



BAYAWAN WATER DISTRICT

BUSINESS PLAN

Adopted per board resolution no. 067 series of 2021

2022-2026

Abbreviations & Acronyms

BAWAD	-	Bayawan Water District
BOD	-	Board of Directors
BOT	-	Board of Trustees
CAPEX	-	Capital Expenditure
Cu.m	-	Cubic meter
KPI	-	Key Performance Indicator
LGU	-	Local Government Unit
LWUA	-	Local Water Utilities Administration
NRW	-	Non-Revenue Water
O & M	-	Operation & Maintenance
PhP	-	Philippine Peso



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A. Executive Summary

The Bayawan Water District's (BAWAD) Business Plan reflects the goals, targets, activities, projects and programs that will contribute to the significant realization of BAWAD's mission and vision in a prudent and efficient way.

It describes the key focus areas and programs along with the management strategies, objectives and tactics assessed with key performance indicators (KPI) necessary to carry out the policies and strategic direction set forth by the district's top Management and approved by the Board of Directors. Based on a five-year horizon, the Management commits annual initiatives for every goal - target. Consequently the Business Plan is updated annually in accordance with the guiding principles and policies, related planning documents, and an analysis of current business trends. It is also important to note that this Business Plan is cascaded to the lowest level of the organization with due considerations to the needs of its immediate stakeholders.

As the sole provider of water in Bayawan City and its neighbouring municipalities, this Business Plan gives great consideration to the initiatives that address climate change resiliency and water security goals of the Water District in the next five years. Climate change resiliency is given utmost importance as this has posed huge threats to the provision of a basic human right, which is water. Moreso, the majority of BAWAD's source of raw water comes from the upland springs which are highly vulnerable to natural calamities. Water security, on the other hand, is closely related to climate change resilience such that the former could not be assured with threat from climate change left unresolved. As such, the result of the vulnerability assessment conducted plays an important role in framing the goals and the corresponding initiatives and action plans that compose this Business Plan.

Moreover, the recent pandemic highlighted the urgency for water security in the promotion of health and sanitation. To answer this and other future unforeseen financial issues, the Management aggressively incorporated principles and policies that will promote the latter in this Business Plan. This includes improvement of the financial stability of BAWAD through optimized debt management, improvement and security of water infrastructure and technologies, and more importantly securing high water supply reliability. Similarly, other factors like service coverage expansion plans, human resources management and development concerns, and technology advancement are given due considerations.

Finally, to ensure delivery of efficient and the best services to all its stakeholders, present and future financial capabilities of BAWAD including possible partnerships, opportunities for collaboration and external cooperation are considered in this Plan.



Chapter I: Strategic Direction, Mission, Vision Statements

1.1 Strategic Issues, Concerns, and Direction

The Bayawan Water District is committed to satisfying the water needs and requirements of every customer in accordance with the District's vision, mission and core values as an institution.

As a highly service-oriented stem of the government, we aim to maintain high customer satisfaction in the delivery of our services while ensuring the needs and concerns of our stakeholders are top most considerations.

Guided by our vision, our commitment is to become a premiere water utility by:

- Delivering excellent services combined with technological innovations;
- Ensuring a satisfied and enriched customer experience;
- Maintaining a motivated and competent workforce;
- Being an essential partner in the improvement of health and sanitation conditions through the provision of reliable and potable water supply within its service area.
- Responsible use and protection of the natural environment through conservation and sustainable practices.

This document presents Bayawan Water District's five-year plan for the period 2022 to 2026. The strategy represents the first phase in implementing its vision and mission. This sets out the long-term strategic objectives for BAWAD.

The scale of the challenge facing the water district should not be underestimated. The transformation of the delivery of our water services with the expanding service area from 15 to 21 barangays, while reducing costs and improving services is a significant undertaking and will take time. It must be approached on a structured and phased basis over a number of years and will require on-going commitment from Government and all key stakeholders.

Equally, the upgrading and development of existing water treatment plants and new raw water sources, and water network will require a multi-million peso investment programme over many years. There will be no sufficient funding available in the shorter term to deliver everything that is needed. In implementing the capital investment programme, BAWAD will prioritise investment decisions to ensure that it utilises available capital most effectively by making investments that deliver the biggest impact while maximizing value-for-money. To be able to navigate in unforeseen economic crises such as this year's pandemic, BAWAD will implement analysis of revenue and expense trends proactively to anticipate early budget variance and formulate action to ensure financial sustainability compliant to monthly KPI every year.

This document sets out both the key components of the transformation and the key infrastructure improvements that will be delivered under the capital investment programme during the term of this

business plan. BAWAD recognizes that it is on a journey and is fully committed to reducing costs and improving the service delivery model over several business plan cycles to further enhance the utility's efficiency levels.

1.2 Vision and Mission Statements

Major decisions and day – to – day operations of the BAWAD are anchored on its Vision, Mission and the core values that the organization embraces. Specifically, the following are stated accordingly:

Vision:

“Changing People's Lives by Providing Sustainable Potable Water.”

Mission:

“Serve with Expertise and Technological Advancement.”

Core Values:

Commitment

Honesty

Accountability

Teamwork



Chapter II: General Description of the Utility

2.1 Brief History of the Utility

Bayawan Water District is a small water district located 100 km south of Dumaguete city, Negros Oriental Philippines. It has its humble beginnings, from a defunct NAWASA turning into a local Water District by virtue of Presidential Decree No. 198 otherwise known as the Local Water utilities Act of 1973. It was born into a district under SB Resolution No. 79, dated May 26, 1982, by then Honorable Mayor Felix Gudiel, Jr.

A 400 cu. m. reinforced concrete ground reservoir located at Muyao, Banga at elevation 50 meter above sea level was constructed in 1940. About 5,800 lineal meters of 4"Ø C.I. pipes were laid in 1940. A 210 lineal meters 4"Ø G.I. pipe connects the intake dam to the 16 cu. m. auxiliary tank at Manampa watershed.

In 1956, additional transmission of 636 lineal meters 6"Ø C.I. pipes were laid and 490 lineal meters 6"Ø P.E. laid in 1979. In 1980, additional pipes were laid; around 2,366.50 meters 3"Ø G.I. pipes; 486.20 meters 2"Ø G.I. pipes; and 1,292.50 meters 1"-1½"Ø at the distribution area.

The Water System had encountered problems some of which were numerous leaks in its transmission and distribution pipelines and reduction of available water supply at the service area. Also, during heavy rains, Manampa spring is affected by surface run-off, thus making it turbid during these times.

The local Government of Bayawan decided to create a water district under the law of PD 198 to address the meager resources of the government under the able leadership of Honorable Mayor Felix Gaudiel, Jr.

By October 4, 1982, it was formally recognized as a water utility and was correspondingly issued a Conditional Certificate of Conformance No. 221; thus, operating under the rules and regulations of PD 198 otherwise known as the Local Water Utilities Act of 1973. More so, the generosity of the City government of Bayawan through the able leadership of the late Honorable Mayor German P. Saraña, Jr. extended an additional 17 million pesos grant subsidy to BAWAD in 2004.

Through this elegant and generous act of the LGU, BAWAD was able to bring down its water tariff from 148.00 to 100.00 per 10 cubic meter consumption. A staggering 32% reduction in tariff redounds to greater economic benefit to Bayawanons.

In 2012, the BAWAD received a 30 million NLIF-PSF which was converted into a regular Window I loan from Local Water Utilities Administration (LWUA). An 8.5 km transmission pipeline parallel to the existing one was installed. A 3.7 km distribution line was also part of the expansion project to fully serve up to Brgy. Caranoche, Sta Catalina, an Annex municipality.

In 2014 BAWAD implemented its new water rate approved by LWUA from one hundred ninety-eight to two hundred thirty pesos. This is done to answer the debt servicing & capital expenditure of operations and maintenance expenses of the utility.

In 2018 BAWAD was chosen, together with Bogo, Toledo, & Carcar City Water Districts, to engage in a Water Operators' Partnership (WOP) with the Vitens Evides International (VEI) Water for Life Project through Benchmarking and Collective Learning transferring knowledge and experience and sharing visions and perceptions regarding:

- Benchmarking for the participating Water Districts;
- Collective learning;
- Increasing revenues;
- Non-Revenue Water reduction;
- Operation & maintenance;
- Pro poor supply of water and sanitation services;
- Increased reliability of supply;
- Improved water quality;
- Increased customer satisfaction;
- Gender mainstreaming;
- Climate adaptation and future water resources;
- Organization and Human Resources Development;
- Leadership, accountability & benchmarking.
- Research and development (data collection and analysis)

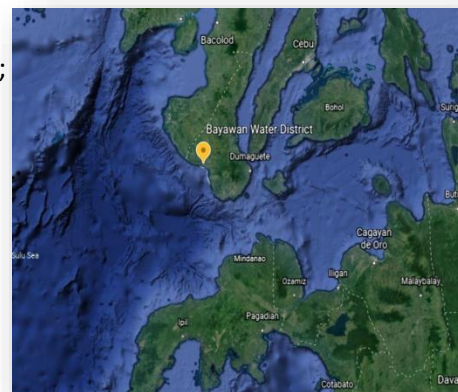


Figure 1. Bayawan Water District Location

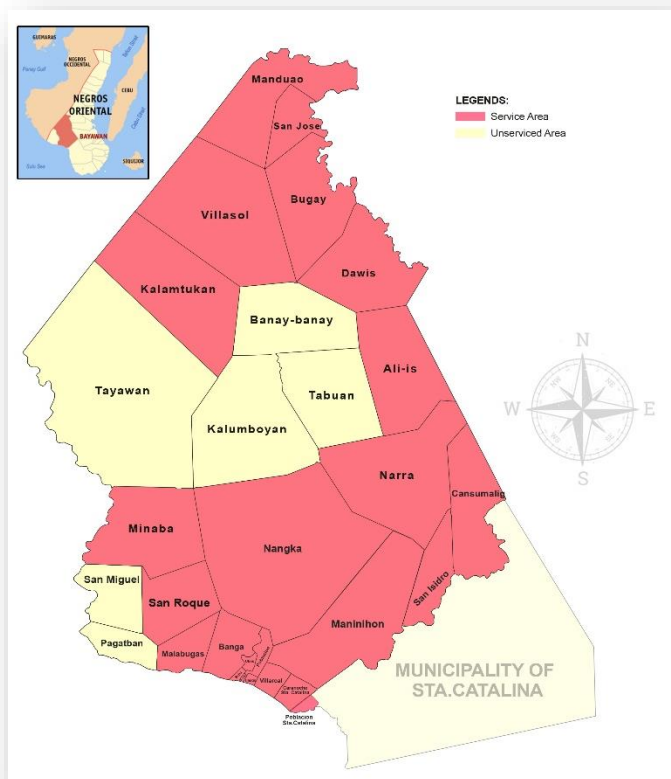
2.2 Franchise Area Profile Information

Bayawan, officially the **City of Bayawan**, or simply **Bayawan City**, is a 2nd class [city](#) in the [province](#) of [Negros Oriental](#), [Philippines](#). According to the 2020 census, it has a population of 125,859 people with an average growth of 1.14% per year. Bayawan City has a land area of 699.08 km², one of the largest in the Visayas. This accounts for 13% of the province's land area. [Mabinay](#) bounds it to the north, [Santa Catalina](#) to the east, [Tanjay City](#) to the southeast, [Basay](#) to the west, and it also shares a boundary with [Kabankalan City](#) of [Negros Occidental](#) on the northwest. The coastline is 15 km west to east, with 7 coastal barangays and 21 hinterland barangays.

Bayawan City is subdivided into three development zones:

The **urban area** constitutes only 2.3% (15.73 km²) of the city's total area and contains the main institutional, commercial and [central business district](#) of the city.

The **sub-urban area** is about 14.7% (102.6 km²) of the total area and is set to contain the agro-industrial zones, industrial zones and human settlements. The existing industrial activity (sugar mills), the



establishment of tourism zones, and the identified industrial zones in the area show the natural pattern of development.

of the city. These growth nodes are singled out due to their strategic geographic location while other rural barangays are mainly agricultural production areas.

