,045	₱1,064,885,100

b. Contract assets

As of December 31, 2018, contract assets consist of:

Contract assets from:	
Supervision fees	₱262,202,448
NRWSA with ZCWD	66,475,151
Bulk Water Sales and Purchase Agreement with TWD (Note 10)	69,770,280
Current portion	398,447,879
Bulk Water Sales and Purchase Agreement with TWD (Note 10)	415,679,332
NRWSA with ZCWD	77,263,570
Noncurrent portion	492,942,902
	₱891,390,781

Contract assets from supervision fees are initially recognized for revenue earned arising from the provision of design and project management services in the development of water and used water facilities. These contract assets are reclassified to "Receivables" upon acceptance and reaching certain construction milestones for the related water and used water facilities.

Contract assets from the NRWSA with ZCWD are initially recognized for revenue earned arising from construction revenue and performance fees for NRW reduction services. These contract assets are reclassified to "Receivables" upon acceptance of and billing to the customer.

Contract assets arising from the Bulk Water Sales and Purchase Agreement with TWD consist of the cost of rehabilitation works which will be reclassified to "Concession financial receivables" upon completion of construction of the related facilities. The rollforward of these contract assets follows:

Balance at January 1, 2018	₱–
Impact of adoption of PFRS 15 (Note 2)	206,953,634
Rehabilitation works	219,077,622
Finance income (Note 17)	70,847,020
Reclassification to concession financial receivables (Note 10)	(11,428,664)
Balance at December 31, 2018	₱485,449,612

7. Inventories

This account consists of:

	2018	2017
Maintenance materials	**₱72,879,100**	₱98,148,488
Raw materials and finished goods	**46,309,824**	48,025,466
Water meters and connection supplies	**44,980,771**	56,055,064
Water treatment chemicals	**41,753,537**	8,520,551
	₱205,923,232	₱210,749,569

Finished goods consist of 300-milliliter and 500-milliliter bottled water, five (5)-gallon packaged water, and dispenser while raw materials consist of the cap seals for the 5-gallon packaged water bottles.

The Group's inventories are carried at cost except for its maintenance materials, raw materials, and finished goods which are carried at NRV. Allowance for obsolescence amounted to ₱4.40 million and ₱1.46 million as of December 31, 2018 and 2017, respectively.

In 2018, 2017, and 2016, MWTS recognized ₱20.46 million, ₱17.09 million, and ₱12.68 million, respectively, as part of its cost of sales of packaged water.

8. Other Current Assets

This account consists of:

	2018	2017
Net input VAT	**₱875,216,925**	₱912,195,638
Prepaid expenses	**385,565,676**	337,395,697
Guaranty deposits	**33,612,710**	23,585,532
Security bonds	**10,244,350**	13,235,850
	₱1,304,639,661	₱1,286,412,717

Net input VAT pertains to the Group's excess input VAT over the output VAT as of the end of the reporting period.

Prepaid expenses consist of prepayments for transaction costs for undrawn credit facilities, loan guarantee fees, regulatory costs, business taxes, insurance, rent, interest, and employee health care expenses and other employee benefits.

Guaranty deposits consist of rental deposits and other advance payments that can be recovered within one (1) year.

9. Property, Plant and Equipment

The rollforward analysis of this account follows:

	2018						
	Land	Plant and Technical Equipment	Office Furniture and Equipment	Transportation Equipment	Leasehold Improvements	Construction in Progress	Total
Cost							
Balance at beginning of year	**₱226,340,760**	**₱1,868,872,078**	**₱2,112,898,787**	**₱995,529,679**	**₱389,089,410**	**₱729,993,933**	**₱6,322,724,647**
Additions	**–**	**478,680,838**	**198,429,066**	**172,791,097**	**143,296,929**	**490,958,441**	**1,484,156,371**
Transfers (Note 10)	**–**	**(164,371,631)**	**46,636**	**–**	**187,580,230**	**(44,065,299)**	**(20,810,064)**
Disposals	**–**	**(4,057,636)**	**(85,844,119)**	**(62,425,617)**	**–**	**–**	**(152,327,372)**
Balance at end of year	**226,340,760**	**2,179,123,649**	**2,225,530,370**	**1,105,895,159**	**719,966,569**	**1,176,887,075**	**7,633,743,582**
Accumulated depreciation, amortization, and impairment							
Balance at beginning of year	**–**	**1,068,543,434**	**1,775,684,977**	**₱455,299,213**	**₱287,882,481**	**–**	**3,587,410,105**
Depreciation and amortization (Note 17)	**–**	**152,554,152**	**257,968,825**	**158,078,468**	**45,029,958**	**–**	**613,631,403**
Impairment loss	**–**	**46,271,291**	**–**	**–**	**25,158,619**	**–**	**71,429,910**
Disposals	**–**	**(4,057,636)**	**(85,627,988)**	**(57,257,077)**	**–**	**–**	**(146,942,701)**
Balance at end of year	**–**	**1,263,311,241**	**1,948,025,814**	**556,120,604**	**358,071,058**	**–**	**4,125,528,717**
Net book value	**₱226,340,760**	**₱915,812,408**	**₱277,504,556**	**₱549,774,555**	**₱361,895,511**	**₱1,176,887,075**	**₱3,508,214,865**

	2017						
	Land	Plant and Technical Equipment	Office Furniture and Equipment	Transportation Equipment	Leasehold Improvements	Construction in Progress	Total
Cost							
Balance at beginning of year	₱225,832,101	₱1,244,432,935	₱1,930,277,647	₱604,586,336	₱391,300,870	₱517,206,027	₱4,913,635,916
Additions	508,659	624,439,143	183,272,096	403,425,326	1,740,798	212,787,906	1,426,173,928
Transfers (Note 10)	–	–	–	–	(3,952,258)	–	(3,952,258)
Disposals	–	–	(650,956)	(12,481,983)	–	–	(13,132,939)
Balance at end of year	226,340,760	1,868,872,078	2,112,898,787	995,529,679	389,089,410	729,993,933	6,322,724,647
Accumulated depreciation and amortization							
Balance at beginning of year	–	934,533,307	1,552,373,553	376,228,774	254,331,212	–	3,117,466,846
Depreciation and amortization (Note 17)	–	134,010,127	223,882,299	89,191,160	33,971,180	–	481,054,766
Transfers (Note 10)	–	–	–	–	(419,911)	–	(419,911)
Disposals	–	–	(570,875)	(10,120,721)	–	–	(10,691,596)
Balance at end of year	–	1,068,543,434	1,775,684,977	455,299,213	287,882,481	–	3,587,410,105
Net book value	₱226,340,760	₱800,328,644	₱337,213,810	₱540,230,466	₱101,206,929	₱729,993,933	₱2,735,314,542

The net book value of noncash transfers to SCA in 2018 and 2017 amounted to ₱20.81 million and ₱3.53 million, respectively (see Note 10).

As of December 31, 2018 and 2017, noncash acquisitions of property, plant and equipment, amounted to ₱346.18 million and ₱141.04 million, respectively.

As of December 31, 2018, the impairment loss of ₱71.43 million pertains to the write-down of leasehold improvements and water treatment equipment of MWTS to its recoverable amount arising from the closure of several of its water bottling plants during the year.

As of December 31, 2018 and 2017, fully depreciated property, plant and equipment that are still in use by the Group amounted to ₱3,023.37 million and ₱2,683.31 million, respectively.

10. Service Concession Assets and Obligations

a. Service concession assets

The movements in this account follow:

	2018	2017
Cost		
Balance at beginning of year	**₱98,574,659,298**	₱87,000,596,988
Additions:		
Rehabilitation works	**9,442,899,007**	11,474,241,845
Concession fees	**948,016,106**	91,418,802
Transfers (Note 9)	**16,648,552**	3,952,258
Local component cost	**13,095,189**	4,449,405
Balance at end of year	**108,995,318,152**	98,574,659,298
Accumulated amortization		
Balance at beginning of year	**24,423,713,917**	22,347,349,894
Amortization	**2,042,038,397**	2,075,944,112
Transfers (Note 9)	**–**	419,911
Balance at end of year	**26,465,752,314**	24,423,713,917
Net book value	**₱82,529,565,838**	₱74,150,945,381

SCA consists of the present value of total estimated concession fee payments, including regulatory costs and local component costs, of the Parent Company, Laguna Water, Boracay Water, Clark Water, Obando Water, and Calasiao Water pursuant to the Group's concession agreements, and the revenue from rehabilitation works which is equivalent to the related cost for the rehabilitation works covered by the concession arrangements. As of December 31, 2018 and 2017, SCA includes assets under construction amounting to ₱23,082.31 million and ₱19,523.40 million in 2018 and 2017, respectively.

SCA also includes prepaid concession fees which represents the thirty percent (30%) ownership of the PGL in Laguna Water. These are amortized based on the terms set forth in Laguna Water's concession agreement (see Note 1). As of December 31, 2018 and 2017, the unamortized portion of prepaid concession fees presented as part of SCA amounted to ₱84.36 million.

Contract assets arising from concession agreements consist of the cost of rehabilitation works covered by the concession agreements of the Parent Company, Laguna Water, Boracay Water, Clark Water, and Calasiao Water.

Total interest and other borrowing costs capitalized as part of the rehabilitation works amounted to ₱1,018.30 million, ₱713.33 million, and ₱654.30 million in 2018, 2017, and 2016, respectively. The capitalization rates used ranged from 0.64% to 7.57% in 2018, 5.12% to 9.15% in 2017, and 2.62% to 9.15% in 2016.

As of December 31, 2018 and 2017, non-cash acquisitions of SCA amounted to ₱92.77 million and ₱3.53 million.

b. Service concession obligations

The breakdown of service concession obligations follows:

	2018	2017
Current	**₱809,405,231**	₱800,961,856
Noncurrent	**7,119,121,473**	6,646,714,054
	₱7,928,526,704	₱7,447,675,910

MWSS Concession Fees

The aggregate concession fees of the Parent Company fare equal to the sum of the following:

i. 10% of the aggregate Peso equivalent due under any MWSS loan which has been disbursed prior to the Commencement Date, including MWSS loans for existing projects and the Umiray Angat Transbasin Project (UATP), on the prescribed payment date;

ii. 10% of the aggregate Peso equivalent due under any MWSS loan designated for the UATP which has not been disbursed prior to the Commencement Date, on the prescribed payment date;
iii. 10% of the local component costs and cost overruns related to the UATP;
iv. 100% of the aggregate Peso equivalent due under MWSS loans designated for existing projects, which have not been disbursed prior to the Commencement Date and have been either awarded to third party bidders or elected by the Parent Company for continuation;
v. 100% of the local component costs and cost overruns related to existing projects;
vi. Parent Company's share in the repayment of MWSS loan for the financing of new projects; and
vii. one-half of MWSS annual corporate operating budget.

In March 2010, MWSS entered into a loan agreement with The Export-Import Bank of China to finance the Angat Water Utilization and Aqueduct Improvement Project Phase II. Total loan facility amounted to $116.60 million with a maturity of twenty (20) years including a five (5)-year grace period. The interest rate is 3.00% per annum.

MWSS subsequently entered into a MOA with the Parent Company and Maynilad for the Parent Company and Maynilad to equally shoulder the repayment of the loan with such repayment to form part of the concession fees.

On May 12, 2015, MWSS entered into a MOA with the Parent Company and Maynilad for the Angat Water Transmission Improvement Project (Angat Transmission Project). The Angat Transmission Project aims to improve the reliability and security of the raw water coming from the Angat Dam through the rehabilitation of the transmission system from Ipo to La Mesa and the application of water safety, risk and asset management plans. Subsequently, on May 27, 2016, MWSS entered in to a loan agreement with Asian Development Bank to finance the Angat Transmission Project. The loan amounts to US$123.30 million with a maturity of twenty-five (25) years including a seven (7)-year grace period. As stipulated in the MOA, the Parent Company and Maynilad shall shoulder equally the repayment of the loan and all reasonable expenditures related to the Project with such payments to form part of the concession fees.

In 2016, the Parent Company paid MWSS ₱500.00 million as compensation for additional water allocation in the Angat reservoir.

The schedule of undiscounted future concession fee payments follows:

Year	Foreign Currency-Denominated Loans (Translated to US$)	Peso Loans/ Project Local Support	Total Peso Equivalent*
2019	$9,750,894	₱395,714,907	₱908,416,913
2020	9,348,648	395,714,907	887,266,819
2021	6,711,761	395,714,907	748,619,300
2022	6,419,168	395,714,907	733,234,760
2023	6,567,631	395,714,907	741,040,945
2024 onwards	51,115,013	5,540,008,695	8,227,636,079
	$89,913,115	₱7,518,583,230	₱12,246,214,816

**Peso equivalent is translated using the closing rate as of December 31, 2018 amounting to ₱52.58 to US$1.*

PGL Concession Fees

Under Laguna Water's concession agreement with PGL, Laguna Water is required to pay concession fees to PGL computed as a percentage of water sales as follows:

Operational Period	Percentage of Water Sales
Years 1 to 5	4%
Years 6 to 10	3%
Years 11 to 25	2%

Seventy percent (70%) of the concession fees shall be applied against any advances made by Laguna Water to PGL. The remaining thirty percent (30%) of the concession fees shall be payable annually thirty (30) days after the submission of the audited financial statements by Laguna Water, starting on the first operational period, which begins upon the expiration of the transition period. Advances as of December 31, 2018 and 2017 amounted to ₱84.36 million.

TIEZA Concession Fees
The aggregate concession fees pursuant to Boracay Water's concession agreement with TIEZA is equal to the sum of the following:

i. servicing the aggregate Peso equivalent of all liabilities of BWSS as of commencement date;
ii. 5% of the monthly gross revenue of Boracay Water, inclusive of all applicable taxes which are for the account of Boracay Water; and
iii. payment of annual operating budget of the TIEZA-RO starting 2010. For 2010 and 2011, the amount shall not exceed ₱15.00 million. For the year 2012 and beyond, Boracay Water shall pay not more than ₱20.00 million, subject to annual CPI adjustments.

CDC Concession Fees
The aggregate concession fees pursuant to Clark Water's concession agreement with CDC is equal to the sum of the following:

i. annual franchise fee of ₱1.50 million; and
ii. semi-annual rental fees of ₱2.77 million for leased facilities from CDC.

As a result of the extension of the concession agreement of Clark Water, payment of rental fees on the CDC existing facilities was extended by an additional fifteen (15) years from October 1, 2025 to October 1, 2040 (see Note 1).

OWD Concession Fees
The aggregate concession fee pursuant to Obando Water's concession agreement with OWD is equal to the sum of the following:

i. base concession fee which shall be used for operations of the OWD; and
ii. additional concession fee composed of amounts representing amortization payments for the outstanding obligations of OWD and 2% of the gross annual receipts of Obando Water, representing franchise tax to be paid by the OWD.

For the year ended December 31, 2018, concession fees recognized as part of SCA and SCO arising from the concession agreement with OWD amounted to ₱470.94 million (nil as of December 31, 2017).

CWD Concession Fees
Under Calasiao Water's concession agreement with CWD, concession fees are based on a fixed schedule of annual payments over the twenty-five (25) year concession period.

For the year ended December 31, 2017, concession fees recognized as part of SCA and SCO arising from the concession agreement with CWD amounted to ₱80.11 million (nil as of December 31, 2018).

c. Concession financial receivables

The movements in this account follow:

	2018	2017
Cost		
Balance at beginning of year	**₱1,395,814,171**	₱1,214,410,232
Additions:		
Rehabilitation works	**–**	197,895,186
Service income	**82,023,265**	79,158,815
Finance income (Note 17)	**55,058,838**	181,095,164
Reclassification to contract assets (Notes 2 and 6)	**(206,953,634)**	–
Reclassification from contract assets (Note 6)	**11,428,664**	–
Collections	**(275,730,349)**	(276,745,226)
Balance at end of year	**1,061,640,955**	1,395,814,171
Allowance for ECL		
Balance at beginning of year	**(11,262,889)**	(8,596,614)
Provisions (Note 17)	**(3,336,524)**	(2,666,275)
Balance at end of year	**(14,599,413)**	(11,262,889)
Net book value	**₱1,047,041,542**	₱1,384,551,282

The breakdown of concession financial receivables follows:

	2018	2017
Current	**₱193,706,165**	₱197,043,608
Noncurrent	**853,335,377**	1,187,507,674
	₱1,047,041,542	₱1,384,551,282

MCWD Bulk Water Supply Agreement

On December 13, 2013, Cebu Water received a Notice of Award for the bulk supply of water to the MCWD. In relation to this, Cebu Water and MCWD signed a twenty (20)-year Bulk Water Supply Agreement for the supply of eighteen (18) million liters per day of water for the first year and thirty-five (35) million liters per day of water for years two (2) up to twenty (20).

Concession financial receivable is accounted for in accordance with IFRIC 12, arising from the bulk water contract between Cebu Water and MCWD, whereby the facilities constructed by Cebu Water shall be used for the delivery of potable and treated water to MCWD at an aggregate volume of eighteen (18) million liters per day for the first year and thirty-five (35) million liters per day for the succeeding years up to twenty (20) years at ₱24.59 per cubic meter.

In 2016, due to the declaration of the state of calamity arising from the El Niño, Cebu Water and MCWD invoked the force majeure clause in the Bulk Water Supply Agreement which effectively lifted the requirement for MCWD to purchase and for Cebu Water to deliver the agreed thirty-five (35) million liters of water starting January 2016 until September 2016. Due to this change in the timing of the implementation of the thirty-five (35) million liters of guaranteed volume, Cebu Water recognized in 2016 an impairment loss amounting to ₱8.60 million on its concession financial receivable (see Note 17).

In 2018 and 2017, Cebu Water invoked the force majeure clause due to high water turbidity which resulted to intermittent delivery of the required thirty-five (35) million liters of water to MCWD. As a result, Cebu Water recognized ₱3.34 million and ₱2.67 million impairment loss for the years ended December 31, 2018 and 2017, respectively (see Note 17).

As of December 31, 2018 and 2017, concession financial receivable from the Bulk Water Supply Agreement of Cebu Water amounted to ₱1,047.04 million and ₱1,177.60 million, respectively.

TWD Bulk Water Sales and Purchase Agreement

The concession financial receivable arising from the Bulk Water Sales and Purchase Agreement between Tagum Water and TWD is accounted for in accordance with IFRIC 12. As of December 31, 2018 and 2017, Tagum Water was constructing water treatment facilities which shall be used for the delivery of potable water to TWD at an aggregate volume of twenty-six (26) million liters per day for the 1st to 3rd years; thirty-two (32) million liters per day for the 4th to 6th years; and thirty-eight (38) million liters per day for the remaining years of the agreement. There shall be a tariff rate adjustment of fifteen percent (15%) every three (3) years starting on the 4th year from the Operations Start Date as defined in the Bulk Water Sale and Purchase Agreement.

As of December 31, 2018, the net balance of rehabilitation works and finance income earned during the construction phase and recognized as part of contract assets amounted to ₱485.45 million and is presented as part of contract assets in the 2018 consolidated statements of financial position (see Note 6). As of December 31, 2017, concession financial receivable arising from the Bulk Water Sales and Purchase Agreement of Tagum Water amounted to ₱206.95 million (see Notes 2 and 6).

11. Investments in Associates

This account consists of the following:

	2018	2017
Acquisition cost	**₱13,443,606,385**	₱4,637,970,238
Accumulated equity in net earnings	**1,547,479,451**	1,262,156,536
Cumulative translation adjustments	**1,003,863,210**	895,910,482
	₱15,994,949,046	₱6,796,037,256

Details of the Group's investments in associates are shown below.

Thu Duc Water
Thu Duc Water is incorporated in the Socialist Republic of Vietnam with principal place of business in Ho Chi Minh City, Vietnam.

On October 12, 2011, TDWH and Ho Chi Minh City Infrastructure Investment Joint Stock Company (CII) entered into a share sale and purchase agreement whereby CII will sell to TDWH its 49.00% interest (equivalent to 2.45 million common shares) in Thu Duc Water. On December 8, 2011, TDWH completed the acquisition of CII's interest in the common shares of Thu Duc Water after which TDWH obtained significant influence in Thu Duc Water.

The acquisition cost of the investment amounted to ₱1.79 billion (VND858.00 billion). The investments in associate account includes a notional goodwill amounting to ₱1.41 billion arising from the acquisition of shares of stock in Thu Duc Water.

