



August 25, 2023

**MWSS REGULATORY OFFICE**

Katipunan Road, corner H. Ventura Street,  
Barangay Pansol, Balara, Quezon City 1105, Philippines

Attention: **ATTY. PATRICK LESTER N. TY**  
Chief Regulator

Subject: **RE: Notice to Submit Position Paper**



**Dear Chief Regulator Ty:**

In compliance with your letter dated June 23, 2023, which we received on June 29, 2023, Manila Water Company, Inc. ("Manila Water") hereby submits its position paper in connection with its application for the extension of the term of the Revised Concession Agreement.

Thank you very much and we look forward to your favorable consideration of our application.

Very truly yours,

  
**J.V. EMMANUEL A. DE DIOS**  
President and CEO

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## **EXTENSION OF THE EAST ZONE CONCESSION AGREEMENT**

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## **I. Executive Summary**

Manila Water Company, Inc. ("Manila Water" or the "Company") submits this position paper supplementing its application<sup>1</sup> to extend the Revised Concession Agreement ("RCA") with the Metropolitan Waterworks and Sewerage System ("MWSS") for the East Concession Area ("East Zone") until 2047. This position paper presents the basis and merit of extending the term of the concession.

In response to the water crisis and pursuant to the National Water Crisis Act of 1995, the government conducted the public bidding for the East and West concessions of the MWSS service area. Manila Water won the bid for the East Zone and a concession agreement was then executed between MWSS and Manila Water (the "1997 Concession Agreement"). Thus, on August 1, 1997, Manila Water began its 25-year concession for the provision of water, wastewater, and customer services to the East Zone.

In 2009, recognizing the need for wastewater service expansion and in response to the mandamus for the cleanup of Manila Bay, the 1997 Concession Agreement was extended from 2022 to 2037.

True to its commitments in the 1997 Concession Agreement, Manila Water has worked to improve water supply and wastewater services in the East Zone. From 3.1 million customers served in 1997, the Company now provides 24/7 water supply to more than 7.6 million customers. It has reduced water losses from a high of 63% to 12.69%. It is also the largest wastewater service operator in the country with 41 wastewater facilities capable of treating 410 million liters of wastewater per day. From 1997 to 2022, Manila Water deployed over PHP 130 billion in capital investments enabling the delivery of reliable water and wastewater services. Amid challenges, Manila Water always puts the customer at the center and consistently performs better than set customer service indicators.

On March 31, 2021, the RCA was executed which introduced new provisions on tariff setting and service delivery. Thereafter, Manila Water was granted a 25-year legislative franchise through Republic Act No. 11601 ("R.A. 11601" or the "Franchise"). The Company evolved from a contractor/agent of MWSS into a public utility. These regulatory developments significantly shaped Manila Water's Rate Rebasing 2023 ("RR23") Service Improvement Plan ("SIP").

The RR23 SIP aligns with the term of the Franchise which ends in 2047. It contains the details of Manila Water's commitment to the public and the government to continue

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<sup>1</sup> Manila Water's Application for the Extension of the Term of the Concession Agreement was submitted through a letter to MWSS on 02 August 2022, a copy of which is attached as **Annex A**.

the delivery of water and wastewater services to the East Zone by deploying about PHP 1.15 trillion in total expenditures from 2023-2047 as shown in Table i.

**Table i. Expenditures 2023-2047**

<i>In PHP Billion (Unless otherwise stated)</i>	<b>2023-2037</b>	<b>2023-2047</b>	<b>2038-2047 Increase</b>
CAPEX	322	387	65
CONFEEES	14	16	2
OPEX	338	746	408
<b>TOTEX</b>	<b>674</b>	<b>1,149</b>	<b>475</b>

#### *Increased Demand for Water and Wastewater Services*

The East Zone population is estimated to grow to 9.5 million by 2047.<sup>2</sup> The anticipated growth of the East Zone requires a significant investment in infrastructure to fulfill the anticipated increase in demand. Based on Manila Water's projections to meet the demand and comply with regulatory requirements including the stringent effluent standards recently introduced by the Department of Environment and Natural Resources ("DENR"), Manila Water will require capital and operating expenditure of about PHP 674 billion for the period of 2023 to 2037. This will result in a 200% upward adjustment in water bills by the end of 2037, assuming a concession term ending in 2037. On the other hand, with a concession term ending in 2047, the recovery of expenditures will be spread for another 10 years mitigating the impact of tariff increases on the consuming public.

#### *Financial Impact: 2037 vs 2047 Concession Term*

If the concession ends in 2037, there are two options: (i) adjust and increase the water bill in the next rate rebasing exercise that shortens the recovery period to 2037 instead of 2047; or (ii) the government to pay an Expiration Payment.

#### *Lower Tariff*

Table ii. illustrates the impact on the water bill of a residential customer with an average monthly consumption of around 30 cubic meters. This shows that at a concession end of 2037, the same customer will have to pay around PHP 1,998 (or

<sup>2</sup> Projections from a 2021 Diliman Integrated Technical Consultancy, Inc. ("DITCI") Study commissioned by MWSS for the RR23 exercise.



more than 3 times the monthly water bill in 2022 of PHP 622) in 2037. Extending the concession term to 2047 reduces the projected water bill to PHP 1,639 in 2037<sup>3</sup>.

**Table ii. Water Bill (2037, 2047)**

	End of Concession 2037	End of Concession 2047	Variance
<b>2037 Water Bill</b>	PHP 1,998	PHP 1,639	(18%)

#### *Expiration Payment*

As an alternative to an increase in the water bill with a 2037 end of concession, the government would have to pay an Expiration Payment of about PHP 197.7 billion<sup>4</sup>. Combined with PHP 475 billion in foregone Manila Water committed total expenditures from 2038 to 2047, plus projected capital expenditures in the amount of PHP 48.1 billion from 2038 to 2043 for a water treatment plant for a prospective water source, a 2037 end of concession term will result in a PHP 721 billion increase in government expenditure. Both options result in substantial costs, either to the consumer or to the government, which can be avoided by extending the concession term to 2047.

#### *Extension Necessary for Affordable Water Security and Public Interest*

With 26 years of providing and improving water and wastewater services in the East Zone, Manila Water believes that it is best positioned to continue to serve the East Zone in the next 24 years. Manila Water is firmly focused and committed to providing reliable water and wastewater services to its customers. From 2023-2047, the Company commits to deploy PHP 1.15 trillion in total expenditures to continue improving services to its customers. Understanding that public welfare and safe, adequate, and affordable water and wastewater services require it, Manila Water prays for an extension of the concession term to 2047.

<sup>3</sup> Estimated bill is based on the approved RR23 SIP staggered adjustment and, consistent with the RCA, with "C" factor based on 75% of the inflation published by the PSA. With this new input, the table presents updates of the numbers originally communicated in the 2 August 2022 letter. Estimated bill assumes government taxes of 2.625%.

<sup>4</sup> Expiration payment is calculated based on the anticipated receipts of Manila Water needed to make the present value of the future net cash flows equal but opposite in sign of the OGP with the given set of assumptions and does not maximize the 1.3x cap for water tariff in the succeeding rate rebasing. The expiration payment also assumes that PHP 43 billion has been spent as capital expenditures for the water treatment plant for a planned MWSS water source by 2037.

**I. Application for Extension**

The Company respectfully applies for the extension of the Expiration Date of the RCA from July 31, 2037 to July 31, 2047 in accordance with Section 5, R.A. 11601, the third paragraph of which provides:

When public interest for affordable water security so requires and upon application of the grantee, MWSS shall be authorized to approve the amendment to the Concession Agreement to extend its term of the franchise, after appropriate notice and hearing.

In support of our application for extension, we submit this position paper which discusses and demonstrates that the extension of the concession term serves the public interest and will ensure affordable water security.

**II. The Manila Water Concession**

In response to the water crisis and pursuant to the National Water Crisis Act of 1995, the government conducted the public bidding for the East and West concessions of the MWSS service area. Manila Water won the bid for the East Zone and the 1997 Concession Agreement was then executed between MWSS and Manila Water. Thus, on August 1, 1997, Manila Water began its 25-year concession for the provision of water, wastewater, and customer services to the East Zone.

The 1997 Concession Agreement is based on a framework where Manila Water would undertake MWSS' functions through the operation and maintenance of the latter's facilities. Manila Water would also continue to develop and expand the existing water distribution system and wastewater treatment system. Manila Water's service obligations under the 1997 Concession Agreement are tied to set performance standards and plans.

Throughout its 26 years of operations, Manila Water has remained true to its commitment to provide reliable water and wastewater services to the East Zone. With every water connection and every drop of water supplied, Manila Water steadily improved its services while keeping its rates affordable for its customers.

From a customer count of just 3.1 million in 1997, Manila Water now proudly provides water to more than 7.6 million customers living in 24 cities and municipalities. Water infrastructure has grown from 2,495 km of pipes in 1997 to over 5,300 km. Manila Water delivers over 1700 million liters of water per day (MLD), resulting in an effective service area coverage of 94.03% as of 2022.

Manila Water has expanded the East Zone's water systems by upgrading existing facilities to industry standards and building new infrastructure to improve service to



its customers. These include the development and commissioning of new treatment plants like the 150 MLD East La Mesa Water Treatment Plant (WTP) in Payatas, Quezon City, which began operations in June 2012. In 2019, the 100 MLD Cardona Treatment Plant was energized to cover the water services requirements of Taytay, Angono, Binangonan, Cardona, Baras, Morong and Jala-jala, and augment portions of Metro Manila.

From 1997 until the end of 2022, Manila Water spent over PHP 130 billion in capital expenditures ("CAPEX") for water and wastewater infrastructure, roughly twice the value of MWSS assets earmarked for the East Zone Service Area of Metro Manila and Rizal Province. In 2021, despite the COVID-19 pandemic, Manila Water recorded its highest CAPEX spending totaling PHP 13.7 billion, exclusive of VAT. Of this amount, PHP 8.9 billion was spent on water infrastructure while PHP 4.8 billion was deployed for wastewater projects.