Bayawan City is politically subdivided into 28 barangays of which only 8 are urban and the other 20 are hinterland barangays. A Barangay, formerly referred



Figure 2. Negros Oriental Map, Philippines –BAYAWAN

Residential zones are considered in the sub-urban area to provide settlements for the people in the commercial center and in the industrial zones.

The **rural area** accounts for 83.1% of the total land area and is basically agricultural. However, some barangays are identified to contain a high level of commerce, trade and agro-processing industry being the economic growth nodes to as barrio, is the smallest administrative division in the Philippines and is the native Filipino term for a village, district or ward.

According to the City Social Welfare and Development Office (CSWDO) of Bayawan City, 72.64% of the total population are poor. People are considered indigents/poor when income is below Php7,890.00 per month.

Table 1. Income Classes in the Income Distribution, Income Thresholds and Sizes of Income Classes in 2012

<i>Income Class</i>	<i>Definition</i>	<i>Range of Monthly Family Income (for a Family Size of 5 Members)</i>	<i>Size of Class (i.e. Number of Households)</i>
<i>Poor</i>	<i>Per Capita income less than official poverty threshold</i>	<i>Less than Php 7,890 per month</i>	<i>4.2 Million</i>
<i>Low Income (but not poor)</i>	<i>Per capita income between the poverty line and twice the poverty line</i>	<i>Between Php 7,890 to php 15,780 per month</i>	<i>7.1 Million</i>

Note: Author's calculations on data sourced from 2012 Family Income and Expenditure Survey (FIES), Philippine Statistics Authority

The district established two water treatment plants with which the largest is responsible for the water product of the main system. Figure 4 on the other hand presents the schematic diagram of the water treatment process practiced in the district. Production and water quality system processes are shown in the process flowchart attached in appendix __. Product water of BAWAD is intended for household, commercial use, safe for drinking, and meets the standard for Potable Drinking Water of the PNSDW. The district maintains a regular random bacteriological testing and an annual raw water physical and chemical testing done by a DOH accredited laboratory to ensure safe and potable water.



Water from the spring is collected by a spring box, then, monitoring is done for the turbidity and microbial content. It is then transported to the Water Treatment Facility just a few hundred meters away, while coagulant and flocculants is injected, conveyed to the Sedimentation tanks where

settling and pre-chlorination is done. then goes to the filtration bay, to the clearwell for post-chlorination, and inspection for water quality then transported to the softener tank for softening and transported to fill the reservoir 8 km away and to the distribution, service area and consumer tap where random Water Quality monitoring is done.

In the Cambulo Pumping Station water is stored in the dug wells, monitored for water quality, pumped, chlorinated and transported to the reservoir, inspected for residual then to the distribution area and do the random bacte - testing at the consumer's tap.

Today, the average water production is at 320,000 cubic meters per month distributed to consumers through transmission and distribution lines, 133 kilometers long. Majority of BAWAD's income is generated from residential connections amounting to almost 75% of the total revenue as shown in Table 2 below.

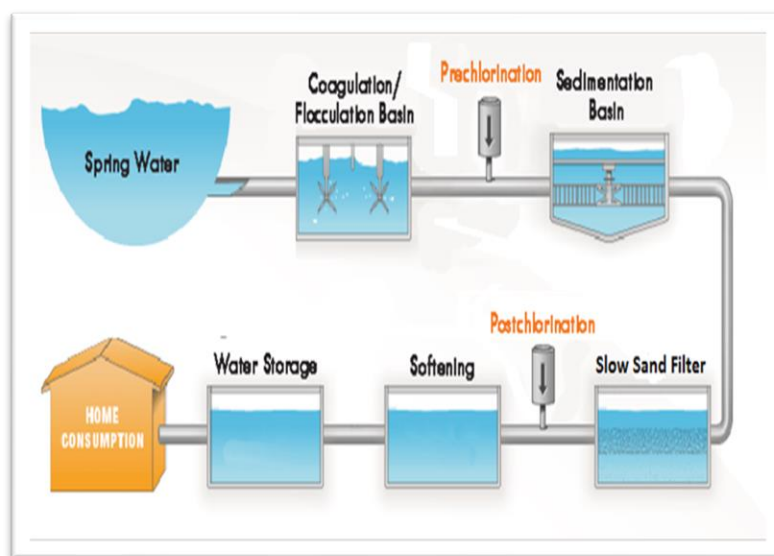


Figure 4. Water Treatment Schematic Diagram

Table 2. Total Water Sales of BAWAD for the year 2020

Consumer Classification	Year-End Number of Connection	Average Number of Connections	Total Billed Consumption	Gross Water Sales (Php)	Effective Water Sales/Total Billed (Php/m ³)
Domestic (Residential)	8,478	7,897	1,351,903	39,326,192	29.09
Government/Institutional	103	101	98,048	4,410,168	44.98
Full Commercial/Industrial	142	131	80,240	5,511,553	68.69
Commercial A	275	264	44,431	2,656,325	59.79
Commercial B	25	24	2,040	113,177	55.48
Commercial C	47	50	10,863	47,784	4.40
Total	9,070	8,465	1,587,525	52,065,199	32.80

2.3 Key Statistical Performance Information

While Bayawan is in the fortunate position of having a plentiful supply of fresh water, it cannot be complacent in its management. It has been proactively addressing future water demands as the city is still growing and is gearing towards commercialization. Bayawan Water District's efficiency in delivering water service to its stakeholders is monitored by the LWUA by assessing the agency with regards to KPIs pertaining to its finances and deliverables. The agency has been consistently compliant for LWUA's operational standards for four consecutive years (2017 to 2020). Table 3 shows BAWAD's KPI four-year compliance showing a robust corporate health.

Table 3. BAWAD KPI Compliance for 2017 to 2020

Indicator	2017	2018	2019	2020	Standard	Remarks
Non-Revenue Water (NRW)	23.81%	21.52%	18.80%	22.8 %	≤30%	Compliant
Collection Efficiency	98%	95.50%	95.20%	95.90%	90%	Compliant
Market Growth	700	894	2,737	900	Annual Target	Compliant
CAPEX	3.1M	4.4M	8.3M	5.1M		Compliant
Water Quality	100%	100%	100%	100%	PNSDW	Compliant
Current Ratio	1.74:1	1.60:1	1.50:1	2.45:1	1.50:1	Compliant
Net Income	4.3M	20.9M	6.6M	9.5M	Positive Income	Compliant
Staff Productivity Index	1:241	1:283	1:209	1:193	1:120	Compliant
Water Service	100%	100%	100%	100%	100%HH	Compliant

Source: BAWAD Monthly Data Sheet 2017-2020

Even though faced with the adversity brought about by the pandemic, BAWAD was able to navigate smoothly, hitting all the targeted KPIs for the year, following a prudent and conservative approach to financing and operations. It's Total Asset increased to P99,615,494.92 million pesos from only P1,786,986.42 million pesos in Year 2000.

2.4 Corporate Governance Structure

The district has forty-seven regular personnel and twenty-two Job Orders serving 9,070 active connections at almost 45,350 over a total of 125,859 (NSO census 2020) population representing about 36% of the total estimated population of the whole city of Bayawan. The district has been re-categorized under Category C in Year 2012 pursuant to the revised Local Water District Manual on Categorization, Re-Categorization and Other related matters (LWD MACRO). Below, is the existing organizational structure of Bayawan Water District as approved by the Department of Budget and Management (DBM).

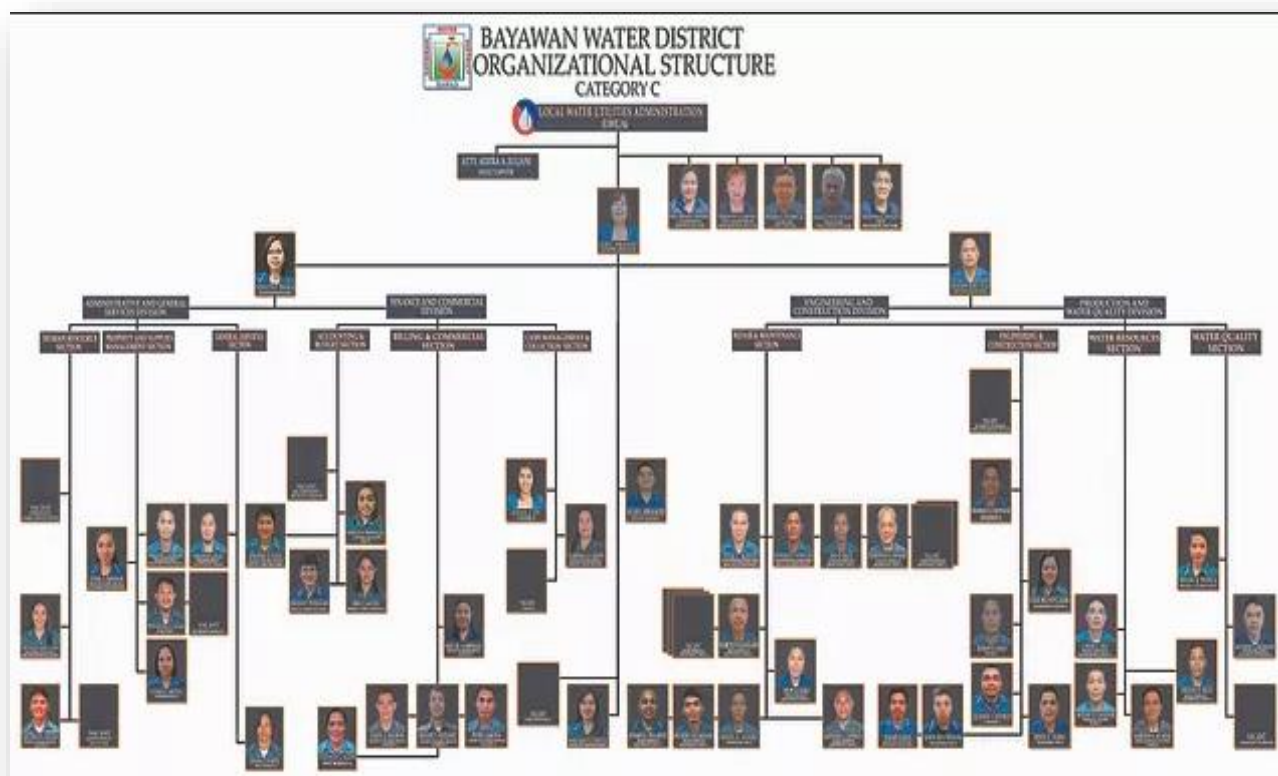


Figure 3. BAWAD Organizational Structure

Chapter III. Assessment of Current Conditions and Priority Issues

The Bayawan Water District prides itself on being collaborative and is always looking for ways to innovate and improve. Performing a SWOT Analysis is a strategic way our water operations can breakdown and identifies its strengths and weaknesses and look closely at opportunities and threats to provide a blueprint for BAWAD to work from.

A SWOT Analysis isolates specific items that can be continued with, improved upon, discarded of, or implemented on an organization wide scale. Identifying these items aids in the growth of the water operations and allows us to look at all available options for systems improvements. Internal and external SWOT analysis performed by the BAWAD Business Plan Core Group reflects the areas where water operational opportunities should be prioritized going forward. Figure 5 is the SWOT Matrix of the Business Plan Core Group.