The financial information of Thu Duc Water as of and for the years ended December 31, 2018 and 2017 follows:

	2018	2017
Current assets	**₱213,377,855**	₱156,621,929
Noncurrent assets	**3,938,017,112**	3,221,460,900
Current liabilities	**323,778,792**	263,328,725
Noncurrent liabilities	**440,281,223**	438,553,813
Revenue	**851,034,995**	807,978,209
Net income	**520,193,273**	493,766,963

The conversion rates used were ₱0.0023 and ₱0.0022 to VND1 as of December 31, 2018 and 2017, respectively.

The share of the Group in the net income of Thu Duc Water for the years ended December 31, 2018, 2017 and 2016 amounted to ₱254.89 million, ₱241.95 million, and ₱228.97 million, respectively.

Kenh Dong Water
Kenh Dong Water is incorporated in the Socialist Republic of Vietnam with principal place of business in Ho Chi Minh City, Vietnam.

On May 17, 2012, the Parent Company, through KDWH, entered into a sale and purchase agreement with CII for the purchase of 47.35% of CII's interest in Kenh Dong Water. The payment for the shares was done in two tranches, with additional contingent considerations subject to the fulfillment of certain conditions precedent, for a total purchase price of ₱1.66 billion.

As of December 31, 2012, considerations paid by the Parent Company for its investment in Kenh Dong Water amounted to ₱1.57 billion (VND785.24 billion). The share purchase transaction was completed on July 20, 2012 and KDWH gained significant influence in Kenh Dong Water.

In 2013, Kenh Dong Water finalized its purchase price allocation which resulted in a final notional goodwill amounting to ₱1.38 billion.

The financial information of Kenh Dong Water as of and for the years ended December 31, 2018 and 2017 follows:

	2018	2017
Current assets	**₱689,947,464**	₱407,147,852
Noncurrent assets	**3,900,513,345**	3,736,694,413
Current liabilities	**406,157,481**	410,774,584
Noncurrent liabilities	**1,348,948,908**	1,208,080,222
Revenue	**511,661,133**	488,878,021
Net income	**322,399,454**	313,383,602

The conversion rates used were ₱0.0023 and ₱0.0022 to VND1 as of December 31, 2018 and 2017, respectively.

The share of the Group in the net income of Kenh Dong Water for the years ended December 31, 2018, 2017, and 2016 amounted to ₱152.66 million, ₱148.39 million, and ₱127.46 million, respectively.

The Group's share in net income from its investments in Thu Duc Water and Kenh Dong Water resulted from concession arrangements with the People's Committee of Ho Chi Minh City (the Grantor). These concession arrangements are accounted for under the Financial Asset model of IFRIC 12 as these associates have an unconditional contractual right to receive fixed and determinable amounts of payment for its construction services at the direction of the Grantor.

Saigon Water
Saigon Water is incorporated in the Socialist Republic of Vietnam with principal place of business in Ho Chi Minh City, Vietnam. Saigon Water is listed in the Ho Chi Minh City Stock Exchange.

On October 8, 2013, the Parent Company, through MWSAH, entered into an Investment Agreement for the acquisition of a 31.47% stake in Saigon Water. The acquisition cost of the investment amounted to ₱642.76 million (VND310.45 billion). The share subscription transaction was completed on October 8, 2013 and MWSAH gained significant influence in Saigon Water.

In 2014, MWSAH finalized the notional goodwill amounting to ₱288.84 million arising from the acquisition of shares of stock in Saigon Water by the Group as of December 31, 2013. There were no adjustments made to the fair values of the net assets as of acquisition date.

On June 21, 2017, MWSAH subscribed to an additional 6.15 million primary shares of Saigon Water for ₱229.16 million (VND103.87 billion), which increased MWSAH's holding in Saigon Water's outstanding capital stock to 37.99% from 31.47%. The notional goodwill arising from the additional subscription amounted to ₱39.47 million.

In 2018, MWSAH recognized impairment on its investment in Saigon Water amounting to ₱65.41 million arising from the decline in the market capitalization of Saigon Water shares. This is presented as part of "Other income - net" in the consolidated statements of comprehensive income for the year ended December 31, 2018.

The financial information of Saigon Water as of and for the years ended December 31, 2018 and 2017 follows:

	2018	2017
Current assets	**₱1,143,528,444**	₱940,973,673
Noncurrent assets	**4,842,593,792**	8,608,679,526
Current liabilities	**424,658,015**	3,958,675,293
Noncurrent liabilities	**3,167,576,010**	3,426,623,174
Revenue	**597,745,763**	86,112,309
Net income	**72,305,734**	212,504,820

The conversion rates used were ₱0.0023 and ₱0.0022 to VND1 as of December 31, 2018 and 2017, respectively.

The share of the Group in the consolidated net income of Saigon Water for the years ended December 31, 2018, 2017, and 2016 amounted to ₱27.47 million, ₱66.89 million, and ₱12.40 million, respectively. Closing share price of Saigon Water as of December 28, 2018 was VND17,150 per share.

Cu Chi Water Supply Sewerage Company Ltd. (Cu Chi Water)
Cu Chi Water is incorporated in the Socialist Republic of Vietnam with principal place of business in Ho Chi Minh City, Vietnam.

On October 10, 2015, MWSAH executed a Capital Transfer Agreement with Saigon Water for the acquisition of 24.50% of the charter capital of Cu Chi Water in the total amount of ₱318.16 million (VND154.35 billion). Pursuant to the Capital Transfer Agreement, Saigon Water granted a put option to MWSAH and VIAC (No 1) Limited Partnership, another party to the agreement, which option can be exercised upon the occurrence of certain trigger events. As of December 31, 2018 and 2017, no trigger event has occurred and the value of the put option was determined to be nil.

The financial information of Cu Chi Water as of and for the years ended December 31, 2018 and 2017 follows:

	2018	2017
Current assets	**₱108,941**	₱128,177
Noncurrent assets	**1,486,783,437**	1,411,827,853
Current liabilities	**115,000**	111,327

The conversion rates used were ₱0.0023 and ₱0.0022 to VND1 as of December 31, 2018 and 2017, respectively.

The share of the Group in the net income of Cu Chi Water amounted to nil in both 2018 and 2017, and ₱8,117 in 2016.

PT STU
PT STU is incorporated in Indonesia with principal place of business in Semarang, Indonesia.

On March 6, 2018, PTMWI acquired 4,478 ordinary shares in PT STU to own 20% of the outstanding capital stock.

The financial information of PT STU as of December 31, 2018 and for the period March 6 to December 31, 2018 follows:

Current assets	**₱36,564,148**
Noncurrent assets	**169,645,979**
Current liabilities	**8,123,117**
Noncurrent liabilities	**1,587**
Revenue	**65,779,462**
Net income	**7,015,707**

The conversion rates used was ₱0.0036 to IDR1 as of December 31, 2018.

The acquisition cost of the investment amounted to ₱37.00 million (IDR10.00 billion). The investment in associate account includes a notional goodwill amounting to ₱1.12 million arising from the acquisition of shares of stock in PT STU. The share in the net identifiable assets of PT STU on the date of acquisition amounted to ₱35.91 million.

The share of the Group in the net income of STU amounted to ₱1.40 million in 2018.

East Water
East Water is incorporated in Thailand with principal place of business in Bangkok, Thailand. East Water is listed in the Stock Exchange of Thailand.

On March 14, 2018, MWTC acquired 311.44 million ordinary shares in East Water representing 18.72% equity of East Water.

The financial information of East Water as of December 31, 2018 and for the period from March 14 to December 31, 2018 follows:

Current assets	**₱1,383,264,201**
Noncurrent assets	**48,437,442,066**
Current liabilities	**3,602,841,873**
Noncurrent liabilities	**9,826,027,340**
Revenue	**6,194,498,451**
Net income	**1,403,413,951**

The conversion rates used was ₱1.6220 to THB1 as of December 31, 2018.

The acquisition cost of the investment amounted to ₱8.83 billion (THB5.29 billion). The investment in associate account includes a notional goodwill amounting to ₱1.81 billion arising from the acquisition of shares in East Water. Share in net identifiable assets on date of acquisition amounted to ₱6.81 billion.

The share of the Group in the net income of East Water amounted to ₱262.72 million in 2018. Closing share price of East Water as of December 28, 2018 was THB10.70 per share.

The reconciliation of the net assets of the associates to the carrying amounts of the investments in associates recognized in the consolidated financial statements follows:

	December 31, 2018				
Associate	**Net Assets of Associate***	**Proportionate Ownership Interest**	**Share in Net Identifiable Assets**	**Notional Goodwill**	**Carrying Values**
Thu Duc Water	**₱3,387,334,952**	**49.00%**	**₱1,659,794,127**	**₱1,413,891,653**	**₱3,073,685,780**
Kenh Dong Water	**2,835,354,420**	**47.35%**	**1,342,540,318**	**1,378,777,432**	**2,721,317,750**
Saigon Water	**2,393,888,210**	**37.99%**	**909,438,131**	**262,902,118**	**1,172,340,249**
Cu Chi Water	**1,486,777,378**	**24.50%**	**364,260,458**	**–**	**364,260,458**
PT STU	**198,085,423**	**20.00%**	**39,617,084**	**1,122,763**	**40,739,847**
East Water	**36,391,837,054**	**18.72%**	**6,812,551,896**	**1,810,053,066**	**8,622,604,962**
Total	**₱46,693,277,437**		**₱11,128,202,014**	**₱4,866,747,032**	**₱15,994,949,046**

**Attributable to common shareholders.*

	December 31, 2017				
Associate	Net Assets of Associate*	Proportionate Ownership Interest	Share in Net Identifiable Assets	Notional Goodwill	Carrying Values
Thu Duc Water	₱2,676,200,291	49.00%	₱1,311,338,143	₱1,413,891,653	₱2,725,229,796
Kenh Dong Water	2,524,987,459	47.35%	1,195,581,562	1,378,777,432	2,574,358,994
Saigon Water	2,164,354,732	37.99%	822,238,363	328,308,151	1,150,546,514
Cu Chi Water	1,411,844,703	24.50%	345,901,952	–	345,901,952
Total	₱8,777,387,185		₱3,675,060,020	₱3,120,977,236	₱6,796,037,256

**Attributable to common shareholders.*

The rollforward of acquisition cost follows:

	2018	2017
Balance at beginning of year	**₱4,637,970,238**	₱4,408,813,817
Acquisitions during the year	**8,871,042,180**	229,156,421
Impairment loss	**(65,406,033)**	–
Balance at end of year	**₱13,443,606,385**	₱4,637,970,238

The rollforward of accumulated equity in net earnings follow:

	2018	2017
Balance at beginning of year	**₱1,262,156,536**	₱989,992,650
Equity in net earnings	**699,142,026**	457,208,214
Dividend income	**(413,819,111)**	(185,044,328)
Balance at end of year	**₱1,547,479,451**	₱1,262,156,536

12. Other Noncurrent Assets

This account consists of:

	2018	2017
Deferred FCDA	**₱2,620,320,458**	₱1,329,350,908
Advances to contractors	**916,675,329**	940,654,519
Receivable from BWC - net of current portion (Note 6)	**321,014,249**	451,322,564
Deposits (Note 27)	**160,879,074**	1,470,144,649
Water banking rights	**65,795,763**	60,067,335

(Forward)

	2018	2017
Receivable from Ayala Multi-Purpose Cooperative (AMPC)	**₱54,040,000**	₱53,989,674
Receivable from ZCWD - net of current portion (Notes 2 and 6)	–	52,016,776
Pension assets - net (Note 15)	–	16,111,500
Miscellaneous	**66,872,471**	56,719,872
	₱4,205,597,344	₱4,430,377,797

Deferred FCDA refers to the net unrecovered amounts from (amounts for refund to) customers for realized losses (gains) from payments of foreign loans based on the difference between the drawdown or rebased rate versus the closing rate at payment date. This account also covers the unrealized gains or losses from loan valuations.

Advances to contractors are being recouped against progress billings based on contract provisions and are advance payments for the construction of the Group's property and equipment and service concession assets.

Deposits pertain to those made for land acquisition, for leased properties, and for guaranty deposits with Manila Electric Company for electric connections and its related deferred charges. In 2018, deposit for land acquisition amounting to ₱1,299.85 million which was outstanding as of December 31, 2017 was reclassified to rehabilitation works under SCA (see Note 10).

Water banking rights pertains to the rights to draw water from the Luyang River, Pampanga River, Abacan River, Pasig-Potrero River, and Agno River. On August 22, 2012, the National Water Resources Board (NWRB) approved the assignment of Water Permit No. 16241 from Central Equity Ventures Inc. (now Stateland Inc.) to MW Consortium which MW Consortium allows Cebu Water to use for its project. As of December 31, 2018 and 2017, Cebu Water's water banking right amounted to ₱45.00 million.

In 2018 and 2017, MWPV incurred costs to acquire conditional water permits from the NWRB amounting to ₱5.73 million and ₱15.07 million, respectively. A conditional water permit is necessary prior to the issuance of the water permit by NWRB subject to submission of certain requirements, including plans and specifications for the diversion works, pump structure, water measuring device and water distribution system, and environmental compliance certification by the Department of Environment and Natural Resources, among others. In 2018, the NWRB granted MWPV the permits to use the water from the Pampanga River, Abacan River, and Pasig-Potrero River. These permits supersede the conditional water permits granted to MWPV in 2017. As of December 31, 2018, the Group believes that the remaining requirements for the Agno River are ministerial and is certain that it will be able to comply with the conditions required.

The Group estimates the useful lives of its water banking rights to be indefinite considering that the water permits remain valid for as long as water is beneficially used. The water banking rights is assessed for impairment.

Receivable from AMPC pertains to the term loan and credit line facility agreement.

Miscellaneous noncurrent assets include Cebu Water's advances to the Carmen Development Fund for its permit to extract water at the Carmen property in Cebu amounting to ₱26.16 million and ₱28.81 million in 2018 and 2017, respectively.

13. Accounts and Other Payables

This account consists of:

	2018	2017
Trade payables	**₱4,636,951,587**	₱3,796,858,319
Accrued expenses:		
Salaries, wages, and employee benefits	**455,105,714**	375,047,266
Management and professional fees	**291,627,193**	218,411,769
Contractual services	**168,977,380**	84,130,960
Utilities	**164,286,216**	118,468,767
Repairs and maintenance	**162,913,118**	149,057,152

(Forward)

	2018	2017
Wastewater costs	**₱69,873,120**	₱70,240,794
Occupancy costs (Note 27)	**45,724,833**	33,225,007
Collection fees	**38,776,372**	60,519,672
Water service connections	**25,611,837**	20,899,072
Rental of equipment	**14,950,815**	12,995,565
Water treatment chemicals	**4,335,003**	18,252,986
Miscellaneous	**321,458,602**	146,388,809
Interest payable (Note 14)	**435,977,783**	353,446,176
Contractors' payable	**357,234,597**	276,673,535
Contract liabilities	**17,891,680**	–
Others	**97,478,392**	147,932,432
	₱7,309,174,242	₱5,882,548,281

Trade payables and accrued expenses are non-interest bearing and are normally settled on fifteen (15) to sixty (60)-day terms.

Miscellaneous accrued expenses include accruals for communication, advertising, insurance, transportation and travel, postage, telephone and supplies.

Interest payable pertains to the unpaid portion of interest arising from the short-term and long-term debts of the Group.

Contractors' payable pertains to the accrual of expenses which requires the Group to pay the contractor based on progress billings. Contracts payable are normally settled within one (1) year.

Other payables are non-interest bearing and are normally settled within one (1) year.

14. Short-term and Long-term Debt

a. Short-term debt

On March 5, 2018, MWTC entered into a one-year term facility agreement with Mizuho Bank, Ltd., Bangkok Branch (Mizuho Bangkok), whereby Mizuho Bangkok extended credit to MWTC for THB5.30 billion to finance MWTC's acquisition of the shares in East Water (see Note 11). The loan bears interest of BIBOR plus margin and is guaranteed by the Parent Company.

As of December 31, 2018, the carrying value of the short-term debt amounted to ₱8,596.54 million.

b. Long-term debt

The composition of the Group's long-term debt follows:

	2018	2017
USD loans:		
NEXI Loan	**₱1,943,410,415**	₱2,749,959,587
MWMP Loan	**3,726,897,404**	3,097,191,169
Japanese Yen (JPY) loans:		
JP¥40.00 billion Loan	**12,931,751,997**	14,999,076,082
MTSP Loan	**562,501,053**	672,747,524
First IFC Loan	**–**	63,333,112
Canadian Dollar (CAD) loan:		
CAD0.87 million Laguna Water Loan	**33,333,702**	32,846,880

(Forward)

	2018	2017
PHP loans:		
₱5.00 billion Metrobank Loan	**₱4,866,865,987**	₱4,887,248,393
₱5.00 billion PNB Loan	**4,840,160,200**	–
Fixed Rate Corporate Notes	**4,834,255,682**	4,862,889,900
₱0.50 billion Laguna Water Loan	**132,913,863**	199,078,657
₱0.50 billion Laguna Water DBP Loan	**432,950,526**	462,259,567
₱0.83 billion Laguna Water DBP Loan	**743,134,519**	793,440,867
₱2.50 billion Laguna Water SBC Loan	**2,293,533,298**	2,483,697,720
₱0.50 billion Boracay Water DBP-SBC Loan	**371,770,818**	400,747,893
₱0.50 billion Boracay Water DBP-SBC Loan	**397,710,122**	428,696,298
₱0.65 billion Boracay Water DBP-SBC Loan	**642,725,465**	641,839,570
₱2.40 billion Boracay Water BPI Loan	**595,629,415**	–
₱1.15 billion Clark Water RCBC Loan	**1,118,652,260**	1,141,664,926
₱0.10 billion Clark Water RCBC Loan	**100,000,000**	–
₱0.75 billion Cebu Water DBP Loan	**655,809,904**	699,263,561
₱85.00 million Zamboanga Water DBP Loan	**84,709,476**	84,719,870
₱4.00 billion MWPV Loan	**1,340,966,833**	894,422,930
₱0.45 billion Tagum Water PNB Loan	**401,244,632**	129,254,950
	43,050,927,571	39,724,379,456
Less current portion	**5,525,372,414**	4,614,057,448
	₱37,525,555,157	₱35,110,322,008

Unamortized debt discounts and issuance costs of the Group's long-term debt as of December 31, 2018 and 2017 follow:

	2018	2017
USD loans	**₱52,499,381**	₱80,039,544
JPY loans	**179,542,477**	259,654,871
PHP loans	**93,299,672**	58,671,881
	₱325,341,530	₱398,366,296

The rollforward analysis of unamortized debt discounts and issuance costs of long-term debt follows:

	2018	2017
Balance at beginning of year	**₱398,366,296**	₱240,528,905
Additions	**42,176,807**	280,390,431
Amortization (Note 17)	**(138,892,431)**	(124,780,167)
Foreign exchange adjustments	**23,690,858**	2,227,127
Balance at end of year	**₱325,341,530**	₱398,366,296

Parent Company Loans

NEXI Loan

On October 21, 2010, the Parent Company entered into a term loan agreement (NEXI Loan) amounting to US$150.00 million to partially finance capital expenditures within the Manila Concession. The loan has a tenor of ten (10) years and is financed by a syndicate of four (4) banks, namely, ING N.V Singapore, Mizuho Corporate Bank, Ltd., The Bank of Tokyo-Mitsubishi UFJ Ltd., and Sumitomo Mitsui Banking Corporation, and is insured by Nippon Export and Investment Insurance. The first, second, and third drawdowns of the loan amounted to US$84.00 million, US$30.00 million, and US$36.00 million, respectively. The carrying value of the loan as of December 31, 2018 and 2017 amounted to US$36.96 million and US$55.08 million, respectively.

MWMP Loan

On October 2, 2012, the Parent Company entered into a Subsidiary Loan Agreement with Land Bank of the Philippines under the Metro Manila Wastewater Management Project (MWMP) with the World Bank (MWMP Loan). The MWMP aims to improve wastewater services in Metro Manila through increased wastewater collection and treatment. The loan has a term of twenty-five (25) years and was made available in United States Dollar in the aggregated principal amount of US$137.5 million, payable via semi-annual installments after the seven (7)-year grace period. The Parent Company has made four (4) drawdowns in 2015 with an aggregate amount of US$22.60 million, three (3) drawdowns in 2016 with an aggregate amount of US$17.46 million, and three (3) drawdowns in 2017 with a total amount of US$22.40 million.