Manila Water operates the biggest integrated sewerage system in the country, serving nearly 2.6 million customers. From one sewage treatment plant (STP) operating in 1997, Manila Water now runs 39 STPs and two septage treatment plants across the East Zone, which can process a total of 410 MLD of wastewater. Desludging and sanitation services continue to be provided and have expanded to complement the Company's sewerage services.

Manila Water has consistently outperformed the 95% MWSS-Regulatory Office target in effluent quality, following the DENR effluent quality standards.

Non-Revenue Water (NRW) has been reduced from 63% in 1997 to 12.69% in 2022, which is by any global metric, best in class. This level of NRW translates to over 750 MLD of water saved and distributed to customers, benefiting customers through avoided rate increases. This drop in NRW is the result of 26 years of consistent work to ensure reliable water supply for the public.

Table 1 below presents a quick comparison of Manila Water's performance in all critical dimensions of service and operations when it started the concession in 1997 up until 2022:

**Table 1. KPI-BEM Performance**

KPI-BEM	1997	2022
W1 - Water Supply Connections (cumulative)	310,000	1,114,480
W1 - Water Service Coverage	26%	94.03%

S1 - Sewer Coverage (No. of Population-%)	3%	34.7%* 37.2%**
S2 – Sanitation (Septic Tanks emptied)	56	112,984***
S2 - Sanitation Coverage (100% for 5 years @ 20% /year) RR18	-	31.56%
NR1 – NRW	63%	12.69%

\* Total East Zone

\*\* East Zone Catchment

\*\*\* Total Septic Tanks Desludged 2022

This service quality improvement has been keenly felt by the public. From 2013 to 2022, average customer satisfaction of Manila Water customers has been at 87.9%. Within the past two years, customer satisfaction has been at 90%, better than the 10-year average. Our customers have also voiced their support for Manila Water's service improvements. During the recent public consultation for RR23 on October 18, 2022, Manila Water customers expressed how the service provided by Manila Water has positively impacted their lives:<sup>5</sup>

Yvette Agapito Larracas: *Magandang araw po sa inyo. Kami po ay may mga paupahan sa Pasig at diyan din po kami kumukuha ng aming ikinabubuhay. Hindi po kami nawawalan ng tenant dahil 24/7 po ang tubig sa amin, which is iyan po ang no. 1 na hinahanap ng lahat ng tenants. Kaakibat po naming ang Manila Water sa pagpapalago ng aming negosyo. Kudos to you Manila Water.*

Minnie Quita: *Thank you Manila Water for your continuous commitment sa aming barangay at sa mga communities na kailangan magkaroon ng supply ng tubig especially sa mga sitios dito sa amin. We appreciate all your efforts. Thank you and God Bless!*

Marjun Villacorta: *Maraming salamat po. Nakaattend na po ako mula first public consultation ng rate rabasing hangang ngayon. I would like to summarize or rather to follow up on the proposals na sinabi ko noon mga previous public consultations. (...) Noon public consultations po for the franchise concessionaire extension, I disagreed with the proposal of MWCI for a 15-20 years extension but rather I proposed you be given a 50 years extension. Why? Because kapag binigyan mo ng 50 years, etong mga big ticket projects ay ma-aamortize to in a longer period and ang ating taripa bababa..*

Ron John Quejado: *Sabi nga nila, this is not just a call for service, but this is also what we call a social responsibility. Natandaan ko ang sinabi ni Atty de Dios na hindi lang tubig yun binebenta nila o yung binibigay na serbisyo but the commitment to the*

<sup>5</sup> Customer testimonials have been edited for clarity.



*people and to the organization. Kasi ganon din kaming mga guro, we are not just in our classroom and in our school to give what is best to our students but we are in the institution to foster and to give the best education possible for the future of our youth. Thank you, Marikina City and of course to Manila Water kasi tunay kong nasaksihan ang puso ng Manila Water sa aming ciudad. Ang Manila Water ay naging kasangga at kapuso ng aming paaralan at ng aming local government, not only with the activities pero sa mga disaster na dumarating satin.*

Col. Victoria S. Ramon: I was the Chief Nurse of the whole Armed Forces of the Philippines. When I retired, we were the relocated families from Fort Bonifacio. *Kaya yun BGC ninyo, kami ang na relocate.* So, we were given a community which is called Pamayanang Diego Silang and this is composed of 1600 families. We had a problem with water but thank you very much for the services given to us by Manila Water because we were given a very good water since 2004 until now. There was given a time when we had crisis, I still remember that, *yun mga malalaking condominium and subdivision nag balde-balde but kami we didn't experience that.* So thank you very much Manila Water. I had been always invited for this rate rebasing because it will affect the consumer and I also believe there's a need for this *dahil sa mga project na gagawin nila* which is for us *naman din.* And we were already the recipients of such project by MWCI. *Inayos nila ang aming.. sa lahat sewerage. Kasi* there was a time *na* we had a problem with our sewerage. *Nag-pa-flood kami ng dumi but MWCI came in and they really made an inspection and everything and they came up with a project.* And so now we're enjoying more or less a sanitary environment with our STP and with the help of MWCI. Thank you very much.

Tess of Taytay Rizal: Since 2007 *ng magkaroon ng water project sa aming lugar, lubos po ang aming katuwaan kasi po hindi na po kami nag-iigib sa balon, talagang tarik po ang aming pinag-iigiban.* At naranasan din po namin na yung delivery truck ng tubig, *nag-aagaw-agawan pa po noon na baka mamaya ay hindi na sya bumalik, so nagkakaaway-away pa. so hirap po talaga kami sa aming lugar. Hirap sa tubig at siguro bihira na rin maligo ang mga tao noon.* Pero since 2007 po nung magkaroon ng water project sa aming lugar, *talagang merong nagsasabi na hindi makakaya yan ng Manila Water. Pero salamat sa Manila Water. Walang imposible sa kanila. Napasok po ng Manila Water kahit matarik ang aming lugar. Ngayon po, ang ano ko ay 24/7 maganda ang daloy ng aming tubig kahit nasa 2nd floor 3rd floor, kaya pa rin po.* Kaya maraming maraming salamat po sa Manila Water.

Former Mayor and Former Congressman Lito Gatlabayan: *Nagpapasalamat sa MWSS at sa Manila Water sa pakikipagtulungan upang maresolve ang kawalan ng source of water sa bayan ng Antipolo. Bago dumating ang Manila Water, nagbabayad ang mga tao ng 30 pesos per drum na nagdudulot din ng traffic sa Antipolo ang mga delivery truck. Guminhawa at nagbigay ng kasiyahan sa mga residente ng Antipolo ang pagkakaroon ng tuloy-tuloy na Water Supply. Patuloy ang aming suporta para sa MWSS and MWC projects upang masustain ang maayos na water supply hindi lang sa bayan ng Antipolo, kundi sa iba pang munisipalidad.*

### III. RR23 SIP Commitments

The Company's plans for the provision of water supply and related services remain anchored on the Water Security, Service Accessibility, Service Continuity, and Environmental Sustainability pillars identified in past RRs. The total committed CAPEX

for water plans amounts to One Hundred Seventy-Five Billion Pesos for 2023-2037 and Seventeen Billion Pesos for 2038-2047. The Company's plans have the following assumptions:

#### *Water Availability*

Water availability is dependent on available supply, which is affected by climate change. In general, Manila Water will provide 24x7 water supply to served areas during normal climate conditions and when MWSS' East and West Zone allocation from Angat is at 46 cubic meters per second, at 40% share of the portal flows for Manila Water. During El Niño, Manila Water will optimize operations to equitably supply available water. Water interruptions will also need to be scheduled for planned and unplanned maintenance activities as well as in cases of emergencies or disasters.

#### *NRW*

Manila Water's plans assume a 15% annual, average NRW for 2023 onwards. This level is within international industry standards and considers the challenges and total cost of maintenance of aging appurtenances and networks as well as the optimization of new water systems.

#### *Wastewater Assumptions*

In compliance with the RCA and Section 21 of the Franchise, Manila Water will provide sewerage and sanitation services to the East Zone. Areas that will not be covered by a sewerage system will be served through Manila Water's sanitation program. Effectively, 100% of the water-served population in the East Zone will receive wastewater services.

Manila Water updated its wastewater master plan to incorporate the impacts of COVID-19 to project timelines, changes in regulatory standards, as well as the results of studies done in 2019-2021. More specifically, Manila Water considers the DAO 2021-19 and approved Compliance Action Plans in the planning and operation of STPs. The master plan updates include adjustments in design based on actual sewage flow measurement, return factor study, influent water quality baselining, and drainage investigation. Timelines of the sewer network and STP construction were also adjusted based on recent projects.

Rehabilitation and maintenance programs or Asset Management Plans for existing and future water and wastewater facilities and networks were also updated to ensure operability, service continuity and compliance with statutory and regulatory standards.



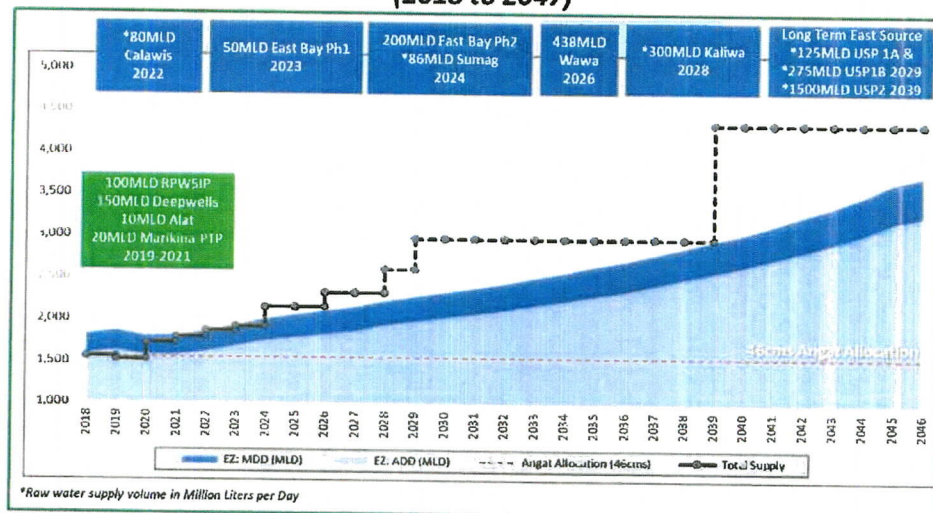
## A. Water Security

The Water Security pillar involves: (1) ensuring that current water sources provide supply as planned, related facilities operate efficiently, and watersheds are protected, and (2) timely development and completion of alternative and new water sources in collaboration with MWSS. These will address water supply challenges and the East Zone's dependency on Angat Dam as the primary water source.