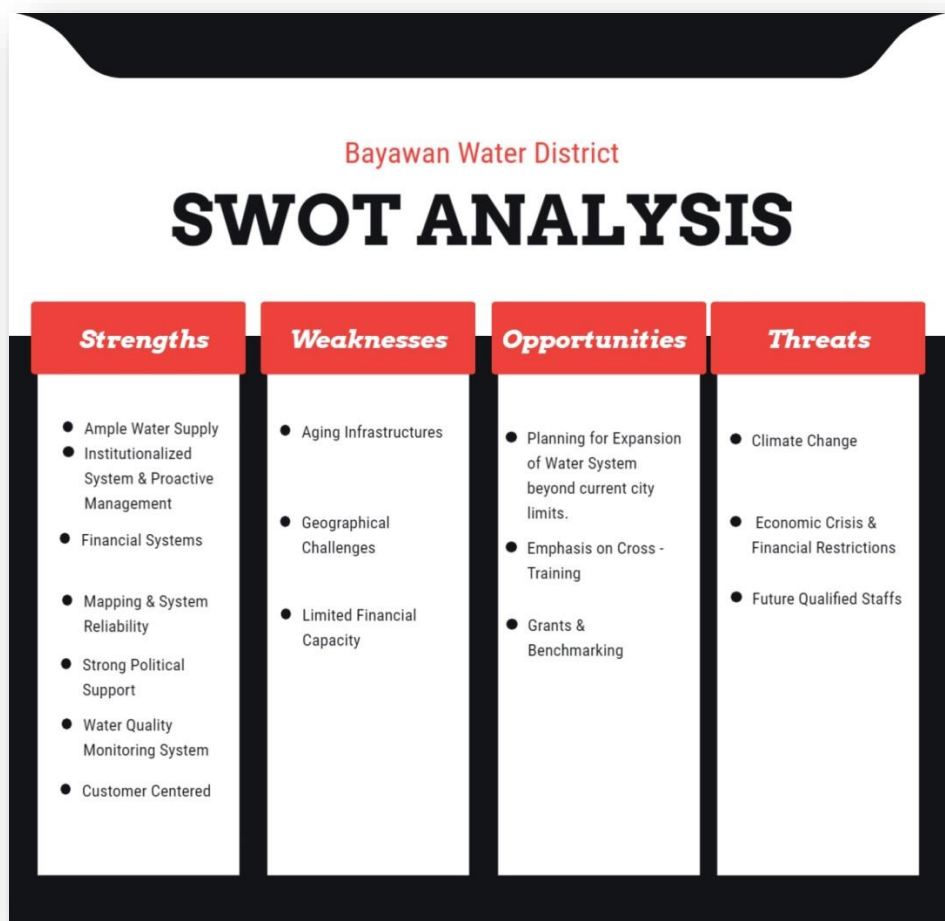


Figure 5. BAWAD SWOT Matrix

3.1 Strengths

BAWAD's current strengths put itself in a position that will allow for continued growth and stability. These strengths improve business practices, customer service satisfaction, community collaboration, and stable water costs that provide high value.

3.1.1 Ample Water Supply

Bayawan City is rich with natural springs and rivers. The current average water production is at 320,000 cubic meters per month in which it is only 50% of the total production capacity of the treatment plant. Because of this, BAWAD's water customers have the assurance that they will have water readily available that is safe and reliable.

3.1.2 Institutionalized Systems and Proactive Management

BAWAD takes pride in having a proactive management which is results-driven, assertive and collaborative to its every employee with a very efficient institutionalized system that promotes well-defined procedures, laws, and regulations in the performance and delivery of its mandate. As a result, BAWAD garnered a number of awards both local and national for achieving high service efficiency and class. As a matter of fact, BAWAD recently garnered the PRIME HRM Bronze award, the first water district in Negros islands to achieve such distinction and category, for satisfactorily complying with the PRIME HRM requisites from the Civil Service Commission. Furthermore, BAWAD is a consistent recipient of Performance Based Bonus (PBB) for four consecutive (2017-2020) an incentive given to a government agency that showed exemplary performance in their mandate and satisfactorily achieved targets for a year.

3.1.3 Mapping and System Reliability

BAWAD's access to accurate geographic information systems (GIS) through GeoNobel GIS Systems aids in the water delivery system to ensure that customers get their water in a reliable way. Integrated in the system are a few very efficient programs and systems utilized by the district such as the asset inventory, customer geographic locations, and pipeline hydraulic analysis. Having this software capabilities allows for the water utility to monitor and maintain the water infrastructure to safeguard the water delivery system and give our water utility staff the necessary information to address any problems that may arise in the water infrastructure.

3.1.4 Financial Systems

The water district takes pride in having excellent ratings in KPIs monitored and assessed by LWUA. The efficient financial systems proved, conforming to government's laws and regulations, to have resulted in the agency's high collection efficiency, compliant audit by COA, PBB awardee, and having good financial standing in terms of debt payments.

3.1.5 Strong Political Support

Together with the Local Government Unit of Bayawan City, BAWAD was able to expand its services to more hinterland barangays of the city. A memorandum of agreement was set forth between the two agencies giving the BAWAD full control of turned-over barangay water systems with the improvement and maintenance successfully conforming to the standards set by LWUA. Water projects funded by the LGU are now directly implemented by the agency ensuring sustainability and water security for more Bayawanons.

3.1.6 Water Quality Monitoring System

The provision of in-house laboratory coupled with systemized water monitoring protocols assures real-time monitoring of the water quality. Daily assessment of water quality parameters is conducted in conjunction with monthly bacteriological testing and annual physical and chemical testing in DOH accredited laboratories to ensure that safe and potable water is supplied to all its concessionaires.

3.1.7 Customer Centered

Being a service oriented organization and the lifeline of the utility, customers are given the utmost priority. BAWAD continually innovates to improve customer experience in the delivery of our services. The utilization of the Water Billing & Collection System (WBCS) allowed the customer to know their bills real time in the comforts of their home. Water Bills together with the payment schedules are texted directly to the registered mobile number of the concessionaire.

3.2 Weaknesses

Identifying our weaknesses is crucial to the implementation of this business plan as it allows BAWAD to take in constructive criticism of our operations that need improvement or potential future vulnerabilities. Through self-critique and community input the weaknesses underscore the importance of developing a strategic approach to improving the services delivered to our customers.

3.2.1 Aging Water Infrastructure

Infrastructure ages and with that comes the need to plan for future investment to replace and update our existing infrastructure and continue providing customers with high quality service. Investing in infrastructure such as new wells and water mains will be crucial in assuring that the water delivery system maintains its quality of product and delivery.

3.2.2 Geographical Challenges

Because of the geographical make-up of Bayawan City there are challenges to maintain quality service. Specifically, topographical challenges make it difficult to get water to customers in higher elevated areas. The large land area of the city also makes planning for future capital

investments challenging because of the need to invest more in infrastructure that can handle the needs of customers.

3.2.3 Limited Financial Capacity

Operating a public utility, that is solely dependent on the water sales to fund operations and capital expenditures, results in a huge financial challenge heightened by external economic conditions and financial restrictions. The BAWAD, like all the water districts in the country, does not receive any subsidy of any form from either the National or the Local Government.

3.3 Opportunities

Creating opportunities to innovate and advance the delivery of water to our customers. Staff continually formulate plans and strive to maintain the best service for our customers. Opportunities that enhance the customer experience are at the forefront of the decisions made every day at BAWAD.

3.3.1 Planning for Expansion of the Water System Beyond Current City Limits

Expansion of the water system beyond City limits is a potential opportunity to capitalize on a growing customer base for BAWAD. By planning for expansion of the water system, BAWAD is committing to growing its customer base and showing the commitment to innovate.

3.3.2 Emphasis on Cross Training

To ensure that the water utility staff has the capabilities of taking on multiple facets of the organization, it is important to emphasize cross training between members of the water utility staff to get the most out of employees. Cross training allows all members of the organization to be well versed in the diverse array of duties within the water utility. Cross training also aids in getting employees the necessary training to potentially move up in the organization.

3.3.3 Partnerships, Grants & Benchmarking

Opportunities for partnerships, grants & benchmarking with the local and international partners, organizations, and specialists for the improvement of water systems will catapult the utility's capabilities and efficiency.



3.4 Threats

Threats to our water operations on a safety, administrative, and systematic scale are always present and identifying these threats and knowing how to react to them is a priority. Having a grasp on how our water operations could be threatened or compromised can better prepare BAWAD to become more resilient in its preparations withstanding those threats. The following were considered threats to BAWAD:

3.4.1 Climate Change

Climate change has brought with it extreme weather events. BAWAD experienced a number of infrastructural devastation brought about by extreme flooding due to prolong rains and typhoons. Long spells of drought impacts the security of water supplies while frequent and more intense storm events increase water contamination through river run-offs.

3.4.2 Economic Crisis & Financial Restrictions

Economic crisis can have devastating effects on water utilities. Crises such as the recent pandemic resulted to economic recession tightening credit conditions, slower demand, and general fear and uncertainty.

3.4.3 Future Qualified Staff

Changes occurring in the sources of human capital today are becoming riskier. Aside from the aging workforce, poaching of young and highly skilled professionals as well as recruitment of qualified entry level positions poses a threat to the utility.

Based on the SWOT analysis conducted five priority issues were given the highest considerations in relation to the water district's financial capacity, practicability and urgency.

3.5 Priority Issues and Problems

3.5.1 Water Supply Reliability

Water Supply Reliability is defined by Uri Shamir in terms of the shortages that result from failures of a system's physical components. This includes the water network, facilities, storage, pumping capacity and pipelines. The extreme hardness of raw water source in Bayawan made it extensively difficult to totally decrease the hardness of product water. Though it passed the PNSDW standards, it still dwells in the high borderline. Depositions of calcium carbonates salts in ten-year old pipelines consequently impede water flow and decrease water pressure in some service areas. Furthermore, concerns for Non-Revenue Water management, targeted infrastructural improvements, water storage, additional source explorations as well as improvement in water quality are addressed.

3.5.2 Economic Crisis and Other Unforeseen Financial Conditions

The COVID-19 pandemic highlighted the importance of water security as well as vulnerability of the water district in terms of its financial capacities in navigating such unforeseen financial conditions. Operating a public utility, that is solely dependent on the water sales to fund operations and capital expenditures, result in a huge financial challenge heightened by such conditions.

3.5.3 Workforce Management

Aging workforce and the rise of the millennial generation to the working pool entails a different approach to management. Human resource, being the heart of the organization, requires priority in terms of employee engagement, motivation and development.

3.5.4 Unavailability of Online Payment Facility for Customers

Customers are the lifeline of any water district thus their satisfaction is crucial in achieving the vision of the agency. Moving towards digitalization, the unavailability of online payment facility for BAWAD customers is seen as one of the top priorities that need to be addressed. Heightened by the course of the pandemic, development of such will entail greater security not only for the customers but for the BAWAD employees as well.

3.5.5 Climate Change

Climate change has brought with it extreme weather events. Long spells of drought impacts the security of water supplies while frequent and more intense storm events increase water contamination through river run-offs. This both result in direct impacts in the form of disruption to continuity and quality of water services that customers have come to expect.



Chapter IV: Strategic Goals

The Bayawan Water District Business Plan sets out the strategic direction of the agency for a five year horizon. The strategic goals are jointly agreed by both the Policy Making - body (Board of Directors) and the Executive body (Management). The new Business Plan is framed for the period 2022 until 2026. BAWAD's strategic plan contains five strategic goals. Figure 6 provides a high level summary of the specific strategic plan and answers a priority issues identified.

PRIORITY ISSUE	VS	STRATEGIC GOAL STATEMENT
Water supply reliability		Assess Current Water Supply Reliability, Demand Trends, Draft and Implement of Water District's Water Supply Management Strategy that reflects 5% improvement in current water supply reliability in terms of quality, quantity and efficiency by the end of 2025.
Economic crisis & Other Unforeseen Financial Conditions		Analyze Revenue and Expense trends proactively to anticipate early budget variance and formulate action to ensure financial sustainability compliant to monthly KPI by the end of 2021
Workforce Management		Increase Personnel Engagement by the Creation and Implementation of Workforce Management Plan tailored to different age groups in the company achieving at least 75% workforce satisfaction and efficiency by the end of 2021.
Unavailability of Online Payment Facility for Customers		Provide Online Channels for Payments by 2021 and Track Customer Response resulting in 1% increase of on-time payments.
Climate Change/Natural and Human-induced Calamities		Restructure and Improvement of one Water Resource Facility annually to be resilient in this Changing Environment within the next 5 years.