In 2018, the Parent Company made an additional drawdown amounting to US$8.88 million. The carrying value of the MWMP loan as of December 31, 2018 and 2017 is US$70.88 million and US$62.03 million, respectively.

Summary of financial transactions related to the MWMP Loan for the years ended December 31, 2018 and 2017 are shown below (in thousands):

	2018	2017
Balance at beginning of year	**$28**	$100
Amounts received during the year	**8,880**	22,400
Expenditures during the year	**(8,777)**	(22,472)
Balance at end of year	**$131**	$28

The US$0.13 million and US$0.03 million as at December 31, 2018 and 2017, respectively, represents the outstanding balance of the Land Bank of the Philippines designated account No. 3404-032-835, under the account name MWMP - Category 1 - MWCI, and is presented as part of "Other receivables" under the "Receivables" account (see Note 6). The proceeds of the MWMP Loan will be expended in accordance with the intended purposes as specified in the loan agreement.

JPY40 billion Loan
On September 30, 2015, the Parent Company signed a seven (7)-year JP¥40.00 billion term loan facility, payable semi-annually, with three (3) international banks: MUFJ Bank, Ltd., Mizuho Bank, Ltd., and Sumitomo Mitsui Banking Corporation. The proceeds of the loan will be used to finance the Parent Company's capital expenditures. The Parent Company made its first drawdown on March 9, 2016 amounting to JP¥13.40 billion. In 2017, the Parent Company made two (2) additional drawdowns totaling JP¥ 26.60 billion. The Parent Company has not made any drawdown in 2018. The loan's carrying value as of December 31, 2018 and 2017 is JP¥27,219.01 million and JP¥33,911.54 million, respectively.

MTSP Loan
On October 20, 2005, the Parent Company entered into a Subsidiary Loan Agreement with Land Bank of the Philippines (MTSP Loan) to finance the improvement of the sewerage and sanitation conditions in the Manila Concession. The loan has a term of seventeen (17) years and was made available in Japanese Yen in the aggregate principal amount of JP¥6.59 billion payable via semi-annual installments after the five (5)-year grace period.

The Parent Company made its last drawdown on October 26, 2012. The total drawn amount from the loan is JP¥3.99 billion. As of December 31, 2018 and 2017, the outstanding balance of the MTSP loan amounted to JP¥1.18 billion and JP¥1.52 billion, respectively.

First IFC Loan
On March 28, 2003, the Parent Company entered into a loan agreement with IFC (First IFC Loan) to partially finance the Parent Company's investment program from 2002 to 2005 to expand water supply and sanitation services, for improvement of the existing facilities of the Parent Company, and for concession fee payments. The First IFC Loan was made available in Japanese Yen in the aggregate principal amount of JP¥3.59 billion equivalent to US$30.00 million and payable in twenty-five (25) semi-annual installments, within twelve (12) years starting on July 15, 2006.

On July 15, 2018, the Parent Company paid the outstanding balance of the loan as scheduled. As of December 31, 2018 and 2017, the carrying value of the loan amounted to nil and JP¥143.19 million, respectively.

₱5.00 billion Metrobank Loan
On August 16, 2013, the Parent Company entered into a Credit Facility Agreement (₱5.00 billion Metrobank Loan) with Metropolitan Bank and Trust Company (Metrobank) having a fixed nominal rate of 4.42% and with a term of seven (7) years from the issue date and is payable annually. The Parent Company may repay the whole and not a part only of the loan starting on the 3rd anniversary of the drawdown date of such loan or on any interest payment date thereafter. The carrying value of the loan as of December 31, 2018 and 2017 amounted to ₱4,866.87 million and ₱4,887.25 million, respectively.

₱5.00 billion Philippine National Bank (PNB) Loan
On May 11, 2018, the Parent Company signed a ₱5.0 billion, ten (10)-year term loan facility with the PNB. The loan will be used to finance general corporate requirements and capital investment programs in the Manila Concession as well as to refinance existing concessionaire loans. On July 31, 2018, the Parent Company made its first and only drawdown amounting to ₱5.0 billion. The carrying value of the loan as of December 31, 2018 amounted to ₱4,840.16 million.

Fixed Rate Corporate Notes
On April 8, 2011, the Parent Company issued ₱10.00 billion notes (Fixed Rate Corporate Notes) with ₱5.00 billion having a term of five (5) years (Five-Year FXCN Note) from the issue date and the other ₱5.00 billion with a term of ten (10) years (Ten-Year FXCN Note) from the issue date, both of which is payable quarterly. The Parent Company may repay the whole and not a part only of the Ten-Year FXCN Note on the 7th anniversary of the drawdown date of such FXCN Note or on any FXCN interest payment date thereafter.

On April 8, 2016, the Parent Company repaid the outstanding balance of the Five-Year FXCN in bullet as scheduled. The carrying value of the fixed rate corporate notes as of December 31, 2018 and 2017 amounted to ₱4,834.26 million and ₱4,862.89 million, respectively.

Amendments to Omnibus Agreements, Intercreditor Agreement and Loan Agreements
On July 17, 2008, the Parent Company, together with all of its lenders, signed an Omnibus Amendment Agreement and Intercreditor Agreement and these agreements became effective on September 30, 2008.

Prior to the execution of the Omnibus Amendment Agreement, the obligations of the Parent Company to pay amounts due and owing or committed to be repaid to the lenders under the existing facility agreements were secured by Assignments of Interests by Way of Security executed by the Parent Company in favor of a trustee acting on behalf of the lenders. The Assignments were also subject to the provisions of the Amended and Restated Intercreditor Agreement dated March 1, 2004 and its Amendatory Agreement dated December 15, 2005 executed by the Parent Company, the lenders and their appointed trustee.

Under the Omnibus Amendment Agreement, the lenders effectively released the Parent Company from the assignment of its present and future fixed assets, receivables, and present and future bank accounts, all the Project Documents (except for the Agreement, Technical Corrections Agreement and the Department of Finance Undertaking Letter), all insurance policies where the Parent Company is the beneficiary and performance bonds posted in its favor by contractors or suppliers.

In consideration for the release of the assignment of the above-mentioned assets, the Parent Company agreed not to create, assume, incur, permit or suffer to exist, any mortgage, lien, pledge, security interest, charge, encumbrance or other preferential arrangement of any kind, upon or with respect to any of its properties or assets, whether now owned or hereafter acquired, or upon or with respect to any right to receive income, subject only to some legal exceptions. The lenders shall continue to enjoy their rights and privileges as Concessionaire Lenders (as defined under the Agreement), which include the right to appoint a qualified replacement operator and the right to receive payments and/or other consideration pursuant to the Agreement in case of a default of either the Parent Company or MWSS. Currently, all lenders of the Parent Company are considered Concessionaire Lenders and are on pari passu status with one another.

In November and December 2014, the Parent Company signed Amendment Agreements to its loan agreements with its existing lenders. This effectively relaxed certain provisions in the loan agreements providing the Parent Company more operational and financial flexibility. The loan amendments include the shift to the use of the Parent Company from consolidated financial statements for the purposes of calculating the financial covenant ratios, the increase in maximum debt to equity ratio to 3:1 from 2:1 and the standardization of the definition of debt service coverage ratio at a minimum of 1.2:1 across all loan agreements.

Laguna Water Loans
On September 7, 2010, Laguna Water entered into a loan agreement with two (2) local banks for the financing of its construction, operation, maintenance, and expansion of facilities in its servicing area. Pursuant to the loan agreement, the lenders have agreed to provide loans to Laguna Water up to ₱500.00 million, the principal payments of which will be made in thirty (30) consecutive equal quarterly installments starting August 2013. The first and second drawdowns from the loan were made in November 2010 and June 2011 amounting to ₱250.00 million each. The carrying value of this loan amounted to ₱132.91 million and ₱199.08 million as of December 31, 2018 and 2017, respectively.

On April 29, 2013, Laguna Water entered into a loan agreement with DBP to partially finance the modernization and expansion of the water network system and water supply facilities in Biñan, Sta. Rosa and Cabuyao, Laguna. Under the agreement, the lender has agreed to provide a loan to the borrower through the Philippine Water Revolving Fund (PWRF) in the aggregate principal amount of up to ₱500.00 million bearing an effective interest rate of 7.29%. The first and second drawdowns were made in July and November 2013 which amounted to ₱250.00 million each. The carrying value of this loan as of December 31, 2018 and 2017 amounted to ₱432.95 million and ₱462.26 million, respectively.

On January 9, 2014, Laguna Water exercised its option to avail of the second tranche of its loan agreement with DBP, to finance its water network and supply projects, including the development of a well-field network in the Biñan, Sta. Rosa area of Laguna. Under the expanded facility agreement, the lender provided additional loans to Laguna Water in the aggregate principal amount of ₱833.00 million. The first and second drawdowns were made in January and May 2014, respectively, amounting to ₱416.50 million each. The carrying value of the loan amounted to ₱743.13 million and ₱793.44 million as of December 31, 2018 and 2017, respectively.

On October 23, 2015, Laguna Water entered into a loan agreement with Security Bank Corp. (SBC) to finance the modernization and expansion of its water network system and water supply facilities throughout the province of Laguna. Under the loan agreement, the lender agreed to provide a loan to the borrower in the aggregate principal amount of up to ₱2.50 billion for an applicable fixed interest rate, as determined in respect of each drawdown. The first drawdown was made in December 2015 amounting to ₱600.00 million bearing an effective interest rate of 6.14%. The second drawdown was made in two tranches in April 2016 amounting to ₱150.00 million and ₱300.00 million bearing effective interest rates of 5.98% and 6.39%, respectively. The third drawdown was made in September 2016 amounting to ₱400.00 million bearing an effective interest rate of 5.53%. The fourth drawdown was made in three (3) tranches, the first tranche in March amounting to ₱100.00 million bearing an effective interest rate of 6.34% and the second and third tranches in April 2017 amounting to ₱50.00 million and ₱350.00 million bearing an effective interest rate of 6.50% and 6.54%, respectively. The fifth drawdown was made in two (2) tranches in September 2017 amounting to ₱150.00 million and ₱400.00 million bearing an effective interest rate of 6.31% and 6.42%, respectively. The carrying value of the loan amounted to ₱2,293.53 million and ₱2,483.70 million as of December 31, 2018 and 2017, respectively.

On March 29, 2017, Laguna Water entered into a loan agreement with Grand Challenges Canada to fund a project during the period beginning on the effective date of the loan agreement and ending on the project end date of March 31, 2018 for up to an aggregate principal amount of CAD873,000. The project supported by the loan is the "Bundling water and sanitation services for the poor in informal urban communities." As of December 31, 2018 and 2017, the carrying value of the loan amounted to CAD873,000 and CAD827,044, respectively.

Boracay Water Loans
On July 29, 2011, Boracay Water entered into an Omnibus Loan and Security Agreement with DBP and SBC to finance the construction, operation, maintenance and expansion of facilities for the fulfillment of certain service targets for water supply and waste water services for its service area under its concession agreement with TIEZA, as well as the operation and maintenance of the completed drainage system. The loan shall not exceed the principal amount of ₱500.00 million and is payable in twenty (20) years inclusive of a three (3)-year grace period.

Omnibus loan and security agreement - Sub-tranche 1
The loan shall be available in three sub-tranches, as follows:

- Sub-tranche 1A, the loan in the amount of ₱250.00 million to be provided by DBP and funded through Philippine Water Revolving Fund (PWRF);
- Sub-tranche 1B, the loan in the amount of ₱125.00 million to be provided by SBC and funded through PWRF; and
- Sub-tranche 1C, the loan in the amount of ₱125.00 million to be provided by SBC and funded through its internally-generated funds.

The first, second, and final loan drawdowns amounted to ₱150.00 million on August 25, 2011,₱155.00 million on August 25, 2012, and ₱195.00 million on August 23, 2013, respectively. The carrying value of the loan as of December 31, 2018 and 2017 amounted to ₱371.77 million and ₱400.75 million, respectively.

Omnibus loan and security agreement - Sub-tranche 2
The Agreement provided Boracay Water the option to borrow additional loans from the lenders. On November 14, 2012, Boracay Water entered into the second omnibus loan and security agreement with DBP and SBC. The agreed aggregate principal of the loan amounted to ₱500.00 million which is available in three sub-tranches:

- Sub-tranche 2A, the loan in the amount of ₱250.00 million to be provided by DBP and funded through Philippine Water Revolving Fund (PWRF);
- Sub-tranche 2B, the loan in the amount of ₱125.00 million to be provided by SBC and funded through PWRF; and
- Sub-tranche 2C, the loan in the amount of ₱125.00 million to be provided by SBC and funded through its internally-generated funds.

The first, second, and final loan drawdowns amounted to ₱75.00 million on November 23, 2012, ₱200.00 million on August 26, 2014, and ₱225.00 million on November 25, 2015, respectively. The carrying value of the loan as of December 31, 2018 and 2017 amounted to ₱397.71 million and ₱428.70 million, respectively.

Omnibus Loan and Security Agreement – Sub-tranche 3
On October 9, 2014, Boracay Water signed a Third Omnibus Loan and Security Agreement amounting to ₱650.00 million with SBC. The loan will be used to fund the capital expenditures which will be used to provide water and sewerage services in the concession area of Boracay Water. The first, second, and third drawdowns on this loan were made on November 25, 2016, May 25, 2017, and September 25, 2017, amounting to ₱200.00 million, ₱250.00 million, ₱200.00 million, respectively. The carrying value of loan as of December 31, 2018 and 2017 amounted to ₱642.73 million and ₱641.84 million, respectively.

Omnibus Loan and Security Agreement – Bank of the Philippine Islands (BPI)
On December 20, 2017, Boracay Water signed a Fourth Omnibus Loan and Security Agreement in the amount of ₱2.40 billion with the BPI. The loan will be used to finance the general corporate and capital expenditures requirements of Boracay Water. The first, second, and third drawdowns on this loan were made on April 30, 2018, September 25, 2018, and December 20, 2018, amounting to ₱250.00 million, ₱250.00 million, ₱100.00 million, respectively. The carrying value of loan as of December 31, 2018 amounted to ₱595.63 million.

Clark Water Loans
On April 10, 2015, Clark Water entered into a loan agreement with Rizal Commercial Banking Corporation (RCBC), whereby RCBC extended credit to Clark Water for up to ₱1.15 billion to partially finance its concession capital expenditures program. Under the agreement, the loan bears interest at a rate ranging from 6.13% to 6.56%, and principal payments will be made in forty-eight (48) consecutive equal quarterly installments starting December 2018.

The first and second drawdowns on the loan were made in September and December 2015, amounting to ₱800.00 million and ₱200.00 million, respectively. The third drawdown was made in August 2016 for ₱150.00 million. The carrying value of the loan amounted to ₱1,118.65 million and ₱1,141.66 million as of December 31, 2018 and 2017, respectively.

On December 13, 2018, Clark Water availed of a fifteen (15)-month term loan with RCBC amounting to ₱100.00 million to finance its working capital requirements. Under the agreement, the loan bears interest at the rate of 7.55% payable monthly. The loan's principal payment is due on March 13, 2020. The carrying value of the loan amounted to ₱100.00 million as of December 31, 2018.

Cebu Water Loan
On December 19, 2013, Cebu Water entered into an Omnibus Loan and Security Agreement with the Development Bank of the Philippines (DBP) to partially finance the construction works in relation to its bulk water supply project in Cebu. The lender has agreed to extend a loan facility in the aggregate principal amount of ₱800.00 million or up to 70% of the total project cost, whichever is lower. Principal payments will be made in twenty (20) equal quarterly installments starting December 2017.

The first, second, and final drawdowns on the loan facility amounted to ₱541.13 million on December 20, 2013, ₱195.64 million on May 20, 2014, and ₱14.22 million on November 14, 2014, respectively. The carrying value of the loan as of December 31, 2018 and 2017 amounted to ₱655.81 million and ₱699.26 million, respectively.

Zamboanga Water Loan
On June 30, 2016, Zamboanga Water signed a term loan agreement amounting to ₱85.00 million with DBP. The proceeds of the loan will be used to partially finance Zamboanga Water's capital expenditures in relation to its NRW reduction and management program in Zamboanga City. The first, second, and third loan drawdowns were made on July 29 and September 1, 2016 and September 29, 2017 amounting to ₱30.00 million for the first and second drawdowns and ₱25.00 million for the third drawdown. The carrying value of the loan as of December 31, 2018 and 2017 amounted to ₱84.71 million and ₱84.72 million, respectively.

MWPV Loan
On October 5, 2016, MWPV signed a fifteen (15)-year fixed rate term loan facility amounting to ₱4.00 billion with SBC and Metrobank. The terms of the loan include an option to increase the size of the facility to a maximum of ₱7.00 billion. The proceeds of the loan will be used to finance MWPV's capital expenditures, future acquisitions and other general corporate requirements.

On February 24, 2017, MWPV made a bridge loan drawdown amounting to ₱150.00 million each from SBC and Metrobank. These bridge loans had a fixed rate of 2.75% and a 119-day term. On June 23, 2017, these bridge loans were rolled-over for additional 180 days with a rate of 2.90%, repriced monthly. On November 9, 2017, MWPV repaid its ₱300.0 million bridge loan and made the first drawdown on its loan facility amounting to ₱450.00 million from each bank.

On October 5 and December 19, 2018, MWPV made its subsequent drawdowns amounting to ₱50.00 million and ₱175.00 million from each bank, respectively. The carrying value of the loan as of December 31, 2018 and 2017 amounted to ₱1,340.97 million and ₱894.42 million, respectively.

These loan drawdowns have a term of fourteen (14) to fifteen (15) years, with interest payable semi-annually and principal repayments starting on November 9, 2022.

Tagum Water Loan
On October 6, 2016, Tagum Water signed an Omnibus Loan and Security Agreement in the amount of ₱450.00 million with the PNB. The loan will be used to partially finance the construction works in relation to the Tagum Bulk Water Supply Project. Nominal interest is at 5.30% per annum, payable quarterly. Principal payments will be made in forty-eight (48) equal quarterly installments starting December 2020. The first, second, and third drawdowns on this loan were made on September 25, 2017, April 18, 2018, and November 23, 2018, amounting to ₱130.00 million, ₱120.00 million, and ₱154.00 million, respectively. The carrying value of the loan as of December 31, 2018 and 2017 amounted to ₱401.24 million and ₱129.25 million, respectively.

Compliance with loan covenants
All these loan agreements provide for certain covenants which must be complied by the Group which include compliance with certain financial ratios such as the debt-to-equity and debt-service-coverage ratios. As of December 31, 2018 and 2017, the Group was in compliance with all the loan covenants required by the creditors and has not received any written notice of default from lenders or the trustees.

15. Retirement Plan

The Parent Company, Clark Water, Laguna Water, Boracay Water and MWPV have funded and noncontributory defined benefit pension plans covering substantially all of their respective regular employees. The benefits are based on current salaries and years of service and compensation as of the last year of employment. The latest actuarial valuations were made on December 31, 2018.

RA No. 7641, the existing regulatory framework, requires a provision for retirement pay to qualified private sector employees in the absence of any retirement plan in the entity, provided however that the employee's retirement benefits under any collective bargaining and other agreements shall not be less than those provided under law. The law does not require minimum funding for the plan.

The Parent Company's funding policies state that equivalent target funding ratio must always be at least 80% and should the ratio reach 120%, the Retirement and Welfare Plan Committee may opt to declare a funding holiday. In the event there is an extraordinary increase in defined benefit obligation, which may arise from benefit improvement, massive hiring and the other extraordinary personnel movements, the Parent Company has a maximum of three (3) years to comply with the required minimum funding ratio of 80%.

The retirement plans of Parent Company, Clark Water, Laguna Water, Boracay Water, and MWPV are each covered by a retirement fund administered by trustee banks, which are under the supervision of their respective Retirement and Welfare Plan Committees (the Committees). The Committees, which are composed of six (6) to seven (7) members appointed by management, defines the investment strategy of the fund and regularly reviews the strategy based on market developments and changes in the plan structure. When defining the investment strategy, the Committees take into account the plan's objectives, benefit obligations, and risk capacity. The Committees review, on a quarterly basis, the performance of the funds managed by trustee banks.