The Company has updated its water sources plan to include the additional short- and medium-term sources, as approved by MWSS (Figure 1. RR23 Approved East Zone Demand and Supply Projection 2018-2047).

### 1. Water Sources

**Figure 1. RR23 Approved East Zone Water Demand and Supply Projection (2018 to 2047)**



### Wawa-Calawis Project

Among the medium-term water source options being explored, MWSS approved the immediate consideration of the Wawa-Calawis Water Supply Project in 2019. The Wawa JVC., the bulk water proponent, proposed the Upper Wawa Dam and Calawis Basins which are expected to supply a total of 518 MLD of raw water to the Company's WTP in Brgy. Calawis, Antipolo Rizal. The Wawa-Calawis Water Supply Project will be phased. Phase 1 is expected to deliver 80MLD of raw, bulk water supply to Manila Water's Calawis WTP in Brgy. Calawis, Antipolo by 2022. Phase 2 will deliver an additional 438 MLD of bulk raw water supply to the same WTP site in Brgy. Calawis, Antipolo. Manila Water will distribute the treated

water to the elevated areas in Antipolo, Teresa, and portions of Pasig, Mandaluyong, and Makati.

#### *East Bay Project*

In 2019, MWSS also approved Manila Water's East Bay Water Source Project ("East Bay Project"), making it part of the medium-term sources and accelerating the project from its original timeline in the MWSS Updated Water Sources Roadmap. The project intends to support MWSS' initiative to deliver an immediate water source for the East Zone's supply requirement. This project is also aligned with the LLDA's Updated Laguna de Bay Region Masterplan adopting the 1995 Laguna de Bay Region Master Plan approved by then President Fidel Ramos through Executive Order No. 349, which declared the East Bay as a protected area for water supply purposes. The East Bay Project will complement the Kaliwa Project and other additional water sources in the MWSS' Updated Water Sources Roadmap.

The Project will harness surface water from the eastern bay of Laguna Lake and will be implemented in two phases. Phase 1, targeted for completion in 2023, will have a capacity of 50 MLD while Phase 2 will have a capacity of 200 MLD and is expected to be completed by 2024.

Manila Water will continue to explore Laguna Lake as a viable water source to support the East Zone demand in the long term. The costs and responsibilities for the development of additional sources will be subject to discussions with MWSS.

The MWSS Updated Water Sources Roadmap involves the development of two other major water sources: (1) Kaliwa Project, which will deliver 600 MLD by 2028, and (2) Long-Term East ("LTE") Source, which will deliver a total of 3800 MLD. Both sources will be shared equally (50/50 share) between the East and West Zones.

#### *Kaliwa Project*

In the MWSS Updated Water Sources Roadmap, the Kaliwa Project is programmed to finish earlier than the LTE project. The Kaliwa Project will involve the abstraction and treatment of surface water coming from the Kaliwa Low Dam located in Brgy. Pagsangahan, General Nakar, Quezon, and Brgy. Magsaysay, Infanta, Quezon. Water from the dam will be conveyed via an aqueduct to a portal located in Teresa, Rizal which will be constructed by MWSS. Water from the portal will provide a total of 600 MLD additional raw water supply to be shared 50/50 between the East and West concessions and is targeted to supply its first water by 2028. Upon completion, the additional supply for the East Zone will benefit the municipalities of Rizal, and the cities of Pasig, Makati, and Taguig.



### *Long-Term East Source*

Based on the MWSS Updated Water Sources Roadmap (June 2021), the Kaliwa River Unsolicited Proposal ("USP Phase 1") and the Kanan/Agos Unsolicited Proposal ("USP Phase 2") are proposed bulk water projects that will provide a firm yield of 3800 MLD, to be shared equally between the East and West Concessionaires on completion. These bulk water projects will be implemented in phases and are targeted to provide the following first water timelines and total raw water volumes:

- *Kaliwa USP Phase 1A* : 250 MLD by 2029
- *Kaliwa USP Phase 1B* : 550 MLD by 2029
- *Kanan/Agos USP Phase 2* : 3000 MLD by 2039

The USP Phase 1 and Phase 2 water source projects are still being reviewed by MWSS. It is noted that the Approved RR23 SIP assumed Manila Water's internal CAPEX only, consisting of the CAPEX for the construction of Manila Water's WTP and treated water transmission systems for Kaliwa USP Phase 1A and Phase 1B. For USP Phase 2, the Approved RR23 SIP only includes Operating Expenses ("OPEX") for the bulk raw water fee based on required additional volume of supply for 2039 onwards; related CAPEX for the WTP has not yet been factored in RR23.

The estimated CAPEX for the development of Manila Water's WTP for USP Phase 2 is PHP 91.1 billion, PHP 48.1 billion of which is projected to be deployed after 2037.

## **2. Water Source Facilities**

### *Raw Water Facilities Before Portal – Common Purpose Facilities*

The Common Purpose Facilities ("CPF") masterplan prepared in 2013 details the action plans and projects that the CPF will undertake up to 2037. In RR23, the CPF included in its plans the rehabilitation of existing facilities to ensure adequate raw water supply and reliable operation. Proposed projects include the Umiray-Angat Transbasin Facility, Sumag River Diversion Project, Rehabilitation of Angat Low Level Outlet, Angat Water Transmission Improvement Project, Construction of the Bigte-Novaliches Aqueduct ("BNAQ") 7, and Rehabilitation of BNAQ 3 to 5.

### *Raw Water Facilities After the Portal*

Manila Water also sees the need for programs to improve the raw water facilities after portal. This includes the Alat Dam Optimization, La Mesa Intake

Rehabilitation, and the Novaliches-Balara Aqueducts 1, 2 and 3 Assessment and Rehabilitation.

#### *Watershed Management*

Manila Water will continue to support MWSS' initiatives and programs to ensure the sustainability of the watersheds in Ipo, La Mesa, Alat, and General Nakar. Manila Water will also sustain coordination with other government agencies to ensure timely interventions in the rehabilitation and protection of the Upper Marikina and Laguna watersheds. The RR23 Approved SIP considers the watershed management, protection, and rehabilitation activities up to 2037, Manila Water will closely coordinate with and support MWSS on its watershed management plans for 2038 to 2047.

#### *B. Service Accessibility*

Manila Water is also developing projects to ensure that services will continue to be accessible to the customers. The key drivers of Service Accessibility are projects that support Manila Water's (1) service coverage, (2) customer demand, and (3) availability of water supply. The projects under the Service Accessibility pillar include the laying of primary distribution lines, new water supply facilities, and mainline extensions, which are scheduled based on forecasted increases in demand and service coverage targets. The primary distribution and transmission networks are undergoing expansion to allow Manila Water to respond to the growing demand in the East Zone. Projects under this initiative are in line with the main objective of delivering water supply from the identified water sources to different influence areas.

#### *C. Service Continuity*

The projects under the Service Continuity pillar are meant to maintain Manila Water's ability to provide quality services under various conditions. This pillar supports sustaining 98%, 24-hour water availability at a minimum water pressure of 7 psi, within the PNSDW.

As most of the East Zone has been covered and provided with water services, there is an increased focus on efficient services. Manila Water will achieve this objective through continuing programs consisting of the (i) rehabilitation and upgrade of water treatment works and pumping station facilities; (ii) management and maintenance of NRW through network efficiency and technology initiatives; (iii) installation of inter-system reliability lines; (iv) rehabilitation of major distribution lines; and (v) implementation of network retrofitting and resiliency initiatives and other support functions to complement Manila Water's general operation.

Another key program under the Service Continuity Pillar is the clearing and management of pipe right-of-way ("ROW"). Manila Water manages the pipe ROW from La Mesa Dam to the Balara Treatment Plant, and the ROW from the Balara compound to the San Juan Logistics Hub in Quezon City (referred to as the San Juan Aqueduct ROW or the Daang Tubo ROW). This totals more than 15 km of ROW with widths spanning 10 to 100 meters.