Figure 6. BAWAD Strategic Goal Statement

Success of each strategic goal is indicated and measured by specific quantitative targets. To ensure attainment of these targets, the Strategic Goals are then cascaded to two Divisions and down to the rank & file for tactical planning.

Strategic Goals 1 and 2 top the list of goals of the District. These are aimed at satisfying water security and reliability for which satisfies BAWAD's customers. This is a top priority, being a public utility, BAWAD is mandated to provide a basic need of the community, which is potable and sustainable water services.

Strategic Goal 3 answers the need for an efficient and more importantly engaged workforce while **Strategic Goal 4** targets improvement in customer's convenience to which both ultimately result in customer satisfaction.

Strategic Goal 5 addresses the improvement and resiliency of the water resource facility of BAWAD to the changing environment brought about by climate change.

Chapter V: Performance Improvement Programs

As the Management identified the priority issues and formulated the strategic goals for each issue, the Management then now translated each issue into a set of concrete and measurable actions to achieve each of the strategic goals.

Priority issue number one (1) is aimed at satisfying the public who are clients of the Bayawan Water District. This being a public utility is mandated to provide a basic need of the society, which are potable water services. It has six (6) specific actions which will be implemented by the Engineering, Construction, Production and Water Quality Division. The action plans include the implementation of the Bayawan Water Supply Improvement Project; Condemning of old G.I. pipeline within the path of newly pipelayed one-hundred million Water Supply Project; Exploration and source development in Sta. Catalina; Rehabilitation of existing transmission and distribution main junction; DOH accreditation of the water laboratory; and lastly, exploration and source development in Brgy. Nangka Area.

Priority issue number two (2) is aimed for the financial sustainability of the Bayawan Water District to elude the hampering of operations even during an economic crisis. It also has six (6) specific actions which will be implemented by the Finance and Commercial Division. The action plans include preparation of monthly schedule of payables and prioritize obligations according to operational needs; Increase cash reserves to 5% of the Total Annual Water Sales; Collection Efficiency pegged to 95% thru field collections for hinterlands; Strict adherence to collection and disconnection policies; Assessment and development of strategy for long -term financial sustainability; Lastly, full optimization of available assets, inventories, and supplies.

Priority issue number three (3) aims to optimize the productivity of Bayawan Water District's employees and to lessen the turn-over rate of millennial employees. It has seven (7) specific actions which will be implemented by the Administrative Division. The action plans include implementation of Annual Learning and Development Plan; Develop and implement Wellness Initiatives to improve health and wellness of employees thru Monthly Health Monitoring, Zumba Activity, Sports Fest, Fun Run and the likes; Development of Communication Plan and implementation of additional communication channels to address the changing dynamics of workforce.

Furthermore, priority issue number 3 is addressed by strengthening leadership capabilities and capacity to encourage performance excellence and productivity through proper training and continuing education; Development of organization-wide mentoring program designed to empower early and mid-career professionals, increase diversity, attract high performing employees and foster a culture continuous learning and knowledge transfer; enrolment of six employees in the supervisory training provided by the Civil Service Commission; and finally, achieve and maintain employee turnover rate of six percent or less, factoring out retirements, for employees meeting or exceeding overall performance standards each year.

Priority issue number four (4) aims to increase 1% of on-time payments which will result in higher collection efficiency. It has two (2) specific actions which will be implemented by the Commercial Division. The action plans include the Integration of the current water billing and collection system with online payment services and to track significant increase in the collection efficiency through the employment of digitized customer survey.

Lastly, **priority issue number five (5)** targets to protect our natural resources most especially where we get our water supply. It has seven (7) specific actions which will be spearheaded by the General Manager herself. The action plans include collate rainfall and drought data for the past 5 years as basis for restructuring; Measure Water Source Flow Rates on wet and dry season; Installation of perimeter fence (Electrical) and locked gates. Put Signages to inform illegal human activities; To spearhead the declaration and delineation of water production areas for tree planting and preservation of its natural cover; Work closely with local communities for concerted efforts on environment activities; Connect with other agencies/funding institutions to help in environmental initiatives; and create new position for watershed management section.

Chapter VI: Billed Volume and Sales Forecast

Efficient water supply and water demand management is important for the utility in its efforts to reduce the volume of water losses (cost savings) and increase the volume of water sold (revenues). The consumption pattern in BAWAD per connection over the years shows a stationary trend or behaviour. At the outset and from the point of view of climate change, this can be favourable. However, this stationary trend may not be advantageous to the district for it will limit its potential growth. As we review the Non-Revenue Water (NRW) there was steady decrease from 2017 to 2019 however there is a slight increase in 2020 due to pipe destruction caused by active road expansion and development in the city. The 100 million LWUA-ADB loan recently granted for water supply improvement is expected to answer the increasing demands for water and improvement of the NRW of the utility. A detailed water sales forecast can be viewed in Appendix A.

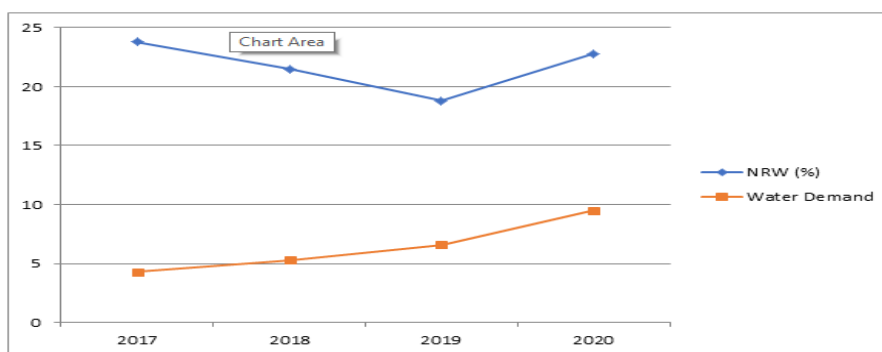


Figure 7: NRW and Water Demand for 2017-2020



Figure 8: BAWAD's 5-Years Sales & Demand Forecast

Chapter VII: Operations and Maintenance Expense Forecast

Operations and Maintenance Budget Forecast shows the detailed expenditure plan on how to distribute each operational expenses of the Water District. This also serves as a tool for the monitoring of all the expenses made during the calendar year. The projection is very essential for the budgeting process because this serves as a guide. As shown in the detailed operations and expenses historical in Appendix D, data shows that there is an increasing trend of the expenses which are directly attributable to the production. Since the past five (5) years, there have been additional water systems installed by the Water District to meet the increasing water demand.

Table 4. Operations & Maintenance Expense Forecast

Year	Projected Active Connections	Projected Operations & Maintenance Expense (Php)
2020	8,645	20,314,773
2021	9,822	24,648,512
2022	11,074	29,281,491
2023	11,824	38,415,572
2024	12,322	43,020,310
2025	12,824	48,589,796

The figures show that there is a direct relationship between the number of active connections and the expenses attributable to the water production considering all other factors are held constant. Based on the 2015 Census, there is 0.63% increase of the population in the City of Bayawan. Considering this factor, there is a need for the Water District to increase its production capacity to meet the demand for the next 5 years.

Chapter VIII: Debt Service Schedule

Bayawan Water District has existing loans from Local Water Utilities Administration (LWUA), Landbank of the Philippines and National Housing Authority. A 30 million ICG loan from LWUA was granted in October 2018 with a term of 172 months which was used for the Water Quality Improvement Project. A newly granted 100 million LWUA-ADB loan with a term of 20 years to be used for the Water Supply Improvement Project for Bayawan-Sta. Catalina water service expansion.

The Landbank Loan of 5 million will mature by the end of the 3rd Quarter of 2021. The 2.5 million loan with NHA was used for the expansion of Omod-Maninohon Water System which will be fully paid by the year 2022. Summarized in table 5 is the debt service schedule of the utility.

Table 5. BAWAD Debt Service Schedule

DEBT SERVICE ON EXISTING LOANS and ONGOING PROJECTS (Loans From LWUA & Other Lenders)								
Description	Year 2020 Base Year	2021	2022	2023	2024	2025	2026	TOTAL 2021 to 2026
	(PhP)	(PhP)	(PhP)	(PhP)	(PhP)	(PhP)	(PhP)	(PhP)
A. Existing Loans								
Annual Loan Amortization (on Loans from LWUA)	2,861,100	2,861,100	2,861,100	2,861,100	2,861,100	2,861,100	2,861,100	17,166,600
Annual Loan Amortization (on Loans from Outside LWUA)	1,224,868	1,224,868	83,568	-	-	-	-	1,308,436
Arrears Payment, if any (on Loans from LWUA)								-
Arrears Payment, if any (on Loans from outside LWUA)								-
Sub-Total	4,085,968	4,085,968	2,944,668	2,861,100	2,861,100	2,861,100	2,861,100	18,475,036
B. Loans for On-going Projects								
Amortization : Loan for the Expansion of Water Service in Sta. Catalina Project			7,396,880	7,396,880	7,396,880	7,396,880	7,396,880	36,984,400
Amortization : Loan for the 0 Project								-
Amortization : Loan for the 0 Project								-
Amortization : Loan for the 0 Project								-
Sub-Total		-	7,396,880	7,396,880	7,396,880	7,396,880	7,396,880	36,984,400
Total Payments on Existing Loans	4,085,968	4,085,968	10,341,548	10,257,980	10,257,980	10,257,980	10,257,980	55,459,436

Chapter IX: Capital Expenditure Forecast (CAPEX)

Capital Expenditure (CAPEX) of the district focuses on the acquisition of additional assets that would greatly help the organization achieve its 5 year goal to improve the water reliability by 5 percent in terms of quantity, quality and efficiency.

In this current year, we expect our Bayawan Water Supply Improvement project, funded by LWUA in the approved amount of 100 million and being implemented by our contractor, will give a significant improvement of our current condition in terms of water reliability in all target aspects;

- **Quantity** - it brings a construction of a 90 lps water treatment facility to be constructed in Manampa, Pagatban. This improvement will enable us to maximize our production capacity to 150 lps utilizing our existing slow sand filtration system as an additional.
- **Quality** - The 90 lps water treatment facility that includes rapid sand filters and softeners system will enable us to further improve the water quality we serve by lowering turbidity and hardness to beyond acceptable levels in PNSDW.
- **Efficiency** - The various transmission and distribution pipe laying of the project allow us to expand to neighbouring areas and able us to replace old dilapidated pipelines that contributes to higher NRW and contaminate water quality. Also, this reduces residual or working pressure during off peak hours due to the two big reservoirs build by the project (1000 cu.m. Beside BAWAD office and 500 cu.m in Brgy. Caranoche) being filled up at this time and is released during peak hour to meet higher water demand.

This major capital expenditure of the district in the year 2021 enables us to expand, reach unserved areas, serve more people and improve our existing assets. With our intention to sustain water reliability until 2025 and beyond, we planned various additional programs that will address challenges brought by the rising water demand of our areas of coverage, these includes;

1. Investment to condemn the old dilapidated pipeline and tapping to existing mainline of the newly pipelayed pipes of the Bayawan water supply project to improve revenue water.
2. Source exploration and development in the municipality Santa Catalina to supply the area and improve water supply for Bayawan city.
3. Rehabilitation if existing transmission and distribution main junctions thus increase carrying capacity of our pipelines.
4. Accreditation of existing water laboratory who will conduct daily monitoring of the water district's water supply.
5. Source Development in Brgy. Nangka Bayawan City to improve water reserve.
6. Improvement of the Manampa transmission pipeline to Bayawan City in order to fully maximize Manampa Water Treatment Plant capacity to meet future water demands.