Changes in net defined benefit liability of funded funds are as follows:

	2018		
	Present value of defined benefit obligations	**Fair value of plan assets**	**Net defined benefit liabilities (assets)**
Balance at beginning of year	**₱923,796,600**	**₱898,401,840**	**₱25,394,760**
Net benefit costs in profit or loss:			
Current service cost	**77,968,300**	**–**	**77,968,300**
Net interest (Note 17)	**48,995,600**	**49,300,560**	**(304,960)**
	126,963,900	**49,300,560**	**77,663,340**
Remeasurements in other comprehensive income:			
Return on plan assets (excluding amount included in interest)	**–**	**(75,904,200)**	**75,904,200**
Actuarial changes arising from experience adjustments	**26,340,800**	**–**	**26,340,800**
Actuarial changes arising from changes in financial assumptions	**(47,200,100)**	**–**	**(47,200,100)**
	(20,859,300)	**(75,904,200)**	**55,044,900**
Benefits paid	**(121,290,300)**	**(121,290,300)**	**–**
Contributions	**–**	**48,711,200**	**(48,711,200)**
Balance at end of year	**₱908,610,900**	**₱799,219,100**	**₱109,391,800**

	2017		
	Present value of defined benefit obligations	Fair value of plan assets	Net defined benefit liabilities (assets) (Note 12)
Balance at beginning of year	₱788,361,200	₱874,544,300	(₱86,183,100)
Net benefit costs in profit or loss:			
Current service cost	71,358,400	–	71,358,400
Net interest (Note 17)	34,225,600	39,013,300	(4,787,700)
	105,584,000	39,013,300	66,570,700
Remeasurements in other comprehensive income:			
Return on plan assets (excluding amount included in interest)	–	21,379,500	(21,379,500)
Actuarial changes arising from experience adjustments	8,292,300	–	8,292,300
Actuarial changes arising from changes in financial assumptions	70,218,600	–	70,218,600
	78,510,900	21,379,500	57,131,400
Benefits paid	(48,659,500)	(48,659,500)	–
Contributions	–	12,124,240	(12,124,240)
Balance at end of year	₱923,796,600	₱898,401,840	₱25,394,760

The fair value of net plan assets by each class is as follows:

	2018	2017
Assets		
Cash and cash equivalents	**₱7,679,390**	₱8,649,560
Debt investments - domestic	**608,040,928**	652,180,773
Equity investments - domestic	**178,324,046**	233,187,517
Interest receivable	**5,832,273**	5,061,192
Other receivable	**67,212**	–
	799,943,849	899,079,042
Liabilities		
Accrued trust fees	**591,484**	677,202
Other payables	**133,265**	–
	724,749	677,202
Fair value of plan assets	**₱799,219,100**	₱898,401,840

All equity and debt investments held have quoted prices in active markets. The remaining plan assets do not have quoted market prices in active markets.

The plan assets are invested in different financial instruments and do not have any concentration risk.

The cost of defined benefit pension plans and the present value of the pension obligation are determined using actuarial valuations. The actuarial valuations involve making various assumptions. The principal assumptions used in determining pension obligations for the defined benefit plans are shown below:

	2018	2017	2016
Discount rate	**8.25% to 8.50%**	4.50% to 5.75%	4.50% to 5.00%
Salary increase rate	**5.00% to 7.00%**	3.00% to 5.00%	3.00% to 6.00%

The sensitivity analysis below has been determined based on reasonably possible changes of each significant assumption on the defined benefit obligation as of the end of the reporting period, assuming all other assumptions were held constant:

		Effect on Defined Benefit Obligation	
	Increase (Decrease)	2018	2017
Discount rate	1.00%	(₱33,980,700)	(₱70,079,305)
	(1.00%)	48,292,208	83,272,875
Salary increase rate	1.00%	48,556,874	82,907,441
	(1.00%)	(34,579,187)	(71,052,975)

Shown below is the maturity analysis of the undiscounted benefit payments:

	2018	2017
Less than 1 year	**₱63,013,600**	₱66,894,400
More than 1 year and up to 5 years	**536,003,800**	476,233,300
More than 5 years and up to 10 years	**827,943,100**	442,875,600
	₱1,426,960,500	₱986,003,300

The average duration of the defined benefit obligation at the end of the reporting period is 12.65 years and 13.90 years as of December 31, 2018 and 2017, respectively.

The asset allocation of the plan is set and reviewed from time to time by the Committee taking into account the membership profile and the liquidity requirements of the plan. This also considers the expected benefit cash flows to be matched with asset durations.

Contributions to the plan are recommended by the Retirement and Welfare Plan Committee and approved by the Parent Company, Clark Water, Laguna Water, Boracay Water, and MWPV in consideration of the contribution advice from the actuary. The Parent Company, Clark Water, Laguna Water, Boracay Water, and MWPV are expected to contribute a total of ₱85.00 million to their respective defined benefit pension plans in 2019 based on the latest actuarial valuation report.

16. Other Noncurrent Liabilities

Other noncurrent liabilities consist of:

	2018	2017
Deferred credits	**₱442,135,108**	₱425,098,105
Customers' guaranty deposits and other deposits	**334,643,538**	258,886,545
	₱776,778,646	₱683,984,650

Deferred credits pertain to the unamortized discounts of the customers' guaranty deposits. The rollforward analysis of the deferred credits follows:

	2018	2017
Balance at beginning of year	**₱425,098,105**	₱408,814,407
Additions	**29,572,605**	27,425,945
Amortization	**(12,535,602)**	(11,142,247)
Balance at end of year	**₱442,135,108**	₱425,098,105

Customers' guaranty deposits and other deposits pertain to the deposits paid by the Group's customers for the set-up of new connections which will be refunded to the customers upon termination of the customers' water service connections or at the end of the concession, whichever comes first.

17. Other Operating Income, Operating Expenses, Interest Income and Interest Expense

Other operating income consist of:

	2018	2017	2016
Supervision fees (Note 21)	**₱425,990,731**	₱396,414,261	₱362,217,939
Connection fees from water and service connections and pipeworks	**268,300,671**	330,730,225	447,766,685
Sale of packaged water	**206,099,390**	208,891,056	121,475,261
Integrated used water services	**116,693,454**	15,552,773	29,766,606
Operations and maintenance services	**99,751,722**	90,249,931	87,839,875
Reconnection fee	**49,874,392**	30,913,542	28,298,535
Septic sludge disposal and bacteriological water analysis	**37,296,665**	24,686,051	19,760,807
Performance fees	**34,349,384**	71,865,738	2,102,793
Construction revenue	**29,900,877**	7,556,184	8,129,590
Income from customer late payments	**26,576,051**	19,623,217	16,987,436
Service fees	**20,672,519**	16,196,954	17,488,117
Miscellaneous	**49,216,182**	97,171,806	65,477,910
	₱1,364,722,038	₱1,309,851,738	₱1,207,311,554

Miscellaneous includes income from rental of equipment, other customer related fees, consultancy services and sale of signages.

Operating expenses consist of:

	2018	2017	2016
Salaries, wages and employee benefits (Notes 15 and 21)	**₱1,240,073,664**	₱995,551,159	₱590,355,247
Management, technical and professional fees (Note 21)	**503,379,095**	325,376,050	491,783,874
Depreciation and amortization (Notes 9 and 10)	**446,919,369**	350,945,322	624,718,373
Taxes and licenses	**318,971,665**	216,964,372	179,932,338
Occupancy costs (Notes 21, 23 and 27)	**255,441,022**	197,075,070	142,732,658
Repairs and maintenance	**179,504,807**	112,884,907	80,304,106
Contractual services	**184,621,722**	63,928,374	30,427,064
ECL on receivables and concession financial receivables (Notes 6 and 10)	**178,212,764**	588,892,219	54,865,099
Transportation and travel	**99,274,788**	88,986,891	63,730,241
Insurance	**85,043,193**	85,733,410	81,085,742
Printing and communication (Note 21)	**70,197,094**	52,660,675	44,793,882
Business meetings and representation	**56,895,352**	56,128,168	43,238,981
Donations	**44,273,571**	31,844,901	26,668,746
Advertising	**33,558,084**	39,460,448	36,628,370
Other expenses	**99,195,123**	135,884,781	186,466,930
	₱3,795,561,313	₱3,342,316,747	₱2,677,731,651

Other expenses include expenses incurred for bank charges and equipment rental.

Interest income consists of:

	2018	2017	2016
Interest income on:			
Cash and cash equivalents (Note 5)	**₱255,350,212**	₱116,519,563	₱82,139,252
Finance income from concession financial receivables and contract assets (Notes 6 and 10)	**125,905,858**	181,095,164	151,389,223
Receivable from BWC (Note 6)	**28,083,490**	34,641,123	21,773,027
Others	**2,543,455**	13,481,946	1,821,960
	₱411,883,015	₱345,737,796	₱257,123,462

Interest expense consists of:

	2018	2017	2016
Interest expense on:			
Service concession obligations, deposits and others (Notes 10 and 16)	**₱789,711,898**	₱614,716,588	₱613,044,020
Long-term debt:			
Coupon interest	**853,283,533**	663,071,455	715,727,910
Amortization of debt discount, issuance costs and premium (Notes 14)	**138,892,431**	124,780,167	96,397,238
Pension liabilities (Note 15)	**1,920,740**	667,900	4,037,700
	₱1,783,808,602	₱1,403,236,110	₱1,429,206,868

Other income - net includes gain on bargain purchase amounting to ₱43.75 million and ₱54.91 million, in 2018 and 2017, respectively (nil in 2016, see Note 4). In 2018, this account also includes income from refund from a utility provider and reversal of excess accruals amounting to ₱208.25 million; and impairment loss on property, plant and equipment and investment in associates amounting to ₱136.84 million.

18. Income Tax

Provision for income tax consists of:

	2018	2017	2016
Current	**₱2,139,558,945**	₱1,939,963,622	₱1,973,606,199
Final	**10,268,252**	3,658,234	90,328
Deferred	**(173,469,903)**	(1,693,284)	(227,321,985)
	₱1,976,357,294	₱1,941,928,572	₱1,746,374,542

The reconciliation of the statutory income tax rate to the effective income tax rate follows:

	2018	2017	2016
Statutory income tax rate	**30.00%**	30.00%	30.00%
Tax effects of:			
Change in unrecognized deferred tax	**0.59**	(0.26)	0.35
Excess of 40% Optional Standard Deduction (OSD) against allowable deductions	**(22.90)**	1.45	(3.80)
Interest income subjected to final tax	**0.01**	(0.39)	(0.30)
Nontaxable equity in net earnings	**(2.44)**	(1.70)	(1.39)
Nondeductible expense	**51.72**	39.01	21.46
Income exempt from tax	**(33.44)**	(38.65)	(23.31)
Others - net	**(0.60)**	(5.43)	(1.00)
Effective income tax rate	**22.94%**	24.03%	22.01%

The net deferred tax assets of the Group pertain to the deferred income tax effects of the following:

	2018	2017
Deferred tax assets:		
Service concession obligations - net	**₱1,449,136,032**	₱1,247,529,454
Allowance for ECL	**75,697,643**	66,716,456
Provisions/accruals	**45,343,424**	2,058,447
Pension liabilities	**3,251,804**	5,412,418
Others	**5,467,978**	–
	1,578,896,881	1,321,716,775
Deferred tax liabilities:		
Difference between amortization expense of SCA per straight line method and per UOP	**(215,292,728)**	(118,984,313)
	₱1,363,604,153	₱1,202,732,462

The components of the net deferred tax liabilities of the Group as of December 31, 2018 and 2017 represent the deferred income tax effects of the following:

	2018	2017
Deferred tax liabilities:		
Concession financial receivable	**₱72,792,866**	₱76,798,816
Difference between amortization expense of SCA per straight line method and per UOP	**51,560,089**	12,149,424
Gain on bargain purchase	**21,399,859**	15,988,643
Accrued receivables	**8,495,896**	51,184,668
Others	**–**	103,037
	154,248,710	156,224,588
Deferred tax assets:		
Allowance for ECLs	**(31,485,042)**	(14,956,324)
Net Operating Loss Carryover (NOLCO)	**(11,621,941)**	(6,454,322)
Pension liabilities	**(5,363,988)**	(2,462,034)
Provisions/accruals	**(421,910)**	(13,923,419)
MCIT	**–**	(5,910,360)
Others	**(2,251,201)**	(975,195)
	(51,144,082)	(44,681,654)
	₱103,104,628	₱111,542,934

Parent Company
RR No. 16-2008 provided the implementing guidelines for Section 34 of RA No. 9504 on the use of the OSD for corporations. The OSD allowed shall be an amount not exceeding 40% of the gross income. Gross income earned refers to gross sales or gross revenue derived from any business activity, net of returns and allowances, less cost of sales or direct costs but before any deduction is made for administrative expenses or incidental losses. This was applied by the Parent Company for the years ended December 31, 2018, 2017 and 2016.

The availment of OSD affected the recognition of several deferred tax assets and liabilities, in which the related income and expenses are not considered in determining gross income for income tax purposes. The Parent Company forecasts that it will continue to avail of the OSD, such that the manner by which it will recover or settle the underlying assets and liabilities, for which the deferred tax assets and liabilities were initially recognized, would not result in any future tax consequence under OSD.

The effective tax rate of 18% for the years in which OSD is projected to be utilized was used in computing the deferred income taxes on the net service concession obligation starting 2009.

Deferred taxes on allowance for ECL and pension liability were not recognized by the Parent Company. The net reduction in deferred tax assets from applying the 18% effective tax rate to the recognized deferred taxes on net service obligation and the derecognition of the deferred taxes relating to the accounts with temporary differences which are not considered in determining gross income for income tax purposes by the Parent Company amounted to ₱288.21 million and ₱212.77 million as of December 31, 2018 and 2017, respectively.

Subsidiaries
In addition to the deferred tax assets and liabilities that have not been recognized as a consequence of the OSD availment, the Parent Company's subsidiaries, namely, MWIS, EcoWater, BMDC, MW Consortium, Tagum Water, Davao Water, Calasiao Water, and Filipinas Water, have total NOLCO amounting to ₱107.49 million and ₱67.82 million as of December 31, 2018 and 2017, respectively, that are available for offset against future taxable income, for which no deferred tax assets have been recognized. As of December 31, 2018 and 2017, the unrecognized deferred tax assets on NOLCO amounted to ₱32.25 million and ₱20.34 million, respectively.

Clark Water
Clark Water as a duly registered CFZ enterprise under RA No. 9400, An Act Amending RA No. 7227 otherwise known as the Bases Conversion and Development Act of 1992, is entitled to all the rights, privileges and benefits established there under including tax and duty-free importation of capital equipment and special income tax rate of 5% of gross income earned.

Boracay Water
On January 25, 2011, Boracay Water filed an application for registration with the BOI under Executive Order (EO) No. 226, as amended, as a new operator of water supply and distribution for the Boracay Island on a non-pioneer status. The application was ratified on February 9, 2011.

On June 17, 2011, Boracay Water's application was registered with the BOI under Book 1 of EO 226. The ITH is for four (4) years from June 2011 or actual start of commercial operations, whichever is earlier, but in no case earlier than the date of registration. The ITH entitlement shall be limited to the water sales schedule reflected in specific terms and condition of the registration. Further, the ITH entitlement for the wastewater or sewerage services shall be limited only to 10% of the total revenue derived from its water supply.

In June 2015, the BOI approved the bonus year under Boracay Water's Certificate of Registration No. 2011-127 from June 17, 2015 to June 16, 2016 using the indigenous raw material criterion pursuant to Article 39(1)(ii) of EO 226 subject to the following conditions:

- At the time of actual availment of the ITH incentive, the derived ratio of the cost of indigenous raw materials shall be at least 50% of the total raw materials cost; and
- The grantee shall undertake Corporate Social Responsibilities (CSR) activities which shall be completed on the actual availment of the bonus year. The CSR activity shall be aligned with the priority programs/projects of the National Anti-Poverty Commission and/or other special laws such as R.A. 7942 or the Mining Act and DOE Energy Regulation 1-94. The amount spent for the CSR activities shall be reflected in the notes to the audited financial statements. Failure to complete the CSR activity shall mean forfeiture of the approved ITH bonus year.

Beginning June 17, 2016, Boracay Water was already subject to Regular Corporate Income Tax.

Laguna Water
Laguna Water availed of the OSD and the effective tax rate of 18% for the years in which OSD is projected to be utilized. The said rate was then used in computing the deferred income taxes of Laguna Water.

Other subsidiaries
All other domestic subsidiaries are subject to the higher of Regular Corporate Income Tax rate of 30% and Minimum Corporate Income Tax rate of 2%, while foreign subsidiaries are subject to tax rates applicable in their respective countries.

NOLCO
The movements of the Group's NOLCO as of December 31, 2018, which are available for offset against future taxable income for three (3) succeeding years and for which no deferred tax assets have been recognized are as follows:

Year Incurred	Amount	Applied/Expired	Balance	Expiry Year
2015	₱9,372,271	₱9,372,271	₱–	2018
2016	34,130,009	–	34,130,009	2019
2017	24,313,723	–	24,313,723	2020
2018	49,041,811	–	49,041,811	2021
	₱116,857,814	₱9,372,271	₱107,485,543	

MCIT
The movements of the Group's MCIT as of December 31, 2018 which can be claimed against future taxable income for three (3) succeeding years are as follows:

Year Incurred	Amount	Applied/Expired	Balance	Expiry Year
2015	₱970,160	₱970,160	₱–	2018
2016	6,953,356	–	6,953,356	2019
2017	7,042,389	–	7,042,389	2020
2018	6,417,118	–	6,417,118	2021
	₱21,383,023	₱970,160	₱20,412,863	

19. Equity

The Parent Company's capital stock consists of:

	2018		2017	
	Shares	**Amount**	Shares	Amount
Common stock - ₱1 per share				
Authorized	**3,100,000,000**	**₱3,100,000,000**	3,100,000,000	₱3,100,000,000
Issued and subscribed	**2,064,839,617**	**2,064,839,617**	2,053,666,576	2,053,666,576
Outstanding	**2,030,732,360**	**2,030,732,360**	2,026,067,122	2,026,067,122
Preferred stock - ₱0.10 par value, 10% cumulative, voting, participating, nonredeemable and nonconvertible				
Authorized, issued and outstanding - 4,000,000,000 shares	**4,000,000,000**	**400,000,000**	4,000,000,000	400,000,000

On March 18, 2005, the Parent Company launched its Initial Public Offering where a total of 745.33 million common shares were offered at an offering price of ₱6.50 per share. The Parent Company has 949 and 900 existing certificated shareholders as of December 31, 2018 and 2017, respectively. The Scripless shareholders are counted under PCD Nominee Corporation (Filipino) and PCD Nominee Corporation (Non-Filipino).

On March 1, 2018, the Board of Directors (BOD) approved the following:

a. amendment of the Parent Company's Articles of Incorporation to exclude the 300.00 million common shares from the pre-emptive rights of existing stockholders, and endorsed the said amendment for approval by the stockholders; and
b. allotment and subsequent issuance of up to 300.00 million common shares for the purpose of exchanging such shares for assets and/or raising funds to acquire assets needed for the business of the Parent Company.

On April 16, 2018, the stockholders of the Parent Company approved the amendment of the Seventh Article of the Articles of Incorporation to exempt from pre-emptive rights 300.00 million unissued common shares ("carved-out shares") which are reserved or allocated for issuance in one or more transactions or offerings, (i) for properties or assets needed for the business of the Parent Company, or (ii) for cash to acquire properties or assets needed for the business of the Parent Company. The issuance of all or any of the carved-out shares does not require the approval of stockholders.

The movement of the Parent Company's outstanding common stock follows:

	2018	2017
Number of shares at beginning of year	**₱2,026,067,122**	₱2,024,934,090
Additions	**4,665,238**	1,133,032
Number of shares at end of year	**₱2,030,732,360**	₱2,026,067,122

Dividends

The following table shows the cash dividends declared by the Parent Company's BOD on the outstanding capital stock for each of the three (3) years ended December 31, 2018:

		Amount Per Share		
Declaration Date	**Record Date**	**Common Shares**	**Participating Preferred Shares**	**Payment Date**
February 26, 2016	March 11, 2016	₱0.41670	₱0.04167	March 23, 2016
October 3, 2016	October 17, 2016	0.41670	0.04167	October 28, 2016
November 22, 2016	December 7, 2016	–	0.01000	December 16, 2016
March 1, 2017	March 15, 2017	0.4244	0.04244	March 31, 2017
October 3, 2017	October 17, 2017	0.4244	0.04244	November 2, 2017
November 23, 2017	December 8, 2017	–	0.01000	December 20, 2017
March 1, 2018	March 15, 2018	0.4302	0.04302	March 28, 2018
October 2, 2018	October 17, 2018	0.4283	0.04283	October 31, 2018
November 20, 2018	December 6, 2018	–	0.01000	December 20, 2018

There are no dividends in arrears for the Parent Company's participating preferred shares as of December 31, 2018, 2017, and 2016.