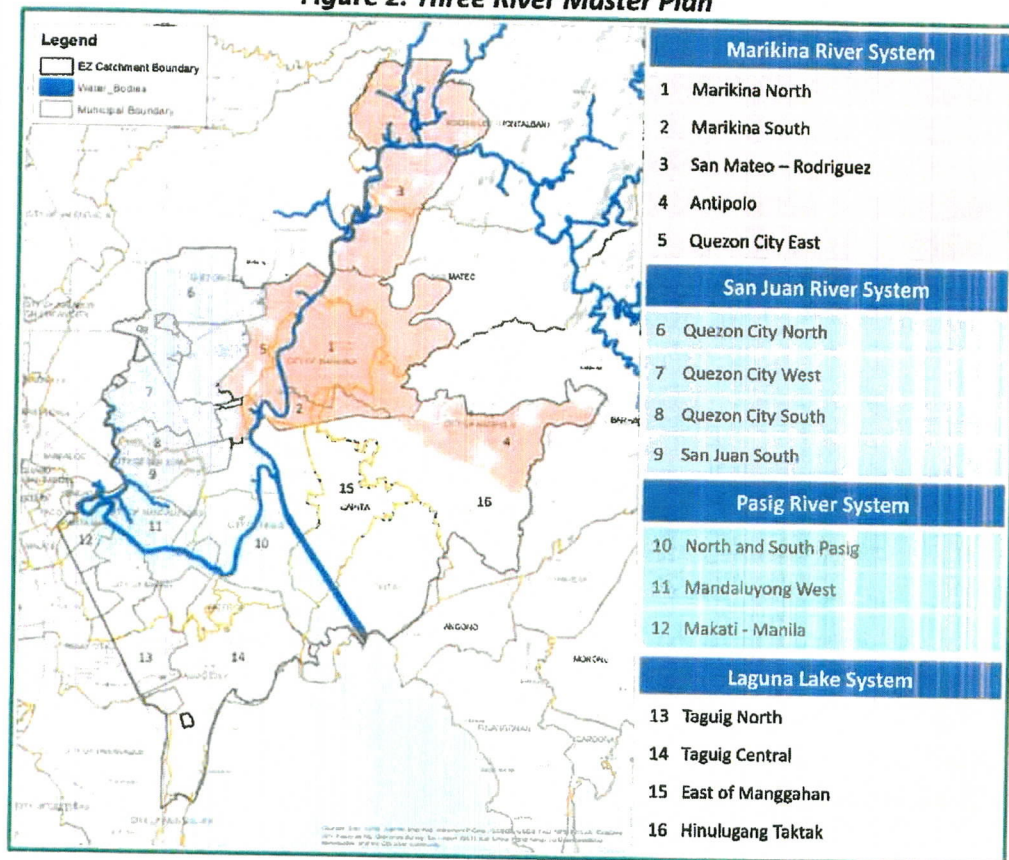
After the implementation of all water source programs and major projects within 2037, plans for water facilities from 2038 onwards will focus on the maintenance of the existing assets and facilities to ensure robust and efficient operation. This will require CAPEX for capitalizable maintenance for equipment, instrumentation, and other critical assets.

#### *D. Environmental Sustainability*

In pursuit of environmental sustainability, Manila Water will invest PHP 147 billion CAPEX for wastewater and sanitation services for the period 2023-2037. A majority of the investments are for the expansion of sewer coverage through the construction of new STPs and the optimization of existing wastewater facilities and sewer network systems. Beyond 2037, wastewater CAPEX is estimated to be PHP 48 billion. This is in line with targeted sanitation services and with the Three-River System Masterplan (Figure 2) which will collect sewage from catchments through the combined sewer-drainage systems. Domestic wastewater will be treated to appropriate effluent standards in STPs before discharge to the San Juan River, Marikina River, Pasig River, and Laguna Lake.



**Figure 2. Three River Master Plan**



### 1. North and South Pasig Sewerage System

The North and South Pasig Sewerage System consists of the 100MLD (expandable to 140MLD) Ilugin STP and 65 km of combined sewer network. Construction of the system components began in 2015. For 2023-2037, remaining works for the North and South Pasig project include the completion of sewer network segments in Ortigas Ave. and F. Banaag streets as well as the segments in M.H. Del Pilar St., Mercedes-Sandoval Ave., Dr. Sixto Antonio Ave., and G. Raymundo-Urbano Velasco Ave. The Ilugin STP will also be upgraded in compliance with DAO 2021-19.

### 2. Mandaluyong West – San Juan South – QC South Sewerage System

This is a combined sewer system that will serve parts of Mandaluyong, San Juan, and Quezon City. It consists of 53 km of sewer network and the 60 MLD Aglipay STP in Rev. G. Aglipay, Mandaluyong City. Construction of the STP and laying of the network is ongoing. From 2038 onwards, the Aglipay STP will be expanded to



120 MLD. The system will cater to 118,307 connections by 2047 and will treat sewage to standards before discharge to Pasig River.

### 3. Hinulugang Taktak Sewerage System

With the support of the City Government of Antipolo, Manila Water is developing the sewerage system for Hinulugang Taktak. The STP site is located at the Hinulugang Taktak National Park and has an area of about 4,000 square meters. The STP will have a capacity of 16 MLD and will be designed to comply with DAO 2021-19. A total length of 4 km sewer network will be installed to serve the residents of Antipolo City. The system is under construction and will be completed in 2024.

### 4. QC East Sewerage System

This is a combined sewer system that will serve the 816-hectare catchment from portions of Quezon City and Marikina City. Manila Water will utilize the site of the old Tañong Pumping Station in Marikina City and will lay a total of 10 km sewer network to develop and construct the 18MLD QC East sewerage system from 2021-2026.

### 5. San Mateo-Rodriguez Sewerage System

This will collect wastewater through gravity and force mains that will traverse Montalban, Gen A. Luna Highway, and the future DPWH flood dike along the Marikina River. The STP will be in Brgy. Sta Ana, San Mateo, Rizal and will be constructed in two phases with an ultimate capacity of 75 MLD. The plant will be designed to comply with DAO 2021-19. The system is under construction and will be partially energized in 2026.

### 6. Antipolo Sewerage System

The STP for the Antipolo Sewerage System will have a capacity of 30 MLD and will be in Brgy. Santa Cruz, Antipolo City. The facility will be designed to comply with DAO 2021-19. The whole system will cover portions of Marikina, Cainta, and Antipolo City and is targeted to be completed by 2031.

### 7. East of Manggahan Sewerage System

This will collect wastewater from portions of Angono, Antipolo, Cainta, Pasig, and Taytay. The project will be implemented in phases with an initial STP capacity of 70 MLD by 2037, expandable to 145 MLD by 2042. Phase 1 of the project is currently in the design stage.

#### 8. Makati-Manila Sewerage System

The Makati–Manila catchment has been recalibrated to consider ongoing negotiation for the STP site as it relates to the Pasig River Expressway (PAREX) project. The ongoing Makati Subway project will also affect the sewer lines planned along J.P Rizal, Makati, with realignment of the sewer lines to Kalayaan Avenue as the primary option. Discussions with the Makati LGU and the Makati Subway contractor are ongoing.

The STP for the system will have a capacity of 65 MLD. A total of 21 km of sewer lines will be constructed for sewage from the parts of the cities of Makati, Manila, and Taguig.

#### 9. QC North – QC West Sewerage System

The development of this system will start in 2031. Due to the limited availability of large parcels of property in the QC area that can host an STP, Manila Water will continue to coordinate with MWSS and the city government to develop this system.

#### 10. Marikina South Sewerage System

The Marikina South catchment will be developed to serve portions of Pasig, Antipolo, Cainta, and Marikina City. An STP with a capacity of 20 MLD will be designed to comply with DAO 2021-19 for the removal of nutrients. The project is targeted to be completed by 2037.

#### 11. Biological Nutrient Removal (BNR) Masterplan

The upgrade of Manila Water's existing STPs was accelerated and calibrated to comply with DENR DAO 2021-19. Considering total project cost, environmental compliance, and constructability, the compliance plan consists of a combination of solutions that include retrofitting using appropriate available technology, diversion of small STPs to larger STPs, and operational adjustments. These projects are ongoing except for two STPs (Guadalupe and Poblacion) which have been put on hold due to the Makati Subway Project.

## 12. Asset Management Plan (AMP) for Wastewater Facilities

Assets require preventive or reactive maintenance, rehabilitation, or upgrade throughout their life cycle. The AMP is a guide that ensures that such interventions and related projects are identified in a timely and prudent manner.

The major considerations in the development of the AMPs for existing used water facilities are:

- *Capital Maintenance Projects ("CMP")*  
Common CMPs involve replacement of measuring, metering, and monitoring devices, instrumentation panels, blowers, pumps, and motor starters.
- *Capital Improvement Projects ("CIP")*  
CIPs will focus on the reliability of BNR assets and will include components such as chemical pumps, related instrumentation devices, and submersible pumps and motor starters. Various improvement works are also included in the CIP. The installation of a Grid SCADA system for operational efficiency, construction of new storage rooms, and purchase of new BNR-related laboratory equipment are also part of the CIP.

Manila Water's AMP will continue to focus on ensuring that the target level of service is sustained, as the wastewater asset base expands.

## 13. Asset Management Plan for Wastewater Network

Signs of deterioration of old sewer networks are evident in Manila Water's closed-circuit television investigation of sewer networks. These include peeling of pipe walls throughout the pipe length, dilapidated manhole ladders, scoured pipe joints, strong seepage or infiltration, root intrusion, or total clogging due to collapsed mainlines. Aside from these findings, the age, size, and materials, of the network were also considered in the work program for the AMP. Rehabilitation works will include manhole covers, appurtenances, and sewer connections, and the installation of additional sewer connections for unserved households. A sewer network improvement program will cover point repairs, replacement of sections and other works to accommodate increases in sewage flow.

## 14. Pinugay Septage Treatment Facility

The 50 m<sup>3</sup>/day Pinugay Septage treatment facility will serve Baras, Pilillia, and Jala-jala and the water served areas in RIZWADA. It will treat septage in compliance



with the new effluent standards. The old structure and equipment were fully assessed and considered in the design of the facility. The plant is under construction and will be completed in 2023.

#### 15. Desludging Program

Manila Water will continue to provide septic tank desludging services to residential customers in areas not connected to existing sewerage systems. The Company's goal is to offer desludging services to all unsewered communities under the East Zone concession on a five-year cycle.

Manila Water's vacuum trucks are replaced every seven years to ensure optimal operation. Data management systems are being improved to ensure accurate recording of information, prompt resolution of customers' requests and complaints, and timely programming of areas for desludging. Training on customer relationship management and desludging operations is also regularly conducted to upskill personnel and desludging service providers.

Manila Water will further develop its *Sanitasyon Para sa Barangay Program* by increasing the desludging services customer availment rate from 66% in 2027 to 80% by 2037. Treatment strategies and technologies will also be updated through the following initiatives:

- Purchase of vacuum trucks with higher head pumps and longer hoses to access narrow roads.
- Use of technology and equipment which will improve acceptance and treatment of septage.
- Engagement of customers through new platforms and approaches.

#### E. Customer Service

In its 26 years, Manila Water consistently provided more than 7.6 million customers with exceptional customer service. The RCA sets clear standards for good water, wastewater services, and customer service. Manila Water commits to fulfill its responsibilities and obligations to the public and to MWSS as it complies with the RCA.