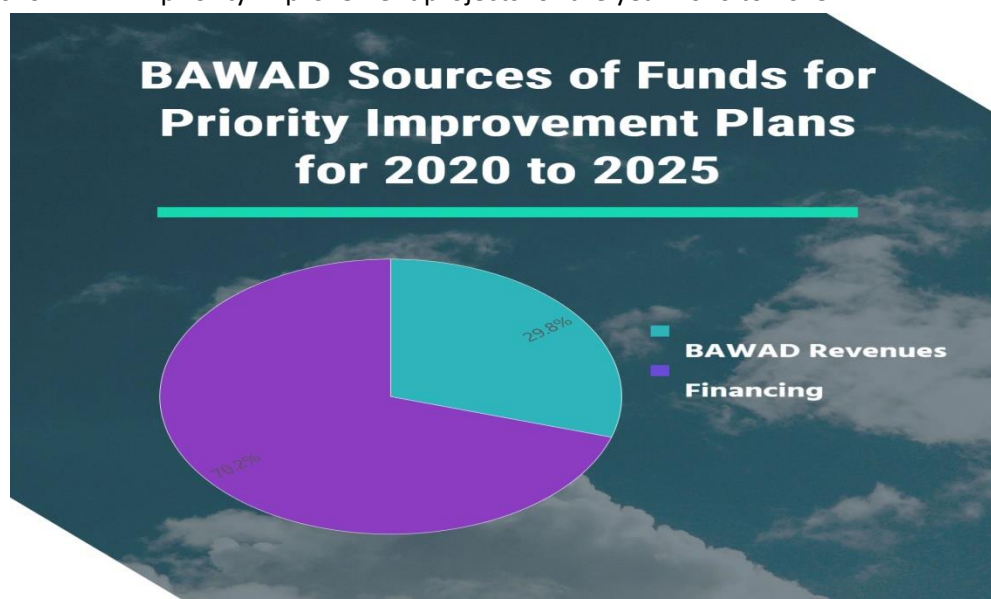
Table 6 summarizes the BAWAD CAPEX five year forecast.

Table 6. BAWAD's Five-Year Capital Expenditure Forecast

Plan/Program/Activities	Amount (Php)	Year of Implementation
1. Implementation of the Bayawan Water Supply Improvement Project	87,000,000	2022
2. Condemn Old G.I. Pipeline within the path of newly pipelayed 100 Million Water Supply Project	207,532	2023
3. Exploration and Source Development in Sta. Catalina	4,650,000	2023
4. Rehabilitation of Existing Transmission and Distribution Main Junction	1,500,000	2020
5. DOH Accreditation of Water Laboratory	350,000	2023
6. Exploration and Source Development in Brgy. Nangka Area	5,000,000	2023
7.Full Optimization of available Asset/Inventories/Supplies	400,000	2022
8.Integration of the current water billing and collection system with online payment services	200,000	2022
9. Measure Water Source Flowrates on wet and dry season	2,275,000	2024
10. Install Perimeter Fence (Electrical) and Locked Gates. Put Signages to inform illegal human activities	1,000,000	2024
11. Other Capital Expenditures	24,000,000	2022
TOTAL	126,582,532	

Chapter X: Sources of Funds

BAWAD, a self-sustaining agency, prepares and implements budget on an annual basis based on its revenues projected and generated during the year. Primary source of which comes from the water sales. Secondary income source comes from other water revenues like new connection fees, reconnection and the like. Financial requirements of the district include Personal Services, Operating and Maintenance Expenses, Debt service, Capital Expenditures and Reserves. Major projects are funded through loan borrowings from LWUA and other government banks. Figure 8 shows the sources of funds for BAWAD priority improvement projects for the year 2020 to 2025.

**Figure 8:** BAWAD's 5-Year Sources of Funds for Priority Improvement Plans

Chapter XI: Revenue Needs

The water district prepares and implements its budget annually based on the projected revenue generated each year. Given the strong regulation in the utility industry, it is important to consider rational investment decisions based on avoided cost or expected gain. Revenue Needs is an important projection so that the district must know how much revenue should be generated each year to compensate the operating expenditures incurred in the same year and to ensure continuous operation of the district.

Table 7. BAWAD's Five-Year Revenue Needs Forecast

	Base Year		Business Plan Period : 2022 - 2026				
Description	Year 2020 (PhP)	Year 2021 (PhP)	Year 2022 (PhP)	Year 2023 (PhP)	Year 2024 (PhP)	Year 2025 (PhP)	Year 2026 (PhP)
Total O&M Budget							
Salaries and Wages	14,613,323	17,370,998	19,963,684	27,093,572	29,571,207	32,621,908	36,729,124
Power and Fuel	3,777,916	4,456,089	5,705,332	6,932,509	8,234,942	9,777,205	11,600,974
Chemicals	1,923,534	2,821,485	3,612,474	4,389,492	5,214,160	6,190,683	7,345,448
Other O&M (Fixed)	17,502,005	17,677,025	17,871,472	18,087,717	18,328,465	18,596,812	18,896,315
Other O&M (Variable)	3,333,715	3,895,700	4,436,203	4,788,754	5,050,830	5,326,567	5,617,380
Purchased Water	0	0	0	0	0	0	0
(1) Total O & M Budget	41,150,493	46,221,297	51,589,166	61,292,043	66,399,604	72,513,174	80,189,241
Debt Service							
Amortization on Existing Loans	4,085,968	4,085,968	2,944,668	2,861,100	2,861,100	2,861,100	2,861,100
Payments of Arrears on Existing Loans	0	0	0	0	0	0	0
Payments on New Loans (Interest & Principal)	0	0	0	0	0	2,239,363	4,478,725
(2) Total Debt Service	4,085,968	4,085,968	2,944,668	2,861,100	2,861,100	5,100,463	7,339,825
Sources of Capital Investment Program							
Financed by ICG and Reserves Funds	7,864,804	8,693,300	6,955,000	3,157,703	5,032,500	5,325,550	5,655,000
Financed by Loan Funds	0	21,750,000	124,245,000	26,619,329	2,092,500	1,129,950	0
Financed by Grant/Subsidy Funds	1,526,996	0	0	0	0	0	0
Total Capital Investments	6,925,088	30,443,300	131,200,000	29,777,032	7,125,000	6,455,500	5,655,000
(3) Capital Investments -net of Loans/Grants	-1,526,996	8,693,300	6,955,000	3,157,703	5,032,500	5,325,550	5,655,000
(4) Other Payables							
to Customers' Deposits and Suppliers	10,060,709	0	0	0	0	0	0
Reserves							

(5) (3% of Water Sales)	1,612,031	1,759,523	2,057,262	2,291,786	2,498,855	2,721,665	2,961,109
Franchise Tax							
(6) (2% of Water Sales, if applicable)	639,677	1,173,015	1,371,508	1,527,857	1,665,903	1,814,443	1,974,073
Subsidies (deduction)							
(7) Subsidies from Government	2,966,701	-	-	-	-	-	-
Total Revenue Needs (1+2+3+4+5+6-7)	53,055,180	61,933,104	64,917,605	71,130,489	78,457,963	87,475,295	98,119,248

The water district is currently expanding its services to its nearby town of Sta. Catalina. Currently, there is an additional debt service for the new 100 million LWUA-ADB Loan to finance the expansion. There is a significant increase of Debt Service for the year 2022 to pay-off the new loan based on the Table 7. There is also a 20% increase of salaries and wages for the year 2023 taken into account the categorization B of the district.

Chapter XII: Tariff Setting

Pricing water fairly and equally is important to sustain and extend the water and sanitation system. Tariff goal should include financial sustainability; promote economic efficiency and distributive justice and more importantly fair pricing. Tariffs are based on levels of service established in consultation with customers and/or their representative bodies. The proposed tariff should be sufficient to provide the agreed levels of service, such as number of hours of service, water quality, NRW percentage, service coverage and pressure at which the service is provided. The last rate adjustment approved by LWUA in BAWAD was in the year 2016 per BOT Board Resolution No. 21 where it was raised from one hundred ninety-eight to two hundred thirty pesos. Basing on the projected Revenue Needs and Water Sales Forecast, a conservative tariff will suffice the needed revenues that the water district needs to be financially and commercially self-sustaining as shown in the Appendix F for Tariff Setting. No further rate adjustment will be needed for the next five years.

Approved LWUA BOT Board Resolution No. 21 as BAWAD Water Rates	
Minimum Charge (0 – 10 cu.m)	230.00
11 -20 cu.m (P/cu.m)	28.20
21 – 30 cu.m (P/cu.m)	33.90
31-40 cu.m (P/cu.m)	39.80
41 up cu.m (P/cu.m)	45.80

Chapter XIII: Summary and Projected Cashflow

13.1 Cashflow Projection

Cashflow projection is vital in every organization to identify potential shortfalls in cash. It is essential to forecast what is happening in the income line to ensure the business has adequate cash flow to survive.

Table 8. BAWAD's Projected Cashflow

	Base Year	PLANNING PERIOD (2021 to 2026)					
	Year 2020	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
BASIC PROJECTIONS							
Year-End Connections	9,070	10,571	11,573	12,071	12,569	13,076	13,579
Mid-Year Connections	8,518	9,822	11,074	11,824	12,322	12,824	13,329
Market Growth/Year	1,331	1,501	1,002	498	498	507	503
Served Population (Mid-Year)	39,765	46,110	52,325	56,050	58,515	61,000	63,500
Service Area Population	95,527	52,840	57,839	60,346	62,845	65,346	67,851
% Served of Municipal/City Population	36.0%	36.4%	41.1%	43.7%	45.3%	47.0%	48.6%
Average Consumption per Connection per Month	15.6	15.6	16.3	17.1	17.9	18.8	19.7
Total Annual Billed Water (in cu.m.)	1,587,525	1,833,928	2,162,938	2,420,248	2,645,442	2,887,980	3,148,845
% Non-Revenue Water	22.8%	21.7%	21%	20%	19%	18%	17%
Production (m³/yr)	2,084,940	2,373,499	2,762,634	3,051,688	3,295,472	3,556,961	3,836,773
Purchased Water (m³/yr)	-	-	-	-	-	-	-
Effective Water Rate/cu.m.(PHP/m³), average for the year	32.80	32.80	32.80	32.80	32.80	32.80	32.80
% Rate Increase	0%	0%	0%	0%	0%	0%	0%
REVENUES (PHP)							
Annual Gross Water Sales	52,065,199	58,650,772	68,575,417	76,392,855	83,295,173	90,722,164	98,703,637
Add: Other Revenues from Specific Fees/Charges	5,697,209	6,266,930	6,893,623	7,582,986	8,341,284	9,175,413	10,092,954
Environmental Fees Income	21,083	23,191	25,511	28,062	30,868	33,955	37,350
Total Revenues (from Pricing Strategy)	57,783,491	64,940,894	75,494,551	84,003,903	91,667,325	99,931,531	108,833,941
Multiply by: Collection Efficiency Ratio (CE Ratio)	0.98	0.95	0.95	0.95	0.95	0.95	0.95
CASH RECEIPTS (PHP)							