Retained earnings
The approved Business Plan includes planned capital expenditures on (i) service continuity, (ii) service accessibility, (iii) water security, and (iv) environmental sustainability described as follows:

- Service continuity projects are endeavored to maintain the level of service provided to its customers even in times of calamity;
- Service accessibility projects would enable the Parent Company to expand its service coverage;
- Water security projects include two components: (1) new water source development and, (2) existing water source rehabilitation and improvement; and
- Projects under the Environmental Sustainability Investment category are comprised of wastewater projects endeavored to achieve the Parent Company's wastewater coverage targets.

On November 20, 2018, November 23, 2017, and November 22, 2016, the Parent Company's BOD approved the appropriation of ₱3.75 billion, ₱7.60 billion, and ₱21.10 billion, respectively, to ensure the completion of the Parent Company's large system projects included in its approved Business Plan. The implementation of these projects is consistent with the timeline of the approved Business Plan which covers until the end of the concession period.

Retained earnings include the accumulated equity in undistributed net earnings of consolidated subsidiaries and associates accounted for under the equity method amounting to ₱3,267.74 million and ₱2,965.80 million as of December 31, 2018 and 2017, respectively, which are not available for dividend declaration by the Parent Company until these are declared by the investee companies.

In accordance with SRC Rule 68, as Amended (2011), Annex 68-C, the Parent Company's retained earnings available for dividend declaration as of December 31, 2018 and 2017 amounted to ₱7.22 billion and ₱7.02 billion, respectively.

Executive Stock Option Plan (Executive SOP), Expanded Executive SOP, and ESOWN
The subscribed shares are effectively treated as options exercisable within a given period which is the same time as the grantee's payment schedule.

For the unsubscribed shares of the ESOWN grants in 2013 and 2012, the employee still has the option to subscribe within seven (7) years.

The fair values of stock options granted are estimated on the date of grant using the Binomial Tree Model and Black-Scholes Merton Formula, taking into account the terms and conditions upon which the options were granted. The expected volatility was determined based on an independent valuation.

The fair value of stock options granted under ESOWN at grant date and the assumptions used to determine the fair value of the stock options follows:

	Grant Dates			
	March 7, 2018	February 10, 2015	November 19, 2013	October 5, 2012
Number of shares granted	16,054,873	7,281,647	6,627,100	4,772,414
Number of unsubscribed shares	5,161,140	884,873	351,680	460,000
Fair value of each option	₱5.74	₱11.58	₱10.58	₱11.76
Weighted average share price	₱26.55	₱21.35	₱23.00	₱26.24
Exercise price	₱27.31	₱26.00	₱22.92	₱24.07
Expected volatility	24.92%	26.53%	24.90%	30.66%
Dividend yield	2.80%	2.55%	3.47%	2.56%
Risk-free interest rate	3.43%	3.79%	2.99%	4.57%

To enjoy the rights provided for in the ESOWN, the grantee should be with the Parent Company at the time the holding period expires. The holding period of the ESOWN shares granted follows:

Year	Holding Period
After one year from subscription date	40%
After two years from subscription date	30%
After three years from subscription date	30%

For the 2013 and previous years' grants, the ESOWN grantees were allowed to subscribe fully or partially to whatever allocation may have been granted to them. In case of partial subscriptions, the employees are still allowed to subscribe to the remaining unsubscribed shares granted to them provided that this would be made at the start of Year 5 from grant date up to the end of Year 6. Any additional subscription made by the employee (after the initial subscription) will be subjected to another three (3)-year holding period. For the 2018 and 2015 grants, unsubscribed shares were forfeited.

Movements in the number of stock options outstanding under ESOWN are as follows:

	2018	**Weighted average exercise price**	2017	Weighted average exercise price
Balance at beginning of year	**231,980**	**₱23.49**	4,923,730	₱23.49
Cancellation	**(100,380)**	**–**	(4,691,750)	–
Balance at end of year	**131,600**	**₱23.49**	231,980	₱23.49

Total expense arising from equity-settled share-based payment transactions amounted to ₱23.97 million, ₱12.17 million, and ₱33.20 million in 2018, 2017, and 2016, respectively.

On March 6, 2018, the Renumeration Committee of the Parent Company's Board of Directors approved the grants of ESOWN equivalent to 16,054,873 shares at the subscription price of ₱27.31 per share. The subscription price is equivalent to the average closing price of Parent Company's common shares at the PSE for twenty (20) consecutive trading days ending March 6, 2018.

The expected life of the options is based on management's estimate and is not necessarily indicative of exercise patterns that may occur. The Parent Company's expected volatility was used as an input in the valuation of the outstanding options. The expected volatility reflects the assumption that the historical volatility is indicative of future trends, which may also not necessarily reflect the actual outcome.

No other features of the options granted were incorporated into the measurement of fair value.

Other equity reserves

On May 9, 2012, the Parent Company sold portion of its investment in MW Consortium to Vicsal Development Corporation (VDC) which decreased its ownership by 10% without loss of control. Proceeds from the sale amounted to ₱15.00 million and the gain of ₱7.50 million was presented as part of "Other equity reserves" in the consolidated statement of financial position.

In 2016, MWPV increased its ownership interest in MW Consortium from 51.00% to 57.22% and MW Consortium in Cebu Water from 51.00% to 70.58% arising from the issuance of redeemable preferred shares. This resulted to a corresponding increase in effective ownership of MWPV in Cebu Water from 26.01% to 40.39%. The Group recognized gain on dilution of non-controlling interest amounting to ₱46.61 million and presented this as part of "Other equity reserves" in the consolidated statements of financial position.

20. Earnings per Share

Earnings per share amounts attributable to equity holders of the Parent Company for the years ended December 31, 2018, 2017, and 2016 were computed as follows:

	2018	2017	2016
Net income attributable to equity holders of the Parent Company	**₱6,523,700,728**	₱6,146,608,317	₱6,065,220,845
Less dividends on preferred shares*	**1,094,186,642**	1,035,507,438	1,042,090,489
Net income attributable to common shareholders for basic and diluted earnings per share	**₱5,429,514,086**	₱5,111,100,879	₱5,023,130,356
Weighted average number of shares for basic earnings per share	**₱2,060,184,183**	₱2,053,666,576	₱2,053,666,576
Dilutive shares arising from stock options	**77,730**	1,179,473	3,304,994
Adjusted weighted average number of common stocks for diluted earnings per share	**₱2,060,261,913**	₱2,054,846,049	₱2,056,971,570
Basic earnings per share	**₱2.64**	₱2.49	₱2.45
Diluted earnings per share	**₱2.64**	₱2.49	₱2.44

**Including participating preferred shares' participation in earnings.*

21. Related Party Transactions

Parties are considered to be related to the Group if it has the ability, directly or indirectly, to control the Group or exercise significant influence over the Group in making financial and operating decisions, or vice versa, or where the Group and the party are subject to common control or common significant influence. Related parties may be individuals (being members of key management personnel and/or their close family members) or other entities and include entities which are under the significant influence of related parties of the Group where those parties are individuals, and post-employment benefit plans which are for the benefit of employees of the Group or of any entity that is a related party of the Group.

In the normal course of business, the Group has transactions with related parties. The sales and investments to related parties and service agreements are based on rates agreed upon by the parties. Outstanding balances at year-end are unsecured and interest-free. There have been no guarantees provided or received for any related party receivables or payables. As of December 31, 2018 and 2017, the Group has not recognized any ECL relating to amounts owed by related parties. This assessment is undertaken each financial year by examining the financial position of the related party and the market in which the related party operates.

Significant transactions with related parties follow:

a. The Parent Company entered into an Administrative and Support Services Agreement (ASSA) with Ayala in 1997, being its sponsor as required during the privatization process. The ASSA was initially effective for ten (10) years and automatically renewable every five (5) years. Under the agreement, Ayala shall provide technical and other knowledge, experience and skills as reasonably necessary for the development, administration and operation of the concession, for which the Parent Company shall pay an annual base fee of US$1.00 million and adjusted for the effect of CPI. As a result, certain key management positions are occupied by employees of Ayala.

   On March 1, 2017, the BOD confirmed the automatic renewal of the ASSA between the Parent Company and Ayala for another five (5) years until July 30, 2022 and approved the amendment reducing the base fee to ₱1.00 per year beginning August 1, 2017.

   Total management and professional fees charged to operations arising from these agreements amounted to ₱209.22 million, ₱276.20 million, and ₱253.84 million in 2018, 2017 and 2016, respectively. Total outstanding payables amounted to nil as of December 31, 2018 and 2017.

b. The following tables provide the total amount of all other transactions that have been entered into with the Parent Company's shareholders and affiliates for the relevant financial year:

	Cash in Banks and Cash Equivalents (Note 5)		**Trade Receivables** (Note 6)	
	2018	2017	**2018**	2017
Shareholder:				
Ayala	**₱–**	₱–	**₱12,776**	₱9,776
Affiliates:				
ALI and subsidiaries	**–**	–	**170,860,333**	261,829,951
AC Industrial Technology Holdings, Inc. (AITHI) and subsidiaries	**–**	–	**250,987**	10,430
Globe Telecom, Inc. (Globe) and subsidiaries	**–**	–	**208,865**	59,097
BPI and subsidiaries	**3,595,126,404**	3,563,044,031	**113,859**	813,106
	3,595,126,404	3,563,044,031	**171,434,044**	262,712,584
	₱3,595,126,404	₱3,563,044,031	**₱171,446,820**	₱262,722,360

Cash in banks and cash equivalents pertain to deposits and investments with original maturities of three (3) months or less from the date of original acquisition.

Trade receivables are primarily composed of receivables for water and sewerage services rendered by the Group. These are non-interest bearing and are collectible within thirty (30) days from bill generation. No allowance for ECL was provided for receivables from related parties as of December 31, 2018 and 2017.

	Trade Payables (Note 13)		**Long-term Debt** (Note 14)	
	2018	2017	**2018**	2017
Affiliates:				
ALI and subsidiaries	**₱31,024,797**	₱2,354,124	**₱–**	₱–
BPI and subsidiaries	**687,144**	–	**595,629,415**	–
	₱31,711,941	₱2,354,124	**₱595,629,415**	₱–

Trade payables pertain to retentions deducted from contractors' billings and are normally paid within a year after project acceptance.

Long-term debt pertains to loans made by Boracay Water with BPI (see Note 14). There was no long-term debt with related parties as of December 31, 2017.

	Revenue		**Purchases**	
	2018	2017	**2018**	2017
Shareholder:				
Ayala	**₱6,109,967**	₱6,356,135	**₱209,220,988**	₱276,204,416
Affiliates:				
ALI and subsidiaries	**656,875,805**	546,029,588	**274,348,720**	16,239,344
BPI and subsidiaries	**99,654,361**	11,292,948	**37,042,399**	1,157,658
Globe and subsidiaries	**3,094,544**	3,502,278	**3,272,564**	24,369,425
Integrated Microelectronics, Inc. (IMI) and subsidiaries	**27,127,460**	22,771,533	**–**	–
AITHI and subsidiaries	**5,655,375**	5,790,312	**15,184,639**	255,374,307
AC Energy Holdings, Inc. (AC Energy)	**–**	–	**377,271,684**	160,805,173
HCX Technology Partners, Inc.	**–**	–	**5,679,690**	5,977,427
	792,407,545	589,386,659	**712,799,696**	463,923,334
	₱798,517,512	₱595,742,794	**₱922,020,684**	₱740,127,750

Revenue is mainly attributable to water and used water services and facilities, and supervision fees rendered by the Group to its shareholder and affiliates.

Purchases from related parties arise from the following transactions:

- Ayala for management fees;
- ALI and subsidiaries for rental of office space;
- BPI for banking transactions and financial services such as insurance;
- Globe for telecommunication services;
- AC Energy for purchase of power;
- AITHI and its subsidiaries for acquisition of transportation equipment; and
- HCX Technology Partners, Inc. for payroll management services.

c. On January 15, 2016, MWPV entered into a MOA with ALI and its subsidiaries and affiliates (the ALI Group) whereby MWPV shall exclusively provide water and used water services and facilities to all ALI Group property development projects in the Philippines. Revenue earned by MWPV from the agreement, included under "Supervision fees", amounted to ₱320.25 million and ₱371.62 million in 2018 and 2017, respectively (see Note 17).

d. On April 16, 2016, MWPV entered into a MOA with Laguna Technopark Inc. (LTI), whereby through its division, Estate Water, MWPV shall exclusively provide water and used water services to LTI's Cavite Technopark located in Barangay Sabang, Naic, Cavite, and in pursuit of this objective, to construct, develop, finance, and own the water facilities and used water facilities under the terms and conditions set out in the MOA. For and in consideration of the construction and development of the water facilities and used water facilities and the rendition of the services by MWPV, LTI shall pay a capacity charge. Capacity charge, included under "Supervision fees," amounted to ₱5.12 million and ₱41.72 million in 2018 and 2017, respectively (see Note 17).

e. On December 20, 2017, Boracay Water signed a Fourth Omnibus Loan and Security Agreement in the amount of ₱2.40 billion with the BPI. The loan will be used to finance the general corporate and capital expenditures requirements of Boracay Water. The carrying value of loan as of December 31, 2018 and 2017 amounted to ₱595.63 million and nil, respectively.

f. In September 2017, the Parent Company entered into an Open Access Contract with AC Energy which will cover a two (2)-year supply of electricity to five (5) of the Parent Company's facilities currently enrolled under Open Access. As of December 31, 2018 and 2017, the Group has guaranty deposits with AC Energy amounting to ₱9.23 million.

g. On April 9, 2002, Laguna Water entered into a concession agreement (as amended on March 31, 2004, July 22, 2009, and June 30, 2015) with PGL, one of its shareholders. Concession fees paid to PGL amounted to ₱32.27 million and ₱7.34 million in 2018 and 2017, respectively (see Notes 1 and 27).

h. On December 17, 2009, Boracay Water entered into a concession agreement with TIEZA. Concession fees paid to TIEZA amounted to ₱28.40 million and ₱29.18 million in 2018 and 2017, respectively (see Notes 1 and 27).

i. One of the trustee banks which manages the Group's retirement fund is BPI, an affiliate. The Group's plan assets under BPI amounted to ₱483.42 million and ₱567.14 million as of December 31, 2018 and 2017, respectively (see Note 15).

j. Compensation of key management personnel of the Group by benefit type, included as part of "Salaries, wages and employee benefits," are as follows:

	2018	2017
Short-term employee benefits	**₱576,676,245**	₱502,864,917
Post-employment benefits	**19,899,576**	16,402,047
Share-based payment	**16,960,455**	10,349,090
	₱613,536,276	₱529,616,054

22. Significant Contracts with the West Zone Concessionaire

In relation to the Concession Agreement, the Parent Company entered into the following contracts with Maynilad:

a. Interconnection Agreement wherein the two Concessionaires formed an unincorporated joint venture that will manage, operate, and maintain interconnection facilities. The terms of the agreement provide, among others, the cost and the volume of water to be transferred between zones.

b. Joint Venture Arrangement that will operate, maintain, renew, and as appropriate, decommission common purpose facilities, and perform other functions pursuant to and in accordance with the provisions of the Agreement and perform such other functions relating to the concession (and the concession of the West Zone Concessionaire) as the Concessionaires may choose to delegate to the joint venture, subject to the approval of MWSS.

c. In March 2010, MWSS entered into a loan agreement with The Export-Import Bank of China to finance the Angat Water Utilization and Aqueduct Improvement Project Phase II (the Project). Total loan facility is US$116.60 million with maturity of twenty (20) years, including five (5) years of grace period. Interest rate is 3% per annum. MWSS then entered into a MOA with the Parent Company and Maynilad for the Parent Company and Maynilad to shoulder equally the repayment of the loan, with such repayment to be part of the concession fees (see Note 10).

d. On May 12, 2015, MWSS entered into a MOA with the Parent Company and Maynilad for the Angat Water Transmission Improvement Project (Angat Transmission Project). The Angat Transmission Project aims to improve the reliability and security of the raw water coming from the Angat Dam through the rehabilitation of the transmission system from Ipo to La Mesa and the application of water safety, risk and asset management plans. Subsequently, on May 27, 2016, MWSS entered in to a loan agreement with Asian Development Bank to finance the Angat Transmission Project. The loan amounts to US$123.30 million with a maturity of twenty-five (25) years including a seven (7)-year grace period. As stipulated in the MOA, the Parent Company and Maynilad shall shoulder equally the repayment of the loan and all reasonable expenditures related to the Project with such payments to form part of the concession fees.

23. Assets Held in Trust

MWSS

The Parent Company is granted the right to operate, maintain in good working order, repair, decommission and refurbish the movable property required to provide the water and sewerage services under the Concession Agreement. The legal title to all movable property in existence at the Commencement Date, however, shall be retained by MWSS and upon expiration of the useful life of any such movable property as may be determined by the Parent Company, such movable property shall be returned to MWSS in its then-current condition at no charge to MWSS or the Parent Company.

The Concession Agreement also provides for the Concessionaires to have equal access to MWSS facilities involved in the provision of water supply and sewerage services in both the East and West Zones including, but not limited to, the MWSS management information system, billing system, telemetry system, central control room and central records.

The net book value of the facilities transferred to the Parent Company on Commencement Date based on MWSS' closing audit report amounted to ₱4.60 billion, with a sound value of ₱10.40 billion.

In 2015, the Parent Company engaged the services of Royal Asia Appraisal Corporation to conduct a re-appraisal of the assets managed by the Parent Company as of 2014, based on the asset registry as of December 31, 2013. Total reproduction cost as of December 31, 2015 amounted to ₱123.47 billion, with a sound value of ₱69.10 billion.

MWSS' corporate headquarters is made available to the Concessionaires starting August 1, 1997, subject to periodic renewal by mutual agreement of the parties. The lease was last renewed on October 27, 2006. On August 28, 2012, additional office space was leased by the Parent Company. Rent expense amounted to ₱32.25 million, ₱27.75 million, and ₱18.46 million in 2018, 2017, and 2016, respectively. These are included under "Occupancy costs" in the consolidated statements of comprehensive income.

In March 2015, the Parent Company and MWSS entered into an agreement for the lease of a portion of the San Juan Reservoir and Aqueduct Complex being utilized by the Parent Company as stockyard for its pipes and other materials. The lease agreement shall continue to be in effect until the termination of the Concession Agreement. Rent expense recognized in 2016 to 2018 amounted to ₱16.20 million each year which is included under "Occupancy costs" in the consolidated statement of comprehensive income.

PGL

Laguna Water is granted the right to manage, occupy, operate, repair, maintain, decommission and refurbish the property required to provide water services under its concession agreement with PGL. The legal title of all property in existence at the commencement date shall be retained by PGL. Upon expiration of the useful life of any such property as may be determined by Laguna Water, such property shall be returned to PGL in its then condition at no charge to PGL or Laguna Water.

In 2014, Laguna Water engaged the services of Cuervo Appraisers to conduct a re-appraisal of PGL assets on record as of December 31, 2013. Total replacement cost as of December 31, 2013 amounted to ₱2,138.38 million with a sound value of ₱1,596.19 million.

TIEZA

Boracay Water is granted the right to operate, maintain in good working order, repair, decommission and refurbish all fixed and movable property (except retained assets) required to provide the water and sewerage services under its concession agreement with TIEZA. The legal title to all these assets in existence at the commencement date, however, shall be retained by TIEZA and upon expiration of the useful life of such assets as may be determined by Boracay Water, such assets shall be returned to TIEZA in its then-current condition at no charge to TIEZA or Boracay Water.

The net book value of the facilities transferred to Boracay Water on commencement date based on TIEZA's closing audit report amounted to ₱618.24 million.