In addition to the deployment of significant CAPEX and OPEX for water and wastewater infrastructure and operation, Manila Water will continue to provide reliable and high-quality service to its customers by enhancing the customer experience.

As the Company sees a shift in customer activity moving to online channels, Manila Water will continue to maximize these channels to communicate with customers. This



includes the Manila Water App which is an application that empowers customers by giving access to a more convenient, quick, safe, and smart way of doing business with the Company. Manila Water will also explore options for paperless billing or electronic statements of account ("e-SOA"). Aside from being environment-friendly, this will eliminate instances of customers misplacing their water bills. Enrolling for an e-SOA allows the customers to track and monitor previous statements of account more conveniently.

To sustain exceptional customer service, Service Areas will continue to adopt customer centricity. The pulse of the customer will also be regularly secured through third-party surveys. This will help evaluate the performance of Manila Water. The results of the survey feed into the development of programs that will address and improve customer experience.

The foregoing plans will enable Manila Water to deliver the Service Obligations – KPIs and BEMs for 2023-2037 and 2023-2047 in Table 2, set out below:

**Table 2. KPIs and BEMs 2023-2047**

Service Obligations / KPIs + BEMs	2023-2037	2023-2047
	2036 Target	2046 Target
<b>WATER SERVICE</b>		
Total Domestic Connections	1,236,671	1,334,910
Water Coverage (%)	95%	95%
<b>SEWERAGE + SANITATION</b>		
Total Sewer Service Connections (Separate + Combined)	731,282	1,108,875
<b>TOTAL Wastewater Coverage (Population Approach)</b>	<b>100%</b>	<b>100%</b>
Total Sewer Coverage (Population Approach)	66%	88%
Sanitation Coverage 5-year rolling (Population Approach)	34%	12%
<b>TOTAL Wastewater Coverage (Connection Approach)</b>	<b>100%</b>	<b>100%</b>
Total Sewer Coverage (Connection Approach)	57%	76%
Sanitation Coverage 5-year rolling (Connection Approach)	43%	24%
<b>Billed Volume (In Million Cubic Meters)</b>	<b>732</b>	<b>1,009</b>

<b>Total OPEX (In PHP Billion)</b>	<b>338 (2023-2037)</b>	<b>746 (2023-2047)</b>
<b>Total CAPEX (In PHP Billion)</b>	<b>322 (2023-2037)</b>	<b>387 (2023-2047)</b>
<b>CUSTOMER SERVICE *</b>		
Response to Service-Related Complaints	95%	95%
Response to Billing-Related Complaints	92%	92%
Response to Request for New Water Service Connection	95%	95%
Installation of New Water Service Connection	95%	95%

\*Standard Resolution Rate as required by the MWSS Regulatory Office

For KPI-BEMs related to water services, the change or increase from 2037 to 2047 is in response to the services required by population forecasts and economic growth. Wastewater targets move up from 2037 to 2047 due to the same consideration along with the drive to protect waterways for environmental sustainability.

#### **IV. Financial Impact of RR23 SIP**

The Concession Agreement provides for tariff setting mechanisms guided by two critical principles: affordability for the customer and financial viability for the concessionaire. Thus, the tariff setting methodology should allow Manila Water to recover its operating, capital maintenance and investment expenditures for the development of the water system over the life of the concession while at the same time ensuring that the tariff is affordable for consumers.

Since the start of its concession, Manila Water has cooperated with MWSS in ensuring that the tariff is affordable for its East Zone customers while delivering quality service. In fact, the tariff paid by East Zone customers has been consistently lower than the tariff paid by West Zone customers.

In the recent RR23 exercise, Manila Water endeavored to keep the tariff within 5% of household income by spreading the implementation of the tariff from a one-time adjustment to annual adjustments for 2023-2027. Highly conscious of the plight of marginalized and low-income customers, these customers continue to enjoy a 40% discount for consumption of 10 cubic meters or less. For the rest of the customers, Manila Water abided by the rate caps provided in Section 9.2.1 of the RCA.

To keep the tariff affordable, it is imperative that the concession term be extended to 2047, given the investments needed to accomplish the service obligation



commitments in the Approved RR23 SIP. Based on the Approved RR23 SIP, the plan for 2023-2047 entails a Total Expenditure ("TOTEX") amounting to PHP 1.15 trillion comprising CAPEX of PHP 387 billion, Concession Fees ("Confees") of PHP 16 billion, and OPEX of PHP 746 billion. Out of the TOTEX projected, 59% will be spent during 2023 to 2037 while the balance of 41%, or PHP 475 billion,<sup>6</sup> will be deployed from 2038 to 2047. These expenditures will support programs that will ensure water security, service accessibility, service continuity, and environmental sustainability through wastewater projects and services.

Table 3 presents the breakdown of TOTEX for 15 years and for 25 years with the corresponding key operational benefits to the MWSS East Zone system.

**Table 3. Expenditures 2023-2047**

<i>In PHP Billion (Unless otherwise stated)</i>	<b>2023-2037</b>	<b>2023-2047</b>	<b>2038-2047 Increase</b>
CAPEX	322	387	65
CONFEEES	14	16	2
OPEX	338	746	408
<b>TOTEX</b>	<b>674</b>	<b>1,149</b>	<b>475</b>

### **CAPEX**

CAPEX is programmed for projects and capitalizable expenses for water security at PHP 56 billion, service expansion at PHP 50 billion, service reliability and continuity at PHP 86 billion, wastewater and environmental sustainability at PHP 195 billion. About 17% of the total, or PHP 65 billion, is programmed as CAPEX for 2038 to 2047.

It is noted that the amounts above do not yet include the total amount of PHP 91.1 billion to develop the WTP for USP Phase 2, PHP 48.1 billion of which is projected to be deployed from 2038 to 2043.

### **CONFEEES**

Confees are payments made to MWSS in accordance with Section 6.4 of the RCA, specifically for (1) servicing MWSS loans, and for (2) MWSS' corporate operating budget. A total of PHP 16 billion in Confees is programmed to be remitted to MWSS as the share of Manila Water. About PHP 2 billion, or 13% of this amount, will be spent from 2038 to 2047. An extension of the RCA will therefore also support the government in servicing MWSS' debt and financing operations.

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<sup>6</sup> Note that this amount does not include the projected PHP 91.1 billion CAPEX for the WTP for USP Phase 2, PHP 48.1 billion of which is projected to be deployed from 2038 to 2043.



## **OPEX**

OPEX includes direct expenses attributable to the delivery of water, wastewater, and customer services namely, the costs for power, treatment, materials and supplies, repairs and maintenance, contracted services, and new water service connections. Other indirect expenses essential to the delivery of services and asset management obligations are Salaries, Wages and Benefits, Occupancy Costs, Collection Charges, Taxes and Licenses, Insurance, Regulatory Costs, Premium on Performance Bond, and Other Overhead Expenses.

In general, OPEX for 2023 to 2047 is planned and estimated considering water demand, availability and operation of plants and facilities, new water service connections, and current laws, rules and known regulations. Based on the Approved RR23 SIP, the OPEX for 2023-2047 totals PHP 746 billion, of which 55% (PHP 408 billion) is to be spent from 2038 to 2047.

### **Tariff affordability: 2037 vs. 2047**

Considering the massive investments to be made and recovered by Manila Water, a longer concession term will ensure that the tariff remains affordable.

A comparative analysis of the resulting tariff using a concession period ending in 2037 and in 2047 shows that without an extension of the RCA to 2047, the resulting tariff will be 300% of the 2022 tariff in 2037<sup>7</sup>. On the other hand, with an extension of the RCA to 2047, the water bills will be kept at a more manageable level as cost recovery is spread for another 10 years.

Table 4 compares the water bills for concession terms ending in 2037 and 2047. Assuming a concession term ending in 2037, the 2037 water bill of residential customers consuming 30 cubic meters inclusive of an average government tax of 2.625% will be PHP 1,998 per month. With an extension of the RCA to 2047, the 2037 water bill is estimated to go down by 18% or to PHP 1,639 per month. This translates to a savings of about PHP 4,000 /year for this customer class.

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<sup>7</sup> Estimated bill is based on the approved RR23 SIP staggered adjustment and, consistent with the RCA with "C" factor based on 75% of the inflation published by the PSA. With this new input, the table presents updates of the numbers originally communicated in the 2 August 2022 letter. Estimated bill assumes government taxes of 2.625%. To further clarify the "published by the PSA" is whatever rate that can be inputted but the actual inflation base used here is 2023 = 6.4%, 2024 = 4.1%, 2025 onwards 3%.

**Table 4. Water Bill (2037, 2047)**

	End of Concession 2037	End of Concession 2047	Variance
<b>2037 Water Bill</b>	PHP 1,998	PHP 1,639	(18%)

This demonstrates that a term extension of 10 years will serve public interest and benefit consumers by keeping the tariff affordable throughout the term of the concession. An extension allows longer cost recovery thereby reducing the impact to customers and keeping the tariff affordable. With an extension of the RCA, it is estimated that water bills will be at less than 2% of the average household income. For low-income households, the water bills will constitute approximately 1% of monthly income<sup>8</sup>.

#### *Expiration Payment*

Based on the Approved RR23 SIP and assuming the approved “R” adjustments<sup>9</sup> were observed and implemented, the Company will be able to recover its Expenditures if the concession is extended until 2047. However, if the concession ends in 2037, there are two options: (i) adjust and increase the water bill in the next rate rebasing exercise that shortens the recovery period to 2037 instead of 2047; or (ii) the government to pay an Expiration Payment of about PHP 197.7 billion<sup>10</sup> at end of concession in 2037. Combined with PHP 475 billion in foregone Manila Water committed TOTEX from 2038 to 2047 for infrastructure, maintenance, and delivery of services, and the projected CAPEX from 2038 to 2043 for the WTP for USP Phase 2 in the amount of PHP 48.1 billion, a 2037 end of concession term will result in a PHP 721 billion increase in government expenditure. Both options result in substantial costs, either to the consumer or to the government, which can be avoided by extending the concession term to 2047.