Current Water Sales	50,854,343	55,718,233	65,146,646	72,573,212	79,130,414	86,186,055	93,768,455
Collection of Prior Years' Arrears	1,455,480	1,600,000	1,760,000	1,936,000	2,129,600	2,342,560	2,576,816
Environmental Fees	-	22,032	24,235	26,659	29,324	32,257	35,483
Other Receipts	11,403,746	6,266,930	6,893,623	7,582,986	8,341,284	9,175,413	10,092,954
Loan Proceeds	-	21,750,000	124,245,000	26,619,329	2,092,500	1,129,950	-
Grants/Subsidies	-	-	-	-	-	-	-
Total Cash Receipts	63,713,569	85,357,196	198,069,504	108,738,186	91,723,123	98,866,235	106,473,708
CASH DISBURSEMENTS (PHP)							
O & M Costs/Expenses-							
Salaries and Wages	14,613,323	17,370,998	19,963,684	27,093,572	29,571,207	32,621,908	36,729,124
Power and Fuel	3,465,483	4,456,089	5,705,332	6,932,509	8,234,942	9,777,205	11,600,974
Chemicals	2,066,543	2,821,485	3,612,474	4,389,492	5,214,160	6,190,683	7,345,448
Other O&M (Fixed)	24,243,603	17,677,025	17,871,472	18,087,717	18,328,465	18,596,812	18,896,315
Other O&M (Variable)	1,216,525	3,895,700	4,436,203	4,788,754	5,050,830	5,326,567	5,617,380
Purchased Water	-	-	-	-	-	-	-
Total O & M	41,150,493	46,221,297	51,589,166	61,292,043	66,399,604	72,513,174	80,189,241
Debt Service-							
Debt Service on Existing LWUA Loans	2,861,100	2,861,100	2,861,100	2,861,100	2,861,100	2,861,100	2,861,100
Debt Service on Existing Loans Outside LWUA	913,618	1,224,868	83,568	-	-	-	-
Debt Service on Loan Arrears from LWUA	-	-	-	-	-	-	-
Debt Service on Loan Arrears from Outside LWUA	-	-	-	-	-	-	-
Debt Service on Loan for on-going projects	-	-	7,396,880	7,396,880	7,396,880	7,396,880	7,396,880
Debt Service on Proposed Loans (New Loans for PIAPs)	-	-	-	-	-	2,239,363	4,478,725
Total Debt Service	3,774,718	4,085,968	10,341,548	10,257,980	10,257,980	12,497,343	14,736,705
Capital Expenditures-							
Own Funds/ICG	6,925,088	8,693,300	6,955,000	3,157,703	5,032,500	5,325,550	5,655,000
Investments thru Loans	-	21,750,000	124,245,000	26,619,329	2,092,500	1,129,950	-
Grants/Subsidies	-	-	-	-	-	-	-
Total Capital Expenditures	6,925,088	30,443,300	131,200,000	29,777,032	7,125,000	6,455,500	5,655,000
Other Payables	9,396,222	-	-	-	-	-	-
Reserves	900,000	1,759,523	2,057,262	2,291,786	2,498,855	2,721,665	2,961,109
Franchise Tax	649,606	1,173,015	1,371,508	1,527,857	1,665,903	1,814,443	1,974,073
TOTAL DISBURSEMENTS (PHP)	62,796,127	83,683,104	196,559,485	105,146,698	87,947,343	96,002,125	105,516,128
NET CASH INFLOW/(DEFICIT)	917,443	1,674,092	1,510,019	3,591,488	3,775,780	2,864,110	957,580

BEGINNING CASH BALANCE	3,814,031	4,731,474	6,405,566	7,915,585	11,507,073	15,282,853	18,146,963
ENDING CASH BALANCE	4,731,474	6,405,566	7,915,585	11,507,073	15,282,853	18,146,963	19,104,543
3-Months O & M	6,365,032	11,555,324	12,897,292	15,323,011	16,599,901	18,128,294	20,047,310
Ending Cash Balance + Reserves	6,419,660	8,165,089	9,972,847	13,798,858	17,781,708	20,868,628	22,065,652

As we can see in the projection, the district needs 10% more cash by the year 2022 to augment the debt service. The expansion and rehabilitation programs of the district also need a great amount of cash to pay-off supplies.

13.2 Summary of Cashflow Assumptions

Bayawan Water District

CASHFLOW ASSUMPTIONS

CY 2022-2026

RECEIPTS:

1. Number of Service Connections – base on target additional connections of 1,500 for Year 2021, 1,000 for Year 2022 and 500 for 2023-2026
2. Monthly Average Consumption/HH - 5% annual increase for 5 years
3. Non-Revenue Water (NRW) is 23% in Year 2020 with annual decrease of 5% of the current NRW for the next 5 years
4. Collection Efficiency:
 - Year 2020 Collection Efficiency pegged at 95% and will be maintained for the next 5 years
5. Other Receipts:
 - Collection of Previous Years – assumed 10% annual increase based on 2020 collection
 - Collection of Other Revenues- assumed 10% annual increase based on 2020 collection

DISBURSEMENTS:

1. Expense on Salaries was computed based on the actual number of employees while maintaining the LWUA prescribed staff at 1:120. Provision of 10% annual salary adjustments for promotions, increase in number of personnel for 2021-2022 and 25% increase in 2023 taking into consideration the categorization of the district to category B and 5% provision for the year 2024-2026
2. Power: CY 2020 average power cost /cu.m. produced : ₱ 1.80 ; Escalation at 10% beginning CY 2022
3. Chemicals: CY 2020 annual cost/cu.m. produced at ₱0.90; Escalation at 10% beginning CY 2022.
4. Other Operating & Maintenance Expenses: Historical and escalated at 10% annually

DEBT SERVICE:

1. LWUA Financial Assistance
 - Window I Loan – ₱27M Regular Loan

Annual Amortization: ₱2,861,100 M

Total Amortization for Year 2020: ₱7,083,342 M

- ₱87M LWUA-ADB Loan
Annual Estimated Amortization: ₱3,698,440 M
Included in 2022 debt service

2. Other Outside Loans

- ₱5M Land Bank Loan
Annual Amortization: ₱0.642 M Status: Current
Remaining Years to Pay: until October 2021
- ₱2.5 M NHA Loan
Annual Amortization: ₱0.334 M Status: Current
Remaining Years to Pay: until October 2022
- Other Accounts Payable – Materials on Account

Other Funds Provision:

- Reserves : Provision equivalent to 3% of Water Sales (95% collection) every Year
- CAPEX: per attached WD CAPEX Schedule
- Taxes: Historical ₱0.649 M paid in CY 2020
Projected at 2% of Water Sales (95% Collection)

APPENDIX A

DETAILED WATER SALES FORECAST

	Base Year		Planning Period (2022 - 2026)				
	2020	2021	2022	2023	2024	2025	2026
POPULATION/CUSTOMER PROFILE							
Population in the Municipality/City	125,859	126,654	127,454	128,260	129,071	129,887	130,708
Population Served by Other Water Service Provider(s)	0	0	0	0	0	0	0
Serviceable Population	125,859	126,654	127,454	128,260	129,071	129,887	130,708
Population Served by Registered Residential Connections	39,785	46,110	52,325	56,050	58,515	61,000	63,500
Unserved Municipal/City Population	86,094	80,544	75,129	72,210	70,556	68,887	67,208
% of Municipal/City Population Provided with Water Service	32%	36%	41%	44%	45%	47%	49%
NUMBER OF REGISTERED SERVICE CONNECTIONS							
Total Number of Service Connections (Mid-Year)							
A. Projected No. of Residential Connections	7,897	9,222	10,465	11,210	11,703	12,200	12,700
B. Projected No. of Government/Institutional Connections	101	104	106	107	108	109	110
C. Projected No. of Full Commercial/Industrial Connections	131	144	146	147	148	149	150
D. Projected No. of Commercial A Connections	264	278	283	286	289	292	295
E. Projected No. of Commercial B Connections	24	26	26	26	26	26	26
F. Projected No. of Commercial C Connections	50	48	48	48	48	48	48
G. Projected No. of Commercial D Connections	0	0	0	0	0	0	0
H. Projected No. of Bulk/Wholesale Connections	0	0	0	0	0	0	0
TOTAL	8,465	9,822	11,074	11,824	12,322	12,824	13,329
AVE. MONTHLY WATER BILLED VOLUME PER CONN. (m³/mo/conn.)							
A. Ave. Monthly Residential Consumption per Connection	14.27	14.98	15.73	16.52	17.34	18.21	19.12
B. Ave. Monthly Government/Institutional Consumption per Conn.	16.00	16.80	17.64	18.52	19.45	20.42	21.44
C. Ave. Monthly Full Commercial/Industrial Consumption per Conn.	51.08	53.83	56.31	59.13	62.08	65.19	68.45
D. Ave. Monthly Commercial A Consumption per Conn.	14.04	14.74	15.48	16.26	17.07	17.92	18.82
E. Ave. Monthly Commercial B Consumption per Conn.	7.18	7.54	7.92	8.32	8.73	9.17	9.63
F. Ave. Monthly Commercial C Consumption per Conn.	18.23	19.14	20.09	21.10	22.15	23.26	24.43
G. Ave. Monthly Commercial D Consumption per Conn.	-	-	-	-	-	-	-
H. Ave. Monthly Bulk/Wholesale Consumption per Conn.	-	-	-	-	-	-	-
Average							
TOTAL MONTHLY WATER CONSUMPTION (m³/mo.)							
A. Total Monthly Residential Consumption	112,659	138,143	164,601	185,135	202,941	222,138	242,804
B. Total Monthly Government/Institutional Consumption	8,171	1,747	1,870	1,982	2,101	2,226	2,359
C. Total Monthly Full Commercial/Industrial Consumption	6,687	7,723	8,221	8,662	9,188	9,713	10,267
D. Total Monthly Commercial A Consumption	3,703	4,099	4,381	4,649	4,933	5,233	5,551
E. Total Monthly Commercial B Consumption	170	196	206	216	227	238	250
F. Total Monthly Commercial C Consumption	905	919	985	1,013	1,063	1,117	1,172
G. Total Monthly Commercial D Consumption	0	0	0	0	0	0	0
H. Total Monthly Bulk/Wholesale Consumption	0	0	0	0	0	0	0
TOTAL	132,294	152,827	180,245	201,687	220,454	240,665	262,404
ANNUAL WATER CONSUMPTION (m³/yr.)							
A. Annual Residential Consumption	1,351,903	1,657,721	1,975,218	2,221,624	2,435,295	2,665,652	2,913,645
B. Annual Government/Institutional Consumption	98,048	20,969	22,441	23,786	25,208	26,714	28,307
C. Annual Full Commercial Consumption	80,240	92,672	98,657	104,299	110,259	116,554	123,203
D. Annual Commercial A Consumption	44,431	49,189	52,577	55,791	59,195	62,800	66,618
E. Annual Commercial B Consumption	2,040	2,353	2,471	2,594	2,724	2,860	3,003
F. Annual Commercial C Consumption	10,863	11,023	11,575	12,153	12,761	13,399	14,069
G. Annual Commercial D Consumption	0	0	0	0	0	0	0
H. Annual Bulk Consumption	0	0	0	0	0	0	0
TOTAL	1,587,525	1,833,928	2,162,938	2,420,248	2,645,442	2,887,980	3,148,845
NON-REVENUE WATER (NRW)							
Allowance for NRW (%)	23%	22%	21%	20%	19%	18%	17%
NRW (m ³ /day)	1,302	1,408	1,561	1,638	1,680	1,723	1,765
NRW (m ³ /mo.)	39,071	42,255	46,821	49,136	50,407	51,688	52,947
NRW (m ³ /yr.)	468,855	507,057	561,852	589,636	604,886	620,256	635,370
AVERAGE DAY DEMAND							
Projected Average Day Demand (m ³ /day)	5,712	6,503	7,569	8,361	9,029	9,745	10,512
Projected Maximum Day Demand (m ³ /day), 1.3 x ADD	7,426	8,454	9,840	10,869	11,737	12,669	13,665
Projected Average Day Demand X 30 (m ³ /mo.)	171,365	195,082	227,066	250,824	270,861	292,353	315,351
Total Water Requirement of the Water District (m ³ /day)	5,712	6,503	7,569	8,361	9,029	9,745	10,512
Total Water Requirement of the Water District (LPS)	66.1	75.3	87.6	96.8	104.5	112.8	121.7
Purchased Water from Other Water Provider(m ³ /day)	0	0	0	0	0	0	0
Required Daily Production by the Water District (m ³ /day)	5,712	6,503	7,569	8,361	9,029	9,745	10,512
Required Monthly Production by the Water District (m ³ /mo)	171,365	195,082	227,066	250,824	270,861	292,353	315,351
Required Minimum Production Capacity of the Water District (LPS)	85.9	97.8	113.9	125.8	135.8	146.6	158.2