In 2015, Boracay Water engaged the services of Cuervo Appraisers, Inc. to conduct an appraisal of its assets as of August 18 to 20, 2015. Total replacement cost as of December 31, 2015 amounted to ₱1.11 billion with a sound value of ₱793.41 million.

OWD

On October 12, 2017, Obando Water is granted the right to manage, operate, maintain, repair, refurbish and improve, expand and as appropriate, decommission all fixed and movable assets, including movable property but excluding retained assets, required to provide water delivery and sanitation services in the Municipality of Obando. Legal title to all facilities (including any fixed assets resulting from the exercise of rights and powers), other than new assets contributed by Obando Water, shall remain with OWD.

CWD

On October 23, 2017, Calasiao is granted the right to develop, manage, operate, maintain, repair, refurbish and improve, expand and as appropriate, decommission all fixed and movable assets, including movable property but excluding retained assets, required to provide water delivery and sanitation services in the Municipality of Calasiao. Legal title to all facilities (including any fixed assets resulting from the exercise of rights and powers), other than new assets contributed by Calasiao Water, shall remain with CWD.

24. Segment Information

Business segment information is reported on the basis that is used internally for evaluating segment performance and deciding how to allocate resources among operating segments. Accordingly, the segment information is reported based on geographic location.

The Group's BOD and Management Committee monitors the operating results of its business segments separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on profit or loss and is measured consistently with profit or loss in the consolidated financial statements.

Transfer prices between operating segments are on an arms' length basis in a manner similar to transactions with third parties.

The amount of segment assets and liabilities are based on measurement principles that are similar with those used in measuring assets and liabilities in the consolidated statement of financial position which is in accordance with PFRS.

The segments where the Group operates follow:

- Manila Concession and Head Office – represents the operations of the Manila Concession (East Zone) of the Parent Company in accordance with its Concession Agreement.
- Domestic Subsidiaries – represents the financial results of the Philippine businesses such as MWTS, Calasiao Water, and MWPV (including Laguna Water, Clark Water, Boracay Water, Filipinas Water, Obando Water, Bulakan Water, MW Consortium, Cebu Water, Davao Water, Tagum Water, BMDC, Aqua Centro, MWIS, EcoWater, Leyte Water, and Zamboanga Water).
- Foreign Subsidiaries – consists of businesses outside the Philippines under MWAP (MWSAH, Asia Water, TDWH, KDWH, MWTH, MWTC, MSEA, and PTMWI).

Details of the Group's operating segments as of and for the years ended December 31, 2018, 2017 and 2016 are as follows:

	2018			
	Manila Concession and Head Office	Domestic Subsidiaries	Foreign Subsidiaries	Consolidated
	(In Thousands)			
Revenue				
Sales to external customers	₱16,189,503	₱3,617,782	₱29,007	₱19,836,292
Operating expenses (excluding depreciation and amortization)	5,202,420	2,594,621	279,047	8,076,088
Other income (expenses) – net				
Equity share in net income of associates	–	–	699,142	699,142
Revenue from rehabilitation works	8,198,599	1,463,378	–	9,661,977
Cost of rehabilitation works	(8,198,599)	(1,463,378)	–	(9,661,977)
Other income - net	222,641	29,010	(72,012)	179,639
EBITDA	11,209,724	1,052,171	377,090	12,638,985
Depreciation and amortization	2,176,661	478,541	468	2,655,670
Income before interest income (expense)	9,033,063	573,630	376,622	9,983,315
Interest income	228,651	175,172	8,060	411,883
Interest expense	(1,257,030)	(392,298)	(134,480)	(1,783,808)
Income before income tax	8,004,684	356,504	250,202	8,611,390
Provision for income tax	1,819,881	150,148	6,328	1,976,357
Net income	6,184,803	206,356	243,874	6,635,033
Other comprehensive income				
Cumulative translation adjustment	–	–	524,680	524,680
Actuarial gain (loss) on pension liabilities - net	(74,978)	19,933	–	(55,045)
Income tax effect	–	(4,160)	–	(4,160)
Total comprehensive income	₱6,109,825	₱222,129	₱768,554	₱7,100,508
Total net income attributable to:				
Equity holders of the Parent Company	₱6,184,803	₱95,390	₱243,507	₱6,523,700
Non-controlling interests	–	110,966	367	111,333
	₱6,184,803	₱206,356	₱243,874	₱6,635,033
Total comprehensive income attributable to:				
Equity holders of the Parent Company	₱6,109,825	₱109,633	₱768,187	₱6,987,645
Non-controlling interests	–	112,496	367	112,863
	₱6,109,825	₱222,129	₱768,554	₱7,100,508

(Forward)

	2018			
	Manila Concession and Head Office	**Domestic Subsidiaries**	**Foreign Subsidiaries**	**Consolidated**
		(In Thousands)		
Other information				
Segment assets, exclusive of investments in associates and deferred tax assets	**₱93,797,598**	**₱10,560,913**	**₱816,252**	**₱105,174,763**
Investments in associates	**–**	**–**	**15,994,949**	**15,994,949**
Deferred tax assets	**1,125,584**	**238,020**	**–**	**1,363,604**
	₱94,923,182	**₱10,798,933**	**₱16,811,201**	**₱122,533,316**
Segment liabilities, exclusive of deferred tax liabilities	**₱47,080,563**	**₱12,980,508**	**₱8,748,048**	**₱68,809,119**
Deferred tax liabilities	**–**	**103,105**	**–**	**103,105**
	₱47,080,563	**₱13,083,613**	**₱8,748,048**	**₱68,912,224**
Segment additions to property, plant and equipment and SCA	**₱9,058,054**	**₱2,823,601**	**₱1,961**	**₱11,883,616**
Depreciation and amortization	**₱2,176,661**	**₱478,541**	**₱468**	**₱2,655,670**
Noncash expenses (income) other than depreciation and amortization	**₱43,524**	**₱203,204**	**₱65,305**	**₱312,033**

	2017			
	Manila Concession and Head Office	Domestic Subsidiaries	Foreign Subsidiaries	Consolidated
		(In Thousands)		
Revenue				
Sales to external customers	₱15,208,495	₱3,269,962	₱37,315	₱18,515,772
Operating expenses (excluding depreciation and amortization)	4,633,994	2,562,297	164,089	7,360,380
Other income (expenses) – net				
Equity share in net income of associates	–	–	457,208	457,208
Revenue from rehabilitation works	10,154,137	1,518,000	–	11,672,137
Cost of rehabilitation works	(10,154,137)	(1,518,000)	–	(11,672,137)
Other income	29,417	54,067	289	83,773
EBITDA	10,603,918	761,732	330,723	11,696,373
Depreciation and amortization	2,247,207	309,133	659	2,556,999
Income before interest income (expense)	8,356,711	452,599	330,064	9,139,374
Interest income	147,663	195,883	2,192	345,738
Interest expense	(1,147,544)	(255,692)	–	(1,403,236)
Income before income tax	7,356,830	392,790	332,256	8,081,876
Provision for income tax	1,665,513	276,414	2	1,941,929
Net income	5,691,317	116,376	332,254	6,139,947
Other comprehensive income				
Cumulative translation adjustment	–	–	108,488	108,488
Actuarial gain (loss) on pension liabilities - net	(58,468)	1,337	–	(57,131)
Income tax effect	907	(91)	–	816
Total comprehensive income	₱5,633,756	₱117,622	₱440,742	₱6,192,120

(Forward)

	2017			
	Manila Concession and Head Office	Domestic Subsidiaries	Foreign Subsidiaries	Consolidated
	(In Thousands)			
Total net income attributable to:				
Equity holders of the Parent Company	₱5,691,317	₱125,658	₱329,633	₱6,146,608
Non-controlling interests	–	(9,283)	2,622	(6,661)
	₱5,691,317	₱116,375	₱332,255	₱6,139,947
Total comprehensive income attributable to:				
Equity holders of the Parent Company	₱5,633,756	₱125,658	₱438,121	₱6,197,535
Non-controlling interests	–	(8,037)	2,622	(5,415)
	₱5,633,756	₱117,621	₱440,743	₱6,192,120
Other information				
Segment assets, exclusive of investments in associates and deferred tax assets	₱78,106,002	₱16,853,846	₱435,819	₱95,395,667
Investments in associates	–	–	6,796,037	6,796,037
Deferred tax assets	1,095,372	107,360	–	1,202,732
	₱79,201,374	₱16,961,206	₱7,231,856	₱103,394,436
Segment liabilities, exclusive of deferred tax liabilities	₱43,970,596	₱10,571,561	₱180,039	₱54,722,196
Deferred tax liabilities	–	111,543	–	111,543
	₱43,970,596	₱10,683,104	₱180,039	₱54,833,739
Segment additions to property, plant and equipment and SCA	₱10,400,000	₱1,590,781	₱698	₱11,991,479
Depreciation and amortization	₱2,247,207	₱309,133	₱659	₱2,556,999
Noncash expenses (income) other than depreciation and amortization*	(₱16,557)	₱605,449	₱–	₱588,892

	2016			
	Manila Concession and Head Office	Domestic Subsidiaries	Foreign Subsidiaries	Consolidated
	(In Thousands)			
Revenue				
Sales to external customers	₱14,979,224	₱2,732,687	₱–	₱17,711,911
Operating expenses (excluding depreciation and amortization)	4,610,182	1,457,659	124,744	6,192,585
Other income (expenses) – net				
Equity share in net income of associates	–	–	368,830	368,830
Revenue from rehabilitation works	5,294,631	1,510,277	–	6,804,908
Cost of rehabilitation works	(5,294,631)	(1,510,277)	–	(6,804,908)
Other income	54,111	(3,973)	33,197	83,335
EBITDA	10,423,153	1,271,055	277,283	11,971,491
Depreciation and amortization	2,525,612	340,178	253	2,866,043
Income before interest income (expense)	7,897,541	930,877	277,030	9,105,448
Interest income	95,100	161,517	507	257,124
Interest expense	(1,229,740)	(199,467)	–	(1,429,207)

(Forward)

	2016			
	Manila Concession and Head Office	Domestic Subsidiaries	Foreign Subsidiaries	Consolidated
	(In Thousands)			
Income before income tax	₱6,762,901	₱892,927	₱277,537	₱7,933,365
Provision for income tax	1,543,817	202,558	–	1,746,375
Net income	5,219,084	690,369	277,537	6,186,990
Other comprehensive income				
Cumulative translation adjustment	–	–	288,592	288,592
Actuarial gain (loss) on pension liabilities - net	176,046	11,044	–	187,090
Income tax effect	–	(1,193)	–	(1,193)
Total comprehensive income	₱5,395,130	₱700,220	₱566,129	₱6,661,479
Total net income attributable to:				
Equity holders of the Parent Company	₱5,219,084	₱569,452	₱276,685	₱6,065,221
Non-controlling interests	–	120,917	852	121,769
	₱5,219,084	₱690,369	₱277,537	₱6,186,990
Total comprehensive income attributable to:				
Equity holders of the Parent Company	₱5,395,130	₱577,803	₱565,277	₱6,538,210
Non-controlling interests	–	122,417	852	123,269
	₱5,395,130	₱700,220	₱566,129	₱6,661,479
Other information				
Segment assets, exclusive of investments in associates and deferred tax assets	₱64,739,534	₱12,816,130	₱538,532	₱78,094,196
Investments in associates	–	–	6,199,517	6,199,517
Deferred tax assets	1,101,128	84,561	–	1,185,689
	₱65,840,662	₱12,900,691	₱6,738,049	₱85,479,402
Segment liabilities, exclusive of deferred tax liabilities	₱33,442,258	₱7,521,321	₱29,551	₱40,993,130
Deferred tax liabilities	–	104,584	–	104,584
	₱33,442,258	₱7,625,905	₱29,551	₱41,097,714
Segment additions to property, plant and equipment and SCA	₱5,364,943	₱1,666,070	₱–	₱7,031,013
Depreciation and amortization	₱2,525,612	₱340,178	₱253	₱2,866,043
Noncash expenses (income) other than depreciation and amortization*	(₱200)	₱55,065	₱–	₱54,865

The Group does not have a single customer contributing more than 10% of its total revenue.

Disaggregated revenue information

The following are the disaggregation of the Group's revenue from contracts with customers for the year ended December 31, 2018:

	Manila Concession and Head Office	Domestic Subsidiaries	Foreign Subsidiaries	Total
		(In Thousands)		
Revenue from contracts with customers:				
Water	₱12,966,631	₱2,264,888	₱–	₱15,231,519
Sewer	246,598	273,803	–	520,401
Environmental charges	2,691,308	28,343	–	2,719,651
Other operating income	449,396	886,318	29,007	1,364,721
	₱16,353,933	₱3,453,352	₱29,007	₱19,836,292
Timing of revenue recognition:				
Revenue recognized over time	₱16,106,434	₱3,089,330	₱–	₱19,195,764
Revenue recognized at a point in time	247,499	364,022	₱29,007	640,528
	₱16,353,933	₱3,453,352	₱29,007	₱19,836,292

25. Fair Value Measurement

The carrying amounts approximate fair values for the Group's financial assets and liabilities due to its short-term maturities except for the following financial assets and financial liabilities as of December 31, 2018 and 2017:

	2018		2017	
	Carrying Value	**Fair Value Significant Unobservable Inputs (Level 3)**	Carrying Value	Fair Value Significant Unobservable Inputs (Level 3)
		(In Thousands)		
Financial assets at amortized cost				
Concession financial receivable	**₱1,047,042**	**₱1,422,268**	₱1,384,551	₱3,188,264
Other financial liabilities				
Short-term loan	**₱8,596,539**	**₱8,596,539**	₱–	₱–
Long-term debt	**43,050,928**	**41,811,196**	39,724,379	40,324,899
Service concession obligations	**7,928,527**	**8,645,393**	7,447,676	8,597,136
Customers' guaranty deposits and other deposits	**334,643**	**223,991**	258,887	632,220
	₱59,910,637	**₱59,277,119**	₱47,430,942	₱49,554,255

The methods and assumptions used by the Group in estimating the fair value of the long-term loans and receivables and other financial liabilities such as long-term debt, customers' guaranty deposits and other deposits, and service concession obligations are as follows:

a. The fair values are estimated using the discounted cash flow methodology using the Group's current incremental borrowing rates for similar borrowings with maturities consistent with those remaining for the liability being valued.

b. The discount rates used for PHP-denominated loans were 5.22% to 7.53% in 2018 and 2.50% to 9.58% in 2017 while the discount rates used for foreign currency-denominated loans ranged from 5.31% to 7.42% in 2018 and 2.45% to 5.87% in 2017.

Fair Value Hierarchy
There were no financial assets measured at fair value as of December 31, 2018 and 2017. During the periods ended December 31, 2018, 2017, and 2016, there were no transfers between Level 1 and Level 2 fair value measurements and no transfers into and out of Level 3 fair value measurement.

26. Financial Risk Management Objectives and Policies

The Group's principal financial instruments comprise of cash and cash equivalents, concession financial receivables, short-term debt, long-term debt, and service concession obligations. The main purpose of the Group's financial instruments is to fund its operations and capital expenditures. The main risks arising from the use of financial instruments are interest rate risk, foreign exchange risk, credit risk and liquidity risk. The Group has other various financial assets such as trade receivables and payables which arise directly from the conduct of its operations.

The Parent Company's BOD reviews and approves the policies for managing each of these risks. The Group monitors risks arising from all financial instruments and regularly report financial management activities and the results of these activities to the Parent Company's BOD.

The Group's risk management policies are summarized below:

Interest rate risk
Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's exposure to interest rate risk relates primarily to its financial instruments with floating and/or fixed rates. Fixed rate financial instruments are subject to fair value interest rate risk while floating rate financial instruments are subject to cash flow interest rate risk.

The Group's policy is to manage the interest payments using a mix of fixed and variable rate debts to minimize the Group's exposure to changes in interest rates primarily from its long-term debt. As of December 31, 2018 and 2017, the Group's mix of fixed interest and floating interest rate of long-term debt are 85.31% to 14.69% and 71.43% to 28.57%, respectively.

As of December 31, 2018, the fixed interest rates of the Group's foreign currency denominated long-term debt are from 1.39% to 1.48% and are from 4.42% to 9.28% for Peso denominated long-term debt. As of December 31, 2017, fixed interest rates of the Group's foreign currency denominated long-term debt are from 1.39% to 4.66% and are from 4.66% to 9.00% for Peso denominated long-term debt. Floating interest rates are based on 6-month LIBOR plus margin as of December 31, 2018 and 2017.

	2018									
	Due in 2019	Due in 2020	Due in 2021	Due in 2022	Due in 2023	Due after 2023	Total in Original Currency (In PHP)	Total in Original Currency (In JPY)	Total in Original Currency (In USD)	Total (In PHP)
Liabilities:										
Long-Term Debt										
Fixed Rate (exposed to fair value risk)										
Fixed Rate Corporate Notes	₱25,000,000	₱25,000,000	₱4,775,000,000	₱–	₱–	₱–	₱4,825,000,000	¥–	$–	₱4,825,000,000
₱5.00 billion Metrobank Loan	₱25,000,000	₱4,850,000,000	₱–	₱–	₱–	₱–	₱4,875,000,000	¥–	$–	₱4,875,000,000
₱5.00 billion PNB Loan	₱500,000,000	₱500,000,000	₱500,000,000	₱500,000,000	₱500,000,000	₱2,375,000,000	₱4,875,000,000	¥–	$–	₱4,875,000,000
JP¥40.00 billion Loan	¥6,897,902,098	¥6,897,902,098	¥6,897,902,098	¥6,897,902,098	¥–	¥–	₱–	¥27,591,608,392	$–	₱13,108,773,147
₱1.15 billion Clark Water RCBC Loan	₱95,833,333	₱95,833,333	₱95,833,333	₱95,833,333	₱95,833,333	₱646,875,000	₱1,126,041,665	¥–	$–	₱1,126,041,665
₱0.10 billion Clark Water RCBC Loan	₱–	₱100,000,000	₱–	₱–	₱–	₱–	₱100,000,000	¥–	$–	₱100,000,000
₱0.75 billion Cebu Water DBP Loan	₱44,209,804	₱44,209,804	₱44,209,804	₱44,209,804	₱44,209,804	₱442,098,039	₱663,147,059	¥–	$–	₱663,147,059
₱0.50 Laguna Water Loan	₱66,666,667	₱66,666,666	–	₱–	₱–	₱–	₱133,333,333	¥–	$–	₱133,333,333
₱0.50 Laguna Water DBP Loan	₱29,411,765	₱29,411,765	₱29,411,765	₱29,411,765	₱29,411,765	₱286,764,704	₱433,823,529	¥–	$–	₱433,823,529
₱0.83 Laguna Water DBP Loan	₱50,484,848	₱50,484,848	₱50,484,848	₱50,484,848	₱50,484,848	₱492,227,276	₱744,651,516	¥–	$–	₱744,651,516
₱2.50 Laguna Water SBC Loan	₱192,307,692	₱192,307,692	₱192,307,692	₱192,307,692	₱192,307,692	₱1,346,153,848	₱2,307,692,308	¥–	$–	₱2,307,692,308
₱0.38 billion Boracay Water DBP-SBC Loan	₱22,058,824	₱22,058,824	₱22,058,824	₱22,058,824	₱22,058,824	₱170,955,880	₱281,250,000	¥–	$–	₱281,250,000
₱0.50 billion Boracay Water DBP-SBC Loan	₱31,473,214	₱31,473,214	₱31,473,214	₱31,473,214	₱31,473,214	₱243,917,412	₱401,283,482	¥–	$–	₱401,283,482
₱0.65 billion Boracay Water DBP-SBC Loan	13,541,667	₱54,166,667	₱54,166,667	₱54,166,667	₱54,166,667	₱419,791,665	₱650,000,000	¥–	$–	₱650,000,000
₱2.40 billion Boracay Water BPI Loan	₱–	₱–	₱–	₱–	₱30,000,000	₱570,000,000	₱600,000,000	¥–	$–	₱600,000,000
₱85.00 million Zamboanga Water DBP Loan	₱5,312,500	₱21,250,000	₱21,250,000	₱21,250,000	₱15,937,500	₱–	₱85,000,000	¥–	$–	₱85,000,000
₱0.45 billion Tagum Water PNB Loan	₱–	₱8,416,667	₱33,666,667	₱33,666,667	₱33,666,667	₱294,583,332	₱404,000,000	¥–	$–	₱404,000,000
₱4.00 billion MWPV Loan	₱–	₱–	₱–	₱64,395,000	₱128,790,000	₱1,156,815,000	₱1,350,000,000	¥–	$–	₱1,350,000,000
Floating Rate (exposed to cash flow risk)										
NEXI Loan	$18,750,000	$18,750,000	$–	$–	$–	$–	₱–	¥–	$37,500,000	₱1,971,750,000
MTSP Loan	¥340,366,724	¥340,366,724	¥340,366,724	¥168,170,256	¥–	¥–	₱–	¥1,189,270,428	$–	₱565,022,380
MWMP Loan	$1,983,252	$3,966,504	$3,966,504	$3,966,504	$3,966,504	$53,490,732	₱–	¥–	$71,340,000	₱3,751,057,200
₱0.12 billion Boracay Water DBP-SBC Loan	₱7,352,941	₱7,352,941	₱7,352,941	₱7,352,941	₱7,352,941	₱56,985,295	₱93,750,000	¥–	$–	₱93,750,000
Total in Original Currency								¥28,780,878,820	$108,840,000	₱43,345,575,619
Total in PHP	₱5,637,709,162	₱10,731,967,719	₱9,504,676,053	₱4,712,260,511	₱1,444,252,035	₱11,314,710,140	₱23,948,972,892	₱13,673,795,527	₱5,722,807,200	₱43,345,575,619

Interest on financial instruments classified as floating rate is repriced on a semi-annual basis, unless otherwise stated. Interest on financial instruments classified as fixed rate is fixed until the maturity of the instrument. The spot exchange rates used were ₱52.58 to US$1 and ₱0.4751 to JP¥1 in 2018.