## **V. Extension of concession term is necessary for public interest**

### **A. Water security**

The 2021 DITCI Study commissioned by MWSS for the RR23 exercise considered population growth data from the Philippine Statistics Authority (“PSA”) and forecast

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<sup>8</sup> Based on average income of low-income customers as defined in the RCA inflated to current prices, assuming 3% inflation from 2023 onwards.

<sup>9</sup> “R” adjustments are based on the “R” assuming Kaliwa Dam Water Source completion on or before 2028 per MWSS BOT Resolution number 2022-148-RO dated November 10, 2022 with “C” factor based on 75% of the inflation published by the PSA

<sup>10</sup> Expiration payment is calculated based on the anticipated receipts of Manila Water needed to make the present value of the future net cash flows equal but opposite in sign of the OCP with the given set of assumptions and does not maximize the 1.3x cap for water tariff in the succeeding rate rebasing. The expiration payment also assumes that PHP 43 billion has been spent as CAPEX for the WTP for USP Phase 2 as of 2037.



demand based on sectoral and spatial approaches. The DITCI study considered the impact of COVID-19, macroeconomic indicators and trends, and various service quality assessments to forecast water demand and gauge the customers' perception of Manila Water's service quality. Table 5 shows the 2037 and 2047 forecast water demand of the East Zone based on the DITCI Study.

**Table 5. Water Demand Based on 2021 DITCI Study**

Area	2037		2047**	
	Population	Demand*, MLD	Population	Demand*, MLD
East Zone – NCR Cities/Municipalities	5,678,726	1,379	6,414,743	1,735
East Zone – Rizal	5,119,534	683	6,616,777	1,030
<b>Total</b>	<b>10,798,260</b>	<b>2,062</b>	<b>13,031,519</b>	<b>2,765</b>

\*Total projected billed volume for domestic and non-domestic accounts

\*\*Projected from Y2045 figures of 2021 DITCI Study

The succeeding tables set out the population increase in the East Zone:

**Table 6. PSA Population projections in the East Zone (2020) – Sectoral Approach**

No.	Province	LGU	2020 Census (RR23) – Sectoral Approach				
			2022	2026	2031	2037	2045
1	NCR	Makati	455,808	450,334	455,505	463,466	465,770
2	NCR	Mandaluyong	441,594	468,636	482,781	491,218	493,660
3	NCR	Manila	205,487	206,565	209,802	213,469	214,530
4	NCR	Marikina	461,588	469,951	479,633	488,015	490,441
5	NCR	Paranaque	6,032	6,008	6,101	6,207	6,238
6	NCR	Pasig	836,767	875,407	898,925	914,636	919,182
7	NCR	Pateros	65,736	66,583	67,876	69,063	69,406
8	NCR	Quezon City	1,008,286	1,026,382	1,047,530	1,065,839	1,071,137
9	NCR	San Juan	126,687	128,314	130,805	133,091	133,753
10	NCR	Taguig	934,637	990,650	1,020,267	1,038,098	1,043,259
11	Rizal	Angono	135,254	141,803	151,056	163,135	175,801
12	Rizal	Antipolo	920,482	966,373	1,029,750	1,112,086	1,198,431
13	Rizal	Baras	100,796	117,134	127,722	137,935	148,644
14	Rizal	Binangonan	322,298	334,914	356,058	384,527	414,383
15	Rizal	Cainta	376,762	381,562	403,319	435,567	469,386



No.	Province	LGU	2020 Census (RR23) - Sectoral Approach				
			2022	2026	2031	2037	2045
16	Rizal	Cardona	50,512	51,545	54,577	58,940	63,517
17	Rizal	Jalajala	34,340	35,184	37,287	40,269	43,395
18	Rizal	Morong	72,520	74,833	79,432	85,783	92,444
19	Rizal	Pililia	72,612	74,596	79,102	85,426	92,059
20	Rizal	Rodriguez	485,202	535,833	577,533	623,711	672,138
21	Rizal	San Mateo	291,391	314,106	336,703	363,625	391,857
22	Rizal	Tanay	145,619	155,308	166,082	179,361	193,287
23	Rizal	Taytay	407,522	434,594	464,732	501,890	540,858
24	Rizal	Teresa	65,777	68,863	73,333	79,196	85,345
NCR Total			4,542,621	4,688,829	4,799,224	4,883,103	4,907,377
Rizal Total			3,481,088	3,686,648	3,936,685	4,251,452	4,581,544
Manila Water			8,023,709	8,375,476	8,735,909	9,134,554	9,488,922

**Table 7. PSA Population projections in the East Zone (2020) – Spatial Approach**

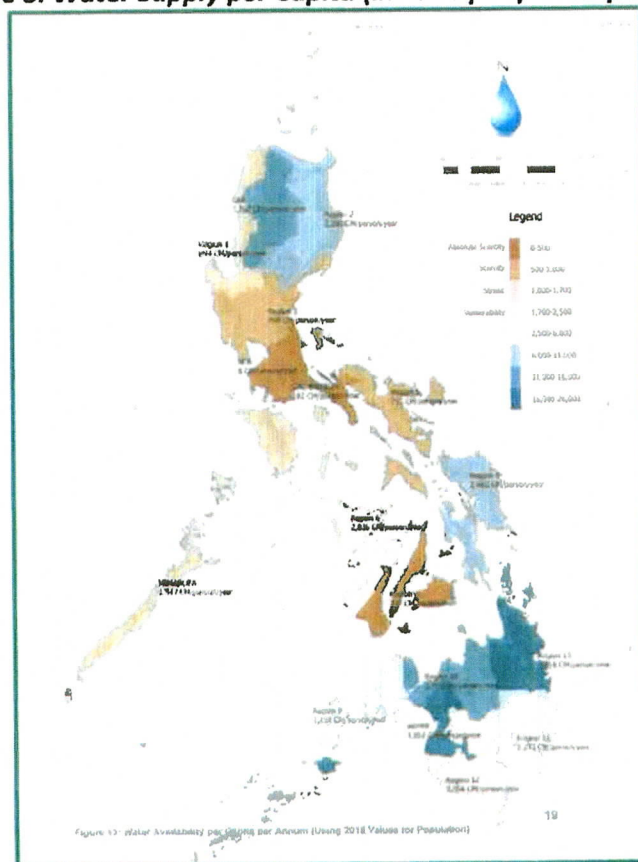
No	Province	LGU	2020 Census (RR23) - Spatial Approach				
			2022	2026	2031	2037	2045
1	NCR	Makati	-	-	477,871	488,334	502,644
2	NCR	Mandaluyong	-	-	527,407	592,740	692,609
3	NCR	Manila	-	-	224,591	236,098	252,364
4	NCR	Marikina	-	-	510,289	534,876	569,511
5	NCR	Paranaque	-	-	6,723	6,870	7,071
6	NCR	Pasig	-	-	919,395	989,739	1,091,973
7	NCR	Pateros	-	-	68,385	70,172	72,627
8	NCR	Quezon City	-	-	1,273,941	1,385,994	1,550,879
9	NCR	San Juan	-	-	136,021	141,607	149,413
10	NCR	Taguig	-	-	1,097,160	1,232,295	1,438,715
11	Rizal	Angono	-	-	178,126	211,076	264,679
12	Rizal	Antipolo	-	-	1,069,881	1,210,904	1,428,264
13	Rizal	Baras	-	-	146,888	194,685	283,438
14	Rizal	Binangonan	-	-	394,810	447,627	529,202
15	Rizal	Cainta	-	-	532,577	643,081	826,880
16	Rizal	Cardona	-	-	52,672	54,105	56,076
17	Rizal	Jala-jala	-	-	38,242	40,764	44,387
18	Rizal	Morong	-	-	73,626	83,764	99,486

No	Province	LGU	2020 Census (RR23) - Spatial Approach				
			2022	2026	2031	2037	2045
19	Rizal	PILILLA	-	-	79,598	86,043	95,457
20	Rizal	Rodriguez	-	-	665,961	830,825	1,115,809
21	Rizal	San Mateo	-	-	394,875	508,502	712,419
22	Rizal	Tanay	-	-	201,873	247,036	323,349
23	Rizal	Taytay	-	-	422,607	469,936	541,387
24	Rizal	Teresa	-	-	80,508	91,188	107,662
<b>NCR Total</b>			-	-	<b>5,241,783</b>	<b>5,678,725</b>	<b>6,327,806</b>
<b>Rizal Total</b>			-	-	<b>4,332,244</b>	<b>5,119,536</b>	<b>6,428,495</b>
<b>Manila Water</b>			-	-	<b>9,574,027</b>	<b>10,798,261</b>	<b>12,756,301</b>

Alongside the growing demand is an increased stress on water supply availability compounded by climate change risks.

According to the 2020 United Nations World Water Development Report, “an area is experiencing water stress when annual water supplies drop below 1,700 m<sup>3</sup> per person. When annual water supplies drop below 1,000 m<sup>3</sup> per person, the population faces water scarcity, and below 500 m<sup>3</sup>, absolute scarcity”. The Philippine Water Supply and Sanitation Master Plan in Figure 3 clearly indicates that the National Capital Region (NCR) and CALABARZON areas are under absolute scarcity status.

**Figure 3. Water Supply per Capita (in liters per person per day)**



Droughts, flooding, and related climate uncertainties will significantly affect the planning, design, development, and operation of both existing and new water sources and wastewater treatment and network systems in the East Zone.

In a report published by the Congressional Policy and Budget Research Department of the House of Representatives citing the 2021 Global Climate Risk Index 2021, the Philippines ranked 17th in the world's list of countries most affected by extreme weather events. In the 2021 Climate Risk Country Profile report published by the Asian Development Bank and the World Bank, the Philippines was considered vulnerable to the impact of climate change. The country also ranked 114<sup>th</sup> out of 181 countries assessed by the University of Notre Dame on an index measuring readiness to improve resilience to climate change.