APPENDIX B

CAPEX & INVESTMENT FORECAST

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APPENDIX C

DEBT SERVICE

	Base Year		Business Plan Period (2022 - 2026)					Total
Description	2020 (PhP)	2021 (PhP)	2022 (PhP)	2023 (PhP)	2024 (PhP)	2025 (PhP)	2026 (PhP)	2022 - 2026 (PhP)
DEBT SERVICE								
A. EXISTING LOANS (From LWUA & Other Lenders)								
Annual Amortization (LWUA Loans)	2,861,100	2,861,100	2,861,100	2,861,100	2,861,100	2,861,100	2,861,100	17,166,600
Annual Amortization (Other Lenders Loans)	1,224,868	1,224,868	83,568	0	0	0	0	1,308,436
Arrears Payment (LWUA Loans)	0	0	0	0	0	0	0	0
Arrears Payment (Other Lenders Loans)	0	0	0	0	0	0	0	0
SU-TOTAL A (1)	4,085,968	4,085,968	2,944,668	2,861,100	2,861,100	2,861,100	2,861,100	18,475,036
B. LOANS FOR ON-GOING PROJECTS								
Amortization : Loan for the Expansion of Water Service in Sta. Catalina Project		0	7,396,880	7,396,880	7,396,880	7,396,880	7,396,880	36,984,400
Amortization : Loan for the 0 Project		0	0	0	0	0	0	0
Amortization : Loan for the 0 Project		0	0	0	0	0	0	0
Amortization : Loan for the 0 Project		0	0	0	0	0	0	0
SUB-TOTAL B (2)		0	7,396,880	7,396,880	7,396,880	7,396,880	7,396,880	36,984,400
C. NEW CAPITAL INVESTMENT LOANS (FOR PIAPS)								
1. Loan for PIAP No. 1 (Draft and Implement Water District's Supply Management Strategy by first quarter of 2022)								
Interest Payments		0	0	0	0	26,434	50,877	77,311
Principal Repayments			0	0	0	2,212,928	4,427,848	6,640,776
Total Annual Payments		0	0	0	0	2,239,363	4,478,725	6,718,088
2. Loan for PIAP No. 2 (Minimize the Impact of Financial Crisis by paying-off payables, increase required cash reserves and create effective collection plan/programs/alternatives annually starting 2021 until the next 5 years.)								
Interest Payments		0	0	0	0	0	0	0
Principal Repayments		0	0	0	0	0	0	0
Total Annual Payments		0	0	0	0	0	0	0
3. Loan for PIAP No. 3 (Foster a Positive Culture by Developing Policies, Programs and Practices that support the employees' physical, social and mental well-being, and facilitating learnings through professional development, career a								
Interest Payments		0	0	0	0	0	0	0
Principal Repayments			0	0	0	0	0	0
Total Annual Payments		0	0	0	0	0	0	0
4. Loan for PIAP No. 4 (Availment of Online Payment Facility and other programs to address the changing customer needs)								
Interest Payments		0	0	0	0	0	0	0
Principal Repayments		0	0	0	0	0	0	0
Total Annual Payments		0	0	0	0	0	0	0
5. Loan for PIAP No. 5 (Improvement of Water Resource Facility by the start of 2022)								
Interest Payments		0	0	0	0	0	0	0
Principal Repayments		0	0	0	0	0	0	0
Total Annual Payments		0	0	0	0	0	0	0
6. Loan for PIAP No. 6 (To provide budget for additional capital expenditure need)								
Interest Payments		0	0	0	0	0	0	0
Principal Repayments			0	0	0	0	0	0
Total Annual Payments		0	0	0	0	0	0	0
7. Loan for ()								
Interest Payments		0	0	0	0	0	0	0
Principal Repayments		0	0	0	0	0	0	0
Total Annual Payments		0	0	0	0	0	0	0
8. Loan for ()								
Interest Payments		0	0	0	0	0	0	0
Principal Repayments		0	0	0	0	0	0	0
Total Annual Payments		0	0	0	0	0	0	0
9. Loan for ()								
Interest Payments		0	0	0	0	0	0	0
Principal Repayments		0	0	0	0	0	0	0
Total Annual Payments		0	0	0	0	0	0	0
10. Loan for ()								
Interest Payments		0	0	0	0	0	0	0
Principal Repayments		0	0	0	0	0	0	0
Total Annual Payments		0	0	0	0	0	0	0
SUB-TOTAL C (3)		0	0	0	0	2,239,363	4,478,725	6,718,088
Total Interest Payments		0	0	0	0	26,434	50,877	77,311
Total Principal Repayments		0	0	0	0	2,212,928	4,427,848	6,640,776
DEBT SERVICE FOR ALL LOANS (EXISTING AND NEW)								
Total of Loans A + B + C (1+2+3)	4,085,968	4,085,968	10,341,548	10,257,980	10,257,980	12,497,343	14,736,705	62,177,524

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APPENDIX D

OPERATIONS & MAINTENANCE EXPENSE HISTORICALS

Finance A Historicals

A. Expenses (in PHP)

	2016	2017	2018	2019	2020
Year-end No. of Active Conn.	5,063	5,794	6,520	7,739	9,070
Average No. of Active Conn. (Jan. - Dec.)		5,429	6,157	7,130	8,465
YTD Total Production (cu.m)	1,332,167	1,404,882	1,360,567	1,636,009	2,055,338
No. of Employees	21	24	26	38	62
Staff Prod. Index (No. of	241	241	251	204	146
YTD Total Salary & Wages Expense	6,874,842.64	8,101,427.23	9,131,249.47	12,610,875.57	14,613,322.63
YTD Total Power Cost, Electric & Fuel	1,457,503.48	1,660,442.74	1,829,556.35	3,125,024.69	3,777,915.92
YTD Total Chemical Expense (PHP)	703,368.81	937,545.84	1,645,158.20	1,721,527.47	1,923,534.00

B. Unit Expenses (PHP)

	2016	2017	2018	2019	2020
Unit Salary Expense (PHP/Employee)	327,373.46	337,559.47	351,201.90	331,865.15	235,698.75
Unit Power Cost (PHP/cum produced)	1.09	1.18	1.34	1.91	1.84
Unit Chemical Cost (PHP/cum produced)	0.53	0.67	1.21	1.05	0.94

Finance B Historicals

A. Expenses (in PHP)

	2016	2017	2018	2019	2020
Year-end No. of Active Conn.	5,063	5,794	6,520	7,739	9,070
Ave. No. of Active Conn. (Jan. - Dec.)		5,429	6,157	7,130	8,405
YTD Other O&M Expense (PhP)	14,044,187.54	16,506,947.46	21,277,341.47	24,000,375.87	20,835,720.03
YTD Others (PhP)	-	-	-	-	-
Total Other O&M Expenses	14,044,187.54	16,506,947.46	21,277,341.47	24,000,375.87	20,835,720.03

B. Percentages of fixed costs and variable costs:

Of the "Total Other O&M Expenses", provide the percentages of fixed costs and variable costs in the yellow cells below.

If actual data on the breakdown of OTHER O&M COSTS are not available, the following percent breakdown could be used:

Fixed Expenditures = 75%

Variable = 25%

	Percent (%)
Fixed Expenses	84%
Variable Expenses	16%

C. Breaking up of the Other O&M Costs and Determination of Historical Annual Rate of Increases

Applying the percentages of fixed and variable costs that are given in item B above (that is Fixed Expenses = 84 %, and Variable Expenses = 16 %) the Other O&M expenses for the last five years are broken down as follows:

	2016	2017	2018	2019	2020
Year-end No. of Active Conn.	5,063	5,794	6,520	7,739	9,070
Average No. of Active Conn. (Jan. - Dec.)		5,429	6,157	7,130	8,405
Total Other O&M Expenses (PhP)	14,044,187.54	16,506,947.46	21,277,341.47	24,000,375.87	20,835,720.03
Total Fixed Expenses (PhP)	11,797,118.00	13,865,836.00	17,872,967.00	20,160,316.00	17,502,005.00
% Annual Increase of Fixed Expenses		17.5%	28.9%	12.8%	-13.2%
Total Variable Expenses (PhP)	2,247,069.54	2,641,111.46	3,404,374.47	3,840,059.87	3,333,715.03
Ave. Unit Variable Expense (PhP/Conn.)		486.48	552.93	538.58	396.63
% Annual Increase of Unit Var. Expenses		17.5%	13.7%	-2.6%	-26.4%

APPENDIX E OPERATIONS & MAINTENACE EXPENSES FORECAST

A. Annual Increase in Unit Expenses

The projected unit expenses (in PHP/conn. or PHP/cum produced) are as follows:

Projected Unit Costs	2020	2021	2022	2023	2024	2025	2026
Salary & Wages (PHP/employee)	235,698.8	259,268.6	285,195.5	356,494.4	374,319.1	393,035.0	412,686.8
Power Costs (PHP/cum produced)	1.8	1.9	2.1	2.3	2.5	2.7	3.0
Chemical Costs (PHP/cum produced)	0.9	1.2	1.3	1.4	1.6	1.7	1.9

B. Assumed Future Staff Productivity Index

	2020	2021	2022	2023	2024	2025	2026
No. of Connections per employee	146	146	158	156	156	154	150
Projected No. of employees	62	67	70	76	79	83	89

C. Projected Annual O&M Cost

	2020	2021	2022	2023	2024	2025	2026
Salary and Wages (PHP)	14,613,323	17,370,998	19,963,684	27,093,572	29,571,207	32,621,908	36,729,124
Power & Fuel Costs (PHP)	3,777,916	4,456,089	5,705,332	6,932,509	8,234,942	9,777,205	11,600,974
Chemical Costs (PHP)	1,923,534	2,821,485	3,612,474	4,389,492	5,214,160	6,190,683	7,345,448
TOTAL	20,314,773	24,648,572	29,281,491	38,415,572	43,020,310	48,589,796	55,675,546

D. Projected Other O&M (Fixed & Variable) Cost

	2020	2021	2022	2023	2024	2025	2026
Fixed Costs	17,502,005	17,677,025	17,871,472	18,087,717	18,328,465	18,596,812	18,896,315
Variable Costs	3,333,715	3,895,700	4,436,203	4,788,754	5,050,830	5,326,567	5,617,380