	2017									
	Due in 2018	Due in 2019	Due in 2020	Due in 2021	Due in 2022	Due after 2022	Total in Original Currency (In PHP)	Total in Original Currency (In JPY)	Total in Original Currency (In USD)	Total (In PHP)
Liabilities:										
Long-Term Debt										
Fixed Rate (exposed to fair value risk)										
First IFC Loan	¥22,024,000	¥–	¥–	¥–	¥–	¥–	₱–	¥22,024,000	$–	₱9,741,215
Fixed Rate Corporate Notes	₱25,000,000	₱25,000,000	₱25,000,000	₱4,775,000,000	₱–	₱–	₱4,850,000,000	¥–	$–	₱4,850,000,000
₱5.00 billion Metrobank Loan	₱25,000,000	₱25,000,000	₱4,850,000,000	₱–	₱–	₱–	₱4,900,000,000	¥–	$–	₱4,900,000,000
JP¥40.00 billion Loan	¥6,897,902,098	¥6,897,902,098	¥6,897,902,098	¥6,897,902,098	¥6,897,902,098	¥–	₱–	¥34,489,510,490	$–	₱15,254,710,490
₱1.15 billion Clark Water RCBC Loan	₱47,916,667	₱95,833,333	₱95,833,333	₱95,833,333	₱95,833,334	₱718,750,000	₱1,150,000,000	¥–	$–	₱1,150,000,000
₱0.75 billion Cebu Water DBP Loan	₱44,209,804	₱44,209,804	₱44,209,804	₱44,209,804	₱44,209,804	₱486,507,843	₱707,556,863	¥–	$–	₱707,556,863
₱0.50 Laguna Water Loan	₱66,666,667	₱66,666,667	₱66,666,666	₱–	₱–	–	₱200,000,000	¥–	$–	₱200,000,000
₱0.50 Laguna Water DBP Loan	₱29,411,765	₱29,411,765	₱29,411,765	₱29,411,765	₱29,411,765	₱316,176,469	₱463,235,294	¥–	$–	₱463,235,294
₱0.83 Laguna Water DBP Loan	₱50,484,848	₱50,484,848	₱50,484,848	₱50,484,848	₱50,484,848	₱542,712,124	₱795,136,364	¥–	$–	₱795,136,364
₱2.50 Laguna Water SBC Loan	₱192,307,692	₱192,307,692	₱192,307,692	₱192,307,692	₱192,307,692	₱1,538,461,540	₱2,500,000,000	¥–	$–	₱2,500,000,000
₱0.38 billion Boracay Water DBP-SBC Loan	₱22,058,824	₱22,058,824	₱22,058,824	₱22,058,824	₱22,058,824	₱193,014,703	₱303,308,823	¥–	$–	₱303,308,823
₱0.50 billion Boracay Water DBP-SBC Loan	₱31,473,214	₱31,473,214	₱31,473,214	₱31,473,214	₱31,473,214	₱275,390,626	₱432,756,696	¥–	$–	₱432,756,696
₱0.65 billion Boracay Water DBP-SBC Loan	₱–	₱13,541,667	₱54,166,667	₱54,166,667	₱54,166,667	₱473,958,332	₱650,000,000	¥–	$–	₱650,000,000
₱85.00 million Zamboanga Water Loan	₱–	5,312,500	₱21,250,000	₱21,250,000	₱21,250,000	₱15,937,500	₱85,000,000	¥–	$–	₱85,000,000
₱0.45 billion Tagum Water PNB Loan	₱–	₱–	₱2,708,333	₱10,833,333	₱10,833,334	₱105,625,000	₱130,000,000	¥–	$–	₱130,000,000
₱4.00 billion MWPV Loan	₱–	₱–	₱–	₱–	₱42,930,000	₱857,070,000	₱900,000,000	¥–	$–	₱900,000,000
Floating Rate (exposed to cash flow risk)										
NEXI Loan	$18,750,000	$18,750,000	$18,750,000	$–	$–	$–	₱–	¥–	$56,250,000	₱2,808,562,500
First IFC Loan	¥121,640,000	¥–	¥–	¥–	¥–	¥–	₱–	¥121,640,000	$–	₱53,801,372
MTSP Loan	¥340,366,724	¥340,366,724	¥340,366,724	¥340,366,724	¥168,170,256	¥–	₱–	¥1,529,637,152	$–	₱676,558,513
MWMP Loan	$–	$1,736,388	$3,472,776	$3,472,776	$53,778,060	$–	₱–	¥–	$62,460,000	₱3,118,627,800
₱0.12 billion Boracay Water DBP-SBC Loan	₱7,352,941	₱7,352,941	₱7,352,941	₱7,352,941	₱7,352,941	₱64,338,236	₱101,102,941	¥–	$–	₱101,102,941
Total in Original Currency							₱18,168,096,981	¥36,162,811,642	$118,710,000	₱40,090,098,871
Total in PHP	₱4,743,098,809	₱4,833,024,908	₱9,803,993,593	₱8,709,264,427	₱6,412,774,761	₱5,587,942,373	₱18,168,096,981	₱15,994,811,590	₱5,927,190,300	₱40,090,098,871

Interest on financial instruments classified as floating rate is repriced on a semi-annual basis, unless otherwise stated. Interest on financial instruments classified as fixed rate is fixed until the maturity of the instrument. The spot exchange rates used were ₱49.93 to US$1 and ₱0.4423 to JP¥1 in 2017.

The following tables demonstrate the sensitivity of the Group's income before income tax to a reasonably possible change in interest rates on December 31, 2018 and 2017, with all variables held constant (through the impact on floating rate borrowings).

	2018	
	Changes in Basis Points	**Effect on Income Before Income Tax**
		(In Thousands)
Floating rate borrowings	**100**	**(₱67,551)**
	(100)	**67,551**

	2017	
	Changes in Basis Points	Effect on Income Before Income Tax
		(In Thousands)
Floating rate borrowings	100	(₱220,054)
	(100)	220,054

Foreign exchange risk

The Group's foreign exchange risk results primarily from movements of the PHP against the USD and JPY. Substantially all revenues are generated in PHP and majority of capital expenditures are also in PHP. Approximately 53.81% and 44.01% of debt as of December 31, 2018 and 2017, respectively, are denominated in foreign currency.

Information on the Group's foreign currency-denominated monetary assets and liabilities and their Peso equivalents are as follows:

	2018		2017	
	Original Currency	**Peso Equivalent**	Original Currency	Peso Equivalent
	(In Thousands)		(In Thousands)	
Assets				
Cash and cash equivalents:				
USD	**USD11,368**	**₱597,751**	USD26,764	₱1,336,332
CAD	**CAD806**	**31,218**	CAD368	14,630
THB	**THB8,054**	**13,064**	–	–
IDR	**IDR1,568,250**	**5,694**	IDR527,149	1,956
VND	**VND750,698**	**1,729**	VND1,951,536	4,293
SGD	**SGD25**	**968**	SGD12	450
JP¥	**JP¥556**	**264**	JP¥556	246
MMK	**–**	**–**	MMK14,644	544
		₱650,688		₱1,358,451
Liabilities				
Accounts payable:				
JP¥	**JP¥75,861**	**₱36,042**	–	₱–
IDR	**IDR5,829,688**	**21,167**	IDR218,682	811
USD	**USD153**	**8,068**	USD1,491	74,469
THB	**THB1,597**	**2,591**	–	–
SGD	**SGD65**	**2,511**	SGD3	98
VND	**VND318,613**	**734**	–	–
RMB	**RMB6**	**47**	–	–
MYR	**–**	**3**	–	–
MMK	**–**	**–**	MMK93,873	3,489
Short-term debt:				
THB	**THB5,300,000**	**8,596,539**	–	–

(Forward)

	2018		2017	
	Original Currency	**Peso Equivalent**	Original Currency	Peso Equivalent
Long-term debt:				
JP¥	**JP¥28,402,974**	**₱13,494,253**	JP¥35,575,756	₱15,735,157
USD	**USD107,842**	**5,670,308**	USD117,107	5,847,151
CAD	**CAD873**	**33,334**	CAD827	32,847
Service concession obligations:				
USD	**USD64,859**	**3,410,310**	USD62,839	3,137,537
JP¥	**JP¥527,061**	**250,407**	JP¥752,817	332,971
French Franc (FRF)	**FRF4**	**35**	FRF306	2,785
		31,526,349		25,167,315
Net foreign currency-denominated liabilities		**(₱30,875,661)**		(₱23,808,864)

The spot exchange rates used were ₱52.5800 to US$1, ₱0.4751 to JP¥1, ₱9.1692 to FRF1, ₱38.4706 to SGD1, ₱0.0023 to VND1, ₱0.0036 to IDR1, ₱1.6220 to THB1, ₱7.6773 to RMB1, ₱12.6558 to MYR1 and ₱38.7335 to CAD1 in 2018, and ₱49.93 to US$1, ₱0.4423 to JP¥1, ₱9.09 to FRF1, ₱37.3376 to SGD1, ₱38.095 to AUD1, ₱0.0022 to VND1, and ₱39.7200 to CAD1 in 2017.

Under their respective concession agreements, the Parent Company and Boracay Water have a natural hedge on foreign exchange risks on their loans and concession fee payments through a recovery mechanism in their respective tariffs (see Notes 1 and 12). Thus, the Group does not expect any movement of the foreign currencies against the Philippine Peso to have a significant effect on the Group's income before income tax.

Credit risk

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Group is exposed to credit risk from its operating activities (primarily trade receivables) and from its financing activities, including deposits with banks and financial institutions, foreign exchange transactions and other financial instruments.

Customer credit risk is managed by the Group's established policy, procedures and control relating to customer credit risk management. Credit risk for receivables from customers is managed primarily through credit reviews and an analysis of receivables on a continuous basis. The Group has no significant concentration of credit risk. Outstanding customer receivables and contract assets are regularly monitored and customer payments are facilitated through various collection modes including the use of postdated checks and auto-debit arrangements.

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on days past due for groupings of customer segments with similar loss patterns (i.e., by geographical region, and product type). The calculation reflects the probability-weighted outcome and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions.

The provision matrix is initially based on the Group's historical observed default rates. The Group will calibrate the matrix to adjust the historical credit loss experience with forward-looking information.

Generally, trade receivables are written-off when deemed unrecoverable and are not subject to enforcement activity. The maximum exposure to credit risk at the reporting date is the carrying value of each class of financial assets. The information about the credit risk exposure on the Group's receivables and contract assets using a provision matrix is as follows:

	December 31, 2018						
	Current	Days Past Due					
	Standard Grade	Less than 30 Days	30 to 60 Days	61 to 90 Days	Over 90 Days	Expected Credit Loss	Total
	(In thousands)						
Receivables							
Trade receivables:							
Manila (Outside East Zone)	₱186,742	₱88,557	₱18,500	₱16,776	₱91,230	₱133,524	₱535,329
East Zone	139,304	333,175	90,918	33,514	231,696	553,977	1,382,584
Boracay	33,243	12,015	7,014	4,062	6,479	122,081	184,894
Clark	35,576	682	55	27	36	6,523	42,899
Laguna	93,102	20,864	18,705	11,251	31,860	329,886	505,668
Others	144,267	–	–	–	–	93,770	238,037
BWC	388,411	–	–	–	–	–	388,411
Employees	31,156	–	–	–	–	–	31,156
Interest from banks	23,937	–	–	–	–	–	23,937
Others	183,093	–	–	–	–	–	183,093
	1,258,831	455,293	135,192	65,630	361,301	1,239,761	3,516,008
Concession financial receivables	1,047,042	–	–	–	–	14,599	1,061,641
Contract assets	891,391	–	–	–	–	–	891,391
	₱3,197,264	₱455,293	₱135,192	₱65,630	₱361,301	₱1,254,360	₱5,469,040

	January 1, 2018						
	Current	Days Past Due					
	Standard Grade	Less than 30 Days	30 to 60 Days	61 to 90 Days	91 to 120 Days	Expected Credit Loss	Total
	(In thousands)						
Receivables							
Trade receivables:							
Manila (Outside East Zone)	₱519,199	₱71,635	₱25,025	₱7,678	₱29,145	₱71,620	₱724,302
East Zone	125,653	293,190	77,843	23,919	63,933	510,668	1,095,206
Boracay	44,018	14,052	5,907	4,604	5,118	98,905	172,604
Clark	36,977	8,238	61	30	61	6,306	51,673
Laguna	248,133	–	–	–	–	316,911	565,044
Others	274,923	–	–	–	–	60,475	335,399
BWC	501,014	–	–	–	–	–	501,014
Employees	34,776	–	–	–	–	–	34,776
Interest from banks	16,406	–	–	–	–	–	16,406
Others	115,616	–	–	–	–	–	115,616
	1,916,715	387,115	108,836	36,231	98,257	1,064,885	3,612,040
Concession financial receivables	1,384,551	–	–	–	–	11,263	1,395,814
	₱3,301,267	₱387,115	₱108,836	₱36,231	₱98,257	₱1,076,148	₱5,007,854

Credit risk from balances with banks and financial institutions is managed in accordance with the Group's policy. Investments of surplus funds are made only with approved counterparties and within credit limits assigned to each counterparty. Counterparty limits are reviewed and approved by the BOD and are updated when necessary.

Cash and cash equivalents are placed in various banks. Material amounts are held by banks which belong to the top five (5) banks in the country. The rest are held by local banks that have good reputation and low probability of insolvency. These are considered to be low credit risk investments.

Liquidity risk

The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of bank overdrafts, bank loans, and debentures. The Group's policy is to maintain a level of cash that is sufficient to fund its operating cash requirements for the next four (4) to six (6) months and any claim for refund of customers' guaranty deposits. Capital expenditures are funded through long-term debt, while operating expenses and working capital requirements are sufficiently funded through internal cash generation.

The Group's financial assets used for liquidity management based on their maturities are as follows:

	2018			
	Within 1 year	**1-5 years**	**More than 5 years**	**Total - Gross**
Assets:				
Cash and cash equivalents	**₱9,390,591,273**	**₱–**	**₱–**	**₱9,390,591,273**
Receivables:				
Customers	**3,141,163,607**	**–**	**–**	**3,141,163,607**
Employees	**31,155,782**	**–**	**–**	**31,155,782**
Interest from banks	**23,936,806**	**–**	**–**	**23,936,806**
ZCWD	**10,450,032**			**10,450,032**
Others	**183,093,834**	**–**	**–**	**183,093,834**
Concession financial receivable	**193,706,164**	**739,220,074**	**1,664,052,998**	**2,596,979,236**
	₱12,974,097,498	**₱739,220,074**	**₱1,664,052,998**	**₱15,377,370,570**

	2017			
	Within 1 year	1-5 years	More than 5 years	Total - Gross
Assets:				
Cash and cash equivalents	₱9,020,744,089	₱–	₱–	₱9,020,744,089
Receivables:				
Customers	2,831,934,313	–	–	2,831,934,313
Employees	34,775,785	–	–	34,775,785
Interest from banks	16,405,733	–	–	16,405,733
ZCWD	60,277,047	52,016,776	–	112,293,823
Others	115,616,360	–	–	115,616,360
Concession financial receivable	197,043,608	1,163,391,243	4,182,299,072	5,542,733,923
	₱12,276,796,935	₱1,215,408,019	₱4,182,299,072	₱17,674,504,026

The Group's financial liabilities based on contractual undiscounted payments:

	2018			
	Within 1 year	**1 to 5 years**	**More than 5 years**	**Total - Gross**
Liabilities:				
Accounts and other payables	**₱7,309,174,242**	**₱–**	**₱–**	**₱7,309,174,242**
Short-term debt*	**8,596,538,853**	**–**	**–**	**8,596,538,853**
Long-term debt*	**7,409,511,098**	**31,091,261,485**	**14,498,774,117**	**52,999,546,700**
Service concession obligation*	**1,109,493,873**	**3,537,891,757**	**9,086,915,451**	**13,734,301,081**
Customers' guaranty deposits and other deposits	**–**	**–**	**776,778,646**	**776,778,646**
	₱24,424,718,066	**₱34,629,153,242**	**₱24,362,468,214**	**₱83,416,339,522**

**Includes contractual interest cash flows*

	2017			
	Within 1 year	1 to 5 years	More than 5 years	Total - Gross
Liabilities:				
Accounts and other payables	₱5,882,548,281	₱–	₱–	₱5,882,548,281
Long-term debt*	6,133,749,778	31,638,847,169	10,919,803,831	48,692,400,778
Service concession obligation*	914,750,354	3,956,653,167	7,667,818,213	12,539,221,734
Customers' guaranty deposits and other deposits	–	–	683,984,650	683,984,650
	₱12,931,048,413	₱35,595,500,336	₱19,271,606,694	₱67,798,155,443

**Includes contractual interest cash flows*

Changes in liabilities arising from financing activities:

	2018				
	Short-term Debt	**Long-term Debt**	**Service Concession Obligations**	**Interest Payable**	**Total**
Balance at beginning of year	**₱–**	**₱39,724,379,456**	**₱7,447,675,910**	**₱353,446,175**	**₱47,525,501,541**
Cash flows	**8,864,235,143**	**1,634,931,993**	**(955,119,919)**	**(1,537,004,584)**	**8,007,042,633**
Accretion	**–**	**138,892,431**	**438,668,268**	**–**	**577,560,699**
Interest	**–**	**–**	**–**	**1,619,536,192**	**1,619,536,192**
Concession fees	**–**	**–**	**948,016,106**	**–**	**948,016,106**
Foreign exchange losses	**(267,696,290)**	**1,552,723,691**	**49,286,339**	**–**	**1,334,313,740**
	₱8,596,538,853	**₱43,050,927,571**	**₱7,928,526,704**	**₱435,977,783**	**₱60,011,970,911**

	2017			
	Long-term Debt	Service Concession Obligations	Interest Payable	Total
Balance at beginning of year	₱27,618,501,480	₱7,699,644,663	₱303,475,067	₱35,621,621,210
Cash flows	11,849,203,758	(898,964,447)	(1,557,039,464)	9,393,199,847
Accretion	124,780,167	496,036,104	–	620,816,271
Interest	–	–	1,607,010,573	1,607,010,573
Concession fees	–	91,418,802	–	91,418,802
Foreign exchange losses	131,894,051	59,540,788	–	191,434,839
	₱39,724,379,456	₱7,447,675,910	₱353,446,176	₱47,525,501,542

Capital management

The primary objective of the Group's capital management strategy is to ensure that it maintains a healthy capital structure, in order to maintain a strong credit standing while it maximizes shareholder value.

The Group closely manages its capital structure vis-à-vis a certain target gearing ratio, which is total debt (less service concession) divided by the sum of the total stockholders' equity and total debt (less service concession The Group's target gearing ratio is set at 60%. This target is to be achieved by managing the Group's level of borrowings and dividend payments to shareholders.