International and local agencies such as the Intergovernmental Panel on Climate Change and PAG-ASA forecast that extreme rainfall events will continue to become the "new normal" with more frequent rainfall in Luzon and Visayas, while the number of dry days is expected to increase and intensify in all parts of the country between



2020 and 2050. These extreme weather patterns will likely also result in raw water quality issues.

Manila Water's projects and plans are targeted at providing water security, accounting for both the increased demand from population growth as well as the strain from climate change. An RCA extension allows the continued implementation of plans that are targeted at these twin stressors.

## **B. Affordable Water Security**

According to the World Bank's April 2023 Poverty and Equity Brief, COVID-19 interrupted more than 30 years of continuous poverty reduction in the Philippines. National poverty estimates show that poverty incidence rose from 16.7% in 2018 to 18.1% in 2021. For NCR, poverty incidence rose by 1.2%. While economic growth picked up at 7.6% in 2022, rising inflation can erode gains. In December 2022, based on the data from the PSA, the purchasing power of the peso was at its weakest in four years as more expensive food and fuel caused inflation to accelerate to a 14-year high of 8.1%.

An RCA extension ensures affordable water security despite record inflation. With an extension of the RCA, it is estimated that water bills will be at less than 2% of the average household income. For low-income households, the water bills will constitute approximately 1% of monthly income.

## **C. Closing Notes**

Manila Water is firmly committed to providing reliable water and wastewater services to its customers. From 2023-2047, the Company commits to deploy PHP 1.15 trillion in total expenditures. Understanding that public welfare and safe, adequate, and affordable water and wastewater services require it, Manila Water prays for an extension of the RCA to 2047.

With an extension of the RCA, Manila Water can ensure the continued implementation of the four pillars of sustainability, namely: (1) Water Security, (2) Service Accessibility, (3) Service Continuity, and (4) Environmental Sustainability. An extension guarantees the protection and proper utilization of water sources, and the development of new facilities and distribution lines to reach the growing East Zone population. This will also improve service continuity by enabling the consistent rehabilitation and upgrading of water treatment facilities. An extension also ensures the continued enhancement of the Company's wastewater and sanitation initiatives.

Extending the term of the RCA allows for the attainment of Sustainable Development Goal ("SDG") No. 15 by supporting and enabling water supply sustainability and

watershed protection. The extension also aligns with SDG No. 6 by fostering and strengthening public-private partnerships in the water sector, thereby ensuring the continuous provision of water and wastewater services to East Zone customers and communities.

Consumers, the government, and taxpayers alike stand to gain from an RCA extension. East Zone customers will enjoy substantially reduced water bills, with average households' water bills estimated to constitute less than 2% of household income. The government and taxpayers benefit from a reduced expenditure of public funds, with Manila Water committed to deploy PHP 475 billion in expenditures for the development and maintenance of water facilities from 2038 to 2047. Manila Water also projects additional CAPEX in the amount of PHP 48.1 billion from 2038 to 2043 to develop the WTP for USP Phase 2. The total of these two expenditures is PHP 523.1 billion, a substantial amount that would otherwise have to be spent by the government if it were to undertake these projects directly. In addition, an Expiration Payment in the amount of PHP 197.7 billion may be borne by the government. A 2037 end of concession term could result in PHP 721 billion total expenditure for the government.

With 26 years of improving water and wastewater services, Manila Water is best positioned to continue to serve the East Zone for another 24 years. Manila Water prays for the extension of the RCA to ensure sustainability of reliable service at an affordable cost. Manila Water believes that it is in the public's interest to extend the RCA to 2047, co-terminus with the Franchise. Manila Water respectfully submits its request for the extension of the RCA for the favorable consideration of the MWSS.

ANNEX A



In following-up, pls. cite DMS ref #

**2023-OA-0000322**

REPUBLIC OF THE PHILIPPINES  
**METROPOLITAN WATERWORKS AND SEWERAGE SYSTEM**  
4th Administration Building, MWSS Complex, 489 Katipunan Avenue, Balara, Quezon City, 1105

**ACKNOWLEDGEMENT RECEIPT**


The **Metropolitan Waterworks and Sewerage System** hereby acknowledges the receipt of your letter/request which has been uploaded to the Document Management System and routed to the appropriate office/s with the following information:

Sender: **Manila Water**

Document Title: **Manila Water re: Extension of the term of the Concession Agreement to 2047**

Document Reference No: **2023-OA-0000322**

Date and Time Uploaded: **Tuesday, January 24, 2023 3:23:08 PM**

Uploaded By: **Daniel Uy**  **RHEA ROSE ANN D. OBINA**

Routed To: **Mariecor H. Suacillo**

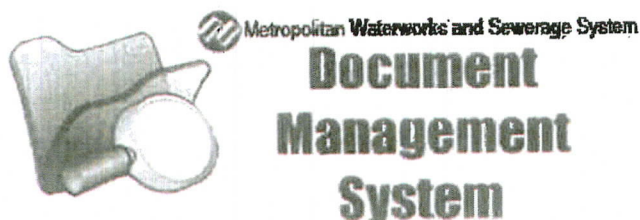
cc: **Toni Ruth Delos Santos**

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The determination of the completeness of the documentary requirements submitted, if any, is subject to the evaluation of the technical person in charge.

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Received by:







January 20, 2023

**METROPOLITAN WATERWORKS AND SEWERAGE SYSTEM**

4<sup>th</sup> Floor, Administration Bldg., MWSS Complex  
489 Katipunan Ave, Balara, Quezon City

Attention: **ENGR. LEONOR C. CLEOFAS, CESO IV**  
Administrator

Subject: **Extension of the term of the Concession Agreement to 2047**

Dear Administrator Cleofas:

Manila Water Company, Inc. ("Manila Water") writes to respectfully request for an update on the application submitted through a letter dated August 2, 2022 ("Letter"), and attached herewith, to extend the term of the Concession Agreement ("CA") between the Metropolitan Waterworks and Sewerage System ("MWSS") and Manila Water to 2047, consistent with Republic Act No. 11601 (the "Franchise")<sup>1</sup>.

We reiterate for your benefit the grounds cited as we endeavor to further provide valuable public service, through the provision of water supply and wastewater services to our customers in the East Zone concession of MWSS.

In consideration of the current and anticipated water supply demands and the capital and operating expenses necessary in complying with its service obligations, Manila Water determined that a concession period ending in 2047 provides the consuming public in the East Zone a significantly mitigated tariff, as compared with a concession term ending in 2037. The latter yields a tariff that is at least three (3) times higher than the current level. Said determination is consistent with Manila Water's approved RR23 Service Improvement Plan.

Furthermore, the continued operation of Manila Water through 2047 will allow the attainment of Sustainable Development Goal ("SDG") No. 6 (Ensure access to water and sanitation for all) by fostering public-private partnerships with the national government, local governments, regulators, non-government organizations, consumers and other stakeholders in the water sector, thereby ensuring the continuous provision of water and wastewater services to our customers and communities.

We likewise share the view of our country's lawmakers that it is in the interest of the public to grant a 25-year franchise to Manila Water to ensure an uninterrupted and adequate supply and distribution of potable water for domestic, commercial, and other purposes. The franchise also imposes upon Manila

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<sup>1</sup> An Act granting Manila Water Company, Inc., a Franchise to Establish, Operate, and Maintain the Waterworks and Sewerage System in the East Zone Service Area of Metro Manila and Province of Rizal.

Water the responsibility to provide water supply and sewerage services to the public in a prudent, efficient, and satisfactory manner, and requires the modification, improvement or change in its facilities for the public interest. The charging of reasonable and just fees for services to all types of consumers and water users in its franchise area is also mandated under the same law.

With the foregoing, Manila Water believes that the extension of the CA up to 2047 will redound to the benefit of our consumers in the East Zone and will enable us to support the government's efforts for economic recovery from the effects of the continuing COVID-19 pandemic and alleviate the impact on the lives of our countrymen.

We hope that a favorable consideration be accorded our request at the earliest possible time. Rest assured that your approval of this application of Manila Water will all be worthy as we continue our collaboration for the continued success of our public-private partnership and our country's sustainable development.

Thank you very much.

Very truly yours,



**J. V. EMMANUEL A. DE DIOS**  
President and CEO



In following-up, pls. cite DMS ref #

**2022-OA-0002502**

REPUBLIC OF THE PHILIPPINES  
**Metropolitan Waterworks and Sewerage System**  
4th Administration Building, MWSS Complex, 489 Katipunan Avenue, Balara, Quezon City, 1105

**ACKNOWLEDGEMENT RECEIPT**

The **Metropolitan Waterworks and Sewerage System** hereby acknowledges the receipt of your letter/request which has been uploaded to the Document Management System and routed to the appropriate office/s with the following information:

Sender: Manila Water

Document Title: Manila Water re: Extension of the term of the Concession Agreement

Document Reference No: 2022-OA-0002502

Date and Time Uploaded: Tuesday, August 9, 2022 8:17:06 AM

Uploaded By: Rhea Obina 

Routed To: Mariecor H. Suacillo

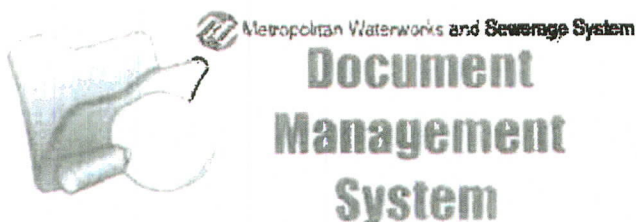
CC: Toni Ruth Delos Santos

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02 August 2022

**METROPOLITAN WATERWORKS AND SEWERAGE SYSTEM**

4<sup>th</sup> Floor, Administration Building, MWSS Complex,  
489 Katipunan Road, Balara, Quezon City

Attention: **ENGR. LEONOR C. CLEOFAS, CESO IV**  
Administrator

Subject: **Extension of the term of the Concession Agreement**

Dear Admin. Cleofas:

Manila Water Company, Inc. ("Manila Water") respectfully submits this application to extend the term of the Concession Agreement ("CA") between the Metropolitan Waterworks and Sewerage System ("MWSS") and Manila Water<sup>1</sup> until 2047 to align with the term of Republic Act No. 11601<sup>2</sup> (the "Franchise").