APPENDIX F TARIFF SETTING

Description		Year 2020 Base Year	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025	Year 2026
D.2.1 NO. OF WATER SERVICE CONNECTIONS (Mid-Year)								
No. of Connections - Residential		7,897	9,222	10,465	11,210	11,703	12,200	12,700
No. of Connections - Government/Institutional		101	104	106	107	108	109	110
No. of Connections - Full Commercial/Industrial		131	144	146	147	148	149	150
No. of Connections - Commercial A		264	278	283	289	292	295	298
No. of Connections - Commercial B		24	26	26	26	26	26	26
No. of Connections - Commercial C		50	48	48	48	48	48	48
No. of Connections - Commercial D		0	0	0	0	0	0	0
No. of Connections - Bulk/Wholesale		0	0	0	0	0	0	0
Total No. of Water Service Connections		8,465	9,822	11,074	11,824	12,322	12,824	13,329
D.2.2 TOTAL MONTHLY CONSUMPTION (m3/mo)(Mid-Year)								
Total Monthly Consumption - Residential		112,656.58	138,143.46	164,601.48	185,135.37	202,941.23	222,137.68	242,803.76
Total Monthly Consumption - Government/Institutional		8,170.67	1,747.44	1,870.10	1,982.13	2,100.68	2,226.14	2,358.89
Total Monthly Consumption - Full Commercial/Industrial		6,686.67	7,722.65	8,221.41	8,691.60	9,188.27	9,712.87	10,266.96
Total Monthly Consumption - Commercial A		3,702.58	4,099.05	4,381.42	4,649.26	4,932.93	5,233.34	5,551.46
Total Monthly Consumption - Commercial B		170.00	198.10	205.90	218.20	227.01	238.36	250.28
Total Monthly Consumption - Commercial C		905.25	918.62	964.55	1,012.77	1,063.41	1,116.58	1,172.41
Total Monthly Consumption - Commercial D		-	-	-	-	-	-	-
Total Monthly Consumption - Bulk/Wholesale		-	-	-	-	-	-	-
Total Monthly Consumption (m³/mo.) - All connections		132,293.75	152,827.32	180,244.85	201,687.33	220,453.53	240,664.97	262,403.77
D.2.3 TOTAL ANNUAL BILLED WATER (m3/yr)								
Total Billed Water - Residential		1,351,903	1,657,721	1,975,218	2,221,624	2,435,295	2,665,652	2,913,645
Total Billed Water - Government/Institutional		98,048	20,969	22,441	23,766	25,206	26,714	28,307
Total Billed Water - Full Commercial/Industrial		80,240	92,672	98,657	104,299	110,259	116,554	123,203
Total Billed Water - Commercial A		44,431	49,189	52,577	55,791	59,195	62,800	66,618
Total Billed Water - Commercial B		2,040	2,353	2,471	2,594	2,724	2,860	3,003
Total Billed Water - Commercial C		10,863	11,023	11,675	12,153	12,761	13,399	14,069
Total Billed Water - Commercial D		-	-	-	-	-	-	-
Total Billed Water - Bulk/Wholesale		-	-	-	-	-	-	-
Total Billed Water (m³/yr.) - All connections		1,587,525	1,833,928	2,162,938	2,420,248	2,645,442	2,887,980	3,148,845
D.2.4 AVE. MONTHLY CONSUMPTION PER CONNECTION (m3/mo.), Mid-Year								
Average Monthly Consumption per Connection - Residential		14.27	14.98	15.73	16.52	17.34	18.21	19.12
Average Monthly Consumption per Connection - Government/Institutional		81.30	16.80	17.64	18.52	19.45	20.42	21.44
Average Monthly Consumption per Conn. - Full Commercial/Industrial		51.08	53.63	56.31	59.13	62.08	65.19	68.45
Average Monthly Consumption per Connection - Commercial A		14.04	14.74	15.48	16.26	17.07	17.92	18.82
Average Monthly Consumption per Connection - Commercial B		7.18	7.54	7.92	8.32	8.73	9.17	9.63
Average Monthly Consumption per Connection - Commercial C		18.23	19.14	20.09	21.10	22.15	23.26	24.43
Average Monthly Consumption per Connection - Commercial D		-	-	-	-	-	-	-
Average Monthly Consumption per Connection - Bulk/Wholesale		-	-	-	-	-	-	-
Average Monthly Consumption - All Connections		15.63	15.56	16.28	17.06	17.89	18.77	19.69
D.2.5 TARIFF STRATEGY		2020	2021	2022	2023	2024	2025	2026
Proposed Increase in Water Rates (%)				0%	0%	0%	0%	0%
If there will be a water rates increase, what month will it be? (1 to 12)				0	0	0	0	0
D.2.6 PROPOSED WATER RATES								
D.2.6.1 Effectivity of Proposed Water Rates								
D.2.6.2 Proposed Minimum Charge (10 m3 and below)								
Domestic/residential		230.00	230.00	230.00	230.00	230.00	230.00	230.00
Government/Institutional		230.00	230.00	230.00	230.00	230.00	230.00	230.00
Full Commercial/Industrial		460.00	460.00	460.00	460.00	460.00	460.00	460.00
Commercial A		402.50	402.50	402.50	402.50	402.50	402.50	402.50
Commercial B		345.00	345.00	345.00	345.00	345.00	345.00	345.00
Commercial C		287.50	287.50	287.50	287.50	287.50	287.50	287.50
Commercial D		-	-	-	-	-	-	-
Bulk Sales		690.00	690.00	690.00	690.00	690.00	690.00	690.00
D.2.6.3 Proposed Commodity Charge								
	Commodity Block (m³)	2020	2021	2022	2023	2024	2025	2026
Domestic/residential	11 - 20	28.20	28.20	28.20	28.20	28.20	28.20	28.20
	21 - 30	39.80	39.80	39.80	39.80	39.80	39.80	39.80
	31 - 40	45.80	45.80	45.80	45.80	45.80	45.80	45.80
	41 - 50	45.80	45.80	45.80	45.80	45.80	45.80	45.80
	51 - 60	45.80	45.80	45.80	45.80	45.80	45.80	45.80
	61 & above	-	-	-	-	-	-	-
Government/Institutional	11 - 20	28.20	28.20	28.20	28.20	28.20	28.20	28.20
	21 - 30	39.80	39.80	39.80	39.80	39.80	39.80	39.80
	31 - 40	45.80	45.80	45.80	45.80	45.80	45.80	45.80
	41 - 50	45.80	45.80	45.80	45.80	45.80	45.80	45.80
	51 - 60	45.80	45.80	45.80	45.80	45.80	45.80	45.80
	61 & above	-	-	-	-	-	-	-
Full Commercial/Industrial	11 - 20	56.40	56.40	56.40	56.40	56.40	56.40	56.40
	21 - 30	79.60	79.60	79.60	79.60	79.60	79.60	79.60
	31 - 40	91.60	91.60	91.60	91.60	91.60	91.60	91.60
	41 - 50	91.60	91.60	91.60	91.60	91.60	91.60	91.60
	51 - 60	91.60	91.60	91.60	91.60	91.60	91.60	91.60
	61 & above	-	-	-	-	-	-	-
Commercial A	11 - 20	49.35	49.35	49.35	49.35	49.35	49.35	49.35
	21 - 30	69.65	69.65	69.65	69.65	69.65	69.65	69.65
	31 - 40	80.15	80.15	80.15	80.15	80.15	80.15	80.15
	41 - 50	80.15	80.15	80.15	80.15	80.15	80.15	80.15
	51 - 60	80.15	80.15	80.15	80.15	80.15	80.15	80.15
	61 & above	-	-	-	-	-	-	-
Commercial B	11 - 20	42.30	42.30	42.30	42.30	42.30	42.30	42.30
	21 - 30	59.70	59.70	59.70	59.70	59.70	59.70	59.70
	31 - 40	68.70	68.70	68.70	68.70	68.70	68.70	68.70
	41 - 50	68.70	68.70	68.70	68.70	68.70	68.70	68.70
	51 - 60	68.70	68.70	68.70	68.70	68.70	68.70	68.70
	61 & above	-	-	-	-	-	-	-

Commercial C	11 - 20	35.25	35.25	35.25	35.25	35.25	35.25	35.25
	21 - 30	49.75	49.75	49.75	49.75	49.75	49.75	49.75
	31 - 40	57.25	57.25	57.25	57.25	57.25	57.25	57.25
	41 - 50	57.25	57.25	57.25	57.25	57.25	57.25	57.25
	51 - 60	57.25	57.25	57.25	57.25	57.25	57.25	57.25
	61 & above	-	-	-	-	-	-	-
Commercial D	11 - 20	-	-	-	-	-	-	-
	21 - 30	-	-	-	-	-	-	-
	31 - 40	-	-	-	-	-	-	-
	41 - 50	-	-	-	-	-	-	-
	51 - 60	-	-	-	-	-	-	-
	61 & above	-	-	-	-	-	-	-
Bulk Sale	11 - 20	84.60	84.60	84.60	84.60	84.60	84.60	84.60
	21 - 30	119.40	119.40	119.40	119.40	119.40	119.40	119.40
	31 - 40	137.40	137.40	137.40	137.40	137.40	137.40	137.40
	41 - 50	137.40	137.40	137.40	137.40	137.40	137.40	137.40
	51 - 60	137.40	137.40	137.40	137.40	137.40	137.40	137.40
	61 & above	-	-	-	-	-	-	-
D.2.7 EFFECTIVE PRICE PER M³ OF WATER (PHP/m³)								
D.2.7.1 Upon Effectivity of the Water Rates								
Category	Effective Price per 1 m ³ of Water (PHP/m ³)							
	2020	2021	2022	2023	2024	2025	2026	
Domestic/residential	29.09	29.09	29.09	29.09	29.09	29.09	29.09	29.09
Government/Institutional	44.98	44.98	44.98	44.98	44.98	44.98	44.98	44.98
Full Commercial/Industrial	68.69	68.69	68.69	68.69	68.69	68.69	68.69	68.69
Commercial A	59.79	59.79	59.79	59.79	59.79	59.79	59.79	59.79
Commercial B	55.48	55.48	55.48	55.48	55.48	55.48	55.48	55.48
Commercial C	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40
Commercial D	-	-	-	-	-	-	-	-
Bulk Sales	-	-	-	-	-	-	-	-
Average	32.80	32.80	32.80	32.80	32.80	32.80	32.80	32.80
D.2.7.2 Effective (Average) Unit Price for the Year								
Category	Effective Price per 1 m ³ of Water (PHP/m ³)							
	2020	2021	2022	2023	2024	2025	2026	
Domestic/residential	29.09	29.09	29.09	29.09	29.09	29.09	29.09	29.09
Government/Institutional	44.98	44.98	44.98	44.98	44.98	44.98	44.98	44.98
Full Commercial/Industrial	68.69	68.69	68.69	68.69	68.69	68.69	68.69	68.69
Commercial A	59.79	59.79	59.79	59.79	59.79	59.79	59.79	59.79
Commercial B	55.48	55.48	55.48	55.48	55.48	55.48	55.48	55.48
Commercial C	4.40	4.40	4.40	4.40	4.40	4.40	4.40	4.40
Commercial D	-	-	-	-	-	-	-	-
Bulk Sales	-	-	-	-	-	-	-	-
Average	32.80	32.80	32.80	32.80	32.80	32.80	32.80	32.80
D.2.8 PROJECTED ANNUAL REVENUE FROM WATER SALES (PHP)								
Category	Annual Water Sales (PHP)							
	2020	2021	2022	2023	2024	2025	2026	
Domestic/residential	39,326,191.90	48,222,300.16	57,458,109.93	64,625,961.10	70,841,525.77	77,542,505.77	84,758,501.19	
Government/Institutional	4,410,167.90	943,191.80	1,009,396.61	1,069,865.18	1,133,857.11	1,201,573.58	1,273,227.05	
Full Commercial/Industrial	5,511,553.40	6,365,475.80	6,776,579.45	7,164,144.10	7,573,523.76	8,005,931.03	8,462,645.21	
Commercial A	2,656,325.30	2,940,763.67	3,143,337.86	3,335,492.44	3,539,004.13	3,754,526.25	3,982,757.28	
Commercial B	113,176.50	130,551.48	137,079.06	143,933.01	151,129.66	158,686.14	166,620.45	
Commercial C	47,783.85	48,489.18	50,913.64	53,459.32	56,132.29	58,938.90	61,885.85	
Commercial D	-	-	-	-	-	-	-	
Bulk Sales	-	-	-	-	-	-	-	
TOTAL	52,065,198.65	58,650,772.10	68,575,416.54	76,392,855.14	83,295,172.71	90,722,163.68	98,703,637.03	
D.2.9 ANNUAL REVENUES								
	Annual Collection (PHP)							
	2020	2021	2022	2023	2024	2025	2026	
Annual Gross Water Sales	52,065,199	58,650,772	68,575,417	76,392,855	83,295,173	90,722,164	98,703,637	
Environmental Fees Income	21,083	23,191	25,511	28,062	30,868	33,955	37,350	
Total Revenues (from Pricing Strategy)	52,086,282	58,673,964	68,600,927	76,420,917	83,326,041	90,756,118	98,740,987	
Multiply by: Collection Efficiency Ratio (CE Ratio)	95%	95%	95%	95%	95%	95%	95%	
Adjusted (Collected) Revenues-Current Year	49,481,968	55,740,265	65,170,881	72,599,871	79,159,739	86,218,312	93,803,938	
Add: Other Revenues from Specific Fees/Charges	5,697,209	6,266,930	6,893,623	7,582,986	8,341,284	9,175,413	10,092,954	
Collection of Prior Years' Arrears	1,455,480	1,600,000	1,760,000	1,936,000	2,129,600	2,342,560	2,576,816	
Total Collections	56,634,657	63,607,196	73,824,504	82,118,857	89,630,623	97,736,285	106,473,708	
D.2.10 PROJECTED COLLECTION VS. PROJECTED REVENUE NEEDS								
	2020	2021	2022	2023	2024	2025	2026	
Total Collections (PHP)	56,634,657	63,607,196	73,824,504	82,118,857	89,630,623	97,736,285	106,473,708	
Total Revenue Needs (per Sheet "Revenue Needs")	53,055,180	61,833,104	64,917,605	71,130,489	78,457,963	87,475,295	98,119,248	
Positive / -Deficit	3,579,477	1,674,092	8,906,899	10,988,368	11,172,660	10,260,990	8,354,460	

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