	2018	2017
Total liabilities	**₱68,912,223,712**	₱54,833,738,560
Less service concession obligations	**7,928,526,704**	7,447,675,910
	60,983,697,008	47,386,062,650
Total stockholders' equity	**53,621,093,192**	48,560,697,423
Total	**₱114,604,790,200**	₱95,946,760,073
Gearing ratio	**53%**	49%

For purposes of computing its net debt, the Group includes the outstanding balance of its long-term debt (including current portion), accounts and other payables, less service concession obligations and cash and cash equivalents. To compute its total capital, the Group uses the total stockholders' equity.

	2018	2017
Total liabilities	**₱68,912,223,712**	₱54,833,738,560
Less:		
Service concession obligations	**7,928,526,704**	7,447,675,910
Cash and cash equivalents	**9,390,591,273**	9,020,744,089
	17,319,117,977	16,468,419,999
Net debt	**51,593,105,735**	38,365,318,561
Total stockholders' equity	**53,621,093,192**	48,560,697,423
Total net debt and stockholders' equity	**₱105,214,198,927**	₱86,926,015,984
Total net debt to equity ratio	**49%**	44%

27. Commitments

Parent Company's Concession Agreement

The significant commitments of the Parent Company under the Concession Agreement and Extension are as follows:

a. To pay MWSS concession fees;

b. To post a performance bond, bank guarantee or other security acceptable to MWSS in favor of MWSS as a bond for the full and prompt performance of the Parent Company's obligations under the Agreement. The aggregate amounts drawable in one or more installments under such performance bond during the Rate Rebasing Period to which it relates are set out below.

Rate Rebasing Period	Aggregate amount drawable under performance bond (in US$ millions)
First (August 1, 1997 - December 31, 2002)	US$70.00
Second (January 1, 2003 - December 31, 2007)	70.00
Third (January 1, 2008 - December 31, 2012)	60.00
Fourth (January 1, 2013 - December 31, 2017)	60.00
Fifth (January 1, 2018 - December 31, 2022)	50.00
Sixth (January 1, 2023 - December 31, 2027)	50.00
Seventh (January 1, 2028 - December 31, 2032)	50.00
Eighth (January 1, 2033 - May 6, 2037)	50.00

Within thirty (30) days from the commencement of each renewal date, the Parent Company shall cause the performance bond to be reinstated in the full amount set forth above as applicable for that year. With a minimum of 10-day written notice period to the Parent Company, MWSS may make one or more drawings under the performance bond relating to a Rate Rebasing Period to cover amounts due to MWSS during that period; provided, however, that no such drawing shall be made in respect of any claim that has been submitted to the Appeals Panel for adjudication until the Appeals Panel has handed down its decision on the matter.

In the event that any amount payable to MWSS by the Parent Company is not paid when due, such amount shall accrue interest at a rate equal to that of a 364-day Treasury Bill for each day it remains unpaid;

c. With the Extension, the Parent Company agreed to increase its annual share in MWSS operating budget by 100% from ₱100.00 million to ₱395.00 million, subject to annual CPI;

d. To meet certain specific commitments in respect of the provision of water and sewerage services in the East Zone, unless deferred by MWSS-RO due to unforeseen circumstances or modified as a result of rate rebasing exercise;

e. To operate, maintain, renew and, as appropriate, decommission facilities in a manner consistent with the National Building Standards and best industrial practices so that, at all times, the water and sewerage system in the East Zone is capable of meeting the service obligations (as such obligations may be revised from time to time by the MWSS-RO following consultation with the Parent Company);

f. To repair and correct, on a priority basis, any defect in the facilities that could adversely affect public health or welfare, or cause damage to persons or third-party property;

g. To ensure that at all times, the Parent Company has sufficient financial, material and personnel resources available to meet its obligations under the Agreement; and

h. To ensure that no debt or liability that would mature after the life of the Agreement will be incurred unless with the approval of MWSS.

The Parent Company is committed to perform its obligations under the Concession Agreement and Extension to safeguard its continued right to operate the Concession.

Laguna Water's Concession Agreement
The significant commitments of Laguna Water under its concession agreement with PGL are as follows:

a. To pay PGL concession fees;

b. To manage, occupy, operate, repair, maintain, decommission, and refurbish the transferred facilities;

c. To design, construct and commission the new facilities during the cooperation period;

d. To provide and manage the services;

e. To bill and collect payment from the customer for all services;

f. To extract raw water exclusively from all sources of raw water; and

g. To negotiate in good faith with PGL any amendment or supplement to the concession agreement to establish, operate and maintain wastewater facilities if doing such is financially and economically feasible.

On June 30, 2015, PGL and MWPV signed an amendment to their JVA dated November 10, 2000. Simultaneously, and consequent to the amendment of the JVA of Laguna Water, Laguna Water signed an amendment to its concession agreement with the PGL which includes the following:

a. Expansion of its concession area to cover all cities and municipalities in the PGL; and

b. Inclusion in the service obligations of Laguna Water the provision of wastewater services and the establishment of an integrated sewage and septage system in the province.

Laguna Water's APA with LTI
On December 23, 2013, Laguna Water entered an APA with LTI to acquire and operate its water operations division in Laguna. The significant commitments of Laguna Water under the agreement follow:

a. Offer water supply and sewerage services to all current or future locators in the Laguna Technopark, including future area(s) of expansion;

b. Ensure the availability of an uninterrupted 24-hour supply of water to all current and future locators, subject to interruptions resulting from the temporary failure of items of the Water Facilities (where Laguna Water acts promptly to remedy such failure) or required for the repair of the construction of the Water Facilities where such repairs or construction cannot be performed without interruption to the supply of water;

c. Upon request from a current or future locator in the LTI for a connection to a water main, make such a connection as soon as reasonably practicable, upon payment of reasonable connection fees as determined by Laguna Water;

d. Ensure at all times that the water supplied to current and future locators in LTI complies with Philippine National Standards for Drinking Water as published by the Department of Health (or successor entity responsible for such standards) and prevailing at such time and shall observe any requirement regarding sampling, record keeping or reporting as may be specified by law;

e. Make available an adequate supply of water for firefighting and other public purposes as the municipality and/or barangay in which LTI may reasonably request. Laguna Water shall not assess for such water used for firefighting purposes but may charge for all other water used for public purposes; and

f. Laguna Water shall make a supply of water available to current and future locators in LTI, including the areas of expansion in the future.

Boracay Water's Concession Agreement

The significant commitments of Boracay Water under its concession agreement with TIEZA are as follows:

a. Meet certain specific commitments in respect of the provision of water and sewerage services in the service area, unless deferred by the TIEZA-RO due to unforeseen circumstances or modified as a result of rate rebasing exercise;

b. Pay concession fees, subject to the following provisions:

   i. Assumption of all liabilities of the BWSS as of commencement date and service such liabilities as they fall due. BWSS has jurisdiction, supervision and control over all waterworks and sewerage systems within Boracay Island prior to commencement date. The servicing of such liabilities shall be applied to the concession fees;

   ii. Payment of an amount equivalent to 5% of the monthly gross revenue of Boracay Water, inclusive of all applicable taxes. Such payments shall be subject to adjustment based on the gross revenue of Boracay Water as reflected in its separate financial statements;

   iii. Provision of the amount of the TIEZA BOD's approved budget in 2012, payable semi-annually and not exceeding:

Month	Maximum Amount
January	₱10,000,000
July	10,000,000

   iv. Provision of the annual operating budget of the TIEZA-RO, payable in 2 equal tranches in January and July and not exceeding:

Year	Maximum Amount
2011	₱15,000,000
2012	20,000,000
2013 and beyond	Previous year, subject to annual CPI adjustment

c. Establish, at Boracay Island, a TIEZA-RO building with staff house, the cost of which should be reasonable and prudent;

d. Pay an incentive fee pegged at ₱1.00 per tourist, local and foreign, entering the service area;

e. Raise financing for the improvement and expansion of the BWSS water and wastewater facilities;

f. Operate, maintain, repair, improve, renew and, as appropriate, decommission facilities, as well as to operate and maintain the drainage system upon its completion, in a manner consistent with the National Building Standards and best industrial practices so that, at all times, the water and sewerage system in the service area is capable of meeting the service obligations (as such obligations may be revised from time to time by the TIEZA-RO following consultation with Boracay Water);

g. Repair and correct, on a priority basis, any defect in the facilities that could adversely affect public health or welfare, or cause damage to persons or third-party property; and

h. Ensure that at all times, Boracay Water has sufficient financial, material and personnel resources available to meet its obligations under the concession agreement.

In addition, the Parent Company, as the main proponent of Boracay Water, shall post a bank security in the amount of US$2.50 million to secure the Parent Company's and Boracay Water's performance of their respective obligations under the agreement. The amount of the performance security shall be reduced by the Parent Company following the schedule below:

Rate Rebasing Period	Amount of Performance Security (in US$ millions)
First	US$2.50
Second	2.50
Third	1.10
Fourth	1.10
Fifth	1.10

On or before the start of each year, Boracay Water shall cause the performance security to be reinstated in the full amount set forth as applicable for that year.

With a minimum of ten (10) days written notice period to Boracay Water, TIEZA may take one or more drawings under the performance security relating to a Rate Rebasing Period to cover amounts due to TIEZA during that period; provided, however, that no such drawing shall be made in respect of any claim that has been submitted to the Arbitration Panel for adjudication until the Arbitration Panel has handed its decision on the matter.

In the event that any amount payable to TIEZA by Boracay Water is not paid when due, such amount shall accrue interest at a rate equal to that of a 364-day Treasury Bill for each day it remains unpaid.

Failure of Boracay Water to perform any of its obligations that is deemed material by TIEZA-RO may cause the concession agreement to be terminated.

Clark Water's Concession Agreement
The significant commitments of Clark Water under its concession agreement with CDC are follows:

a. Pay franchise and lease fees of CDC;

b. Finance, design, and construct new facilities - defined as any improvement and extension works to (i) all existing facilities - defined as all fixed and movable assets specifically listed in the concession agreement; (ii) construction work - defined as the scope of construction work set out in the concession agreement; and (iii) other new works that do not constitute refurbishment or repair of existing facilities undertaken after commencement date;

c. Manage, exclusively possess, occupy, operate, repair, maintain, decommission and refurbish the existing facilities, except for the private deep wells set out in the concession agreement, the negotiations for the acquisition and control of which shall be the sole responsibility and for the account of the Clark Water; and manage, own, operate, repair, maintain, decommission and refurbish the new facilities;

d. Treat raw water and wastewater in CFZ;

e. Provide and manage all water and wastewater related services like assisting locator in relocating of pipes and assess internal leaks;

f. Bill and collect payment from the customers for the services (with the exception of SM City Clark). SM City Clark has been carved out by virtue of RA No. 9400 effective 2007 even if it is located within the franchise area; and

g. Extract raw water exclusively from all sources of raw water including all catchment areas, watersheds, springs, wells and reservoirs in CFZ free of charge by CDC.

On August 15, 2014, the Clark Water and CDC signed an amendment agreement to the concession agreement dated March 16, 2000. The Amendment provides for the following:

a. Extension of the original concession period for another fifteen (15) years up to October 1, 2040;

b. Additional investment of ₱4.00 billion provided under the amended concession agreement to be spent for further improvement and expansion water and waste water services in the area. Investment requirement under the original CA amounted to ₱3.00 billion and the amended concession agreement required an additional investment of ₱2.00 billion. Total investment prior to the amendment of the concession agreement amounted to ₱1.00 billion;

c. Introduction of rate rebasing mechanism for every four (4) years starting 2014;

d. Reduction in tariff rates by 3.9% (from ₱25.63/m^3 to P₱24.63/m^3) effective September 1, 2014, subject to the Extraordinary Price Adjustment; and

e. Increase in tariff rates by:
   i. ₱0.41/m^3 (from ₱24.63/m^3 to ₱25.04/m^3) in 2018
   ii. ₱0.42/m^3 (from ₱25.04/m^3 to ₱25.45/m^3) in 2019
   iii. ₱0.42/m^3 (from ₱25.45/m^3 to ₱25.87/m^3) in 2020
   iv. ₱0.43/m^3 (from ₱25.87/m^3 to ₱26.30/m^3) in 2021

As a result of the extension of the concession period, service concession assets and service concession obligation as of August 15, 2014 increased by ₱56.58 million. Further, the recovery period of the Clark Water's investment is now extended by another fifteen (15) years from 2025 to 2040.

Cebu Water's Bulk Water Supply Agreement
On December 18, 2013, Cebu Water entered into a bulk water supply agreement with MCWD. The significant commitments of Cebu Water under its agreement with MCWD are as follows:

a. Provide potable and treated water at an aggregate volume of 18,000 cubic meters per day for the first year and 35,000 cubic meters per day for the succeeding years up to 20 years at ₱24.59 per cubic meter;

b. Ensure that the source shall be sustainable and 100% reliable at any day for the duration of the agreement; and

c. Construct a facility capable of delivering a production capacity of 35,000 cubic meters per day and maintain the same on its account.

Zamboanga Water's NRWSA
On June 2, 2015, the Zamboanga Water entered into a NRWSA with ZCWD. The NRWSA sets forth the rights and obligations of the Zamboanga Water throughout the ten (10)-year period. The significant provisions under the agreement with ZCWD consist of:

a. Zamboanga Water is required to implement Network Restructuring and NRW Reduction Programs for ZCWD's water distribution system; and

b. Zamboanga Water has the right to restructure and maintain the facilities in the ZCWD service area but legal title to these assets remains with ZCWD. The legal title to all fixed assets contributed to the existing ZCWD system by Zamboanga Water during the project tenure remains with Zamboanga Water until the expiration date (or an early termination date) at which time all rights, titles and interest in such assets will automatically vest in ZCWD.

MWPV's MOA with ALI
On January 12, 2016, MWPV executed a MOA with ALI and twenty-four (24) of its subsidiaries ("ALI Group"). Under the MOA, MWPV will provide the water and used water services and facilities to all the property development projects of the ALI Group nationwide, with certain exceptions as provided in the MOA.

MWPV's MOA with the SM Group
On December 8, 2016, MWPV entered into a MOA with SM Prime Holdings, Inc., SM Development Corporation and SM Residences Corporation. Pursuant to the MOA, MWPV, will provide water and/or used water services and facilities to the property development projects of the SM Group identified in each MOA; the rights, duties and obligations of which has been transferred to Aqua Centro.

As of December 31, 2018 and 2017, Aqua Centro has six (6) and four (4) signed MOAs with the SM Group, respectively. MWPV has one (1) signed MOA with SM Group as of December 31, 2018.

Tagum Water's Bulk Water Supply Agreement
Tagum Water will have the sole and exclusive right and responsibility during the term of the agreement to:

a. Develop raw surface water sources in Hijo River;

b. Plan, develop, design, build and test the facilities;

c. Implement the Project;

d. Manage, use, occupy, operate, repair, maintain, upgrade and develop the facilities; and

e. Supply treated water to TWD for distribution to its network.

Facilities and any and all assets, equipment and properties used by Tagum Water to implement the bulk water project will be owned by Tagum Water even after the expiration of the BWSPA.

MWPV's Lease Agreement with Philippine Economic Zone Authority (PEZA)
On December 18, 2017, MWPV entered into a Lease Agreement for the Operations and Management of the Water and Used Water Facilities of PEZA in Cavite Economic Zone (CEZ), whereby MWPV agrees to lease, operate, and maintain the existing water and used water facilities in the CEZ. The lease agreement has a term of twenty-five (25) years from signing of the contract.

MWPV's MOA with LTI
On April 16, 2016, the MWPV entered into a MOA with LTI, whereby through its division, Estate Water, MWPV shall exclusively provide water and used water services to LTI's Cavite Technopark to be located in Barangay Sabang, Naic, Cavite, and in pursuit of this objective, to construct, develop, finance, and own the water facilities and used water facilities under the terms and conditions set out in the MOA.

Obando Water's Concession Agreement
The significant commitments of Obando Water under its concession agreement with OWD are as follows:

a. To finance, design, engineer, and construct new facilities for water and sanitation;

b. To upgrade existing water and sanitation facilities;

c. To operate, manage, and maintain water and sanitation facilities and services; and

d. To bill and collect tariff for water and sanitation services.

Calasiao Water's Concession Agreement
The significant commitments of Calasiao Water under its concession agreement with CWD are as follows:

a. To finance, design, engineer, and construct new facilities for water and sanitation;

b. To upgrade existing water and sanitation facilities;

c. To operate, manage, and maintain water and sanitation facilities and services; and

d. To bill and collect tariff for water and sanitation services.

Operating Leases – as a Lessee
The Group leases office space and storage and plant facilities wherein it is the lessee. The terms of the lease range from one year or until the end of the concession period. As of December 31, 2018 and 2017, the Group's future minimum lease payments are as follows:

	2018	2017
Within one year	**₱54,394,653**	₱52,548,616
After one year but not more than five years	**101,974,116**	128,680,796
More than five years	**253,990,310**	266,646,378
	₱410,359,079	₱447,875,790

Total rent expense recognized in 2018 and 2017 amounted to ₱34.02 million and ₱33.26 million, respectively. Security deposits amounted to ₱10.32 million and ₱11.87 million as of December 31, 2018 and 2017, respectively.

28. Provisions and Contingencies

On October 13, 2005, the Municipality of Norzagaray, Bulacan assessed the Parent Company and Maynilad Water Services, Inc. (jointly, the Concessionaires) real property taxes on certain common purpose facilities registered in the name of and owned by MWSS purportedly due from 1998 to 2005 amounting to ₱357.11 million. On November 15, 2010, the local government of Quezon City demanded the payment of ₱302.71 million for deficiency real property taxes from MWSS on MWSS properties within its territorial jurisdiction. The assessments from the municipality of Norzagaray and Quezon City have been questioned by the Concessionaires and MWSS and are pending resolution before the Central Board of Assessment Appeals and Supreme Court, respectively. On January 26, 2011, the Supreme Court issued a Temporary Restraining Order enjoining the local government of Quezon City from levying the real properties, machineries and equipment of MWSS. Total provision for these assessments amounted to ₱416.23 million as of December 31, 2018 and 2017.

As of December 31, 2018 and 2017, the remaining provision for estimated probable losses pertains to various legal proceedings and exposures arise in the ordinary course of business. Management believes that any amount the Group may have to pay in connection with any of these matters will not have a material adverse effect on the Group's financial position or operating results. The information normally required under PAS 37, *Provisions, Contingent Liabilities and Contingent Assets*, is not disclosed as it may prejudice the outcome of the proceedings.

29. Events after the Reporting Period

Laguna Water JVA with the PAGWAD
On January 21, 2019, Laguna Water signed and executed a contractual JVA with the PAGWAD.

Under the agreement, Laguna Water shall serve as the contractor or agent of PAGWAD tasked with the operations, management, and maintenance as well as the design, improvement, upgrade, rehabilitation, and expansion of water supply and sanitation facilities within the service area of PAGWAD in Pagsanjan, Laguna. Upon completion of conditions precedents in the agreement, Laguna Water and PAGWAD shall execute the project for a period of sixteen (16) years until September 30, 2035.

Notice to Proceed from the Municipality of Manaoag
On January 25, 2019, MWPV received a Notice to Proceed from the Municipality of Manaoag, Pangasinan, granting MWPV a franchise for the provision and improvement of the water supply operation, maintenance, management, financing and expansion, and the provision of septage management in the Municipality of Manaoag.

The franchise granted to MWPV shall be for a term of twenty-five (25) years, excluding two (2) years of construction.

Parent Company and MWPV JVA with the Tanauan Water District
On February 4, 2019, the Parent Company and MWPV (collectively, the "Consortium") signed and executed a JVA with the Tanauan Water District for the design, construction, rehabilitation, maintenance, operation, financing, expansion, and management of the water supply and sanitation facilities and services of the Tanauan Water District in Tanauan City, Batangas (the Tanauan Project).

Upon completion of the conditions precedent set out in the JVA, the Consortium, through a SPV, and the Tanauan Water District shall execute the Tanauan Project for a period of twenty-five (25) years from the commencement date.

Parent Company Declaration of Cash Dividends
On February 26, 2019, the Parent Company's BOD approved the declaration of cash dividends of ₱0.4551 per share on outstanding common shares and ₱0.0455 per share on outstanding participating preferred shares with date of record on March 14, 2019 and payment date of March 28, 2019.

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