This Application is made pursuant to Section 5 of the Franchise, which provides:

**"When public interest for affordable water security so requires and upon application of the grantee, MWSS shall be authorized to approve the amendment of the Concession Agreement to extend its term up to the term of the franchise, after the appropriate notice and hearing."**

We submit that public interest for affordable water security requires the extension of the term of the CA to 2047.

This is evident in Manila Water's 2023 Service Improvement Plan (the "SIP") submitted on 31 March 2022. The SIP considers the current and anticipated supply demands of the East Zone customers, Manila Water's

<sup>1</sup> Concession Agreement refers to the agreement entered into between the grantee and MWSS on 21 February 1997, including its amendment dated 26 October 2001, and the Memorandum of Agreement and Confirmation dated 23 October 2009, as amended by the Revised Concession Agreement dated 31 March 2021, or as may hereafter be amended. (Rep. Act No. 11601, sec. 2[a]).

<sup>2</sup> "An Act Granting Manila Water Company, Inc. a Franchise to Establish, Operated and Maintain the Waterworks and Sewerage System in the East Zone Service Area of Metro Manila and Province of Rizal"

MANILA WATER COMPANY, INC.  
MWSS Administration Building,  
489 Katipunan Road, 1105 Balara,  
Quezon City, Philippines  
T: (632) 917 6900  
W: [www.manilawater.com](http://www.manilawater.com)  
Customer Service Hotline 1327

service obligations, the required capital and operating expenses to comply with the service obligations, and tariff impact. A thorough review and various simulations of the cost and tariff implications of a concession term ending in 2037 and an extended term ending in 2047, reveal that a concession period ending in 2037 yields an increase in tariff to at least three (3) times the current level. On the other hand, a concession period of up to 2047 ensures water security for the public at a significantly mitigated tariff.

Based on Manila Water's initial projections and considering the impact of the COVID-19 pandemic and stringent effluent standards introduced by the Department of Environment and Natural Resources through Department Administrative Order Nos. 2016-08 and 2021-19, Manila Water will require capital and operating expenditures of almost PhP600 Billion for 2023 to 2037. This will result in an upward tariff adjustment of 300% of the water bills by the end of 2037 based on the tariff determination formula. On the other hand, if the term of the concession is until 2047, the water bills will be at the same level after twenty five (25) years as Manila Water is allowed to spread out recovery of its capital and operating expenditures for another 10 years.

The table below illustrates the impact on the water bill of a residential customer with an average monthly consumption of around 30 cubic meters. As can be gleaned from the table, if the concession ends in 2037, the same customer would have to pay around PhP1,905.00 (3 times the current monthly water bill of PhP622.00) whereas the customer would only have to pay around PhP1,585.00 in 2037 if the concession period were to be extended to 2047.

	End of Concession (EOC) 2037		EOC 2047		VARIANCE	
	2037	2047	2037	2047	2037	2047
Ave. tariff	78.94	N/A	65.68	80.06	(17%)	N/A
Water Bill	1,905	N/A	1,585	1,932	(17%)	N/A

Given the foregoing, a term extension of ten (10) years will serve public interest and benefit consumers by allowing Manila Water to maintain the tariff at an affordable range throughout the Concession term.

Furthermore, the continued operation of Manila Water through 2047 is vital to the development goals of the country and the United Nations ("UN"). Manila Water's contribution to the UN's Sustainable Development Goal ("SDG") 6 (Clean Water and Sanitation) is made possible by fostering public-private partnerships with local governments, regulators, non-government organizations, and economic zone development authorities to ensure continuous provision of water and wastewater services to customers and communities.

As a champion of SDG 6, Manila Water likewise supports the following SDGs:

- SDG 1 (No Poverty): Ensuring access of the marginalized community to clean, potable water through community development programs;
- SDG 3 (Good health): Maintaining 100% compliance of water quality in accordance with the Philippines National Standards for Drinking Water (PNSDW) by the Department of Health;
- SDG 8 (Decent Work and Economic Growth): Contributing to positive economic growth – 100% local spending; 558 suppliers engaged
- SDG 10 (Reduced Inequalities): Delivering access to water and wastewater services across all levels of the community; Perpetuating a no discrimination culture against anyone's race, gender, religious belief, or any other form of preference;
- SDG 11 (Sustainable Cities and Communities): Building climate-resilient assets to ensure continuous provision of water supply and wastewater services to all customers and communities;
- SDG 12 (Responsible Consumption and Production): Implementing energy efficiency initiatives and using 285,078 kwh of renewable energy to reduce operational expenses and exposure to future fossil fuel and price increases;
- SDG 13 (Climate Action): Reducing carbon emissions due to wastewater treatment and BOD removal by 74,030 tons CO<sub>2</sub> (eq);
- SDG 14 (Life Below Water): Conserving and protecting marine resources through treatment of 74.11 mcm of wastewater, resulting in the diversion of 12,613 tons of organic pollution from waterways; and
- SDG 15 (Life on Land): Maintaining water supply sustainability through the protection of watersheds;

The COVID-19 pandemic has likewise highlighted the critical need for sustainable and reliable water supply and sanitation services. Throughout the pandemic, Manila Water implemented necessary measures for its customers, contractors and employees to comply with the minimum health standards imposed by the government to mitigate the spread of COVID-19.

Indeed, the lawmakers have found it in the public interest to grant a 25-year franchise to Manila Water that runs until 2047 to ensure an uninterrupted and adequate supply, and distribution of potable water for domestic, commercial, and other purposes. Section 1 of Republic Act No. 11601 states:

**“SECTION 1. *Nature and Scope of Franchise.* – Subject to the provisions of the Constitution**



and applicable laws, rules and regulations, there is hereby granted to Manila Water Company, Inc., hereunder referred to as the grantee, its successors or assignees, a franchise to establish, operate, and maintain, for commercial purposes and in the public interest, a waterworks system to ensure an uninterrupted and adequate supply, and distribution of potable water for domestic, commercial, and other purposes, and for the establishment and maintenance of sewerage system in the East Zone Service Area of Metro Manila and the Province of Rizal, under a concession from the Metropolitan Waterworks and Sewerage System (MWSS), or under an appropriate certificate of public convenience and necessity, license, or permit from the Regulatory Office."

Consistent with this, the legislative franchise imposes upon Manila Water a responsibility to the public in providing water supply and sewerage services in a prudent, efficient, and satisfactory manner, and requires Manila Water to improve facilities for the public interest:

*"SEC. 7. Responsibility to the Public. – The grantee, its successors or assignees, shall conform to the ethics of honest enterprise and shall provide water supply and sewerage services to the Franchise Area in a prudent, efficient, and satisfactory manner.*

For the public interest, as far as feasible and whenever required by the Regulatory Office, the grantee shall modify, improve, or change its facilities, pipelines, systems, and equipment for the purpose of providing efficient and reliable service at reasonable costs. The grantee shall charge reasonable and just fees for its services to all types of consumers and water users within its Franchise Area in accordance with Section 8 of this Act. x x x"

It is undoubtedly in the public interest that Manila Water continues to perform its responsibilities to its customers in the East Zone under a concession agreement that runs alongside the term of the legislative franchise. With twenty five (25) years of providing and improving water and wastewater service in the East Zone, Manila Water is best placed to meet the growing demand while maintaining affordable tariffs.

Manila Water believes that it is its obligation to the public to apply for an extension of the CA if the Government's objective of having clean, adequate, and sustainable water for all is to be achieved. We thus respectfully request to extend the term of the CA until 2047.

Thank you very much and we look forward to your favorable consideration of this application.

Very truly yours,

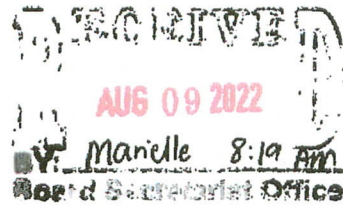
  
J.V. EMMANUEL A. DE DIOS  
President and Chief Executive Officer

Copy furnished:

**MWSS – Board of Trustees**  
5/F MWSS Admin. Bldg.,  
489 Katipunan Ave., Balara, Quezon City

**Atty. Elpidio J. Vega**  
Government Corporate Counsel  
Office of the Government Corporate Counsel

**Atty. Patrick Lester N. Ty**  
Chief Regulator  
MWSS Regulatory Office



08/09/2022  
8:49 AM  
*[Signature]*

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## Submission of MWC Position Paper\_RCA Extension to 2047

1 message

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**MWC LARGO, Elmer** <Elmer.Largo@manilawater.com>

Fri, Aug 25, 2023 at 1:46 PM

To: Central Records Office CRO <CRO@ro.mwss.gov.ph>

Cc: "patrick.ty@ro.mwss.gov.ph" <patrick.ty@ro.mwss.gov.ph>, "MWC CELERA, Kaye G." <kaye.celera@manilawater.com>, "MWC DIMAYMAY, Erika May M." <erika.dimaymay@manilawater.com>, "MWC ICASIANO, Charles A." <charles.icasiano@manilawater.com>, "MWC FRADEJAS, Ruel" <ruel.fradejas@manilawater.com>

Good afternoon,

This is to officially submit Manila Water's position paper relative to its application for the extension of its Revised Concession Agreement up to 2047 in alignment with its franchise.

The following consists the submission:

1. The transmittal letter;
2. The position paper;
3. Letters as annex A.

We will submit the printed copy on Tuesday, 29 August 2023.

Thank you and have a happy long weekend.

Regards,

**Elmer M. Largo**

Head, Technical Regulation Department

Enterprise Regulatory Affairs Group

**MANILA WATER COMPANY, INC.**

MWSS Administration Building, [489 Katipunan Road](#),

1105 Balara, Quezon City, Philippines

■ (63-917) 502 0536

] (632) 917-5900 ext. 1552



**MWC\_Position Paper\_RCA Extension to 2047.pdf**

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